APRIL 2009



SQIP

STORMWATER QUALITY IMPROVEMENT PLAN

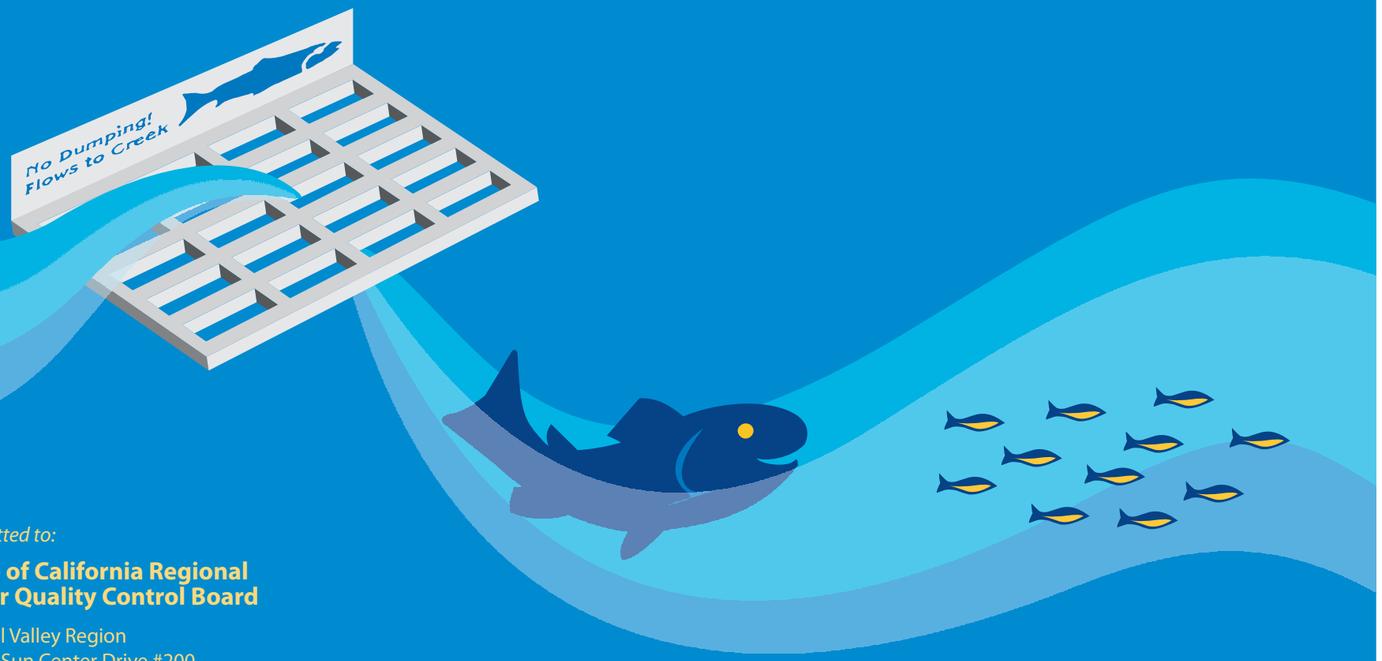
FOR THE COUNTY OF SACRAMENTO AND THE CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, AND RANCHO CORDOVA

SQIP

Stormwater Quality Improvement Plan

FOR THE COUNTY OF SACRAMENTO AND THE CITIES OF
SACRAMENTO, CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, AND RANCHO CORDOVA

APRIL 2009



Submitted to:

State of California Regional Water Quality Control Board

Central Valley Region
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Municipal Services Agency

Department of Water Resources
Keith DeVore, Director

Terry Schutten, County Executive

Paul J. Hahn, Administrator

County of Sacramento

CERTIFICATION

for the

Sacramento Stormwater Quality Improvement Plan

April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Sacramento County-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 28th day of April, 2009 in Sacramento, California.

Keith DeVore

Signature

Keith DeVore, Director

Department of Water Resources

County of Sacramento

DEPARTMENT OF UTILITIES

ENGINEERING
SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

1395 35th AVENUE
SACRAMENTO, CA
95822-2911

PH 916-808-1400
FAX 916-808-1497/1498

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Sacramento City-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

DJB

Date: 4/28/09

Dave Brent – Manager, Engineering Services
City of Sacramento – Department of Utilities

CITY OF CITRUS HEIGHTS

6237 Fountain Square Drive • Citrus Heights, CA 95621-5577 • (916) 725-2448
Fax (916) 725-5799 • TDD (916) 725-6185 • www.citrusheights.net

The City of Citrus Heights is committed to providing high quality, economical, responsive services to our community.

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Citrus Heights-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date: 4-24-09

David Wheaton
Director, General Services Department

James C. Shelby, *Mayor* • Jayna Karpinski-Costa , *Vice Mayor*
Jeannie Bruins, *Council Member* • Steve Miller, *Council Member* • Jeffrey Slowey, *Council Member*
Henry Tingle, *City Manager* • Ruthann Ziegler, *City Attorney*

8401 Laguna Palms Way • Elk Grove, California 95758
Tel: 916.683.7111 • Fax: 916.691.2001 • www.elkgrovecity.org

Development Services

Building Safety & Inspection	(916) 478-2235
Planning	(916) 478-2265
Public Works	(916) 478-3622
Solid Waste	(916) 478-3634
Transit	(916) 687-3030

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and City of Elk Grove-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date: 4/30/09

Richard Shepard - Director of Public Works
City of Elk Grove-Public Works Department

CITY OF FOLSOM
50 Natoma Street
Folsom, California 95630

Public Works Department
Administration/Engineering

CERTIFICATION

For The
Stormwater Quality Improvement Plan (SQIP)
For the City of Folsom

April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and City of Folsom-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Executed on the 27th day of April, 2009,

Signature

Richard J. Lorenz, P.E.
Director of Public Works/City Engineer
City of Folsom

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Sacramento City-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date: 4/23/09

Gregg L. Halladay, P.E.
Director of Public Works
City of Galt

CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

Dan Skoglund
Mayor

Ken Cooley
Vice Mayor

Linda Budge
Council Member

Robert McGarvey
Council Member

David Sander
Council Member

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

In accordance with Title 40, Section 122.22, Paragraphs (a)(3), (b)(1) and (d) of the Code of Federal Regulations:

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Rancho Cordova - specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Cyrus Abhar, Public Works Director
City of Rancho Cordova

Date: 4-29-2009

Stormwater Quality Improvement Plan (SQIP)

For Sacramento County and cities of Sacramento,
Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova

APRIL 2009

Table of Contents

Glossary

Executive Summary

Chapter 1 – Introduction

1.1 Overview 1–1
1.2 Background 1–1
1.3 Overall Goals and Strategy 1–11
1.4 Overview of SQIP Implementation 1–12

Chapter 2 – Partnership Activities

2.1 Introduction 2.1–1
2.2 Program Management 2.2–1
2.3 Program Effectiveness 2.3–1
2.4 Monitoring Program 2.4–1
2.5 Target Pollutant Program 2.5–1
2.6 Regional Public Outreach Program 2.6–1
2.7 Regional Commercial/Industrial Program 2.7–1

Chapter 3 – Sacramento County SQIP

3.1 Overview 3.1–1
3.2 Program Management 3.2–1
3.3 Construction Element 3.3–1
3.4 Commercial/Industrial Element 3.4–1
3.5 Municipal Operations Element 3.5–1
3.6 Illicit Discharge Element 3.6–1
3.7 Public Outreach Element 3.7–1
3.8 New Development Element 3.8–1

Chapter 4 – City of Sacramento SQIP

4.1 Introduction 4.1–1
4.2 Program Management 4.2–1
4.3 Construction Element 4.3–1
4.4 Commercial/Industrial Element 4.4–1
4.5 Municipal Operations Element 4.5–1
4.6 Illicit Discharge Element 4.6–1
4.7 Public Outreach Element 4.7–1
4.8 New Development Element 4.8–1

Chapter 5 – Citrus Heights SQIP

5.1 Introduction 5–1
5.2 Program Management and Training 5–5
5.3 Construction Element 5–19
5.4 Commercial/Industrial Element 5–25
5.5 Municipal Operations Element 5–29
5.6 Illicit Discharge Element 5–37
5.7 Public Outreach Element 5–43
5.8 New Development Element 5–47

Chapter 6 – Elk Grove SQIP

6.1 Introduction 6–1
6.2 Program Management and Realted Activities..... 6–4
6.3 Construction Element 6–17
6.4 Commercial/Industrial Element 6–21
6.5 Municipal Operations Element 6–25
6.6 Illicit Discharge Element 6–30
6.7 Public Outreach Element 6–34
6.8 New Development Element 6–37

Chapter 7 – Folsom SQIP

7.1 Introduction 7–1
7.2 Program Management 7–5
7.3 Construction Element 7–15
7.4 Commercial/Industrial Element 7–19
7.5 Municipal Operations Element 7–23
7.6 Illicit Discharge and Detection Element 7–30
7.7 Public Outreach Element 7–34
7.8 New Development Element 7–40

Chapter 8 – Galt SQIP

8.1 Introduction 8-1
8.2 Program Management and Related Activities 8-4
8.3 Construction Element 8-14
8.4 Commercial/Industrial Element 8-17
8.5 Municipal Operations Element 8-20
8.6 Illicit Discharge Element 8-23
8.7 Public Outreach Element 8-28
8.8 New Development Element 8-30

Chapter 9 – Rancho Cordova SQIP

9.1 Introduction 9–1
9.2 Program Management 9–5
9.3 Construction Element 9–19
9.4 Commercial/Industrial Element 9–25
9.5 Municipal Operations Element 9–29
9.6 Illicit Discharge Element 9–35
9.7 Public Outreach Element 9–39
9.8 New Development Element 9–43

List of Tables *(Chapters 1 and 2 only)*

1.2-1 Typical Pollutants Associated with Urban Land Use Activities 1–2
1.2-2 Sacramento Area Watersheds 1–7
1.4-1 Examples of Partnership and Permittee-Specific Activities in the SQIP 1–15
2.2-1 Regional Program Managmement Activity Work Plan 2.2–4
2.3-1 Summary of Outcome Types 2.3–3
2.3-2 Assessment Methods Suitable for Various Outcome Levels 2.3–4
2.4-1 Monitoring Program Manag. Questions and Outcome Levels... 2.4–2
2.4-2 Monitoring Program 2008-2013 Activities and Strategey 2.4–2
2.4-3 Historic Monitoring Activities 2.4–3
2.4-4 Water Quality Monitoring Consistuent List 2.4–9
2.4-5 Regional Monitoring Program Activites Work Plan..... 2.4–17
2.5-1 Priotorized Target Pollutant Groups 2.5–2
2.5-2 Regional Target Pollutant Activites Work Plan..... 2.5–14
2.6-1 Watershed and Enviromental Groups 2.6–7
2.6-2 Regional Public Outreach Activites Work Plan..... 2.6–18
2.7-1 Regional Commercial/Industrial Activites Work Plan 2.7–11

List of Figures *(Chapters 1 and 2 only)*

1.2-1 Permit Area Map 1–6
1.2-2 Sacramento Area Watershed Map 1–9
2.2-1 Permittee Share of Regional Activity Cost 2.2–2

2.3-1 Stormwater Program Iterative Process 2.3–1
2.3-2 General Classification of Outcome Types 2.3–2
2.4-1 2008-2013 Term Monitoring Sites 2.4–8
2.5-1 Target Pollutant Identifiifaction and Control Process 2.5–4

List of Appendices

Appendix 1 Introduction & Joint Activities
1A Sacramento Areawide NPDES Municipal Stormwater Permit (NPDES No. CAS082597; Order NO. R5-2008-0142)
1B Regulatory Background and Requirements
1C History of the Sacramento Stormwater Management Program

Appendix 2 Joint Activities
2A Memorandum of Understanding for the Sacramento Stormwater Quality Partnership
2B Sacramento Stormwater Quality Partnership Hydromodification Management Work Plan
2C Pilot Watershed - New Development BMP Effectiveness Evaluation Work Plan
2D 2009 Target Pollutant Update
2E Environmental Management Department Regulatory Fee Ordinance
2F Referral Process for Industrial General Permit Non-Filers

Appendix 3 County of Sacramento
3A Statement of Legal Authority
3B IPM Policy
3C Procedures for Manhole and Pump Station Sump Inspection and Cleaning
3D Guidelines for Operating and Maintaining Creeks and Channels
3E Street Sweeping Prioritization
3F Detention Basin Maintenance
3G Application Standards Herbicides and Pesticides
3H Procedures for Conducting On Going Screening for Illicit Connection
3I Hazardous Materials Program
3J Emergency Response To Hazardous Materials Incidents

Appendix 4 City of Sacramento
4A Program Element Accomplishments
4B City Stormwater Ordinance (13.16)
4C City Grading Ordinance (15.88)
4D Statement of Legal Authority
4E Sacramento City and County EMD MOU (2003)
4F City Organization Chart
4G City of Sacramento Standard Specifications (June 2007) Section 16 Water Quality Control

4H Administration Penalty Guidelines for Prohibited Non-Stormwater Discharges
4I Wastewater Collection Standard Operating Procedure (SOP)
4J 2004 Facility Audit
4K Storm Water Pollution Prevention Plan (SWPPP) example
4L Facility Pollution Prevention Plan (FPPP) example
4M Integrated Pest Management (IPM) Policy and "adoption mechanism"
4N Structural IPM Contract
4O Street Maintenance BMP Standard Operating Procedure
4P Voluntary Green Waste Collection Program Resolutions and Ordinance Amendment
4Q Container Letter and Yard Waste Collection Brochure
4R Adaptive Management Plan (AMP) example
4S Drainage Agreement-Lake Management Plan (LMP) example
4T HOA Monitoring Report example

Appendix 5 Citrus Heights
5A Statement of Legal Authority

Appendix 6 Elk Grove
6A Statement of Legal Authority
6B Stormwater and Land Grading and Erosion Control Ordinance
6C General Plan-Selected Policies
6D Ordinance No. 26-2004- Urgency Ordinance Amending Chapter15.12

Appendix 7 Folsom
7A Statement of Legal Authority
7B General Plan
7C Maintenance Agreement

Appendix 8 Galt
8A Certification of Legal Authority
8B Statement of Legal Authority
8C Stormwater Ordinance Chapter 16
8D General Plan

Appendix 9 Rancho Cordova
9A Statement of Legal Authority
9B City of Rancho Cordova Street Sweeping Map

Glossary

Commonly Used Acronyms and Terms for the Stormwater Quality Improvement Plan

COMMONLY USED ACRONYMS

Acronym/Term	*Full Name*
AGC	Associated General Contractors of California
AIA	American Institute of Architects
ALEER	Action Level Exceedance Evaluation Report
ALs	Technology -based numeric action levels
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ATS	Active Treatment System
BASMAA	Bay Area Stormwater Management Agencies Association
BAT	Best Available Technology
BCT	Best Conventional Pollutant Control Technology
BERC	Business Environment Resource Center (for Sacramento area)
BIA	Building Industry Association
BLM	Biotic Ligand Model
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CABs	Compliance Assistance Bulletins
Cal Fed	California Bay-Delta Authority
CAQ	Conservation Air Quality
CASQA	California Association of Stormwater Quality Agencies
CaWaLUP	California Water and Land Use Partnership
CBSCP	Complaint-Based Stormwater Compliance Program
CCC	California Conservation Corps
CCSD	Cosumnes Community Service District
CELSOC	Consulting Engineers and Land Surveyors of California

CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CIP	Capital Improvement Project
CISCP	Commercial and Industrial Stormwater Compliance Program
CMP	Sacramento Coordinated Monitoring Program
COC	Constituents of Concern
COD	Chemical Oxygen Demand
CSWMP	Comprehensive Stormwater Management Plan
CTR	California Toxics Rule
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWBP	Clean Water Business Partner
DDT	Dichlorodiphenyl-trichloroethane
DI	Storm Drain Inlet
DO	Dissolved Oxygen
DOC	Dissolved Organic Carbon
DPR	California Department of Pesticide Regulation
DQEP	Data Quality Evaluation Plan
DQO	Data Quality Objective
DSP	Development Standards Plan
EHD	Environmental Health Division of the Environmental Management Department (Sacramento County)
EIR	Environmental Impact Report
EMD	Environmental Management Department (Sacramento County)
EPA	U.S. Environmental Protection Agency
ESC	Erosion and Sediment Control
FPPP	Facility Pollution Prevention Plan
FTE	Full Time Equivalent
GIS	Geographic Information System
HHW	Household Hazardous Waste
HMD	Hazardous Materials Division of the Environmental Management Department (Sacramento County)
HMP	Hydromodification Management Plan
ICBO	International Conference of Building Officials

IPM	Integrated Pest Management
ISAT	Impervious Surface Analysis
L&L	Landscaping & Lighting
LAFCo	(Sacramento) Local Area Formation Commission
LCWC	Laguna Creek Watershed Council
LID	Low Impact Development
LTE	Long Term Effectiveness
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
MEP	Maximum Extent Practicable
mg/L	milligrams per liter
µg/L	micrograms per liter
MOU	Memorandum of Understanding
MS4	Municipal Separate Storm Sewer System
N/A	Not Applicable
NAWQA	National Water Quality Assessment
NEC	No Exposure Certificiation
NEL	Technology-based Numeric Effluent Limitations
NEMDC	Natomas East Main Drainage Canal
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NONA	Notice of Non-Applicability
NOTs	Notice of Termination
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NR	Natural Resources
NWQE	Notice of Water Quality Exceedance
OP	Organophosphorus (e.g., OP Pesticides)
OWOW	Our Water Our World
PAHs	Polycyclic Aromatic Hydrocarbons
PCO	Pest Control Operator
PCSWQCP	Post Construction Stormwater Quality Control Plans
REAP	Rain Event Action Plan
RGO	Retail Gasoline Outlet

RMP	Risk Management Plan
ROWD	Report of Waste Discharge
RWA	Regional Water Authority
RWLs	Receiving Water Limitations
RWQE	Report of Water Quality Exceedance
SACOG	Sacramento Area Council of Governments
SASD	Sacramento Area Sanitation District
SCS	Stormwater Compliance Section within the Water Protection Division of the Environmental Management Department (Sacramento County)_
SIC	Standard Industrial Classification
SMUD	Sacramento Municipal Utility District
SPLASH	Students Protection Lake and Stream Habitats
SQIP	Stormwater Quality Improvement Plan
SRCSD	Sacramento Regional County Sanitation District SRWP Sacramento River Watershed Program
SUSMP	Standard Urban Stormwater Mitigation Plan
SWAMP	Surface Water Ambient Monitoring Program
SWPPP	Stormwater Pollution Prevention Plan
SYRCL	South Yuba River Citizens League
TDS	Total Dissolved Solids
TIE	Toxicity Identification Evaluation
TMDL	total maximum daily load
TOC	Total Organic Carbon
TRE	Toxicity Reduction Evaluation
TSS	Total Suspended Solids
UPC	Urban Pesticide Committee
USBR	US Bureau of Reclamation District
USGS	United States Geological Survey
WDID	Waste Discharge Identification
WEF	Water Environment Federation
WPD	Water Protection Division of the Environmental Management Department (Sacramento County)
WQOs	Water Quality Objectives
WRAPP	Wetland and Riparian Area Protection Policy

WSCS	Wastewater Source Control Section of the Sacramento Regional County Sanitation District
WWPC	Water Wise Pest Control

COMMONLY USED TERMS

303(d) List : Section 303(d) of the Clean Water Act requires that each State in the U.S. create and maintain a list of Waters of the State that are not attaining water quality standards after technology-based limits are put into place. This list is commonly referred to as the "303(d) List". In California, 303(d) Lists are developed and updated on an approximately triennial basis by the nine Regional Water Quality Control Boards (Regional Water Boards). For waters on this list (and where the EPA administrator deems they are appropriate) each Regional Board is to develop total maximum daily loads (TMDLs). EPA is required to review and approve updates to each 303(d) List, or establish an alternative list.

Adverse Impact: a detrimental effect upon water quality or beneficial uses caused by a discharge or loading of a pollutant or pollutants.

Authorized Discharge: any discharge that is authorized pursuant to a National Pollutant Discharge Elimination System (NPDES) permit or meets the conditions set forth inCalifornia Regional Water Quality Control Board Central Valley Region, Order No. R5-2008-0142, NPDES No. CAS082597...

Bacteria: Single-celled microorganisms that lack chlorophyll; some cause disease, others are necessary to sustain life.

Baseflow: Portion of stream flow that is not due to storm runoff and is supported by groundwater seepage into a channel.

Basin Plan: The *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins*. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin.

Best management practice (BMP): Methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including stormwater. BMPs include structural and nonstructural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technologies (BCT) or Best Practicable Treatment or Control (BPTC): Requirement of State Water Resources Control Board Resolution 68-16 – "Statement of Policy with Respect to Maintaining High Quality of Waters in California" (referred to as the "Antidegradation Policy"). BPTC is the treatment or control of a discharge necessary to assure that "(a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

Bioassessment (biological assessment): The use of biological community information, along with the measure of the physical/habitat quality, to determine the integrity of a water body. The EPA defines biological integrity as "*the ability of an aquatic ecosystem to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity and functional organization comparable to that of the natural habitats of a region."*

Biochemical oxygen demand (BOD): Quantity of dissolved oxygen used by microorganisms (e.g., bacteria) during the biochemical oxidation of matter (both organic and oxidizable inorganic matter) over a specified period of time.

Biofiltration: Use of natural materials and vegetation to trap and remove pollutants from stormwater.

California Environmental Quality Act (CEQA) – Process of informing governmental agencies and the public about the potential significant environmental effects of proposed activities. CEQA applies to projects undertaken, funded or requiring an issuance of a permit by a public agency.

Channel: Natural or artificial waterway that periodically or continuously contains moving water. Channels have a definite bed and banks that confine the water.

Channel erosion: Widening, deepening, and headward cutting of small channels and waterways due to erosion caused by moderate to larger floods.

Check dam: Small dam placed perpendicular to a stream to enhance aquatic habitat or placed perpendicular in swales to reduce runoff velocities, promote sediment deposition, and enhance infiltration.

Chemical oxygen demand (COD): Quantity of maximum oxidizable matter in a sample.

Clean Water Act (CWA): (33 U.S.C. 1251 et seq.) Requirements of the National Pollutant Discharge Elimination System (NPDES) program are defined under Sections 307, 402, 318, and 405 of the CWA.

Commercial Facilities/Development: Related to the Commercial/Industrial Element, refer to the Environmental Management Department's Fee Ordinance (Appendix F) and related to the New Development Element, refer to the Stormwater Quality Design Manual for Sacramento and South Placer Regions.

Construction: Clearing, grading, excavating, etc. that result in soil disturbance. Construction includes structure teardown. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work.

Control: To minimize, reduce, eliminate, or prohibit by technological, legal, contractual or other means, the discharge of pollutants from an activity or activities.

Culvert: Covered channel or a large diameter pipe that crosses under a road, sidewalk, etc.

Debris: Any material, organic or inorganic, floating or submerged, moved by a flowing stream.

Design storm: Rainfall event of specified size and return frequency that is used to calculate the runoff volume and peak flows to a stormwater quality treatment facility.

Detention basin: Constructed basin that temporarily stores stormwater runoff and releases it at controlled rates.

Detention time: Time required for detention of stormwater runoff in a stormwater quality facility.

Development: Any construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

Development Standards: standards that the Permittees must develop and implement for new development and significant redevelopment projects to control the discharge of stormwater pollutants.

Discharge: Release or flow of stormwater or other substance from a conveyance system or storage container.

Dissolved oxygen: Oxygen that is present (dissolved) in water and available for use by fish and other aquatic animals.

Disturbed Area: An area that is altered as a result of clearing, grading and/or excavation.

Diversion: Channel, embankment or other man-made structure constructed to divert water from one area to another (Soil Conservation Society of America, 1982).

Drawdown: Gradual reduction in water level in a detention facility due to discharge by the outfall or combined effect of infiltration and evaporation.

Drop inlet: Entrance to the piped storm drain system designed to collect runoff from streets and pavements.

Dry weather flow: Flow occurring during the dry season (generally considered to be May through September) that may be associated with reservoir releases or releases of water from industrial, commercial, or residential activities.

Environmental Impact Report (EIR) - An EIR is an environmental document produced during the CEQA process to assess the significant environmental impacts of a project.

End-of-pipe control: Water quality control technologies suited for control of urban stormwater at the point of stormwater discharge to a waterway.

Energy dissipation: Loss of kinetic energy of moving water due to internal turbulence, boundary friction, change in flow direction, contraction, or expansion.

Erosion: Wearing away of land surface by wind or water. Occurs naturally from weather or runoff, but can be intensified by land-clearing practices relating to farming, residential or industrial development, road building, or timber cutting.

Floodplain: Any low land that borders a stream or waterway and is inundated periodically by its waters.

Freeboard: Vertical distance between design water surface elevation and elevation of the bank, levee or revetment that contains the water.

General Permit for Stormwater Discharges Associated with Construction Activities (Construction General Permit): the general NPDES permit adopted by the State Board, which authorizes the discharge of stormwater from construction activities under certain conditions.

General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial General Permit): the general NPDES permit adopted by the State Water Board which authorizes the discharge of stormwater from certain industrial activities under certain conditions.

Grading: Cutting and/or filling of land surface to a desired slope or elevation.

Gravitational settling: Tendency of particulate matter to "drop out" of stormwater runoff as it flows downstream when runoff velocities are moderate and/or slopes are not too steep.

Groundwater table: Level below which the soil is saturated (i.e., where pore spaces between individual soil particles are filled with water).

Habitat: Place where a biological organism lives. Describes the organic and non-organic surroundings that provide life requirements such as food and shelter.

Hazardous material or substance:

1. Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive.
2. Any substance named by EPA to be reported if a designated quantity of the substance is spilled in the waters of the United States or otherwise emitted into the environment.

Hazardous waste: By-products of industrial processes or society that can pose a substantial or potential hazard to human health or the environment when improperly managed. Possesses at least one of four characteristics (flammable, corrosive, reactive, or toxic) or appears on special EPA lists.

Heavy metals: Metals of relatively high atomic weight, including but not limited to chromium, copper, lead, mercury, nickel, and zinc. These metals are found in minimal quantities in stormwater, but can be highly toxic even at trace levels.

Hydrology: A scientific discipline concerned with the waters of the Earth, including their occurrence, distribution, and circulation via the hydrologic cycle and interactions with living things. It also deals with the chemical and physical properties of water in all its phases.

Hydromodification: The change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport. In addition, alteration of stream and river channels, installation of dams and water impoundments, and excessive stream bank and shoreline erosion are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

Illicit Connection: Any man-made conveyance that is connected to the storm drain system without a permit, excluding roof drains and other similar type connections. Examples include channels, pipelines, conduits, inlets, or outlets that are connected directly to the storm drain system.

Illicit Discharge: Any discharge to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non stormwater discharges except discharges pursuant to an NPDES permit, discharges that are identified in **Discharge Prohibitions** of California Regional Water Quality Control Board Central Valley Region, Order No. R5-2008-0142, NPDES No. CAS082597, and discharges authorized by the Regional Water Board.

Impermeable: Properties that prevent the movement of water through the material.

Impervious surface: Material that resists or blocks the passage of water.

Industrial Facilities/Development: Related to the Commercial/Industrial Element, refer to the Environmental Management Department's Fee Ordinance (Appendix F) and related to the New Development Element, refer to the Stormwater Quality Design Manual for Sacramento and South Placer Regions.

Infiltration: The downward entry of water into the surface of the soil.

Infiltration basin: A basin where incoming stormwater runoff is stored until it gradually infiltrates through the soil of the basin floor.

Inlet: Entrance into a ditch, storm drain system, stormwater treatment facility, or other waterway.

Inspection: entry and the conduct of an on-site review of a facility and its operations, at reasonable times, to determine compliance with specific municipal or other legal requirements. The steps involved in performing an inspection, include, but are not limited to:

a. Pre-inspection documentation research;
b. Request for entry;
c. Interview of facility personnel;
d. Facility walk-through.
e. Visual observation of the condition of facility premises;
f. Examination and copying of records as required;
g. Sample collection if necessary or required;
h. Exit conference to discuss preliminary evaluation; and,
i. Report preparation, and if appropriate, recommendations for coming into compliance.

Level spreader: Device used to spread out stormwater runoff uniformly over the ground surface as sheet flow (i.e., not through channels). The purpose of level spreaders is to prevent concentrative, erosive flows from occurring and to enhance infiltration.

Low Impact Development (LID): A stormwater management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions.

Maximum Extent Practicable (MEP): The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve; typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MPE considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the municipalities propose their definition of MEP by way of their storm water management plans (SWMP). The Permittees' total collective and individual activities conducted pursuant to the storm water management plans (i.e. Stormwater Quality Improvement Plan or SQIP) becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance). For a fuller discussion of this standard see California Regional Water Quality Control Board Central Valley Region, Order No. R5-2008-0142, NPDES No. CAS082597.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B.

Monitoring Program: Sacramento Stormwater Monitoring Program

Municipal Separate Storm Sewer System (MS4): A conveyance or system of conveyances (including roads with drainage systems, municipal streets, alleys, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a State, city, county, town or other public body that is designed or used for collecting or conveying stormwater, which is not a combined sewer, and which is not part of a publicly owned treatment works, and which discharges to Waters of the United States.

Natural buffer: Low sloping area of maintained grassy or woody vegetation located between a pollutant source and a waterbody. A natural buffer is formed when a designated portion of a developed piece of land is left unaltered from its natural state during development.

National Pollutant Discharge Elimination System (NPDES): The national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits under CWA §307, 402, 318, and 405.

Natural Drainage Systems: Unlined or unimproved (not engineered) creeks, streams, rivers or similar waterways.

New Development: Land disturbing activities; structural development, including construction or installation of a building or structure, and creation of impervious surfaces.

Non-stormwater discharge: Any discharge to a storm drain that is not composed entirely of stormwater. Certain non-stormwater discharges are authorized per the Sacramento NPDES Municipal Stormwater Permit.

Non-structural source control measure: Low-technology, low-cost activity, procedure or management practice designed to prevent pollutants associated with site functions and activities from being discharged with stormwater runoff. Examples include good housekeeping practices, employee training, standard operating practices, inventory control measures, etc.

Notice of Intent (NOI): Formal notice to State Water Resources Control Board submitted by the owner/developer that a construction project is about to begin. The NOI provides information on the owner, location and type of project, while certifying that the permittee will comply with the conditions of the construction general permit.

NPDES Permit: Authorization, license or equivalent control document issued by EPA or an approved state agency to implement requirements of the NPDES program. An NPDES stormwater permit relates to discharge of stormwater runoff to waters of the United States.

Nutrients: Elements or substances such as nitrogen or phosphorous that are necessary for the growth and development of living things (e.g., plants). Large amounts of these substances reaching water bodies can lead to reduced water quality and eutrophication by promoting excessive aquatic algae growth. Some nutrients can be toxic at high concentrations.

Outfall: Point where stormwater discharges from a pipe, channel, ditch, or other conveyance to a waterway.

Partnership: Sacramento Stormwater Quality Partnership

Partnership Activities: Activities done regionally by the Sacramento Stormwater Quality Partnership. Also called *regional activities*.

Partnership Program: Sacramento Stormwater Quality Partnership Program including regional activities implemented jointly by the permittees.

Performance Standard: A narrative or measurable number specifying the minimum acceptable outcome for a pollution control practice.

Permeability: Quality of a soil horizon that enables water or air to move through it.

Permittees: Co-Permittees and any agency named in California Regional Water Quality Control Board Central Valley Region, Order No. R5-2008-0142, NPDES No. CAS082597 as being responsible for permit conditions within its jurisdiction. Permittees to California Regional Water Quality Control Board Central Valley Region, Order No. R5-2008-0142, NPDES No. CAS082597 include the County of Sacramento, and the cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

Pesticide Plan: Pesticide Toxicity Control Plan

Pollutants: Those substances defined in CWA §502(6) (33.U.S.C.§1362(6)), and incorporated by reference into California Water Code §13373.

Pollution: Impairment of water quality caused by man-made waste discharges or natural processes.

Precipitation: Any form of rain or snow.

Pretreatment: Treatment of wastewater before it is discharged to a wastewater collection system.

Priority Projects: Those projects that are required to incorporate appropriate stormwater mitigation measures into the design for their respective project. Refer to the Stormwater Quality Design Manual for the Sacramento and South Placer Regions for more details.

Process wastewater: Wastewater that has been used in one or more industrial processes.

Project: All development, redevelopment, and land disturbing activities.

Rain Event or Storm Event: Any rain event greater than 0.1 inch in 24 hours except where specifically stated otherwise

Receiving Waters: All surface water bodies in the Central Valley Region that are identified in the Basin Plan.

Receiving Water Limitations (RWLs): Waste discharge requirements issued by the Regional Board typically include both: (1) "Effluent Limitations" (or "Discharge Limitations") that specify the technology-based or water-quality-based effluent limitations; and (2) "Receiving Water Limitations" that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the "Receiving Water Limitations" provision is the provision used to implement the requirement of CWA section 301(b)(1)(c) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Redevelopment: Land-disturbing activity that results in the creation, addition, or replacement of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of a routine maintenance activity; and land disturbing activities related to structural or impervious surfaces.

Regional Water Board: Central Valley Regional Water Quality Control Board

Restaurant: A facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812).

Retail Gasoline Outlet (RGO): Any facility engaged in selling gasoline and lubricating oils.

Retention: Temporary or permanent storage of stormwater to prevent it from leaving the development site.

Retrofit: Creation/modification of stormwater management systems in developed areas through construction of water quality basins, stream plantings, stream bank stabilization, and other techniques for improving water quality and creating aquatic habitat. A retrofit can mean construction of a new stormwater quality treatment facility in the developed area, enhancement of an older stormwater management structure, or a combination of improvement and new construction.

Riparian: Relatively narrow strip of land that borders a stream or river, which often coincides with the maximum water surface elevation of the one-hundred year storm.

Riprap: Combination of large stones, cobbles, and boulders used to line channels, stabilize banks, reduce runoff velocities, or filter out sediment.

Run-off: Any runoff including stormwater and dry weather flows from a drainage area that reaches a receiving water body or subsurface. During dry weather it is typically comprised of base flow either contaminated with pollutants or uncontaminated, and nuisance flows.

Run-on: Stormwater or other surface flow which enters property other than that where it originated.

Scour: Concentrated erosive action of flowing water in streams that removes material from the bed and banks.

Sedimentation: Process of sand and mud settling and building up on the bottom of a creek, river, lake, or wetland.

Sediments: Soil, sand and minerals washed from land into water, usually after rain, that accumulate in reservoirs, rivers and harbors, destroying aquatic animal habitat and clouding the water so that adequate sunlight might not reach aquatic plants.

Sheet flow: Water, usually storm runoff, flowing in a thin layer over the ground surface (Soil Conservation Society of America, 1982).

Slope: Degree of deviation of a surface from the horizontal, measured as a percentage, a numerical ratio, or in degrees (Soil Conservation Society of America, 1982).

Source control BMP: Any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent stormwater pollution by reducing the potential for contamination at the source of pollution.

State Water Board: State Water Resources Control Board (California)

Storm drains: Above and below ground structures for transporting stormwater to streams or outfalls for flood control purposes.

Stormwater: Stormwater runoff, snow melt runoff, surface runoff, and drainage.

Stormwater conveyance system or storm drain system: Any channel or pipe for collecting and directing stormwater.

Stormwater discharge associated with industrial activity: Discharge from any conveyance that is used for collecting and conveying stormwater which is directly related to manufacturing processing or raw materials storage areas at an industrial plant [40 CFR 122.26(b)(14)].

Stormwater Permit: Sacramento Area-wide MS4 NPDES Stormwater Permit

Stormwater runoff: Excess precipitation that is not retained by vegetation, surface depressions or infiltration, which thereby collects on the surface and drains into a surface water body.

Stormwater treatment: Detention, retention, filtering, or infiltration of a given volume of stormwater to remove urban pollutants.

Stream buffer: Variable width strip of vegetated land adjacent to a stream that is preserved from development activity to protect water quality, aquatic, and terrestrial habitats.

Structural BMP: Any structural facility designed and constructed to mitigate the adverse impacts of stormwater and urban runoff pollution (e.g. canopy, structural enclosure). The category may include both Treatment Control BMPs and Source Control BMPs.

Sump: Sediment trap used as pretreatment upstream of a filtration or infiltration device. Sump can have many configurations. The word "sump" has also been used in reference to drywells.

Target Pollutants : Pollutants identified by the permittees as most likely to impair local receiving waters, based on evaluation of available monitoring data and other information that describe its surface configuration (Soil Conservation Society of America, 1982).

Total Maximum Daily Load (TMDL): The sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background. A TMDL is the maximum pollutant load a waterbody can assimilate each day from all sources combined and still maintain applicable water quality standards for that pollutant.

Toxic: Related to or caused by a poison, hazardous waste or toxin.

Toxicity Identification Evaluation (TIE): a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

Toxicity Reduction Evaluation (TRE): a study conducted in a step-wise process to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity.

Treatment: The application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media absorption, biodegradation, biological uptake, chemical oxidation and UV radiation.

Treatment Control BMP: Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

Urban runoff: Stormwater that passes through and out of developed areas to a stream or other body of water.

Vegetated filter strip: Vegetated section of land designed to accept runoff as overload sheet flow from upstream development. A vegetated filter strip differs from a natural buffer in that the strip is not "natural;" rather, it is designed and constructed specifically for pollutant removal.

Vegetated swale: An earthen conveyance system in which the filtering action of grass and soil infiltration are utilized to remove pollutants from urban stormwater. An enhanced grass swale, or biofilter, utilizes check dams and wide depressions to increase runoff storage and promote greater settling of pollutants.

Velocity: Distance that water travels in a given direction in a stream during an interval of time.

Watershed or drainage basin: Geographic area within which all surface water drains into a particular body of water (e.g., a river or stream).

Water Quality Standards and Water Quality Objectives: Water quality criteria contained in the Basin Plan, the National Toxics Rule, the California Toxics Rule, and other state or federally approved surface water quality plans. Such plans are used by the Regional Board to regulate all discharges, including stormwater discharges.

Waters of the State: any surface water or groundwater, including saline waters, within boundaries of the state.

Waters of the United States:

a. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

b. All interstate waters, including interstate wetlands;

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

    1. Which are or could be used by interstate or foreign travelers for recreational or other purposes;

    2. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

    3. Which are used or could be used for industrial purposes by industries in interstate commerce;

d. All impoundments of waters otherwise defined as waters of the United States under this definition;

e. Tributaries of waters identified in paragraphs (a) through (d) of this definition;

f. The territorial sea; and

g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.22(m), which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to man-made bodies of water, which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with U.S. EPA.

Wet Season: The calendar period beginning October 1 and ending April 30.

Weir: Structure that extends across the width of a channel and is intended to impound, delay or in some way alter the flow of water through the channel. Dams of any kind, including check dams, are considered weirs.

Wet weather flow: Water derived primarily from rain, melting snow or irrigation during the wet season (generally considered to be October through April) that flows over the ground surface.

Executive Summary

to be included in final SQIP
(anticipated Summer 2009)

Chapter 1
Introduction

1.1 Overview

This Stormwater Quality Improvement Plan (SQIP) describes the stormwater pollution prevention efforts to be implemented either jointly or individually by the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova. Those agencies, collectively referred to as the Sacramento Stormwater Quality Partnership (Partnership), developed the SQIP to protect local waterways and fulfill regulatory requirements, as described later in this chapter.

The SQIP outlines Partnership priorities and activities planned for the 2008-2013 permit term. It also includes background information to provide readers with an understanding of the environmental and regulatory context as well as the Partnership's past accomplishments.

This SQIP supercedes and replaces all previous management plans developed for the Partnership, including the 1994 Comprehensive Stormwater Management Plan, the 1995 Effectiveness Evaluation Plan, the July 2003 SQIPs and their amendments, and the draft 2007 SQIPs.

1.2 Background

This section briefly discusses background for the SQIP, including the environmental need and regulations driving the effort, information on the Sacramento Stormwater Quality Partnership, and a description of the area subject to the regulations. Additional details are included in the appendices.

Environmental Need

Creeks and rivers are a vital environmental and community resource, and their health depends on good water quality. One of the ways that pollutants can enter water bodies is through stormwater runoff. When land is developed, vegetation is replaced with impervious surfaces such as streets and rooftops; when it rains, water can no longer soak into the ground to the extent it previously could, and instead becomes stormwater runoff. Urban areas also generate what is referred to as dry-weather urban runoff (also called nuisance flows)—runoff from irrigation water and wash water, rather than from rain.

Runoff collects pollutants as it flows along the ground surface. Streets and other auto-related areas accumulate sediments and other contaminants such as metals, oils and petroleum hydrocarbons. Urban runoff itself may also contain pollutants. For example, runoff from lawn or garden watering may carry pesticides, fertilizers or sediment. Runoff from vehicle and equipment washing typically carries detergents and other pollutants. The pollutants that are potentially exposed to/picked up by runoff vary

depending on land use and activities. Table 1.2-1 shows the typical pollutants associated with different land uses and associated activities.

In developed areas, runoff flows into gutters, stormwater pipes (called storm drains) and channels, which—in the Sacramento area, discharge directly into creeks and rivers, along with any pollutants washed away with the runoff. Development also affects creeks by changing the volume and flow rate of water that flows into the creeks; the increased flows can cause erosion, degrade the creek habitat and also increase flood risks. Studies have demonstrated that runoff from the frequent small storms can cause downstream erosion, sedimentation and habitat impairment. Conventional flood detention approaches seek to manage (detain and slowly release) runoff associated with major storms, but do not address the runoff flows that cause chronic erosion and habitat impacts.

Table 1.2–1
Typical Pollutants Associated with Urban Land Use Activities

Land Use Type	Activities	Typical Pollutants
Residential	• Landscape/yard maintenance • Car washing • Car maintenance (e.g., oil changing) • Painting and remodeling • Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes • Pet management	Pesticides, herbicides, fertilizers, concrete waste, landscape debris, detergents, oil and grease, solvents, paints, and other household wastes Note: Excess runoff from over watering is a problem, since this water carries additional pollutants to local creeks and rivers
Commercial/ Light Industrial	• Landscape maintenance • Outdoor (exposed) loading areas • Outdoor (exposed) material and equipment storage • Public parking areas • Painting and remodeling • Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes	Pesticides, herbicides, fertilizers, detergents, oil and grease, solvents, paints, metals, sediments/gravels (from landscape and parking areas) and other wastes
Heavy Industrial	• Outdoor (exposed) loading areas • Outdoor (exposed) material and equipment storage (including aboveground storage tanks) • Outdoor (exposed) manufacturing/ processing areas • Fueling areas • Facility Maintenance • Vehicle and equipment washing, maintenance, and/or parking areas • Contaminants, storage and disposal of household chemicals and hazardous/non-hazardous wastes	Oil and grease, hydraulic fluids, petroleum hydrocarbons, solvents, metals, sediment/gravel, detergents and other materials, and wastes used at the facility
Construction Sites	• Clearing and grading • Concrete and asphalt work • Painting • Dewatering activities • Exposed storage of materials on-site • Landscaping • Pool construction/repair	Sediment/gravel (from eroded surfaces or stored materials), concrete slurry, paints, oil and grease, hydraulic fluids, petroleum hydrocarbons, pesticides, herbicides and fertilizers, contaminated pumped groundwater, and other waste materials

Land Use Type	Activities	Typical Pollutants
Transportation Corridors	• Continuous automobile, truck, and bus use • Utility company trenching and construction activities • Road repair and resurfacing activities • Roadside vegetation maintenance • Truck spills	Oil and grease, hydraulic fluids, petroleum hydrocarbons, metals (e.g., copper, lead, zinc) sediment/gravel, pesticides, herbicides and fertilizers, spilled waste materials
Parks and Recreational Areas (includes golf courses)	• Landscape maintenance • Use by pets and livestock	Fertilizers, herbicides, pesticides, sediment/gravel, landscape debris, fecal waste (bacteria/pathogens)

Regulatory Background and the Stormwater Permit

The federal Clean Water Act (CWA) makes municipalities responsible for regulating and managing the quality of stormwater runoff throughout their jurisdictions, since municipalities own and operate the storm drain pipes and drainage channels that collect runoff prior to its discharge into creeks, rivers, and other water bodies.

Under the CWA, stormwater discharges are regulated through National Pollutant Discharge Elimination System (NPDES) stormwater permits. In California, the State Water Board Control and its nine Regional Water Boards have been authorized by U.S. EPA to oversee implementation of the Clean Water Act. The Central Valley Regional Water Quality Board (Regional Water Board) issues and enforces NPDES municipal stormwater permits in the Sacramento area.

The County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova are subject to the Sacramento Areawide NPDES Municipal Stormwater Permit (NPDES No. CAS082597; Order NO. R5-2008-0142) (Stormwater Permit), issued by the Regional Water Board in September 2008 and covering the period November 2008 –September 2013. The Stormwater Permit was issued originally in 1990 and has been reissued several times since. The Stormwater Permit (Provision A) states:

1. Discharges from municipal separate storm sewer systems (MS4s) in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in § 13050 of the California Water Code are prohibited.

2. Discharges from MS4s which cause or contribute to exceedances of receiving water quality standards and water quality objectives (designated beneficial uses of the Basin Plan and water quality objectives developed to protect beneficial uses) for surface water or ground water are prohibited.

3. Discharges from MS4s containing pollutants that have not been reduced to the maximum extent practicable (MEP) are prohibited.

In addition, the Stormwater Permit contains specific requirements related to:

- Reporting and other project management functions
- Reducing specific target pollutants
- Monitoring and conducting special studies

- Reducing stormwater impacts from new development projects, construction projects, municipal operations and commercial/industrial businesses
- Conducting public outreach and watershed stewardship
- Preventing illicit discharges
- Assessing program effectiveness

This SQIP proposes compliance activities to be conducted during the five-year term of the Stormwater Permit. As specified in the permit, once the SQIP is approved by the Regional Water Board Executive Officer, it is considered part of the permit and is enforceable as such.

The current Stormwater Permit differs from the prior one in several notable ways:

- Many of the requirements are more general (less prescriptive) than in the prior permit; this SQIP provides the details.
- The permit includes requirements pertaining to protecting creeks from erosion and other harm caused by increased runoff volume and flow rate (hydromodification) due to new development and redevelopment. The permit requires that the Partnership develop a plan to mitigate hydromodification impacts associated with new development/redevelopment, and this is expected to result in new requirements for some new development projects (see sections 2.2 and 3.8 for additional details).
- It requires a modest amount of additional monitoring (in addition to the existing extensive monitoring program) to learn more about discharges of pyrethroid insecticides and mercury, which are impairing water quality in various local waterways. The data could lead to new understanding on how to control these pollutants and eventually to additional requirements amended to the Stormwater Permit.

The Stormwater Permit is attached to this SQIP as Appendix 1A, and a more complete discussion of the regulatory background is included in Appendix 1B.

Sacramento Stormwater Quality Partnership

The Sacramento Stormwater Quality Partnership (Partnership) is a collaboration of all the agencies subject to the Sacramento areawide Stormwater Permit. The Partnership's main charge is to oversee compliance with the Stormwater Permit, and it works to protect and improve water quality in local waterways for the benefit of the community and the environment. Refer to Appendix 1C for a complete history of the permit and the Partnership's efforts to manage urban runoff quality over the years. This SQIP describes the Partnership's planned activities for the 2008-2013 permit term.

Permit Area and Associated Waterways and Watersheds

The Stormwater Permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport, as shown on Figure 1.2-1. Land within the Urban Service Area includes the cities of Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Sacramento, and parts of unincorporated Sacramento County.

Sacramento County lands outside of the Urban Service Area, to which the Stormwater Permit does not apply, include Isleton (very small community not subject to NPDES regulations) and Rancho Murieta (covered by a separate Phase II NPDES permit). The Yolo, El Dorado, and Placer County urban areas, which are contiguous with the greater Sacramento area, are permitted separately by the Regional Water Board (also under a Phase II NPDES permit).

The storm drain system within the stormwater permit area includes a constructed system of storm drain inlets, pipelines, open channels, detention basins, and roadside ditches that discharge for the most part into various local creeks and the American and Sacramento Rivers. For the City of Galt, the storm drain system discharges to various local creeks which flow to the Cosumnes River, a tributary to the Mokelumne River. All the rivers ultimately drain to the Sacramento-San Joaquin Delta and from there to the San Francisco Bay and the Pacific Ocean.

As shown on Figure 1.2-1, 1.2-2 and listed in Table 1.2-2, the permit area includes all or part of a number of watersheds. A watershed is defined as the land area that drains into a given body of water. The size of a watershed depends on the water body; large watersheds (for example for a river) include smaller watersheds (for example for tributary streams) within them. The permit area is largely contained within the American and Sacramento Rivers watersheds, described below:

American River Watershed – The permit area includes part of the watershed for the American River, which begins in the Sierra Nevada Mountains and eventually flows into the Sacramento River. The cities of Folsom, Rancho Cordova and Sacramento and parts of unincorporated Sacramento County are in this watershed.

Sacramento River Watershed – The majority of the permitted area is located within a portion of the Sacramento River watershed, the largest watershed entirely in California. The 447-mile long Sacramento River flows south from near Mount Shasta until it empties into the San Joaquin River in the Sacramento River Delta. .

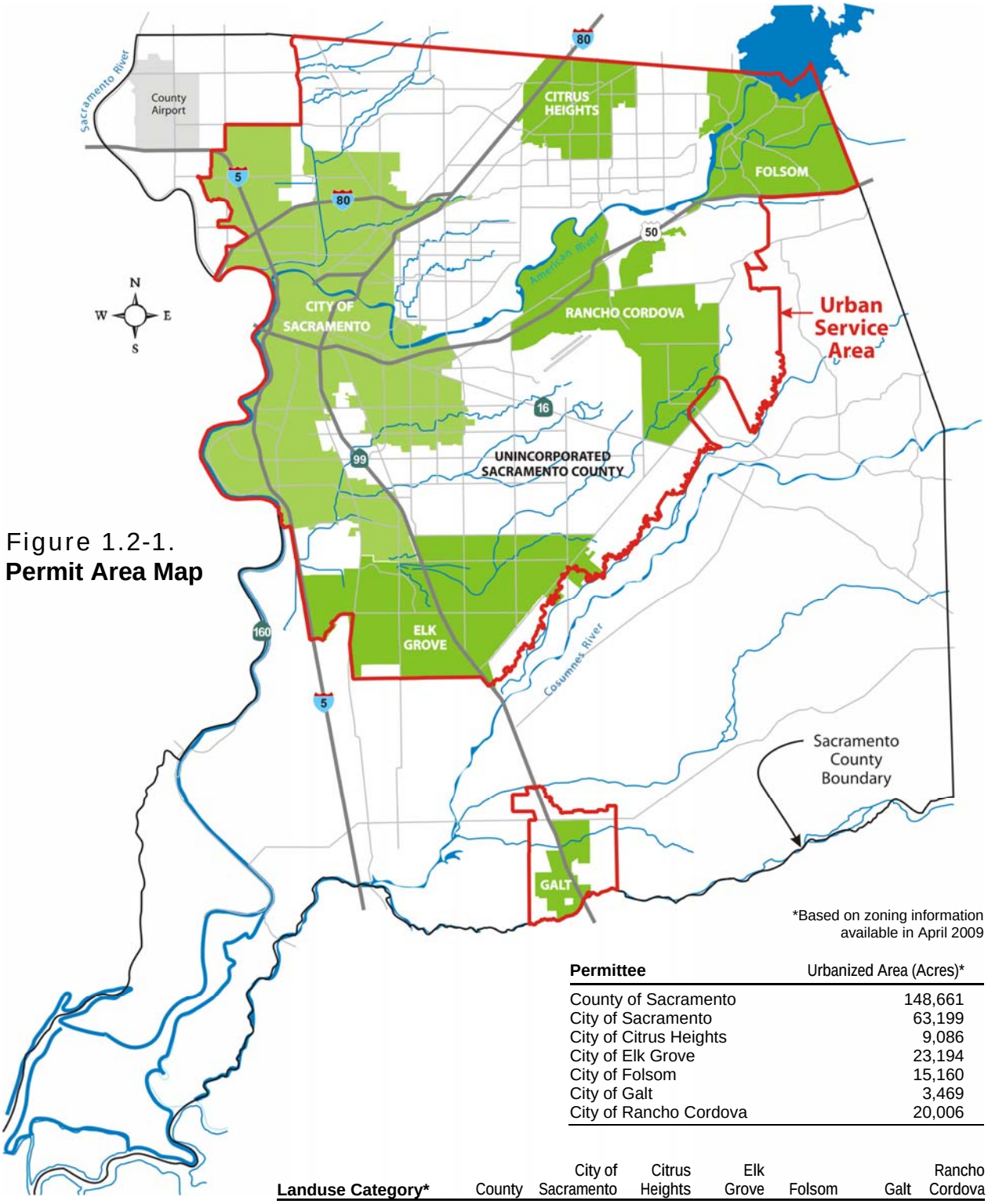


Figure 1.2-1.
Permit Area Map

*Based on zoning information available in April 2009

Permittee	Urbanized Area (Acres)*
County of Sacramento	148,661
City of Sacramento	63,199
City of Citrus Heights	9,086
City of Elk Grove	23,194
City of Folsom	15,160
City of Galt	3,469
City of Rancho Cordova	20,006

Landuse Category*	County	City of Sacramento	Citrus Heights	Elk Grove	Folsom	Galt	Rancho Cordova
Residential	33%	55%	63%	74%	46%	59%	53%
Commercial	4%	17%	8%	10%	8%	15%	14%
Industrial	10%	2%	OC	4%	5%	7%	6%
Institutional	OC	9%	6%	2%	10%	7%	6%
Major Roads/Freeways	OC	5%	15%	3%	OC	OC	OC
Parks and Open Space	10%	11%	2%	7%	22%	4%	21%
Agricultural	20%	0%	0%	0%	0%	8%	0%
Other/Miscellaneous	24%	1%	6%	0%	9%	0%	0%

OC = included in other land use categories

Table 1.2-2
Sacramento Area Watersheds

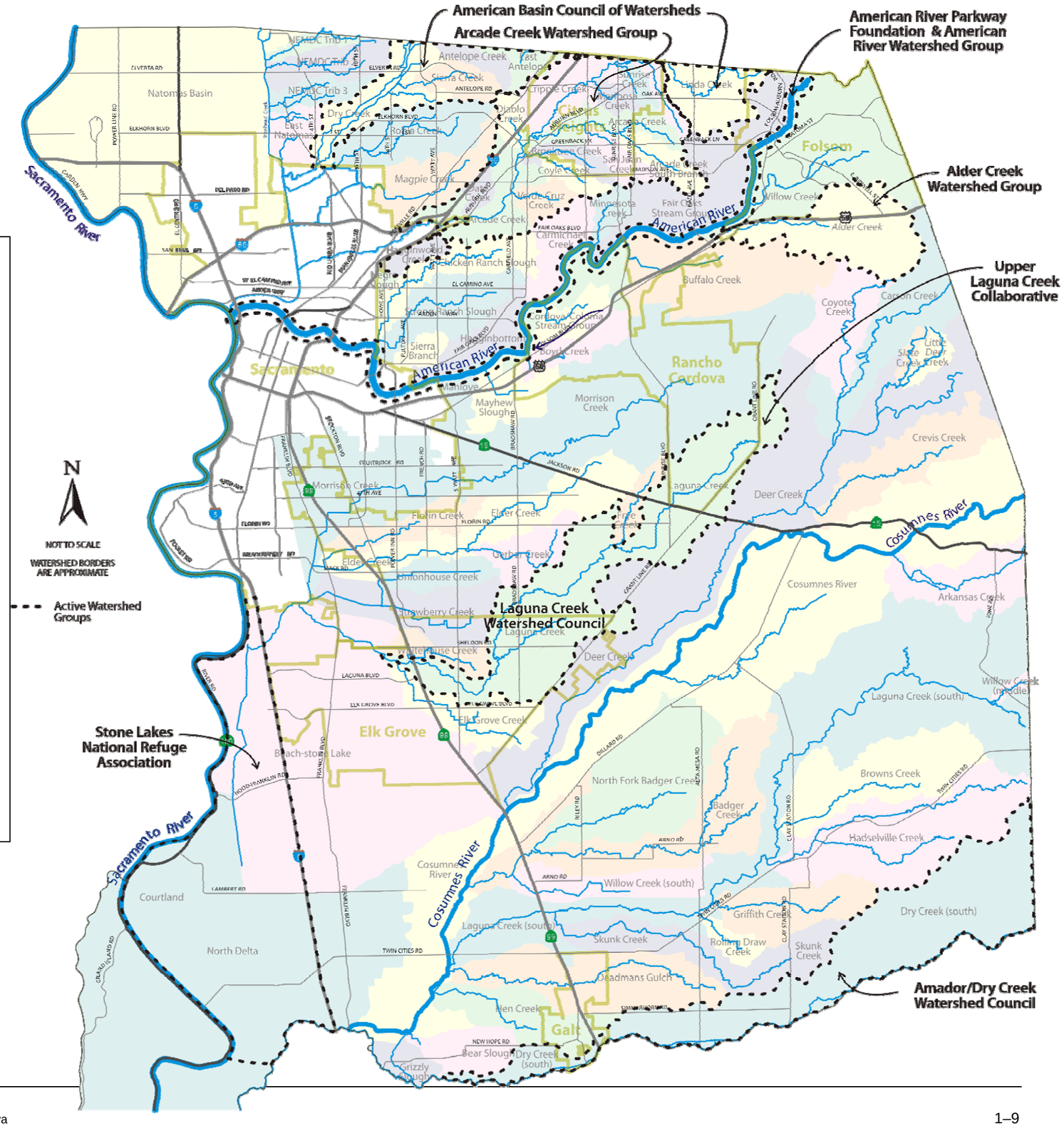
Watershed	Watershed Acreage	Development Status	Primary Land Use
Alder Creek	7398	Undeveloped	Mixed
Arcade Creek	6477	Developed	Mixed
Beach-Stone Lakes	40118	Mixed	Residential
Buffalo Creek	8855	Undeveloped	Industrial
Carmichael Creek	2715	Developed	Residential
Chicken Ranch Slough	3613	Developed	Mixed
Cripple Creek	4367	Developed	Residential
Dry Creek	4161	Mixed	Residential
Elder Creek	7873	Mixed	Mixed
Elk Grove Creek	4300	Mixed	Residential
Fair Oaks Stream Group	7681	Developed	Residential
Florin Creek	2829	Developed	Commercial
Hagginbottom	2606	Developed?	Residential
Laguna Creek	41600	Mixed	Mixed
Lake Natoma	485	Mixed	Rec-Residential
Linda Creek	3630	Mixed	Ag-Residential
Magpie Creek	3727	Developed	Industrial
Manlove	1968	Developed	Mixed
Mayhew Slough	2956	Developed	Mixed
Morrison Creek	34530	Mixed	Mixed
Natomas Basin	26449	Undeveloped	Mixed
Steelhead Creek aka Natomas East Main Drainage Canal (NEMDC)	1897	Undeveloped	Mixed
Strawberry Creek	5559	Developed	Residential
Strong Ranch Slough	4446	Developed	Mixed
Unionhouse Creek	2201	Mixed	Residential
Willow Creek	14570	Developed	Residential

Source: Sacramento County General Plan

Figure 1.2-2
Sacramento Area Watershed Map

Active Watershed and Environmental Advocacy Groups

Watersheds/ Groups	Citrus Heights	Elk Grove	Folsom	Galt	Rancho Cordova	Sacramento City	County
Alder Creek Watershed Group			X				X
Amador/Dry Creek Watershed Council (Lower Dry Creek)				X			X
American Basin Council of Watersheds (Upper Dry Creek)							X
American River Parkway Foundation & American River Watershed Group	X				X	X	X
Arcade Creek Watershed Group	X					X	X
Laguna Creek Watershed Council		X			X	X	X
Sacramento River Watershed Program						**X**	**X**
Stone Lakes National Wildlife Refuge Association		**X**					**X**
Upper Laguna Creek Collaborative		**X**			**X**		**X**



1.3 Overall Goals and Strategy

The overall goals of the SQIP, as identified in the Stormwater Permit are to: a) reduce the degradation of waters of the State and waters of the United States (U.S.) by urban runoff and protect their beneficial uses; and b) develop and implement an effective SQIP that is well understood and broadly supported by regional stakeholders. The core objectives of the SQIP are to:

- Identify and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the U.S. and their beneficial uses;
- Comply with the federal regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the storm drain system;
- Achieve compliance with water quality standards;
- Develop a cost-effective program which focuses on pollution prevention of urban stormwater;
- Seek cost-effective alternative solutions where prevention is not a practical solution for a significant problem; and
- Coordinate implementation of control measures with other agencies.

This SQIP outlines the strategies that will be utilized by the Partnership to meet these objectives. Chapter 2.3 describes the effectiveness assessments that will be completed by the permittees to determine progress toward permit compliance and meeting SQIP goals.

1.4 Overview of SQIP Implementation

Partnership and Individual Agency Activities

This SQIP includes Partnership (regional) activities that are implemented collectively by all the permittees as well as activities conducted by each permittee within its own jurisdiction (permittee-specific or individual activities). Each permittee helps fund Partnership activities and also provides staff and funding to conduct its own individual activities.

Partnership (Regional) Activities

Activities are implemented by the Partnership on a regional basis when that is most cost effective or is necessary to ensure a consistent approach to urban runoff management in the greater Sacramento area. Typically either the County or City of Sacramento (the two largest permittees) take the lead in implementing regional activities on behalf of the other permittees; the lead permittee serves as the main point of contact with the Regional Water Board and other regulators (e.g., EPA, State Water Resources Control Board). The permittees have entered into a memorandum of understanding (MOU) which defines responsibilities and cost-share arrangements for Partnership activities, as discussed in Chapter 2, Section 2.2

The following major categories of activities are conducted jointly; refer to Chapter 2 for details about each:

- Program Management (under the leadership of a Steering Committee)
- Program Effectiveness
- Target Pollutant Program
- Monitoring Program (including Special Studies)
- Regional Public Outreach
- Regional Commercial/Industrial Program

Permittee-Specific (Individual) Activities

SQIP activities implemented by individual permittees primarily involve those related to the following seven program elements, presented here and in this SQIP in the order presented in the Stormwater Permit:

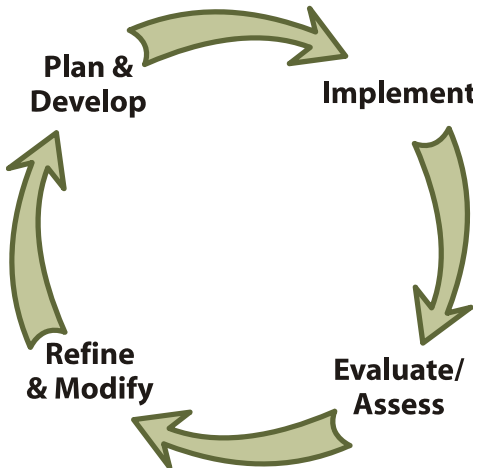
- Program Management
- Construction
- Commercial/Industrial
- Municipal Operations
- Illicit Discharges
- Public Outreach
- New Development

Specific program element activities differ from one agency to another according to each agency's internal structure, resources, and individual priorities and goals. However, the permittees strive for areawide consistency through inter-agency coordination and through joint development of brochures, manuals, and certain training programs. See Table 1.4-1 for examples of joint and individual activities.

Chapters 3-9 of this SQIP describe the individual permittees' activities for the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova.

Planning and Implementation Cycle

New and evolving regulations, knowledge from local and national studies and programs, and changes within the participating agencies' organizations and programs affect stormwater management priorities and direction. The SQIP, which serves as the blueprint for Partnership activities, must therefore also be dynamic. This SQIP is intentionally general in some areas to allow this flexibility. Decisions regarding funding and priorities will be made by the Partnership and the individual permittees on an annual basis and reported in the annual work plans and annual reports.



SQIP implementation is a dynamic, iterative process, based on the following annual sequence of events:

In the first step **(Plan and Develop)**, the Partnership and individual permittees plan and develop activities by describing them in the SQIP and annual work plans, which include priorities, schedules, and budgets for the upcoming fiscal year.

The second step **(Implement)** involves conducting the activities as outlined in the SQIP and annual work plans, including tracking and recording data to be used in the next step.

The third step **(Evaluate/Assess)** involves evaluating the effectiveness of the implemented activities. Chapter 2.3 describes the Partnership's effectiveness assessment approach.

In the fourth step **(Refine and Modify)**, activities are refined and modified as needed based on the results of the effectiveness assessment. Some activities may get dropped off, or new activities adopted, during this phase. As specified in the stormwater permit, the annual reports submitted on October 1 each year will serve as the mechanism for proposing modifications to this SQIP for review and approval by the Regional Water Board.

Coordination with Other Agencies and Groups

Through the Steering Committee, the Partnership will continue to coordinate with other agencies and groups when implementing the SQIP. This chapter and each Permittee's SQIP (Chapters 3-9) describe coordination that will be undertaken as part of specific program elements/activities. There are many stakeholders in the permit area, including public agencies, environmental groups, business groups and others. The following is a non-exhaustive list of the main stakeholders (more complete lists can be found in applicable chapters where element/activities coordinate with non-Partnership stakeholders):

Federal Agency

- United States Environmental Protection Agency (USEPA), Region 9

National Organizations

- American Institute of Architects (AIA)
- American Society of Landscape Architects (ASLA)
- American Society of Civil Engineers (ASCE)

State Agencies

- State Water Resources Control Board (State Water Board)
- Central Valley Regional Water Quality Control Board (Regional Water Board)
- California Department of Pesticide Regulation (DPR)
- California Integrated Waste Management Board (CIWMB)
- California Structural Pest Control Board

State Organizations

- Associated General Contractors of California (AGC)
- California Stormwater Quality Association (CASQA)
- Consulting Engineers and Land Surveyors of California (CELSOC)
- California Building Industry Association (CBIA)

Local Organizations

- Local Watershed/Environmental Groups (see Section 2.6 for detailed list)
- Regional Water Authority (RWA)
- Parks Districts
- Sacramento Area Council of Government (SACOG)
- Local Utility Companies
- Schools/School Districts/Universities

Table 1.4–1
Examples of Partnership and Permittee-Specific Activities in the SQIP

Program Element	Objective	Primary Area of Responsibility/ Target Audiences	Examples of Permittee-Specific (Individual) Activities*	Examples of Partnership (Regional) Activities
Construction	Prevent sediment and other construction-related pollutants from entering the storm drain system and local waterways	• Construction sites at all stages of development from plan development to initial grading and through to the final close of construction • Contractors • Developers • Engineers • Erosion and Sediment Control Specialists • Agency inspectors, design engineers, and project managers	• Update and enforce ordinances for erosion and sediment control • Inspect construction sites to ensure compliance • Train and provide ongoing education for public agency inspectors, plan reviewers, and project managers • Coordinate with Regional Water Board regarding local construction projects	• Continue multi-agency coordination to review local use of new techniques for erosion and sediment control • Co-sponsor training workshops for construction community
Commercial/ Industrial	Reduce the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities	• Retail and service businesses • Commercial/Industrial facilities • Activities conducted by public agencies and special districts	• Complaint-based investigation and enforcement of illicit discharges from Commercial/Industrial facilities • Development and distribution of outreach to local businesses • Coordination with public agencies and special districts	• Priority industry identification for categories of businesses subject to inspection and outreach • Inspect priority industries (conducted by County inspectors with fees paid by regulated industries) • Develop brochures and BMP guidance materials for industries and businesses • Conduct outreach to priority industries
Municipal Operations	Control potential stormwater pollutants generated by agency-owned facilities and set an example of model pollution prevention to the public	Operation and maintenance of: • Agency- owned buildings, associated parking lots • Corporation yards • Transportation corridors and associated facilities • Stormwater and drainage pipelines, channels, detention basins, pump stations and other facilities • Agency-owned water supply facilities	• Maintain inventory of agency-owned facilities • Conduct annual refresher training for targeted agency staff • Provide technical assistance • Evaluate permit compliance of facility conditions and field activities	• Generally none

Program Element	Objective	Primary Area of Responsibility/ Target Audiences	Examples of Permittee-Specific (Individual) Activities*	Examples of Partnership (Regional) Activities
Illicit Discharge	Reduce the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminate illicit non-stormwater discharges from non-commercial sources	• Non-commercial dischargers (residential primarily).	• Complaint-based investigation and enforcement of illicit discharges • Respond to, contain and cleanup/abate illicit discharges and connections • Conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews • Conduct annual refresher training for affected agency staff	• Maintain public hotline for reporting of illicit discharges and connections • Conduct outreach to public by distributing educational materials • Conduct regional coordination as needed to respond to releases and illegal discharges
Public Outreach	Educate the public on the impacts of stormwater and urban runoff pollution and encourage stewardship to protect local creeks and rivers	• Residents • Public officials and agency managers • Schools, including school districts, teachers, and school children • Businesses	• Sponsor stormwater booths at local community events • Install signs discouraging illegal dumping • Support environmental and water-based educational programs to increase awareness of pollution prevention, water conservation and watershed issues.	• Distribute brochures and other educational materials in local communities • Conduct public awareness surveys • Conduct mixed media campaigns focusing on specific messages (e.g., pet waste, fundraiser carwashes, pesticides, household hazardous waste, etc.) • Conduct outreach to schools through SPLASH and classroom presentations • Maintain partnership website • Establish and maintain partnerships with groups and agencies to further public outreach mission
New Development	Mitigate urban runoff pollution and other stormwater impacts associated with new development and redevelopment	• Development and redevelopment projects • Developers • Engineers • Architects • Landscape Architects and Designers • Agency Staff, including planners, environmental analysts, field inspectors and design engineers	• Review and evaluate existing development standards, General Plan and CEQA procedures • Establish and enforce development standards and requirements for on-site and regional stormwater quality control measures • Conduct training and provide ongoing education for public agency staff, such as planners and engineers	• Prepare and update technical guidance manuals • Educate and provide technical guidance to the development community, including presentations and workshops to local professional organizations • Conduct special studies to assess local effectiveness of selected new development BMPs (see Monitoring Section in Chapter 2) • Investigate new and innovative treatment control measures as needed.

**See Chapters 3-9 for a full listing of activities for each permittee*

Chapter 2

Partnership Activities

2.1 Introduction

This chapter describes Partnership activities (or regional activities) that will be conducted collectively by all the permittees in the Sacramento Stormwater Quality Partnership (Partnership). Permittee-specific activities (or individual activities) for the 2008-2013 permit term are described in Chapters 3 through 9.

Tasks will continue to be implemented regionally throughout the Partnership jurisdictions when doing so provides the permittees with an opportunity for efficient use of limited funds and a consistent approach to managing urban runoff quality in Sacramento County. Regional activities will generally be conducted under the leadership of either the County or City of Sacramento, the two largest permittees.

The following major categories of activities will be implemented regionally, as described in this chapter:

- Program Management (Section 2.2)
- Program Effectiveness (Section 2.3)
- Monitoring Program (Section 2.4)
- Target Pollutant Program (Section 2.5)
- Regional Public Outreach Program (Section 2.6)
- Regional Commercial/Industrial Program (Section 2.7)

2.2 Program Management

As described in Chapter 1, the Partnership was established to coordinate Stormwater Permit compliance activities throughout the permittees' jurisdictional areas with the objective of improving water quality in receiving waters identified in the Permit including urban creeks, the Sacramento River and the American River. The permittees entered into a memorandum of understanding (MOU; described later in this section) that formalizes the manner in which the permittees address common issues, promote consistency among each permittees' stormwater programs, coordinate resources in regional activities, and plan and coordinate activities required to comply with the Stormwater Permit. A Steering Committee, consisting of representatives designated by each permittee, was established to provide a forum for making decisions and providing guidance to the permittees relative to the implementation of regional activities. The responsibilities and activities of the Steering Committee for the 2008-2013 permit term will include, but are not limited to, the following:

- Oversight and leadership
- Assignment of roles and cost-sharing
- Coordination of compliance reporting and regulatory liaison communication

Table 2.2-1, Regional Program Management Activities Work Plan describes tasks and schedules of activities for the 2008-2013 permit term.

2.2.1 Oversight and Leadership

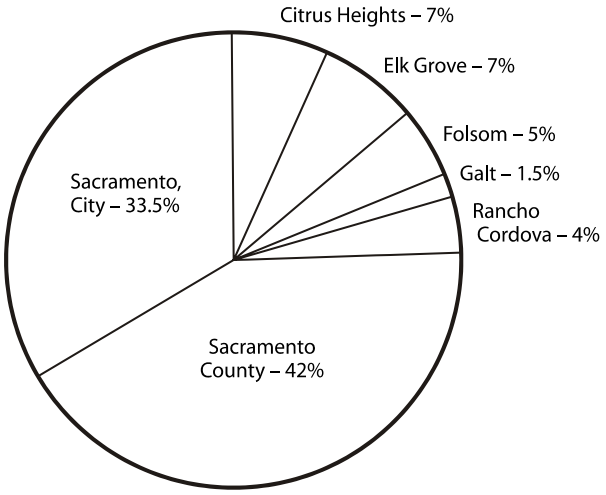
The Steering Committee will oversee Partnership permit compliance activities and provide leadership for implementation of the regional activities t. The permittees will coordinate and make decisions primarily through regular meetings of this committee, although they also plan to coordinate via electronic mail and telephone. Decisions will be made by consensus or by majority vote when no strong objections are voiced. When consensus is not reached, no regional action will be taken and each permittee may then pursue individual action, if desired.

2.2.2 Assignment of Roles and Cost-Sharing

The MOU describes the roles and responsibilities and cost-share arrangements for managing and implementing regional activities. The Permittees currently operate under a MOU that was approved in 2003 and is included in Appendix 2A. This MOU was evaluated and was found to be consistent with the requirements listed in provision 3.e.i of the Stormwater Permit. The MOU will be revised to update the cost share percentages and the joint activities list as needed and the executed MOU will be submitted to Regional Water Board in the applicable Annual Report.

The MOU cost-share percentage (based on population) for each permittee is shown on Figure 2.2–1. This cost-share arrangement applies to regional activities only. Additional permittee-specific activities are conducted over and above the regional ones and are described in the permittees' SQIPs (Chapters 3 through 9).

Figure 2.2-1
Permittee Share of Regional Activity Costs



Refer to the individual permittee SQIPs (Chapters 3 through 9) for information about each Permittee's funding sources.

The Steering Committee will identify the scope of work and resource needs for regional activities and will explore cost-saving ideas and grant opportunities. The committee will continue to assign a lead agency (usually the County or City of Sacramento) to administer and manage consultant contracts for the work. Through the committee, the permittees will execute joint authorizations for specific activities to describe the work or services, budget and cost apportionment. A sample joint authorization form is included as an exhibit attached to the MOU in the appendix. The committee is responsible for executing and updating any agreements necessary to ensure continued interagency coordination for overall stormwater permit compliance.

2.2.3 Coordination of Regulatory Liaison Communication and Compliance Reporting

The Steering Committee will be the forum for coordination of regulatory liaison communication and permit compliance reporting. In most cases, either the County or the City of Sacramento will take the lead in these efforts on behalf of the Partnership.

Regulatory Liaison

The County or the City of Sacramento will take the lead in providing liaison with the Regional Water Board and other regulatory agencies (e.g., EPA Region 9) on behalf of the Partnership. However, individual agencies may also contact the Regional Water Board at any time.

Regulatory Compliance Reporting

The following work plan is being submitted as a part of this SQIP as required by the Stormwater Permit:

Hydromodification Management Plan (HMP)

The Stormwater Permit requires that the permittees develop a plan to mitigate hydromodification impacts associated with new development where the runoff could cause erosion or other harm. This will result in new requirements for some development and redevelopment projects. To comply with the permit requirements, the permittees are submitting a work plan for the HMP as part of this document describing the proposed activities that will be taken to develop the HMP (please refer to Appendix 2B for the proposed HMP Work Plan). One year after the Regional Water Board approves the HMP work plan, the permittees will submit the HMP.

The Permittees will prepare and submit the following reports to the Regional Water Board during the 2008-2013 permit term, as required by the Stormwater Permit:

Annual Work Plan – May 1

The work plan will be submitted by May 1st each year to describe proposed activities for the coming fiscal year (July 1- June 30). It will also include the performance standards and targets to be used to assess and report progress and accomplishment. The Steering Committee will assign a lead agency to coordinate preparation and submittal of the work plans describing regional activities such as the monitoring and target pollutant programs. Each permittee will submit its own separate work plan to describe its individual activities.

Annual Report – October 1

An annual report will be submitted by October 1 each year to describe accomplishments for the preceding fiscal year (July 1 – June 30). The report will document the status of the SQIP and the activities completed by the permittees during the previous year, including a compilation of deliverables and milestones completed. The annual report will also include the results of the effectiveness assessments (described in Section 2.3) and recommended modifications or improvements to the SQIP based on those results. Each annual report will build upon the previous years' efforts.

A single annual report will be prepared and submitted each year to describe regional activities such as the monitoring and target pollutant programs. As with the work plan, each permittee will submit its own annual report to describe its individual activities and accomplishments, using a standardized reporting form for consistency.

Long Term Effectiveness Assessment – March 15, 2013

A Long Term Effectiveness Assessment (LTEA) will be submitted by March 15, 2013 (180 days before permit expiration). The LTEA, described in more detail in Section 2.3, will summarize the effectiveness of the overall Partnership Program in raising awareness, reducing pollutant discharges and improving environmental conditions. The LTEA will build on the results of the annual reports.

Report of Waste Discharge (ROWD) – March 15, 2013

A Report of Waste Discharge (ROWD) will be filed on March 15, 2013 (180 days before permit expiration) in accordance with Title 23 of the California Code of Regulations. The ROWD will serve as an application for reissuance of waste discharge requirements and renewal of the NPDES Stormwater Permit. It will identify any proposed changes or improvements to the SQIP, an assessment of the effectiveness of the Partnership Program (LTEA) and the proposed monitoring activities for the upcoming five year term of the permit.

Table 2.2-1

Regional Program Management Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Revise SQIP based on adopted Stormwater Permit	D.2					♦						April 30, 2009 (6 months after Permit effective date)
Finalize SQIP based on the Regional Water Board comments	D.3.c						♦					
Review and revise existing Permittee MOU	D.3.e					⇔	⇔♦					
Conduct Steering Committee Meetings as needed	D.3.e					⇔	⇔	⇔	⇔	⇔	⇔	
Submit Permittees' Partnership (Regional) Activities Work Plan including the Monitoring Plan	D.3.a, MRP I.A					♦	♦	♦	♦	♦	♦	May 1st
Submit Permittees' Partnership (Regional) Annual Report	D.3.b, D.29.a, MRP I.B					♦	♦	♦	♦	♦	♦	October 1st
Assess effectiveness of Partnership Program and report in the Partnership (Regional) Annual Report	D.2.b, D.3.b					⇔♦	⇔♦	⇔♦	⇔♦	⇔♦	⇔♦	October 1st
Review and update standardized formats for all reports	D.3.e.ii					⇔	⇔					
Prepare and submit a Permittee Long Term Effectiveness Assessment (LTEA)	D.29.d									⇔♦		March 15, 2013 (180 days before Permit expiration)
File a Report of Waste Discharge (ROWD)	D.33									⇔♦		March 15, 2013 (180 days before Permit expiration)

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

2.3 Program Effectiveness

2.3.1 Introduction

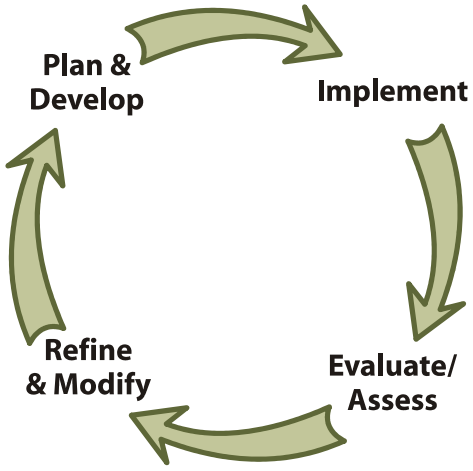
The Sacramento Stormwater Quality Partnership (Partnership) will assess program effectiveness as required by the Stormwater Permit (Provision 29) in order to:

- Demonstrate compliance with the Stormwater Permit in reducing pollutants in stormwater discharges to the maximum extent practicable (MEP) and ensuring that these discharges do not cause or contribute to violations of water quality standards established for local rivers and creeks
- Track the long-term progress of the SQIP toward achieving improvements in receiving water quality
- Provide the data and feedback needed to improve the SQIP and identify new activities or modify existing activities in order to continuously improve upon meeting the above MEP and water quality standard goals

The effectiveness assessment will be conducted annually as required by the Stormwater Permit. Annual reports will include assessments of the overall program, Partnership (regional) activities, and permittee-specific activities. In addition, as required by the Stormwater Permit, a long-term effectiveness assessment (LTEA) will be conducted and included with the Report of Waste Discharge/NPDES stormwater permit renewal application due to the Regional Water Board in March 2013. This approach is described in more detail in Section 2.3.3.

The Partnership will use the annual assessments and LTEA as part of the iterative process to continually improve its program, whereby actions are planned, implemented, assessed and refined in repeated cycles as illustrated in Figure 2.3-1 until a certain accomplishment or goal is achieved. This process of continuous improvement also ensures the most effective use of public funds in developing improvements to the program.

Figure 2.3-1
Stormwater Program Iterative Process



2.3.2 CASQA Effectiveness Guidance

The Partnership's effectiveness assessment approach was developed using guidance provided in the CASQA *Municipal Stormwater Program Effectiveness Assessment Guidance* manual (CASQA guidance manual) (CASQA, 2007). The manual was created by a committee of experienced stormwater professionals and provides statewide guidance and recommended tools for assessing the effectiveness of stormwater programs, program elements and activities. This section summarizes some of the key concepts and terms presented in the manual that were adapted for use in the Partnership's approach.

Outcome Levels

A program, program element or activity is considered effective if it is producing a desired outcome. The CASQA guidance manual proposes six outcome levels, as shown in Figure 2.3-2. Each outcome level category has value in informing management decisions; however not all outcome levels area used in every assessment and are not necessarily assessed in sequence. The goal of the program, element, activity or BMP being evaluated is identified before determining the corresponding outcome level anticipated and subsequently assessed. Performance standards are described in the following section.

For example, most management/administration-type activities (e.g., producing a report, conducting a meeting, revising an ordinance) will be assessed as an outcome of level 1. Training and outreach activities will be assessed as a level 2 or 3 outcome (changing awareness or behavior of the target audience). The data collected by the monitoring program will be utilized in assessing outcome level 4 (reducing loads), and levels 5 and 6 (improving/protecting discharge and receiving water quality). Table 2.3-1 provides additional information about each outcome level.

It should be recognized that linking a program or activity to a positive environmental outcome (i.e., levels 5 or 6) can be elusive because water quality changes in response to program or activity implementation are likely to be very slow. Also, establishing a link between receiving water condition and program activities is difficult at the watershed scale when activities are being implemented incrementally.

Figure 2.3-2
General Classification of Outcome Levels *(adapted from CASQA, 2007)*



Table 2.3-1
Summary of Outcome Levels (adapted from CASQA, 2007)

Outcome Level	Description	Goal	Performance Standard
1	Documenting Activities	Program development and implementation and basic compliance with the NPDES stormwater permit.	• Number of training events • Number of media impressions • Ordinance revised • Brochure created or translated • Number of brochures distributed
2	Raising Awareness	Raise a target audience's awareness and understanding of an issue.	• Percentage of residents who know that stormwater runoff is not treated • Percentage of inspectors who understood concepts presented in a training workshop
3	Changing Behavior	Change a target audience's behavior which results in the implementation of actions related to stormwater pollution prevention.	• Percentage of construction sites with erosion and sediment controls in place following a verbal warning • Percentage of businesses with BMPs in place as observed in a follow-up inspection • Adoption of new agency policies and standards re: WQ protection
4	Reducing Loads from Sources	Reduce the load of pollutants from sources into the municipal storm drain system. Can be real (measured) or estimated.	• Amount of material (sediment) removed from streets by street sweepers • Quantity of used oil collected at the regional transfer facilities • Estimates of sediment kept on site due to use of erosion controls
5	Improving Runoff Quality	Improve the quality of stormwater/urban runoff discharges from the municipal storm drain system to the receiving water.	• Decrease in pollutant levels measured at a particular urban runoff outfall
6	Protecting Receiving Water Quality	Protect receiving water from adverse impacts caused by discharges from the municipal storm drain system.	• Decrease in pollutant levels (typically associated with urban runoff) in rivers/creeks • Healthy creek biota

Performance Standards

A performance standard quantifies the progress of program implementation or performance of an activity or BMP (CASQA 2007). This is consistent with the stormwater permit, which defines a performance standard as "a narrative or measurable number specifying the minimum acceptable outcome for a pollution control practice." A performance standard can also establish a baseline against which future progress in either directly or indirectly reducing pollutants can be measured (CASQA 2007).

Effectiveness assessments beyond outcome level 1 require the establishment of baseline conditions. Thereafter, effectiveness can be determined by comparisons of successive years (or other defined periods) of results against the baseline data. This will not be possible for the first few years of a new program or activity, whereby there is no data (or insufficient data) to establish the baseline condition.

Assessment Methods

The CASQA guidance manual identifies six methods (see Table 2.3-2) for obtaining or evaluating assessment information. Reasons indicated in the manual for selecting a particular method include cost, ease of use, need for statistical rigor, applicability for a program vs. activity/BMP assessment, and clarity in communicating progress to the general public. The Partnership's effectiveness assessment approach described in Section 2.3.3 generally employs these methods; however, a permittee may choose to use other methods not shown on this table in assessing its individual activities.

Table 2.3-2
Assessment Methods Suitable for Various Outcome Levels (adapted from CASQA, 2007)

Assessment Method	Description	1 – Documenting Activities	2 – Raising Awareness	3 – Changing Behavior	4 – Reducing Loads	5 – Improving Discharge Quality	6 – Protecting Receiving Waters
Confirmation	Document that an activity has been completed.	•					
Tabulation	Track the number of actions or items associated with an activity.	•	•	•			
Surveys	Gain specific information about a group or representative sample of the group.		•	•			
Inspections/ Observations	Determine if desired actions are being taken/outcomes are being achieved.	•	•	•	•		
Quantification	Track quantities or estimate pollutant loadings.				•	•	•
Monitoring	Collect representative environmental samples and analyze to measure changes.				•	•	•

Key Indicators

The key indicators were developed by the permittees for evaluation of Partnership Program effectiveness and are a further refinement of the methods provided in the CASQA guidance manual. The indicators are the metrics or representative activities used to define and assess the effectiveness of a program, program element or activity in producing outcomes. The key indicators are selected based on their ability to (1) show progress toward meeting the program or element goal and (2) are specific, measurable and achievable. Some key indicators may be common partnership-wide activities and others will be permittee-specific activities. The key indicators are included in the work plan tables at the end of each element in chapters 3 through 9.

2.3.3 Effectiveness Assessment Approach

The Partnership will conduct and report on effectiveness assessments during the 2008-2013 stormwater permit term as described in this section. Assessments of permittee-specific and Partnership (regional) activities will be conducted annually and a long-term effectiveness assessment for the whole program will be conducted for the Report of Waste Discharge submittal in March 2013.

Annual Permittee-Specific Program Effectiveness Assessment

Each permittee will conduct an effectiveness assessment of its permittee-specific program, for submittal with its annual report each year. The permittee-specific assessments will describe progress towards producing outcomes categorized by levels 1 through 4 and will include recommendations for modifying or adding activities and improving the programs where necessary.

Each permittee-specific SQIP in this document identifies a few key indicators for each program element that will be used in the assessment for the element. As described previously, the key indicators are the measurable and achievable metrics for representative activities that will be used to evaluate the effectiveness of a particular program element in producing outcomes and demonstrate progress towards meeting the program element goals. Because they are tailored to an individual permittee's goals and situation, key indicators may differ between the agencies.

These individual indicator results will also be utilized by the Partnership in conducting annual assessments of the overall Partnership Program, as described in the next section.

Annual Partnership Program Effectiveness Assessment

An annual assessment of Partnership Program effectiveness will be completed that includes documentation of Stormwater Permit compliance as described generally by outcome levels 1 through 3, reduction of pollutants from sources and in discharges (where possible) as described by outcome levels 4 and 5, and protection of receiving water quality (where possible) as described by outcome level 6. The assessment will be submitted each year with the annual report, will build upon the results of the preceding years, and will include:

- A discussion of the effectiveness of the Partnership Program and SQIP in reducing stormwater pollution from discharges to the MEP and in achieving compliance with water quality standards in receiving waters
- An assessment of whether Partnership Program discharges caused or contributed to an exceedance of water quality standards
- A discussion of water quality improvements in or degradation of, urban runoff
- A discussion of monitoring data analysis (the monitoring program is described in Section 2.4)
- An assessment of the Target Pollutant Program. (described in Section 2.5)
- A discussion of the effectiveness of individual BMPs (e.g., a water quality detention basin or a new development BMP) in reducing urban runoff pollutants and/or runoff flow/volume. (These special studies are described in Section 2.4)
- An effectiveness assessment for each permittee-specific program element and Partnership (regional) Program element as defined in the SQIP, building upon each consecutive year
- Recommendations to improve the SQIP, including the monitoring program, activities/BMPs, and performance standards to address potential receiving water quality exceedances and potential pollutant sources, and to meet the MEP standard

Additionally, the Partnership will take selected key indicator results for the various program elements (representing both regional and permittee-specific activities), summarize the results, and use the information to assess the effectiveness of the overall Partnership Program in producing outcomes categorized by levels 1 through 4.

Data and other information from the Monitoring (Section 2.4) and Target Pollutant (Section 2.5) Programs will be used to assess the effectiveness of the Partnership Program in producing outcomes categorized by levels 4 through 6. Monitoring and target pollutant data analysis will include load removal calculations based on a watershed inventory, BMP effectiveness assessments and where possible, trend analysis. These annual snapshots will provide the building blocks for the future analyses as well as guidance for the direction of future Partnership Program activities.

Long Term Effectiveness Assessment (LTEA)

The stormwater permit requires the Partnership to develop a LTEA of the Partnership Program as part of the Report of Waste Discharge due to the Regional Water Board 180 days prior to the expiration of the Stormwater Permit, in March 2013. This LTEA will build on the results of the annual effectiveness assessments as presented in the preceding years' annual reports. As stated in the Stormwater Permit, the LTEA "shall identify the stormwater program long term effectiveness in achieving both programmatic goals (raising awareness, changing behavior) and environmental goals (reducing pollutant discharges, improving environmental conditions)" over the permit term.

The LTEA will include documentation of the Partnership Program effectiveness over the permit term in complying with the permit as described by outcome levels 1 through 3, reducing pollutant discharges as described by outcome levels 4 through 5, and protection of receiving water quality as described by outcome level 6.

The LTEA will use data and information from the annual assessments described previously to answer the following management questions (discussed further in Section 2.4):

- What is the existing condition of receiving water quality and is it protective of beneficial uses?
- What is the trend of urban discharge quality?
- What is the relative urban runoff contribution to receiving water quality?
- Are conditions in receiving waters getting better or worse?

The results of the LTEA will help determine recommended stormwater program activities for the updated SQIP that is required for submittal with the Report of Waste Discharge.

2.3.4 Future Updates to the Effectiveness Assessment Approach

Assessing program effectiveness is recognized as a key challenge for stormwater program managers across California. As various tools are applied and tested over the next few years, it is expected that effectiveness assessment approaches and tools will continue to evolve, and in turn, CASQA will likely publish updated statewide guidance. The Partnership will continue to support this effort and will consider CASQA's recommendations in refining its own approach during the 2008-2013 stormwater permit term. Any modifications to the Partnership's approach will also be based on the permittees' local experience, testing methods on the various program elements/activities and Regional Water Board feedback. Modifications will be reported in the annual work plans and annual reports submitted to the Regional Water Board.

2.4 Monitoring Program

2.4.1 Introduction

The Sacramento Stormwater Quality Partnership (Partnership) Monitoring Program (Monitoring Program) was initiated to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) area-wide municipal separate storm sewer system permit (Stormwater Permit) Monitoring and Reporting Program (MRP) and to demonstrate the effectiveness of the overall Partnership Program. Specifically, the Partnership uses monitoring data to achieve the following objectives:

- Assess water quality in urban runoff and receiving waters (rivers and creeks) and identify potential problems
- Identify pollutants and help identify key pollutant sources
- Investigate observed and reported problems in local waterways and help identify sources of the problems
- Evaluate the effectiveness of selected Best Management Practices (BMPs) and control measures
- Assess the effectiveness of the overall Partnership Program by tracking water quality changes and evaluating trends over time
- Adjust future monitoring efforts, as needed, to provide the most useful data in the most cost-effective manner

This section of the SQIP describes the monitoring activities proposed to meet permit requirements and achieve Monitoring Program objectives planned for 2008 through 2013.

2.4.2 Strategy

The Partnership designed the Monitoring Program to answer the management questions listed in Table 2.4-1 and to assess Partnership Program effectiveness in producing outcomes categorized by levels 4 through 6, refer to section 2.3 for a discussion of outcome levels. The Partnership collects water quality, sediment quality, aquatic toxicity and other types of environmental data as described in Table 2.4-2 for use in answering the management questions and assessing program effectiveness in producing the anticipated outcomes. The Partnership quantifies outcome levels 4 through 6 with loads discharged, loads averted, changes in urban runoff and changes in receiving water quality. Additionally, the Partnership analyzes the collected data to help guide selection of program and permittee-specific activities including for the Target Pollutant Program (see Section 2.5).

Table 2.4-1
Monitoring Program Management Questions and Outcome Levels

Management Questions	Outcome Level
A - What is the existing condition of receiving water quality and is it protective of beneficial uses?	6 – Protecting Receiving Water Quality
B - What is the quality of urban discharge in new developed areas?	5 – Improving Discharge Quality
C - What is the trend of urban discharge quality?	5 – Improving Discharge Quality
D - What is the relative urban runoff contribution to receiving water quality?	5 – Improving Discharge Quality
E - What are the sources to urban runoff that affect receiving water quality?	4 – Reducing Loads From Sources
F - Are conditions in receiving waters getting better or worse?	6 – Protecting Receiving Water Quality
G - How can changes in urban water quality affect receiving water quality?	6 – Protecting Receiving Water Quality

Table 2.4-2
Monitoring Program 2008-2013 Activities and Strategy

Monitoring Activity	Description of Assessment	Outcome Levels	Management Questions Addressed
River Monitoring	• Upstream - downstream comparisons • Trend analysis • Water quality objective comparisons	1 & 6	A, F
Urban Tributary Monitoring	• Trend analysis • Water quality objective comparisons • Comparisons of watersheds	1 & 6	A, F
Urban Runoff Monitoring	• Load modeling • Trend analysis using multi-variate analysis • Comparisons of land uses	1, 4 & 5	C, D, E, G
Water Column Toxicity	• Trend analysis	1 & 6	A, E, F, G
Sediment Monitoring	• Trend analysis	1 & 6	A, E, F, G
Bioassessment Monitoring	• Trend analysis	1 & 6	A, E, F, G
Wet Detention Basin	• Inlet and outlet comparisons • Mass balance	1, 4 & 5	B, C, D, E, F, G
Pilot Watershed	• Inlet and outlet comparisons • BMP load removal	1, 4	B, D, E, G

Historic Monitoring Program Activities

The Partnership initiated the Monitoring Program in 1990 with both urban runoff (discharge) monitoring and urban tributary (creek) monitoring. River monitoring of the Sacramento and American Rivers upstream and downstream of the urban area began in 1991 with the creation of the Coordinated Monitoring Program (CMP), a joint effort at that time between the City of Sacramento, County of Sacramento and Sacramento Regional County Sanitation District (SRCSD). The Partnership has modified the Monitoring Program to include river, urban tributary and urban runoff water quality characterization, as well as water column toxicity, bioassessment, and BMP performance evaluation studies. The results of these activities have been included in the Partnership's Annual Monitoring Reports (AMR) submitted with the Partnership annual reports. Table 2.4-3 summarizes Monitoring Program activities over the past 20 years (Appendix 1C also provides a summary history of the Monitoring Program).

Table 2.4-3
Historic Monitoring Activities

Monitoring Year	River Monitoring	Urban Tributary Monitoring	Urban Runoff Monitoring	Water Column Toxicity	Bioassessment	BMP Evaluation
1989/90	•					
1990/91	•		•	•		
1991/92	•		•	•		
1992/93	•	•	•	•		
1993/94	•		•	•		
1994/95	•	•	•	•		
1995/96	•	•	•	•		
1996/97	•	•	•	•		
1997/98	•		•			•
1998/99	•		•			•
1999/00	•		•			•
2000/01	•		•			•
2001/02	•					•
2002/03	•		•			
2003/04	•	•	•	•	•	
2004/05	•	•			•	
2005/06	•	•	•		•	
2006/07	•	•	•		•	
2007/08	•	•			•	•
2008/09	•	•	•			•

2.4.3 Monitoring Program 2008-2013 Activities

The Partnership will complete the monitoring activities included in Table A of the Stormwater Permit MRP. These activities are described below and in Table 2.4-5, Regional Monitoring Program Activities Work Plan following this section of the SQIP. A map of planned monitoring locations is included as Figure 2.4-1. Additionally, the Partnership is required to complete data analysis in support of Regional Water Board efforts to develop Total Maximum Daily Load (TMDL) limits for pesticides and mercury in area receiving waters. The TMDL data analysis will include recommendations for additional monitoring where necessary to comply with the proposed TMDLs.

As stated in the Stormwater Permit the Partnership monitoring requirements can be modified in this SQIP, pending approval from the Regional Water Board Executive Officer. The Partnership requests some minor modifications that are specifically noted in a "strike-through/underline" mark-up of permit language in the Water Column Toxicity and Pilot Watershed-Special Study subsection.

Baseline Monitoring

Baseline monitoring characterizes urban runoff and receiving water constituent concentrations and quantifies long-term trends for larger watershed areas. The Partnership conducts river monitoring, urban tributary monitoring, urban runoff monitoring and water column toxicity as part of baseline monitoring activities. The Partnership describes specific monitoring protocols in the annually prepared sampling and analysis plans for each of the monitoring activities. The Partnership submits these sampling and analysis plans to the Regional Water Board along with the annual report.

River Monitoring

The SRCSD and Partnership manage the CMP through the CMP Steering Committee. The Steering Committee designed the CMP to provide long-term ambient river water quality characterization data, satisfy NPDES permit monitoring requirements, and complete as-needed special studies. The CMP collects water column samples for the constituents listed in Table 2.4-4 at four sites on the Sacramento and American Rivers for three wet weather events and one dry weather event every year. The CMP collects river cross section composite samples from a boat, except at the upstream American River (at Nimbus) location where a CMP collects a mid-depth grab sample by wading into the river. These characterization data are useful for threshold comparisons, assessing changes between upstream and downstream sites and long-term water quality trend evaluations.

Urban Tributary Monitoring

The Partnership collects urban tributary water column samples for the constituents listed in Table 2.4-4 at three locations (Arcade, Willow and Laguna creeks) for three wet weather events and one dry weather event every year. The Morrison Creek monitoring location sampled during the previous permit term was replaced with a site representative of newer development (Laguna Creek). The Partnership collects storm event flow composite samples, if possible, for the first flush event and grab samples are collected for the remaining events.

Urban Runoff Monitoring

The Partnership collects urban runoff (discharge) water column samples for the constituents listed in Table 2.4-4 at three locations (Sump 111, Strong Ranch Slough and Natomas Basin No. 4) for three wet weather events and one dry weather event each year, with no monitoring every third year. The Partnership replaced the historically monitored Sump 104 location in 2008 with a site representative of new development (Natomas Basin No. 4). The Partnership collects flow composite samples for all storm events and 24 hour time composites for dry weather events. The Partnership targets the first flush event each active monitoring year.

A principal use of the urban runoff data is to evaluate the overall long-term effectiveness (LTE) of the Partnership Program. In 1995/96, the Partnership performed a power analysis to determine data requirements necessary to assess LTE. This work concluded that at least 20 years of data would be needed to provide statistically valid conclusions about program effectiveness.[1] In 1997/98, the Partnership further evaluated the amount of data needed to assess LTE. As a result, the Partnership adopted a still-used strategy of monitoring urban runoff on a cycle of two years on and one year off.

Water Column Toxicity

The Partnership will perform short-term (acute) aquatic toxicity analyses at all receiving water locations in two wet weather events and one dry weather event in FY 2009/10 and 2011/12. The Partnership will collect samples as mid-depth grab samples or cross-sectional composite samples. The acute toxicity testing species will be fathead minnow (*Pimephales promelas*) and water flea (*Ceriodaphnia dubia*). The Partnership will contract a qualified laboratory to perform the analysis in accordance with U.S. EPA's method 821-R-02-012 (U.S. EPA 2002, 5th Edition). The Stormwater Permit allows a modification[2] for *Pimephales promelas* to remove previously observed toxicity caused by pathogen interference.

If acute mortality is significant compared to the laboratory control sample and is greater than 50% for the fathead minnow or the water flea, a toxicity identification evaluation (TIE) will be conducted. A TIE consists of a series of sample treatments that alter specific sources of toxicity. Toxicity "responses" from the treatments can then be used to identify the cause of toxicity. A standard TIE includes ammonia removal and aeration, but does not include treatments for metabolically activated pesticides using Piperonyl Butoxide (PBO). Historically, pesticides, rather than ammonia or lack of dissolved oxygen, are the primary cause of aquatic life toxicity in receiving waters impacted by urban runoff. A targeted TIE focuses sample treatments on expected toxicants (i.e., pesticides for urban runoff) that cannot be identified by other means. The Partnership will perform pesticide-targeted TIEs, if necessary.

The following modifications to the Stormwater Permit MRP section II.D. (Water Column Toxicity) clarify the Stormwater Permit requirements (inserted language is underlined, deleted language is struck-through):

Page nine, last paragraph, last sentence:

The testing shall be conducted in accordance with U.S.. EPA's method 821-R-02-1~~3~~2 (U.S. EPA 2002, ~~4th Edition~~ 5th Edition).

Page 10, first paragraph:

If 100% mortality to *Pimephales promelas* or *Ceriodaphnia dubia* is detected within 24 hours of test initiation, then a dilution series shall be initiated (0.5x steps) ranging from the undiluted sample (or the highest concentration that can be tested within the limitations of the test methods or sample type) to less than or equal to 6.25 percent of the sample. Further, if statistically significant toxicity is detected and a greater than or equal to 50% increase in *Pimephales promelas* or *Ceriodaphnia dubia* mortality compared to the laboratory control is observed, then targeted TIEs will be conducted on the initial sample that caused toxicity.

1. Toxicity Identification Evaluation (TIE)

   The Permittees shall begin a Phase I targeted TIE immediately on all samples that cause statistically significant toxicity and greater than or equal to 50% increase in *Pimephales promelas* or *Ceriodaphnia dubia* mortality compared to the laboratory control. If mortality of both test species exceeds the 50% trigger, then TIEs shall be conducted using both species. TIEs are required until the cause of toxicity is determined. TIE shall be conducted by qualified personnel. Specially, the following TIE treatments will be performed:

   - Chelex for divalent metals (potential cross-reactivity with some polar non-metals)
   - C18 or C8 SPE column for non-polar organics (includes pesticides)
   - Centrifugation for particulates and associated toxins (less problematic than filtration)
   - PBO for metabolically activated pesticides and other organics. This is primarily targeted at previously used organophosphorus pesticides such as diazinon, chlorpyrifos and malathion, which are deactivated by PBO. PBO enhances pyrethroid toxicity.

The Partnership will conduct a Toxicity Reduction Evaluation (TRE) whenever the TIE process successfully identifies a toxicant and the toxicant is not already being addressed in Section 2.5, Target Pollutant Program. A maximum of two TREs per year are required. A TRE includes all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate them. Once the Partnership identifies the source of toxicity and appropriate BMPs, the Partnership will submit a TRE Corrective Action Plan as part of the annual report to the Regional Water Board Executive Officer for approval. If a toxicant is already in the Target Pollutant Program, the toxicity found shall be noted and addressed through on-going implementation of that pollutant control strategy.

Sediment and Bioassessment Monitoring

Sediment and bioassessment monitoring can characterize long-term trends for larger watershed areas. The Partnership describes specific monitoring protocols in the sampling and analysis plans and submits them annually to the Regional Water Board.

Sediment Monitoring

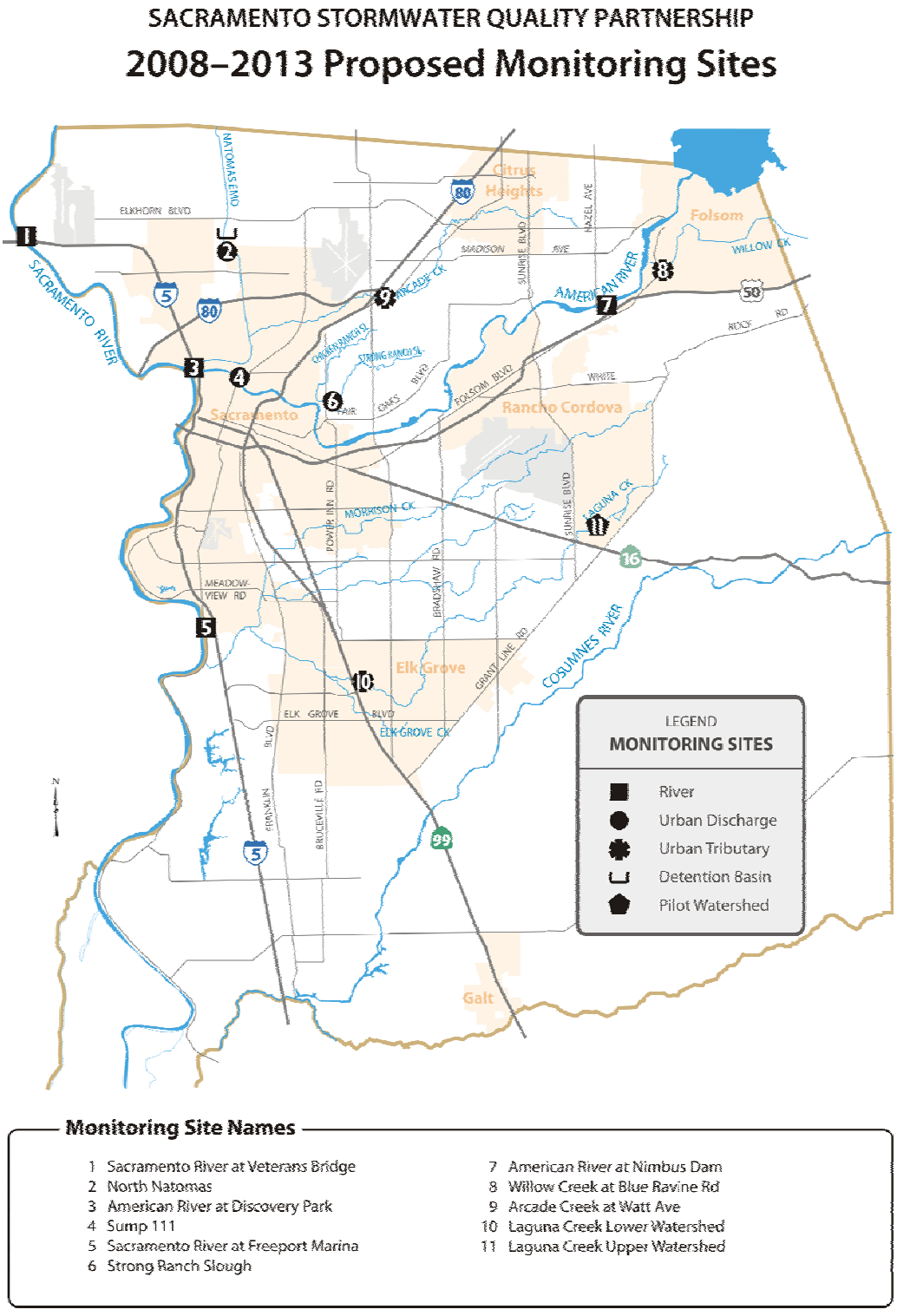
The Partnership will perform pyrethroid sediment sampling at the three urban tributary monitoring locations during one wet season (from October 1 through April 15) and one dry season event. The wet event will be performed directly following a wet weather urban tributary event and no later than April.

Researchers recently identified toxicity resulting from pyrethroid pesticides in a study[3] performed through Statewide Ambient Monitoring Program (SWAMP) monitoring in Sacramento area (Roseville, CA) urban tributaries. These studies found that toxicity to the benthic invertebrate species *Hyalella azteca* was caused by pyrethroid pesticides in the sediments.

Bioassessment

The Partnership does not anticipate bioassessment monitoring in the Stormwater Permit term, although the Partnership will submit an analysis of data collected to date as part of the 2008-09 AMR.

Figure 2.4-1
2008-2013-Term Monitoring Sites



Note: In addition to baseline monitoring, water column toxicity and sediment monitoring will occur at urban tributary and urban discharge (runoff) sites.

Table 2.4-4
Water Quality Monitoring Constituent List

Constituent Class	Constituent
Field/Lab Measurements	• Water Temperature • pH • Dissolved Oxygen • Turbidity • Electrical Conductivity (EC)
Bacteria	• Fecal coliform • E. coli (fresh waters)
General	• Total Petroleum Hydrocarbons • Total Suspended Solids (TSS)/Total Dissolved Solids (TDS) • Total Organic Carbon/ Dissolved Organic Carbon • Biochemical Oxygen Demand/Chemical Oxygen Demand • Total Kjeldahl Nitrogen • Alkalinity • Nitrate-Nitrite • Total Phosphorus • Specific Conductance • Total Hardness • Methylmercury
Metals	• Copper, Dissolved and Total • Iron, Total • Lead, Dissolved and Total • Mercury, Total • Zinc, Dissolved and Total
Organophosphate Pesticides	• Chlorpyrifos • Diazinon • Malathion
Semi- and Non-volatile Organics	• PAHs
Pyrethroid Pesticides in Sediment	• Bifenthrin • Cyfluthrin • Cypermethrin • Deltamethrin/Tralomethrin • Esfenvalerate/Fenvalerate • Fenpropathrin • Lambda-cyhalothrin • Permethrin

Constituent Class	Constituent
The following analysis are not required but will be performed in coordination with aquatic toxicity monitoring at receiving water and urban runoff locations.	
Pyrethroid Pesticides in Water	• Bifenthrin • Cyfluthrin • Cypermethrin • Deltamethrin/Tralomethrin • Esfenvalerate/Fenvalerate • Fenpropathrin • Lambda-cyhalothrin • Permethrin
Carbamate Pesticides in Water	
Organochlorine Pesticides in Water	

Water Quality Based Programs

As listed in the Water Quality Based Programs section of the Stormwater Permit, the Partnership is required to complete data analysis in support of Regional Water Board efforts to develop TMDL limits for pesticides and mercury in area receiving waters. TMDLs are stakeholder-based regulatory programs intended to address receiving water impairments and typically require monitoring, data analysis and source reductions by stakeholders.

Pesticide Monitoring

The Partnership will conduct additional pesticide monitoring to comply with Basin Plan amendments or TMDLs as required during the Stormwater Permit term. Currently there are no additional pesticide monitoring activities required to comply with Basin Plan amendments or TMDLs, however, the Partnership will collect additional pesticide samples during aquatic toxicity sampling events to provide data potentially needed for TIE preparation.

Mercury Monitoring Analysis

The Partnership will evaluate urban runoff discharge loading from the Sacramento area that contributes to Clean Water Act section 303(d) listed mercury-impaired receiving waters. The Partnership will base the discharged load model on total mercury and methylmercury data collected in recent years. The Partnership will summarize this load modeling analysis in the 2008/2009 Annual Report and will include the following:

- An evaluation of load modeling approaches
- Estimates of the average annual methylmercury and total mercury urban runoff concentrations and loads
- Estimates of the amount of total mercury using readily available data of sediment prevented from discharging to receiving waters by existing BMPs such as street cleaning and detention basins
- An evaluation of whether the available concentration data represent a range of storm conditions (i.e. various intensity, duration and antecedent dry hours) and water years
- An evaluation of whether sampling locations sufficiently represent urban runoff throughout the Sacramento urban area

- An evaluation of representativeness of current sampling methods
- An evaluation of methods to estimate urban runoff flow volume

Special Studies

Special studies are targeted investigations that can provide additional information on BMP effectiveness or information regarding direct impacts on receiving waters. The Partnership performs these studies to evaluate specific source control or treatment control measures and they are not intended as long-term characterization studies. The Partnership submits these sampling and analysis plans for each special study that describes study objectives and specific monitoring protocols. The Special Studies completed during the permit term will include:

- A wet detention basin study to measure the effectiveness of new development standards in protecting receiving water quality and target pollutant removal effectiveness
- A pilot watershed study to measure the effectiveness of new development standards in protecting receiving water quality
- Proprietary treatment BMP effectiveness evaluations to measure the pollutant removal effectiveness of proprietary devices that are options for treatment measures in the development standards

Wet Detention Basin Monitoring

The Partnership will complete the wet detention basin effectiveness study initiated in 2007 intended to assess the pollutant removal performance of a typical new development facility. The Partnership is currently completing year two of the study and is expected to finish the study by July 2010. The study includes inlet and outlet monitoring at North Natomas Basin No. 4 for a minimum nine storm events and three dry weather events over the course of the study period. Water column monitoring includes total mercury, methylmercury, TSS, bacteria, turbidity, TDS, OP pesticides and pyrethroids. The Partnership will submit the monitoring results in the 2010/11 annual report along with recommendations for additional grab sampling at two other wet detention basins at different locations in the permitted area. The Partnership will report the results of monitoring at the two additional wet detention basins in the 2012/13 annual report.

Pilot Watershed – New Development BMP Evaluation

The Partnership is required to conduct an evaluation of the effectiveness of new development best management practices (BMPs) within the upper Laguna Creek watershed. The Partnership developed a work plan (see Appendix 2C) to meet this requirement. The work plan describes three study options for an effectiveness assessment that meets the intent of the Stormwater Permit requirement given the potential lack of new land development during the permit term. The three options include:

1. Monitoring of a new development BMP within the Upper Laguna Creek watershed
2. Monitoring of a Low Impact Development (LID)-type BMP outside of the Upper Laguna Creek watershed
3. Monitoring of a receiving water site within the Upper Laguna Creek watershed to establish baseline conditions on which future post-development conditions can be compared

As proposed in Appendix 2C, the Partnership will monitor a BMP or a receiving water site during FY 2012/13 or FY 2013/14. If a BMP is selected, the Partnership will monitor the inlet and outlet during three storm events each year for a total of six storm events during the permit term. Additionally, the Partnership will assess the ability of the BMP to reduce runoff volume as this has an impact on the overall pollutant load. If the Partnership selects a receiving water site, the monitoring schedule will match that of the other Partnership receiving water monitoring sites (three storm events and one dry event per year).

The Partnership will submit a technical report at the study conclusion in the final annual report of the Stormwater Permit term to describe the results of the water quality monitoring, BMP effectiveness and runoff reduction. The report will document installation and maintenance costs and make recommendations regarding future use and applicability of the BMP within the Sacramento Partnership area.

The Partnership is requesting the following modification to the Stormwater Permit requirements in consideration of the current slower rate of land development (new language is underlined):

MRP Section III.C., page 21, Pilot Watershed – New Development BMP Effectiveness Evaluation

1. The Permittees shall prepare and implement a work plan over the permit term for monitoring a receiving water site within the Upper Laguna Creek Collaborative project area. <u>If there is insufficient new development in this study area prior to 2011, the study may be moved to an alternate location and/or be modified to consider a specific new development BMP.</u> The work plan shall be submitted as part of the revised SQIP.

Proprietary Treatment BMP Effectiveness Evaluation

The Partnership will continue to research the effectiveness of proprietary structural treatment BMPs. Guidelines for reviewing and evaluating the performance of these devices will follow the protocol developed in the *Comprehensive Protocol for Performance Evaluation of Proprietary Stormwater Control Products* (performance protocol) found at the Partnership web site http://www.sacramentostormwater.org/SSQP/development/proprietary.asp. The Partnership will research the following activities during the Stormwater Permit term:

- Review of current proprietary treatment BMP monitoring studies and assessment of product effectiveness, including the following devices:
  - CONTECH Storm Filter, 15 gpm/cartridge or 2 gpm/ft^2 unit
  - BayFilter pilot
- Review and where necessary revise the performance protocol. Minimum criteria (from the protocol) will be established for submittals. The revised protocol will be posted on the Partnership website.
- Once the Partnership revises the performance protocol, the Partnership will provide outreach to proprietary device manufacturers and solicit field performance data to demonstrate effectiveness of their products. The outreach will include meeting with vendors, posting the information on the Partnership website, and sending submittal request to the Stormwater Equipment Manufacturers Association (SWEMA) and its members.
- Conduct a comprehensive review of the lab and field data from the proprietary treatment BMPs. The Partnership will update the list of approved devices as needed.

Monitoring Coordination

The Partnership has coordinated with and supported other monitoring efforts, some of which are described below:

- Central Valley Regional Water Quality Control Board – The Regional Water Board oversees monitoring specific to TMDL development and region-specific support of the Statewide Ambient Monitoring Program (SWAMP). Most recently, the Regional Water Board has initiated a stakeholder-driven Regional Monitoring Program (RMP) for the Central Valley that includes the Delta, the Sacramento River watershed and the San Joaquin River watershed. The Regional Water Board has prioritized the Delta effort, but efforts in all watersheds are ongoing.
- The Sacramento River Watershed Program (SRWP) is a stakeholder effort that is concerned with Sacramento River watershed resources and conducts various monitoring activities within the watershed. Currently, the effort is developing a funding plan in coordination with other monitoring efforts, including the RMP initiative.
- The U.S. Geological Survey (USGS) National Water Quality Assessment (NAWQA) Program provides consistent and long-term comparable information on rivers and streams nationally. The second cycle of monitoring in the Sacramento River watershed is underway until 2014. Monitoring is focused on two locations that coincide closely with the Monitoring Program's locations: Sacramento River at Freeport and Arcade Creek near Del Paso Heights (Watt Avenue). Currently NAWQA is monitoring on the Sacramento River only.
- The California Department of Water Resources oversees the CALFED Bay-Delta Program monitoring project funds related to source control for the statewide protection of drinking water supply. Numerous efforts are ongoing related to urban runoff BMPs and characterization of sources.

2.4.4 Effectiveness Assessment

The Partnership annually assesses the effectiveness of the Monitoring Program in collecting high quality data that supports program objectives. The Partnership adjusts field sampling techniques as a result of this assessment in order to maintain the collection of high quality data. Additionally, the Partnership annually completes the Monitoring Program reporting and data analysis needed to complete the effectiveness assessments described in Chapter 2.3 and Section 2.4.2.

Notice of Water Quality Exceedances (NWQE)

The Partnership is required to compare the monitoring data collected in receiving waters against a prescribed set of water quality objectives. If monitoring data exceed water quality objectives, the Partnership must submit a NWQE to the Regional Water Board within 90 days of the monitoring event. The Partnership summarizes these reports within the annual reports.

This approach helps identify potential impacts to beneficial uses, but does not consider site-specific conditions, the extent to which urban runoff caused the problem, or the presence/absence of specific beneficial uses downstream.

Report of Water Quality Exceedances (RWQE)

The Partnership submits an annual RWQE that identifies constituents that exceed the water quality objectives for receiving water where urban runoff may cause or contribute to the exceedance and proposes changes to the SQIP as needed.

The year-end RWQE considers the extent to which urban runoff causes or contributes to the exceedances. The Stormwater Permit does not specify a method for this assessment, and the Partnership has developed an assessment process. The Partnership updates and reports the process flow chart in the AMR.

Data Analysis Approach

The Stormwater Permit requires data analysis for the purpose of characterizing discharged loads and assessing the effectiveness of the Partnership Program in removing loads and improving receiving water quality. The objectives of the effectiveness assessments are discussed further in Section 2.3 of this SQIP. The final annual report of the Stormwater Permit term and/or the Report of Waste Discharge (ROWD) will contain additional analyses for the target pollutant list, found in Section 2.5. Some of the expected analysis are discussed below and are summarized by monitoring type in Table 2.4-2.

Trend Analysis

Trend analysis measures a change in the condition of stormwater or a receiving water body over time. The analysis ranges in level of complexity from comparisons of medians from different periods and time series analysis to the more detailed regression-based analysis. The Partnership will perform trend analysis incrementally throughout the permit term and report progress annually and in the final long term effectiveness assessment (LTEA) submitted with the Report of Waste Discharge/NPDES Permit application. The Partnership will annually prepare a comparison of different period medians and time series plots. The Partnership will evaluate trends of discharges and receiving water quality and consider several factors, such as changes in sample collection methods, data quality differences and changes in analytical methods.

The LTEA will include a trend analysis that includes a more detailed regression-based analysis. The Partnership has developed and analyzed regressions with a power analysis to determine the necessary monitoring period, data points and statistical power necessary to detect long-term trends in urban runoff. The Partnership will then complete the long-term effectiveness assessment for target pollutants and include an evaluation of significant correlations of target pollutants to other factors and constituents. It is expected that trends can be identified for some constituents; however, the precise cause of changes may not be apparent.

Upstream-Downstream Comparisons

Comparisons of upstream and downstream concentrations provide an assessment of changes in water quality between the two locations. There are other influences beside urban runoff discharge, and impacts may not be directly attributable to urban runoff. The Partnership will consider impacts on the rivers with statistical paired comparisons of upstream and downstream data. The Partnership will perform the analysis on recently collected target pollutant data in both the Sacramento and American Rivers.

Urban Runoff (Discharge) Load Modeling

An estimate of total pollutant loads attributable to urban runoff for target pollutants at each urban runoff (discharge) monitoring station will be reported in the final annual report of the Stormwater Permit. The Partnership previously performed a regression-based continuous simulation of discharge loads of specific constituents from the entire permitted area. The Partnership will update these regressions as part of the long-term effectiveness assessment, and will consider a similar model for all target constituents. The Partnership will also consider alternate load calculation methods ranging from a simple approach (median concentration and median flow) to other commonly used approaches (e.g., LOADEST).

An initial study of mercury and methyl mercury that is due to the Regional Board in the October 2009 annual report will review the different load calculation methods (see the Mercury Monitoring Analysis paragraph above). The model results will estimate discharged loads from the monitoring stations and the permitted area and consider data from newly developed areas.

BMP Effectiveness Assessments

The Partnership measures the effectiveness of new development standards and specific BMPs through evaluations of programmatic and monitoring data. The Partnership approach considers multiple information sources to perform this effectiveness assessment. The Partnership will perform the approach described below for target pollutants over the course of the Stormwater Permit term.

- *Watershed Inventory*

  The watershed inventory is an "accounting" (rather than statistical) model approach that summarizes known BMP performance (from Permittee and literature data) and estimates the load removed by summing the performance data of all the known BMPs in the permitted area. The Partnership can compare the inventory to both the discharge load model estimates and the observed loads in receiving waters to estimate the relative impact of Permittee BMPs on urban runoff and receiving water quality. The Partnership will conduct this inventory using a simple spreadsheet model[4] that will estimate primary and secondary pollutant sources and the pollutant removal benefit of current program activities.

- *Comparison of New Development vs. Older (pre-1990) Development*

  In 2008, the Partnership initiated urban runoff monitoring in the newly developed North Natomas (Basin No. 4) area. Data from this new development discharge can be directly compared to ongoing monitoring of older development discharges to evaluate the effectiveness of new development standards, including wet detention basins.

- *BMP Effectiveness Studies*

  The Partnership will measure BMP effectiveness directly with detention basin monitoring, Laguna Creek watershed monitoring and proprietary treatment device studies.

  The Partnership pairs North Natomas Basin No. 4 discharge (outlet) monitoring with inlet monitoring to assess the effectiveness of reducing constituent concentrations. The Partnership will perform paired (inlet-outlet) statistical comparisons to determine if the sites have statistically different water quality. The Partnership will estimate the discharge concentration and/or discharged load reduced to characterize the basins removal effectiveness.

  The Partnership intends to utilize the upper Laguna Creek pilot watershed project to quantify changes in water quality and ideally attribute changes to watershed development activities. If significant development does not occur in the proposed study area, the study will focus on monitoring the pollutant- removal effectiveness of a low impact development practice elsewhere in the Permittee area.

  The Partnership will utilize information from the Proprietary Treatment BMP Effectiveness Evaluation to guide the use and selection of Proprietary Treatment BMPs.

Target Pollutant Program Coordination

The Target Pollutant Program is based on an iterative process of monitoring, data evaluation, issue prioritization, and work plan development and is discussed in detail in the next chapter. The Partnership analyzes monitoring data jointly through Monitoring Program and Target Pollutant Programs. The Partnership coordinates these activities closely, and the results of effectiveness evaluations in either program element often directly affect activities in the other program element.

[1] Sacramento Stormwater Management Program, *Technical Memorandum: An Evaluation of Methods for the Assessment of Long Term Effectiveness of the Sacramento Comprehensive Stormwater Management Program,* Prepared by Larry Walker Associates, 1996.
[2] Geis, Stephen W., et. al. "Modifications to the Fathead Minnow (Pimephales promelas) Chronic Test Method to Remove Mortality Due to Pathogenic Organisms*, "Environmental Toxicology and Chemistry*," Vol. 22, No. 10, April 2003, pp 2400-2404.
[3] Weston, D. P., Holmes, R. W., et.al., Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides, *Environmental Science and Technology*, Vol. 39, 2005, 9778-9784.
[4] Caraco, D, *the Watershed Treatment Model*, Center for Watershed Protection, Ellicott City, MD, 2001.

Table 2.4-5

Regional Monitoring Program Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Receiving Water Monitoring												
Conduct river monitoring during 3 wet events and 1 dry event	MRP II.B.					⇔	⇔	⇔	⇔	⇔	⇔	
Conduct urban tributary monitoring during 3 wet events and 1 dry event	MRP II.B.					⇔	⇔	⇔	⇔	⇔	⇔	
Urban Runoff (Discharge) Monitoring												
Conduct urban discharge monitoring during 3 wet events and 1 dry events on a schedule of 2 years on and 1 year off	MRP II.C.						⇔	⇔		⇔	⇔	
Water Column Toxicity												
Conduct water column toxicity testing on receiving water samples for two wet weather events and one dry weather event	MRP II.D.						⇔		⇔			
Conduct toxicity identification evaluations on substantially toxic samples (>50% from control), as required	MRP II.D.						⇔		⇔			
Conduct toxicity reduction evaluations for pollutants causing 100% toxicity within 24 hours of test initiation, as required	MRP II.D.						⇔		⇔			
Sediment Monitoring												
Conduct monitoring at the urban tributary monitoring sites once during the wet season and once during the dry season	MRP II.E.					⇔	⇔	⇔	⇔	⇔	⇔	
Bioassessment Monitoring												
Evaluate bioassessment monitoring data collected under previous MRP	MRP II.F.						⇔					
Water Quality-Based Programs												
Additional pesticide monitoring to be determined after TMDL adoption	MRP.G.1.										⇔	
Additional Mercury and Methylmercury Analyses												
Incorporate previously collected total mercury and methylmercury data within a model	MRP G.2.					⇔	♦					
Evaluate methods to estimate discharge volume	MRP II.G.2.f.					⇔	♦					October 1, 2009

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Table 2.4-5

Regional Monitoring Program Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Special Studies: Wet Detention Basin Monitoring												
Conduct monitoring for a total of nine wet weather events and three dry weather events	MRP III.A.					⇔	⇔	⇔				
Prepare and submit a Study Report in FY 10/11 Annual Report that includes recommendation for collecting inlet/outlet grab samples at two other detention basins	MRP III.A.							⇔	♦			October 1, 2011
Evaluate concentration changes and loads discharged performance		✓	demonstrate pollutant load removal potential	paired inlet-outlet comparisons	inlet data and urban runoff from other locations			⇔	♦❹❺			October 1, 2011
Collect grab samples at two other detention basins	MRP III.A.6.								⇔			October 1, 2010
Prepare an addendum to the FY 10/11 Study Report	MRP III.A.8.									⇔	♦	October 2013 final annual report of Permit, Note: Permit expires in September, 2013
Special Studies: Pilot Watershed-New Development BMP Evaluation												
Track development of Upper Laguna Creek watershed to determine if study is feasible	MRP III.C						⇔	⇔				
Finalize BMP selection and develop Sampling and Analysis Plan								⇔	⇔			
Conduct monitoring										⇔	⇔	
Perform data summary and effectiveness evaluations for final report		✓	depends on type of study option	depends on type of study option, but could include regression studies, inlet-outlet comparisons, upstream-downstream comparisons, and others							⇔	
Special Studies: Proprietary Treatment BMP Evaluation												
Review study method and evaluation criteria	MRP III.D.						⇔					
Evaluate data submitted from manufacturers	MRP III.D.							⇔	⇔	⇔	⇔	
Complete a comprehensive review of proprietary treatment devices	MRP III.D.								⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Table 2.4-5

Regional Monitoring Program Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Dry Weather Monitoring Analysis												
Examine dry weather monitoring results to identify water quality problems. Perform follow-up investigations as necessary	B.5.					⇔	⇔	⇔	⇔	⇔	⇔	
Annual Work Plan												
Submit Annual Work Plan	D.3.a.					♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report												
Submit Annual Report	D.3.b.					♦	♦	♦	♦	♦	♦	October 1 each year
Effectiveness Evaluation												
Annually evaluate Water Quality Based Programs; certain key requirements specified below	MRP I. B.					♦	♦	♦	♦	♦	♦	October 1, 2009
Estimate total discharged volume	MRP I.B.9			baseline values to potentially used in flow reduction analyses		⇔	⇔	⇔	⇔	⇔	⇔	October 2013 final annual report of Permit, Note: Permit expires in September, 2013
Estimate total pollutant loads for target pollutants	MRP I.B.10.a	✓	maintain level of target pollutant load discharged	compare loads and loading rate between permit periods	2007 ROWD	⇔	⇔	⇔	⇔	⇔	♦❹❺	October 2013 final annual report of Permit, Note: Permit expires in September, 2013
Prepare receiving water concentration data trend summaries and comparisons of urban runoff concentrations	MRP I.B.10.b.	✓	decreasing concentration trends	compare expected trends to observed trends and discuss differences	historical monitoring data	⇔	⇔	⇔	⇔	⇔	♦❺❻	October 2013 final annual report of Permit, Note: Permit expires in September, 2013
Evaluate significant correlations of target pollutants with other constituents	MRP I.B.10.c.			establish relationships between conditions to better understand urban runoff and receiving water impacts							♦	October 2013 final annual report of Permit, Note: Permit expires in September, 2013

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Table 2.4-5

Regional Monitoring Program Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Evaluate Wet Basin monitoring results for effectiveness in removing mercury	MRP III. A. 6.	✓	decreasing total mercury while not generating significant methylmercury	compare inlet and outlet concentrations and loads; performed for other constituents by Monitoring Program	inlet concentrations and older development characterization				♦❹			October 1, 2011
Notice of Water Quality Exceedance - Submit event-based notice of water quality exceedance	C.3.a. & MRP I.C.			comparisons used as initial step for RWQE		⇔	⇔	⇔	⇔	⇔	⇔	90 days from monitoring event
Report of Water Quality Exceedances - Submit report of water quality exceedance as part of the Annual Report	C.3.b.	✓	reduction in observed exceedances for RWQE constituents	quantify exceedance rates for RWQE constituents each year	historical monitoring data	♦❻	♦❻	♦❻	♦❻	♦❻	♦❻	October 1 each year
Prepare upstream-downstream water quality comparisons		✓	decreasing differences in water quality over time	paired comparisons of data	historical monitoring data	⇔	⇔	⇔	⇔	⇔	♦❻	October 2013 final annual report of Permit, Note: Permit expires in September, 2013
Wet Detention Basin performance			see Monitoring Program special study description									
Pilot Watershed study			see Monitoring Program special study description									

Notes:

1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated

2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

2.5 Target Pollutant Program

2.5.1 Introduction

The Sacramento Stormwater Quality Partnership (Partnership) implements the Target Pollutant Program to identify priority pollutants and focus resources on the pollutants most likely to impair local receiving waters. The Partnership prioritizes constituents through an evaluation process that considers stormwater monitoring data, sources of pollutants, pathways into local waterways, and impacts to the waterways. The Partnership develops reduction strategies for priority pollutants and identifies control strategies to reduce the discharge. To date, the Partnership has established reduction strategies for pesticides, mercury, copper, lead and pathogen indicators. The strategies are evaluated annually. Table 2.5-2, Regional Target Pollutant Program Activities Work Plan follows this section of the SQIP.

The target pollutant identification and control process is summarized below and illustrated in Figure 2.5-1.

Step 1 - Identification and Ranking of Target Pollutants

The Partnership begins the ranking of target pollutants by comparing monitoring data to indicators of actual or potential water quality impacts following the *Target Pollutant Prioritization Procedure*[1]. The Partnership collects most of the necessary monitoring data including water chemistry, aquatic toxicity and sediment data (see Table 2.4-2 and 2.4-4). Partnership data are complemented by other readily available and reliable regional study data that characterize toxicity identification or bioaccumulation potential. The indicators used in the comparisons are threshold values (i.e., water quality objectives) from the California Toxics Rule (CTR), Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan), U.S. EPA Safe Drinking Water Maximum Contaminant Levels (MCLs), and other applicable thresholds. Additional scoring categories are based on observed aquatic toxicity, bioaccumulation and the existence of specific regulatory programs for the constituent. The constituents are ranked using a weighted scoring scheme based on best available science and professional judgment.

A "program implementation" processing step was added to the previously developed protocol in March 2009 to consider controllability, treatability and the impact of urban runoff on beneficial uses[2].The target pollutants are categorized and grouped based on the following considerations:

- Report of Water Quality Exceedance (RWQE) status – is the constituent included in a previous RWQE?
- Source controllability – can the constituent sources be identified and reduced?
- Urban runoff treatability – what level of treatment is necessary to remove the constituent from urban runoff prior to discharge?
- Urban runoff impact on beneficial use – do concentrations of the constituent in urban runoff directly impact an established beneficial use, including consideration of the following:
    - Regulatory factors such as the tributary rule[3] and U.S. EPA drinking water maximum contaminant levels[4]
    - Beneficial use analysis
    - Recalculation of applicable site specific water quality objectives using advanced analytical tools such as the Biotic Ligand Model (BLM) and pathogen source identification

A description of the revised target pollutant identification and ranking process and analysis results are included in Appendix 2D. The individual constituents were evaluated as a group and prioritized as shown in Table 2.5-1:

Table 2.5-1
Prioritized Target Pollutant Groups

2009 Target Pollutant Group	Priority
Sediment Erosion Surrogates	High
Pathogen Indicators	Medium
Pesticides	Medium
Mercury	Medium
PAHs	Medium
Unquantified Sources (e.g., Bis(2-ethylhexyl)phthalate)	Medium
Drinking Water Issues (e.g., TOC, TDS, and nutrients)	Medium
Metals	Medium
Petroleum Products	Low
Legacy Pollutants	Low

Step 2 - Identification and Prioritization of Sources

The Partnership identifies and ranks likely pollutant sources for identified target pollutant groups, based on available local, statewide, and national literature. Sources include specific products, materials, and activities that contain or are likely to contribute target pollutants to urban runoff. The Partnership ranks sources for each target pollutant group to focus on those sources with the greatest potential for reducing local pollutant levels. The Partnership evaluates and reprioritizes these sources as needed during the annual effectiveness evaluation of the Target Pollutant Program.

Step 3 - Development of Target Pollutant Control Strategies

The Partnership develops and periodically updates area-wide strategies for controlling the top-ranked sources of each target pollutant. This involves selecting the most technically effective, practical and cost-effective combination of control measures, and therefore begins with a review of potentially applicable ones. The Partnership evaluates control measures with pilot studies, technical studies, and extensive literature reviews.

For sources that cannot be effectively controlled with local programs, the Partnership actively seeks ways to influence regional policy, participate in State and Federal regulatory processes, or to support other agency or stakeholder efforts to achieve pollution reduction. For example, Partnership staff led the effort of the California Stormwater Quality Association (CASQA) to influence State and Federal pesticide registration and evaluation activities, with a goal of establishing adequate regulatory processes for preventing and responding to urban water quality issues caused by pesticides.

Step 4 - Implementation of Target Pollutant Control Strategies

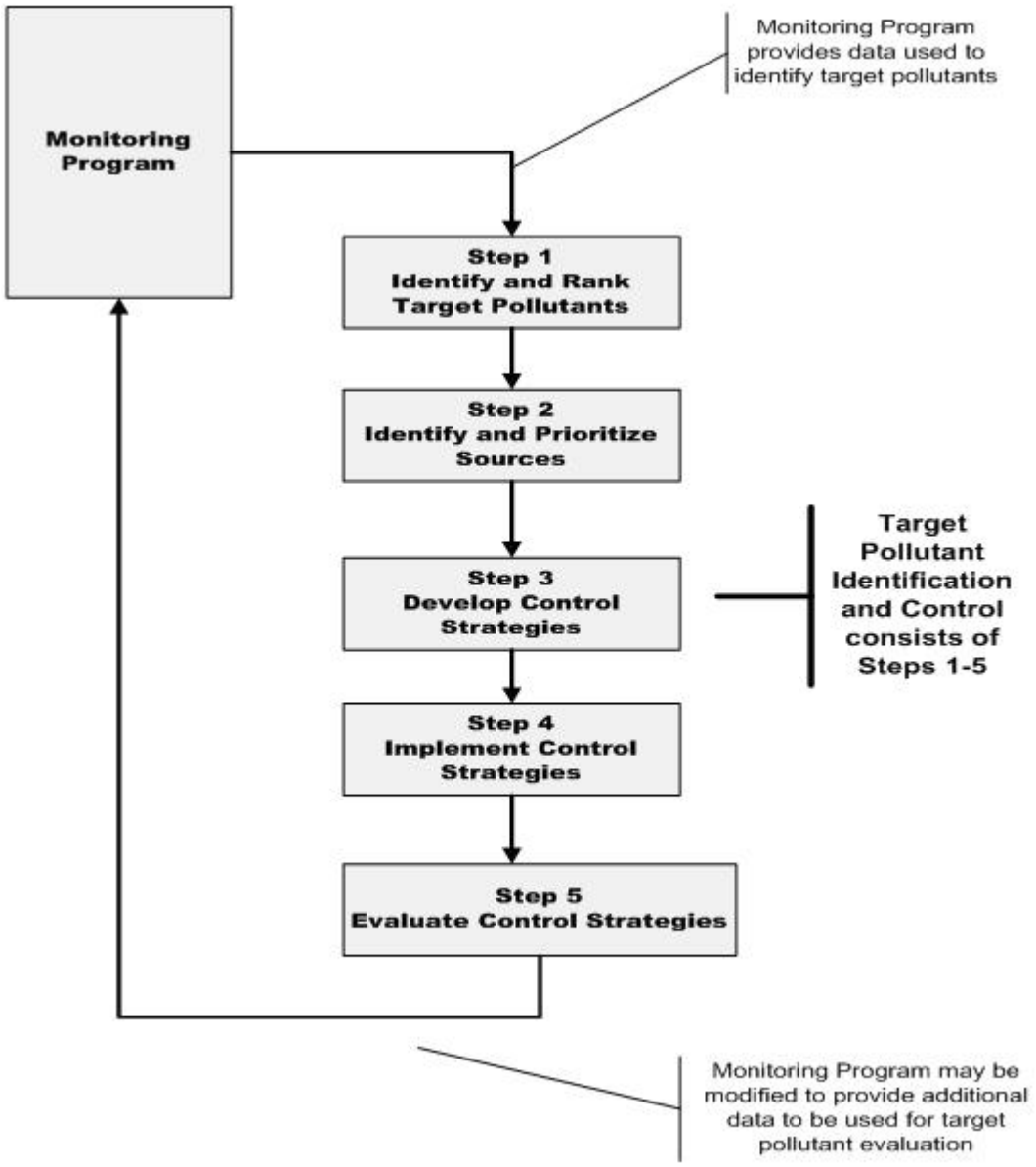
The Partnership implements control strategies as part of other Permittee program elements (such as Municipal Operations), when appropriate; otherwise, they are implemented under the Target Pollutant Program. Selected control strategies and activities may be implemented under one program element or several program elements, and may be completed jointly by the Partnership or by the individual Permittees. The Partnership identifies pollutant sources, control strategies and responsible parties with annual workplans.

Step 5 - Effectiveness Assessment of Target Pollutant Control Strategies

The Partnership utilizes the California Stormwater Quality Association (CASQA) methodology to assess the effectiveness of the Partnership Program (see Section 2.3), including control strategies for target pollutants. The Partnership annually evaluates the Target Pollutant Program and strategies as described later in Section 2.5.3.

The assessments will help determine needed changes to the Target Pollutant Program strategies, specific activities or the overall Partnership Program. The evaluations and any subsequent changes to programs or activities will be included in the annual reports submitted to the Regional Water Board.

Figure 2.5-1
Target Pollutant Identification and Control Process



2.5.2 Target Pollutant Strategies

This section describes the target pollutant control strategies planned for the permit term summarized in the Target Pollutant Activities Work Plan.

Sediment Erosion Control Strategies

In March 2009, the Partnership identified sediment erosion as a high priority target pollutant group. Previously the Partnership included target pollutant listings for turbidity and total suspended solids, but at a slightly lower priority level. The revised March 2009 target pollutant prioritization process now considers controllability and treatability directly which greatly increases the priority of sediment-related pollutants, although there are no Partnership receiving waters that are listed as impaired due to sediment.

Historically, the Partnership has recognized that sediment erosion can cause impairment to aquatic life and drinking water beneficial uses in receiving waters and that erosion of urban tributary banks due to peak urban runoff flows can also impact general water quality and riparian habitat. The Partnership has historically addressed sediment erosion control through several programs and new development policies. In fact, nearly all the Partnership Program elements already address sediment erosion control.

Specifically, the Partnership has performed and will continue to perform where appropriate the following activities:

- Implementation of revised new development standards to require LID strategies
- Review, inspection and enforcement of construction BMP standards
- Street sweeping and Partnership-owned parking facility maintenance
- Catch basin, sumps, and open channels cleaning
- Turbidity sampling in several urban tributaries to characterize potential impacts and changes over time

Although the Partnership has implemented these sediment erosion control strategies, these efforts have not been formally documented as part of the Target Pollutant Program. The Partnership will develop such a plan in the upcoming Permit term.

Pathogen Indicator Control Strategies

Fecal coliform and *E. coli* have been used to indicate the potential presence of fecal matter and by extension, of pathogenic microorganisms associated with fecal matter, in receiving waters. Although coliform levels have not been shown to correlate well with pathogenic microorganisms, they continue to be used as indicators due to the lack of affordable and reliable analytical methods for detecting pathogens directly. When the pathogens such as *Giardia* and *Cryptosporidium* have been directly tested in Sacramento receiving waters, they are generally non-detect or present at low concentrations. [5,6]

Despite the lack evidence of the presence of pathogens, the Partnership finalized a Fecal Waste Reduction Strategy in 2003/2004. Potential sources of observed fecal coliform bacteria in urban receiving waters include *in situ* growth, wild animals, domesticated pets, live stock, aquatic recreation, domestic wastewater overflows, and lack of sanitation facilities for homeless persons. A principal finding of the strategy is that some sources of coliform/pathogens, such as wildlife, are not readily amenable to source control. The reduction strategies therefore focus on controllable sources to reduce the discharge of fecal material to the storm drain and creeks. The strategy also includes periodic review of source identification technology which might have the potential to identify additional controllable sources.

The Partnership will implement the Fecal Waste Reduction Strategy that includes the control strategies shown below in the 2008-13 permit term.

Specifically, the Partnership has performed and will continue to perform where appropriate the following activities:

- Prohibit cross-connections from sewer system to the storm drain
- Prohibit discharges of pet waste into the MS4
- Inspect kennels for appropriate waste handling procedures
- Conduct outreach promoting appropriate disposal of boating wastewater
- Conduct outreach and support practical alternatives to increase appropriate disposal of pet waste
- Conduct outreach promoting appropriate livestock manure management
- Maintain coverage, as needed, under the State Water Resources Control Board General Waste Discharge Requirements for sewer overflows
- Conduct three Coliform/Pathogens Workgroup meetings to review current status of coliform/pathogen control efforts in the state and identify additional actions, if any

Pesticide Control Strategies

The Partnership recognized in 1995 that the pesticides diazinon and chlorpyrifos were present in toxic levels in stormwater discharges and local receiving waters. Since then, the Partnership has worked to proactively address this problem as pesticides continue to be a significant priority pollutant.

Studies conducted in Northern California have since shown that pesticide applications made by private residents may be responsible for approximately one-half of the pesticides applied in urban areas. [7] These studies also indicate that the large volume of pesticides applied in urban areas by both residents and Pest Control Operators (PCOs) could account for the observed levels of pesticide contamination of stormwater, even if the pesticides are legally applied. [8]

Accordingly, the Partnership pesticide control strategies emphasize efforts to influence state and federal pesticide policies as well as outreach for residents and PCOs.

During the next permit term, the Partnership will implement the comprehensive Pesticide Plan approved by the Regional Water Board in 2006 as indicated in the Permit. The plan's pesticide control strategies for the next permit term are shown below. The Permittees will implement the strategies as appropriate for the individual agency.

Specifically, the Partnership has performed and will continue to perform where appropriate the following activities:

- Document and evaluate municipal pesticide use
- Require oversight of municipal use by Certified Pesticide Applicator
- Establish and conduct training program for public agency pesticide applicators
- Establish Permittee-specific IPM policies or ordinances
- Begin and/or continue establishment of department specific IPM plans and procedures
- Ensure that Permittees have coverage under Aquatic Pesticide Permit, if required

- Coordinate structural BMP design and maintenance with Sacramento-Yolo Mosquito and Vector Control District as needed
- Support local IPM outreach and education programs, such as Water Wise Program and Our Water Our World
- Support Household Hazardous Waste (HHW) programs
- Include pesticide information in stormwater media campaign
- Encourage incorporation of IPM in design of new development landscaping and buildings
- Provide training and promote implementation of IPM by Institutional Pesticide Users
- Continue regulation by the County Agricultural Commissioner
- Enforce local prohibitions against illegal discharges
- Promote IPM implementation by PCOs
- Conduct water quality monitoring
- Track relevant monitoring programs by other agencies
- Conduct residential pesticide sales and use surveys once per permit term and utilize in outreach efforts
- Evaluate PCO pesticide use data
- Track and comment on State and Federal regulatory activities that pertain to pesticides of significance to urban stormwater discharges
- Provide input for pesticide product risk assessments for surface water quality
- Participate in the development of TMDLs for pesticides in Sacramento urban creeks
- Support improvements in State and Federal pesticide regulations
- Revise Pesticide Plan as needed to incorporate pyrethroid sediment monitoring activities

Mercury Control Strategies

The Partnership identified mercury as a top-ranked target pollutant in 2002. Mercury is a problem due to the high levels of methylmercury measured in several species of edible fish in the Delta. Methylmercury content poses a threat to humans and wildlife that consume the fish, and thus impairs fisheries. This led to the listing of the Delta as a high priority impaired water body on the State's 303(d) list, and a draft Total Maximum Daily Load (TMDL) for mercury in the Delta has been released for public comment.

The dominant sources of mercury now found in the Delta are historical and gold mining upstream of Sacramento, as well as geologic sources such as soils and springs located throughout the Coast Ranges. Atmospheric deposition from remote sources such as coal fired power plants and volcanoes are believed to be a significant contributor to mercury levels in the Delta.

It is unlikely that even complete removal of all mercury from urban runoff would have a significant effect on the levels of mercury in the water column and sediment, or on the levels of methylmercury in fish tissues of the Delta. This is because of two main factors. The first is that mass loading of mercury discharged from the Partnerships' storm drain systems to local waterways is very small, when compared to the amount of mercury being discharged by other sources in the watershed and the amount already present in sediments of the Delta and the rivers. The second factor is that the amount of mercury discharged by the Partnership is greatly overshadowed by biogeochemical processes occurring in the river and the Delta that generate methylmercury from mercury already present in water and sediments.

Despite these limitations, the Partnership submitted and subsequently began implementing a comprehensive Mercury Plan in 2004. The reduction strategies included in the plan focus on controllable sources and generally include activities associated with municipal operations, industrial inspections, public outreach, participation in initiatives to increase mercury recycling, and participation in efforts to address mercury on a regional or watershed basis. A number of these strategies are general stormwater BMPs such as street cleaning and detention basins that are not designed to specifically address mercury; however they are effective at removing a wide variety of pollutants, including mercury, from urban runoff. The pollutant control strategies to be implemented during the next permit term are shown below. In addition, the Partnership actively participates in the stakeholder groups for the Delta Methylmercury Total Maximum Daily Load (TMDL). The Partnership will continue working with the Regional Water Board through this stakeholder process to confirm initial TMDL allocations and evaluate actions that can be implemented to meet allocations. The Permittees will implement the strategies as appropriate for the individual agency.

Specifically, the Partnership has performed and will continue to perform where appropriate the following activities:

- Conduct street cleaning
- Maintain detention basin operations
- Conduct drainage facility maintenance
- Require erosion and sediment control BMPs
- Continue new development requirements for on-site and regional stormwater treatment BMPs
- Update Mercury Plan for consistency with final TMDL, include methodology for calculating mercury load reductions
- Participate in the Delta Tributary Mercury Council (DTMC) on mercury watershed programs
- Track HHW mercury reduction programs
- Track mercury air deposition and emission studies relevant to the Sacramento area
- Review and provide input for Delta and Sacramento River TMDL
- Incorporate mercury recycling messages into general materials and events
- Develop fact sheet for distribution to County EMD staff
- Conduct outreach to other commercial/ industrial businesses, as appropriate
- Incorporate coordination with the countywide universal waste management strategy into the Mercury Plan

- Evaluate and summarize 2004 and 2007 public awareness/opinion survey data related to mercury, and develop recommendations for amending Partnership source control programs and implement accordingly
- Evaluate total mercury and methylmercury data collected to date
- Estimate amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs
- Consider including monitoring in the design of future BMP studies

Metals Control Strategies

Metals such as copper, zinc and lead can be toxic to the aquatic environment if present in significant bio-available concentrations. The Partnership will continue to implement control strategies that address these constituents during the next permit term. The control strategies are generally incorporated into other program elements and primarily include sediment control and removal, waste diversion and public outreach and are listed below.

Specifically, the Partnership has performed and will continue to perform where appropriate the following activities:

- Conduct street cleaning
- Maintain detention basin operations
- Conduct drainage facility maintenance
- Require erosion and sediment control Best Management Practices (BMPs) for construction projects
- Continue new development requirements for on-site and regional stormwater treatment BMPs
- Implement an industrial inspection program
- Support HHW collection
- Continue financial support of the Brake Pad Partnership

Information about the specific constituents follows.

Copper

Copper occurs naturally in local soil and water and its release to the urban environment is a by-product of human activities. Copper can cause aquatic life toxicity if it is in a bio-available form (i.e., usually a dissolved form) at a sufficiently high concentration and a sufficient length of exposure occurs.

In 1997, the Partnership identified and prioritized sources of copper, as well as potentially effective control strategies.[9,10,11] This effort identified several potential sources of copper: rainfall, potable water used outdoors, naturally occurring copper in soils, brake pad wear, and possibly pesticide use.

In the 1990's, Bay Area stormwater programs estimated that approximately 80% of copper in urban runoff may originate from brake pad wear. Therefore, reducing the content of copper in manufactured brake pads was hypothesized to be a likely effective control measure for copper. Subsequently, brake pad industry representatives and water quality interests (environmental organizations; and state, federal, and local government agencies) voluntarily formed the Brake Pad Partnership. The Partnership contributes financial support to this effort, which examined the link between copper in automotive brake pads and copper in surface waters. The Brake Pad Partnership's rigorous analysis has confirmed that brake pads are the largest source of copper in urban runoff. This has led to proposed legislation in California, supported by stormwater agencies, to reduce the copper content of brake pads.

Through the Notice of water Quality Exceedance (NWQE) process for local receiving water quality data (discussed in more detail in Section 2.4, the Monitoring Program), the Partnership reported a number of exceedances of copper in urban creeks, in both dissolved and total recoverable forms. These exceedances were based on the California Toxics Rule objective, which allows for a hardness adjustment but does not consider other significant site-specific receiving water conditions that affect copper aquatic toxicity. Through application of the U.S. EPA's recently adopted Biotic Ligand Model (BLM)-based water quality objective, the Partnership has determined that copper toxicity occurs much less frequently than previously believed.[12]

Lead

Historically, lead had numerous uses in the urban environment. This resulted in a legacy reservoir of lead. The largest historical sources of lead in urbanized areas were gasoline and lead paint. Many buildings painted before 1978 include lead paint, which remains on the houses and thus continues to be a source of lead in urban runoff. Lead gasoline was phased out in the 1970s and 1980s, but lead levels in soil in urban areas continue to exceed background levels. Lead contained in soils and subsequently mobilized in urban runoff may contribute to the amount of lead observed in local waterways.

The Partnership identified lead as a target pollutant in 1996. The Partnership subsequently conducted studies to identify and prioritize sources of lead and identify potentially effective control strategies. Local potential sources of lead that were identified included weathering and erosion of lead-painted structures, small aircraft and vehicle exhaust emissions, tire wear, use of leaded pavement marking paints, erosion of soil with past accumulation of lead, shooting ranges, and several types of industries (auto and radiator repair shops; airports; auto dismantlers; machinery, electrical, and transportation equipment manufacturers; landfills and transfer stations; rail yards; and metal recyclers). The control strategy identification work led to a list of good housekeeping practices, structural controls, and education and training activities for the identified sources.

In 1998/99, a joint Lead/Copper Workshop was held with Permittee staff to integrate the results of the source and control strategy identification work into the activities of the various program elements.[11]

Zinc

Zinc occurs naturally in local soil and water and like copper is also a by-product of everyday human activities. Zinc can also cause toxic effects to aquatic life if it is in a bio-available form (i.e., usually a dissolved form) at a sufficiently high concentration and a sufficient length of exposure.

The Partnership has reported a number of exceedances of zinc concentrations in urban creeks through the NWQE process, in both dissolved and recoverable forms. These exceedances were based on the California Toxics Rule objective, which allows for a hardness adjustment but does not consider other significant water quality parameters that affect zinc aquatic toxicity. Through application of the U.S. EPA's Biotic Ligand Model, the Partnership has determined that zinc toxicity occurs much less frequently than previously believed.[12] When adjusted to consider site specific conditions using the BLM, zinc observed concentrations generally do not exceed WQOs or site specific LC50s even in cases where the observed concentrations exceeded the CTR WQO. However, the BLM has not been approved yet by U.S. EPA for these types of zinc evaluations.

Based on work conducted on copper and lead sources, the Partnership currently believes that likely sources of zinc in urban runoff is tire tread wear and outdoor metal structures with galvanized metal surfaces such as fences, flashing, and rain gutters. Other sources include used motor oil discharges (leaks and illegal discharges) and soil erosion.

Other Target Pollutant Control Strategies

The Partnership will begin work to address new top-ranked target pollutants identified in the re-evaluation process, as resources allow. The Partnership will document the sediment and erosion control strategies as part of the Target Pollutant Program during the Permit term.

2.5.3 Effectiveness Assessment

The Partnership assesses Target Pollutant Program effectiveness through an evaluation of monitoring data analyses provided by the Monitoring Program and evaluation of activities conducted under the Target Pollutant Program and other Program elements (e.g. Municipal Operations or Industrial elements). The data analyses provided by the Monitoring Program described in section 2.4 include:

- Statistically based load modeling that considers relationships between multiple variables and urban runoff concentrations; correlations between constituents such as total suspended solids are also considered
- Trend summaries in the receiving waters
- Wet detention basin removal efficiency evaluations
- Upstream to downstream receiving water quality comparisons
- Report of Water Quality Exceedances preparation
- Long term statistical assessments of urban runoff concentrations

The near term evaluation of Target Pollutant Program effectiveness includes both assessment of behavior changes achieved (outcome level 3) and quantification of load reductions achieved (outcome level 4). The Long Term Effectiveness Assessment (LTEA), which will be conducted near the end of the Permit term will summarize and build on the effectiveness assessments in the annual reports and will provide an evaluation of the achievement of outcome levels 4 through 6.

The Partnership identifies and ranks likely pollutant sources for identified target pollutant groups and dedicates resources on those sources with the greatest potential for reducing local pollutant levels. As mentioned previously, the control strategies are implemented as Partnership (regional) activities such as providing funding for the Brake Pad Partnership or as a permittee-specific activity such as street sweeping. Some control activities for key sources may be very direct and are expected to achieve measurable results in the short term, such as street sweeping. Other control activities, such as outreach programs, are less direct and may take longer to achieve the desired changes. Finally, some control activities are, in effect, long term strategies that may have little or no effect on pollutant loads in the short term, but have the potential to achieve systemic changes that will result in significant, long term source control.

An example of this approach in assessing Target Pollutant control tasks is the Partnership's focus on Federal pesticide regulatory processes that contributed to the withdrawal of diazinon and chlorpyrifos from urban markets, which clearly resulted in a dramatic decrease in receiving water concentrations of these key pollutants. Typically pursued through changes in state and federal regulation of pollutant sources, pesticide long term strategies are expected to take years to achieve pollutant reduction. Therefore, near and mid-term interim assessment of these pesticide control activities focuses on programmatic aspects, such as participation in advisory groups and submitting comment letters on regulatory actions (outcome levels 1 and 2). Desired regulatory changes, when achieved, will typically result in behavior changes (outcome level 3) under the control of other agencies and stakeholders, such as pesticide mitigation measures or market restrictions imposed by US EPA or the State. These changes are in turn expected to lead to pollutant discharge reductions and improvements in receiving water quality (outcome levels 5 and 6).

In addition to the near term and long term assessments, the Partnership will also complete the five-step target pollutant prioritization process during the permit term. As described previously, the outcome of this process, a numerical score indicating the importance of various pollutants observed in Permittee discharges, provides additional perspective on the effectiveness of the Target Pollutant Program as changes are observed in target pollutant scores and their relative priority. The Partnership will also assess Pesticide and Mercury Plan effectiveness using the key indicators and performance standards included in Table 2.5-2, Regional Target Pollutant Activities Work Plan following this section of the SQIP. The assessments will include outcome level 3 and 4 type activities and will include recommendations for plan improvements, as needed.

Ultimately observing improvements in urban runoff quality may require extended monitoring periods (decades) because of the variable nature of pollutant sources, and of stormwater discharges. Due to the difficulty of measuring water quality improvements, it is often not possible to isolate the effect of specific control activities, but the aggregate effect of all control measures will be observable if it is of sufficient magnitude. In addition, the effect of local control programs may be obscured by ongoing pollutants from other areas (e.g., atmospheric deposition) and legacy sources (e.g., mercury, certain organochlorine pesticides, etc.) that are slow to degrade in the environment even after they have been banned or replaced. When sufficient data are collected, as determined by a statistical power analysis, the Partnership has planned a detailed statistical assessment of the Program's historical (1990-current) data that is intended to identify constituent concentration trends.

[1] Sacramento Stormwater Monitoring Program. *Target Pollutant Prioritization Procedure: Instructions and Year 2000 Update.* Prepared by Larry Walker Associates, Mach 2001.

[2] Laurenson, Brian M. March 2009. *2009 Target Pollutant Characterization Update Memorandum,* Prepared for the Sacramento Stormwater Quality Partnership.
[3] The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, the Sacramento River Basin and the San Joaquin River Basin . Fourth Edition, California Regional Water Quality Control Board Central Valley Region, Revised October 2007, page II-2.00.
[4] The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region, the Sacramento River Basin and the San Joaquin River Basin, Fourth Edition, California Regional Water Quality Control Board Central Valley Region, Revised October 2007, page III-3.00.
[5] American River Watershed Sanitary Survey 2008 Update. Starr Consulting and Palencia Consulting. December 2008.
[6] Sacramento River Watershed Sanitary Survey 2005 Update. Montgomery Watson and Starr Consulting. January 2006.
[7] Alameda County Urban Runoff Clean Water Program, 1997. Characterization of the Presence and Source of Diazinon in the Castro Valley Creek Watershed. Prepared by J. Scanlin and A. Feng.
[8] Regional Water Quality Control Plan – Palo Alto, 1996. Diazinon in Urban Areas, Prepared by A. Cooper
[9] Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix D: Identification of the Sources of Copper in Sacramento Urban Runoff.* Prepared by Larry Walker Associates.
[10] Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix E: Copper Source Prioritization.* Prepared by Larry Walker Associates.
[11] Sacramento Stormwater Management Program, December 1998. *1997/98 Annual Monitoring Report - Appendix F: Copper Control Measure Identification.* Prepared by Larry Walker Associates.
[12]. Laurenson, Brian M. March 20087. *Results of Initial Biotic Ligand Model analysis of Sacramento Urban Tributary Data*. Prepared for the Sacramento Stormwater Quality Partnership (2007 Report of Urban Waste Discharge Appendix J Part IV. a.).

Table 2.5-2

Regional Target Pollutant Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Overall Target Pollutant Strategy												
Continue to implement the Target Pollutant identification and prioritization process	D.27.a.					⇔	⇔	⇔	⇔	⇔	⇔	
Sediment Erosion Control Strategies												
Develop sediment control work plan						⇔	⇔	♦				October 1, 2011
Implement sediment control work plan									⇔	⇔	⇔	
Pesticide Control Strategies												
Continue to Implement Pesticide Plan	D.27.a.					⇔	⇔	⇔	⇔	⇔	⇔	
Identify and Promote IPM Program	D.27.a.					⇔	⇔	⇔	⇔	⇔	⇔	
Implement "Permittee Pest Control" section of Pesticide Plan	D.27.a.i.					⇔	⇔	⇔	⇔	⇔	⇔	
Implement "Public Education and Outreach" section of Pesticide Plan	D.27.a.ii.					⇔	⇔	⇔	⇔	⇔	⇔	
Conduct studies on sale of residential and commercial pest control products potentially found in storm water runoff	D.27.a.iii.	✓	decrease resident use of pesticides known to impact water quality	surveys	2004 residential survey				♦❸			August 11, 2011
Complete an assessment to determine if urban storm water is causing or contributing to an exceedance of water quality standards for diazinon and chlorpyrifos	D.27.a.iv.	✓	decreased concentrations in urban discharges and urban tributaries	quantification	2007 ROWD				♦❺			By 4th year June 30th 2012
Continue to support/participate in efforts to influence pesticide regulation by state and federal agencies	D.27.a.v.	✓	inclusion of manufacturer monitoring requirements in pesticide approvals	documentation	existing regulatory requirements - none	⇔	⇔	⇔	⇔	⇔❶	⇔	
Incorporate a Sediment Monitoring program into the Pesticide Plan	D.27.a.vi.									⇔		
Review and amend Pesticide Plan if pesticides in sediments are identified as causing or contributing to receiving water impacts	MRP E. 2.										⇔	
Mercury Control Strategies												
Continue to Implement Mercury Plan	D.27.b.					⇔	⇔	⇔	⇔	⇔	⇔	
Incorporate into the Mercury Strategy coordination with the countywide universal waste management strategy	D.27.b.i.					⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Table 2.5-2

Regional Target Pollutant Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Evaluate and summarize 2004 and 2007 public awareness/opinion survey data related to mercury	D.27.b.ii.	✓	maintain resident awareness of mercury issues	surveys			♦❷					October 1, 2009
Provide recommendations for amending Permitees' mercury source control programs and make amendments accordingly	D.27.b.ii.						♦					October 1, 2009
Evaluate total mercury and methylmercury data collected and continue urban discharge monitoring, described further in MRP	D.27.b.iii.a., MRP G. 2.						♦					October 1, 2009
Estimate amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs	D.27.b.iii.b., MRP G. 2. i.	✓	maintain level of total mercury and sediment prevented from discharging	quantification	October 1, 2009 load estimate		♦				♦❹	October 1, 2009 and March 15, 2013
Consider including monitoring in the design of future BMP studies to estimate the extent existing and new BMPs reduce (increase) total and methyl mercury discharges	D.27.b.iii.c. (MRP G.2.j)						♦					October 1, 2009
Implement monitoring described in MRP to support water quality based programs	D. 28.					⇔	⇔	⇔	⇔	⇔	⇔	
Effectiveness Evaluation												
Prepare Annual Report assessment of program effectiveness utilizing Monitoring Program data analysis						⇔	⇔	⇔	⇔	⇔	⇔	
Metals Control Strategies												
Participate on Copper Workgroup and support initiatives	Not required					⇔	⇔	⇔	⇔	⇔	⇔	
Participate in funding and supporting the Brake Pad Partnership	Not required					⇔	⇔	⇔	⇔	⇔	⇔	
Update the Metals Reduction strategy	Not required								⇔			
Pathogen Indicator Control Strategies												
Participate on Coliform/Pathogens Workgroup and support initiatives	Not required					⇔	⇔	⇔	⇔	⇔	⇔	
Update the Fecal Waste Reduction Strategy	Not required							⇔				
Other Target Pollutant Control Strategies												
Develop new target pollutant strategies as needed	Not required					⇔	⇔	⇔	⇔	⇔	⇔	

Notes:

1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated

2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

2.6 Regional Public Outreach Program

2.6.1 Introduction

The Partnership conducts regional public outreach programs to educate the public about the harmful effects of stormwater pollution and to motivate people to prevent pollution; it also creates and promotes opportunities for public participation in creek and river stewardship projects. The ultimate purpose is to improve the quality of urban runoff and protect local creeks and rivers.

The outreach efforts target the following three main audiences in the urbanized portions of Sacramento County.

- *Public Outreach* - Broad public awareness campaigns serve as a first step in the continuum from education to a call-to-action, including, but not limited to, the groups listed below:
  - Homeowners and renters
  - Community and watershed groups
  - Public officials
- *School Outreach* - Through its work with schools, the Partnership empowers children to become environmental stewards by providing a basic understanding of the importance of water quality and explaining simple steps children can take to reduce stormwater pollution. The Partnership works with the following groups in order to teach the next generation about the importance of water quality and how to protect it:
  - School districts
  - Teachers
  - Students
- *Business/Industrial Outreach* - Outreach staff focus on mobile businesses that generate wastewater, and work with other element staff to address the following:
  - Fixed location EMD facilities
  - Non-EMD facilities
  - Developers/home builders
  - Engineer/design professionals
  - Contractors and subcontractors

The permit requires the permittees to ensure that the Regional Public Outreach Program uses appropriate media to measurably increase the knowledge of target communities regarding the impacts of urban runoff on receiving waters and to provide potential BMP solutions for the target audience that lead to behavioral change and reduce pollutant releases to the municipal storm drain systems and the environment.

Public outreach activities are coordinated with activities related to other program elements to ensure consistent and integrated messages. The Partnership maintains relationships with other groups and agencies to share ideas and experiences, and jointly implement outreach where possible. Many of the Partnership's outreach activities are conducted regionally, as a collaborative effort among the permittees to prevent duplication, share resources and reach a broader segment of the population. In general, collaborative, county-wide efforts can be more cost-effective; however, in some cases, localized public outreach by individual permittees is more appropriate or cost-effective. This section describes both regional activities and individual activities.

2.6.2 Strategy

The Partnership's Regional Public Outreach Program strategy depends on the target audience. The Partnership's outreach strategy for the general public is to:

- Use research such as public surveys and focus groups to identify what various segments of the public know, and don't know, about storm drains and stormwater pollution, and what actions they are and are not likely to take to prevent pollution.
- Prioritize activities based on needs identified in the public outreach research and through the Partnership's Target Pollutant Program.
- Identify target audiences and messages based on those priorities.
- Choose outreach methods that are most effective given the target audience and message content (i.e., television, radio, print materials and websites).
- Translate messages into languages other than English depending on the target audience.

The Partnership's outreach strategy for school children is to:

- Measure students' awareness of stormwater pollution through tests or quizzes and focus on priorities based on needs identified in tests or quizzes.
- Develop message content for selected age groups or grade levels.
- Choose outreach methods that are most effective for school children, such as:
  - Brochures and materials distributed during classroom presentations and assemblies
  - Website
  - Outreach events
  - Online interactive games
- Translate messages into languages other than English depending on the target audience.
- Provide technical support or educational resources to teachers.
- Develop stormwater educational content that meets state educational standards.
- Work with other agencies or organizations with similar messages to reach a wider student population.

The Partnership's outreach strategy for businesses is to:

- Target businesses that can cause stormwater pollution, but are not easily reached through the Regional Commercial/Industrial Program (Section 2.7), such as mobile businesses.
- Focus on priority industries/businesses based on those identified through the Regional Commercial/Industrial Program.
- Choose outreach methods that are most effective given the target business and message content.
- Explore incentives for businesses to join the Clean Water Business Partners (CWBP) program or other business recognition program. The CWBP program is described below in 2.6.3 and 2.6.4.
- Explore partnership opportunities with other agencies to help leverage business outreach activities.
- Translate messages into languages other than English depending on the target audience.

As previously mentioned, the Partnership seeks to maintain and establish partnerships with other groups in order to maximize resources and further the public outreach mission. The Partnership's strategy for establishing relationships with other groups includes:

- Identify other agencies and groups with similar missions and messages.
- Identify networking opportunities by attending regional conferences and workshops.
- Determine the most appropriate method to reach out to groups.
- Research private funding sources to fund long-term outreach efforts.
- Identify private retailers, businesses, or corporations that are looking for community involvement opportunities and stewardship roles.

2.6.3 Accomplishments to Date

Major Partnership accomplishments to date related to regional public outreach include:

- Developed and promoted a hotline for the public to report stormwater-related issues (e.g. clogged drains, illicit discharges/dumping, general stormwater questions and faded or missing drain inlet stencils).
- Developed and implemented a regional media campaign, including television, radio, billboards and other media. Throughout the 2002-2007 permit term, the Partnership far exceeded the annually required 2.3 million media impressions.
- Translated several brochures into Spanish and Russian to reach out to multicultural communities.
- Published a stormwater brochure designed for adults. This brochure describes steps residents can take in and around their homes to prevent urban runoff pollution. The brochure has a tear-out card for residents to request specific brochures (e.g. landscaping, paint, pool, etc.) and/or to receive a presentation by the Partnership.
- Coordinated with other agencies and organizations on outreach efforts, including the Sacramento Area Creeks Council (formerly known as the Sacramento Urban Creeks Council), Sacramento County Business Environmental Resource Council (BERC), Sacramento Regional County Sanitation District (SRCSD), Regional Water Authority (RWA), Bay Area Stormwater Management Agencies Association (BASMAA), and the Sacramento River Watershed Program (SRWP).
- Participated in community outreach events to educate the public on the impacts of stormwater pollution and how individuals play a role in protecting local waterways. Through experience, the Partnership learned which events draw the most people and are best suited for targeted audiences to maximize resources and efficiency.
- In partnership with the RWA, the Partnership awarded a contract to the South Yuba River Citizens League (SRYCL) to deliver school assembly presentations (using professional actors and comedians) about stormwater quality, watershed protection and water conservation.
- Several of the permittees sponsored SPLASH, a year long watershed education curriculum that will be discussed in detail under activities for 2008-13 term.
- Participated in the statewide Our Water Our World (OWOW) program, which educates consumers (and trains retailers that sell to consumers) to manage home and garden pests in less-toxic ways. The OWOW program produces fact sheets and other outreach materials that provide customers with a list of products that are less-toxic.

- Collaborated with SRCSD and the University of California Cooperative Extension State Integrated Pest Management program, local Master Gardeners, and local nurseries on the Water Wise Pest Control (WWPC) program. The WWPC is an education program that provides information to residents on effective and less-toxic methods of handling pests and encourages the proper use, storage and disposal of pesticides.
- Established the CWBP program in 1998 to educate businesses about appropriate best management practices (BMPs) and provide an incentive for businesses to protect stormwater quality and pass along stormwater and urban runoff information to their customers.
- Conducted two rounds of business outreach mailings (over 8,000 pieces of mail each round) to eleven high priority business categories identified in the 2002 Stormwater Permit. The Partnership developed (and continues to update quarterly) a database of businesses based on phone book yellow page ads and business license information from local jurisdictions. BERC assists the Partnership with updates to the database.
- Developed the *River-Friendly Landscape Guidelines: Sustainable Practices for the Landscape Professional* publication to aid landscape professionals in the protection and conservation of Sacramento's waterways and in the reuse and reduction of plant debris, and to support an integrated approach to environmentally-friendly landscaping. In addition, the Partnership developed the *Choosing a Landscape Professional for Your River-Friendly Garden* to help residents find a landscape professional who practices River-Friendly landscaping. The Partnership has received numerous requests for both publications.

2.6.4 Research Conducted During 2002-2007 Permit Term

To effectively plan the next steps in its ongoing outreach efforts, the Partnership conducted qualitative and quantitative research through public awareness surveys and focus group sessions to analyze current public awareness and identify areas for improvement for the 2008-13 permit term.

Prior to the 2002-2007 permit term, the permittees used separate public awareness and behavior surveys focused on particular jurisdictions. During the 2002-2007 permit term, the Partnership conducted a regional combined survey for consistency. Some historical trending data was lost; however, the new format allowed for better regional program development. All future surveys will be conducted on a regional basis to maximize outreach programs and effectiveness.

To supplement survey findings, the Partnership conducted five focus group sessions. Two sessions targeted the Hispanic and Slavic communities and the remaining three involved the general public. Focus groups provided additional insight and richer data regarding current views and the public's willingness to play an active role in preventing urban runoff pollution.

The following major research findings from the regional survey and focus group sessions will be considered and used as a guide to develop and implement future outreach efforts:

- There is still a lack of awareness among some audiences (particularly non-English speakers) regarding stormwater and urban runoff pollution. Information translation and dissemination appear to be the major issues. Traditional media outlets do not reach very far into some of the more insular communities, especially the Slavic and Asian populations, where distrust of government is still prevalent. Also, many of these populations view local waterways as 'pristine' compared to the countries from which they immigrated.
- One in five respondents gave an incorrect answer when asked where they thought everything that goes into the gutters finally ends up.

- Respondents think that government, rather than residents, is most responsible for preventing water pollution.
- Residents are more likely to participate in environmentally-friendly activities if there is a personal incentive.
- Pet waste and fluorescent lights were identified as materials most likely to be disposed of improperly.
- Television and signage (i.e., storm drain signs and creek signs) are best for conveying basic messages, but internet and telephone information lines are the best source for more detailed information.

2.6.5 Regional Public Outreach Activities

This section describes the Partnership's regional outreach activities for the 2008-13 permit term. Section 2.6.6 describes additional locally-focused activities conducted by the individual permittees.

Stormwater Permit Requirements

The Stormwater Permit requires that permittees implement a public outreach program using appropriate media to measurably increase the knowledge of target communities regarding municipal storm drain systems, impacts of urban runoff on receiving waters and potential BMP solutions for the target audience; and to change behavior of target communities and thereby reduce pollutant releases to storm drain systems and the environment. The permit also requires that the effectiveness of the Regional Public Outreach Program be assessed to identify any necessary modifications. The current permit requirements pertaining to public outreach are not substantially different from those in the prior permit.

Overview of Proposed Activities

Table 2.6-2, Regional Public Outreach Program Activities Work Plan (2008-2013) summarizes the activities that will be conducted under the Regional Public Outreach Program during the 2008-13 permit term. The proposed activities build on the work already accomplished during the first 17 years of the Program, and many activities are continuing. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule. The following describes the major activities in more detail:

Public Participation

The Partnership will continue to encourage the public to volunteer or participate in organized community stewardship activities to minimize stormwater pollution. These activities benefit neighborhoods and watersheds in the Sacramento area.

Specifically, the Partnership will:

- Engage the public in cleaning up creeks. The Partnership supports County-wide and neighborhood creek cleanups such as Creek Week.
- Encourage the public to volunteer in the community stewardship pet waste reduction program called "Scoop the Poop." Originally started as a County program, the "Scoop the Poop" program aims at reducing improper disposal of pet waste in parks. The Partnership works with local park districts and volunteer groups to install pet waste stations at designated locations. Individuals can either leave their plastic grocery bags at the pet waste bag stations for others or take a bag to use for picking up and disposing of pet waste. The program is cost-effective, reduces pet waste discharges and gives neighborhood residents a sense of making a difference in the community.

- Encourage the public to participate in watershed management groups. The Partnership coordinates with several watershed and environmental advocacy groups in the Sacramento region (see Table 2.6-1 for details).

Table 2.6-1
Established Watershed and Environmental Advocacy Groups in the Sacramento Area

Organization	Description	Affected Permittees
Alder Creek Watershed Group	The City of Folsom initiated the Alder Creek Watershed Project in 2007 with funding provided by a CALFED/State Department of Water Resources Grant (Proposition 50). The project will characterize biological, hydrologic, and geomorphic conditions in the 11-square mile watershed and prepare a watershed management plan to protect the creek and its resources as development occurs over the next 10 to 20 years. A stakeholder group guides these efforts. See the City of Folsom's website for additional information: *http://www.folsom.ca.us/depts/public_works/stormwater*	City of Folsom, County of Sacramento
Amador/Dry Creek Watershed Council (ADCWC)	Dry Creek originates in Amador County in the foothills of Central Sierra, flowing between the Mokelumne and Cosumnes Rivers and through the city of Galt to the Cosumnes River before merging with the Mokelumne near the Cosumnes River Preserve, and then into the lower San Joaquin River. Established in 2005 through a CALFED/State Department of Water Resources Grant (Proposition 50) the ADCWC assists watershed residents with project implementation, capacity building, watershed awareness and education, and sustainability of the volunteer program in the 388 square mile watershed. The Council's long-term goal is to conduct an assessment and inventory, and complete and implement a watershed plan. See the Water Board's website for more information. *www.waterboards.ca.gov/water_issues/programs/grants_loans/project_summaries/docs/**d**rycreek_watershed.doc*	County of Sacramento, City of Galt
American Basin Council of Watersheds	The American Basin Council of Watersheds (ABCW) evolved from three separate watershed groups with interests in western Placer County, including the Dry Creek Watershed Council, the Auburn Ravine/Coon Creek Watershed Group, and the Pleasant Grove/Curry Creek Watershed Group. In recent years, partner projects for ABCW included water quality monitoring, stream bank stabilization, habitat restoration, flood control, erosion control, invasive weed removal and public outreach. Dry Creek Conservancy, the non-profit group which coordinates ABCW, facilitates watershed conservation, restoration, and education in the watersheds of Dry Creek, Pleasant Grove Creek, Auburn Ravine Creek, Coon Creek and surrounding areas in Placer, Sutter, and Sacramento counties. The goal is to preserve, protect, and restore the resources of the 100-square-mile Dry Creek Watershed, and to promote a continuous trail and open space greenway, connecting with the American River Parkway at Discovery Park and Folsom Lake, forming a 70-mile loop. For more information visit: *http://www.drycreekconservancy.org* and *http://placercountyrcd.org/group/americanbasin/*	County of Sacramento

Organization	Description	Affected Permittees
American River Parkway Foundation and American River Watershed Group	The American River Parkway Foundation is a non profit agency with a goal to care for the 23- miles of the American River's shoreline between the Natomas Fish Hatchery and the confluence with the Sacramento River. The group's mission is to foster environmental stewardship, facilitate volunteer opportunities and fund projects and programs on the American River Parkway that support the preservation, protection, enhancement and appreciation of the parkway natural resources. The American River Watershed Group (ARWG) was founded in 1996 with interests centered on five themes: 1) safety of life, property, and resources; 2) healthy forests; 3) abundant and high quality water; 4) sustainable economics; 5) and education. ARWG succeeded in knitting together the agency, business, education, non-profit and citizen communities. Several members of the Partnership support ARWG's collaborative efforts by attending outreach events and partner in programs such as the *Pups in the Parkway* Program. For more information visit: *http://www.theamericanriver.com*	County of Sacramento, and the cities of Citrus Heights, Rancho Cordova, and Sacramento,
Arcade Creek Watershed Group	The Arcade Creek Watershed Group formed in 2002, with initial support from the City of Sacramento, EPA and CALFED, and major funding through a Prop 50 CALFED watershed grant. Watershed Group members include local residents, environmental organizations, representatives from the cities of Sacramento and Citrus Heights, the County of Sacramento, and other interested stakeholders. The mission is to improve water quality, reduce flood damage, enhance habitat, increase recreational opportunities, and encourage local participation in protection efforts for the 38-square mile watershed. The watershed group identifies and prioritizes projects that restore, improve, and/or preserve habitat; enhance water quality; improve flood control; and increase recreational opportunities. See Arcade Creek Watershed's website for more information at *http://www.arcadecreek.org/*	City of Sacramento, County of Sacramento, City of Citrus Height
Laguna Creek Watershed Council	The Laguna Creek Watershed Council (LCWC) is a grass-roots nonprofit organization founded in 2002 and incorporated in 2009. Their mission is to protect and restore the many benefits Laguna Creek and neighboring waterways provide, including flood risk reduction, fish and wildlife habitat, recreational opportunities, and open space. They accomplish this mission by working cooperatively with all stakeholders in the watershed. In 2005, the LCWC received a CALFED Grant (Proposition 50) to conduct a watershed assessment, prepare a watershed management action plan, engage the schools, and implement several watershed stewardship projects. Sacramento County managed and administered the grant on behalf of the LCWC. Various local agencies provided in-kind services, notably the City of Elk Grove and the two parks districts. For more information about the many accomplishments and activities of the LCWC, including their watershed management plan, visit the website: *http://www.lagunacreek.org*.	County of Sacramento, and cities of Elk Grove, Rancho Cordova and Sacramento

Organization	Description	Affected Permittees
Sacramento River Watershed Program	Founded in 1996, the Sacramento River Watershed Program (SRWP) is a California Not-for-profit corporation that received 501(c) (3) status in 2003. It serves as an umbrella agency bringing together environmental organizations, agencies, private businesses and agricultural interests, and universities to share information and resources that address water-related issues within the Sacramento River watershed. The SRWP functions through several committees and workgroups that support local and regional public education, monitoring, and watershed management. Partnership's interests are supported in each committee and working group. For more information, visit *http://www.srwp.org/*	County of Sacramento and the City of Sacramento
Sloughhouse Resource Conservation District	The Sloughhouse Resource Conservation District (RCD) has been working to protect watershed health in its 80,000 acre service area portion of the Cosumnes River watershed for over ten years. After the flood of 1997, the RCD formed the Cosumnes River Task Force, which has since completed two watershed assessments and released a management plan based on those assessments (available at www.cosumneswatershed.org). Through various grants, donations, and volunteer efforts, the RCD has accomplished watershed education, workshops for agriculturists, created conservation plans for over 15 local agricultural operations, monitored water quality, participated in local planning efforts, and conducted watershed tours. For more information, visit www.cosumneswatershed.org	County of Sacramento, City of Elk Grove

Organization	Description	Affected Permittees
Stone Lakes National Wildlife Refuge Association	In 1994, the U.S. Fish & Wildlife Service (Service) established the 18,200-acre Stone Lakes NWR in Elk Grove, Sacramento County, California. Stone Lakes National Wildlife Refuge Association is a nonprofit corporation dedicated to the preservation, protection, enhancement, and promotion of the NWR and its efforts to provide a unique wildlife viewing experience for the enjoyment and educational benefit of the public while protecting and restoring critical habitat for special interest and endangered plant and animal species dependent upon the Pacific Flyway, the Sacramento-San Joaquin Delta, and the Central Valley's complex web of permanent and seasonal wetlands, riparian forests, oak woodlands, and annual grasslands. All storm water run-off and drainage from the communities of West Laguna, Lakeside, the Stone Lake development, East Franklin Plan, and Laguna Ridge in Elk Grove either currently flows to the Refuge or will when construction is completed. For more information, visit *http://www.stonelakes.org/*	County of Sacramento, City of Elk Grove
Upper Laguna Creek Collaborative	In June 2003, the Upper Laguna Creek Collaborative (ULCC) began planning for anticipated future growth on a watershed scale by exploring ways to create a multi-functional corridor along Upper Laguna Creek. Using an open, inclusive approach to planning, the ULCC seeks representation from all parties that affect or are effected by development in this watershed. Interested government agencies, special districts, environmental groups, and landowners participate in the ULCC process. The Collaborative's goal is to create a multi-functional corridor along Upper Laguna Creek that preserves the surrounding stream habitat, manages stormwater from new development, and provides an easement for future sewer infrastructure. For more information, visit *http://upperlagunacreek.org/*	County of Sacramento, and cities of Rancho Cordova and Elk Grove

Hotline

The Partnership will continue to promote the use of the 24-hour public education and illicit discharge reporting hotline (916-808-4H20) through brochures, television ads, websites and print advertising.

Public Outreach Implementation

The Partnership will continue to educate the general public in the Sacramento area about the harmful effects of stormwater pollution and promote behavioral change through a variety of methods and strategies:

- Update and implement the public outreach strategy plan to account for changes in public awareness and behavior based on survey results and other research data.
- Continue to develop educational/informational materials, such as brochures, as needed. The Partnership will determine the need for new or updated materials through a variety of ways, such as feedback from the permittees, surveys of participants at public events and follow-up requests for materials from schools and the regulated community. The messages featured on the materials will supplement and be consistent with messages being spread through all other outreach efforts. In addition, advertisements and brochures will direct audiences to a new and improved Partnership website for more information.

- Implement a targeted, "problem/solution-oriented" mixed media campaign. The approach will focus on specific messages (e.g. pesticide use, home auto repair, pet waste, etc.) and will include strong visuals and targeted messages that emphasize personal responsibility for preventing stormwater pollution and protecting local waterways. Many of these specific messages will be conveyed through radio, print ads, television and signage.
- Implement educational programs that focus on specific target pollutants or activities. These programs include:
  - Fundraiser carwash discharges: The Partnership will implement a strategy to address fundraiser carwash discharges. The Partnership will educate those who hold carwashes and the general public about stormwater regulations and the impacts of fundraiser carwashes on stormwater quality. In addition, the Partnership will encourage the public to use discharge methods that eliminate the impacts of these events.
  - Home and Garden Care (pesticides and fertilizers): The Partnership encourages residents to consider alternative less-toxic strategies for specific pests. The Partnership supports several pesticide-related programs:
    - WWPC: The WWPC is collaboration between the Partnership, SRCSD, University of California Cooperative Extension State Integrated Pest Management program, local Master Gardeners and local nurseries. The WWPC is an education program that provides outreach materials such as fact sheets and utility bill inserts to residents on effective and less-toxic methods of handling pests and encourages the proper use, storage, and disposal of pesticides. The UC Master Gardeners host several dozen IPM seminars throughout the community each year and distributed materials to many thousands of visitors to the annual California State Fair at Cal Expo.
    - OWOW: This program provides point-of-sale information to consumers on how to manage home and garden pests using less toxic methods. In addition, fact sheets that provide integrated pest management are displayed in participating stores and distributed during outreach events. The program provides training for professional staff about IPM principles, successful application strategies and sales techniques for less-toxic products.
    - River-Friendly Landscaping Guidelines: The River-Friendly landscaping guidelines are a holistic approach to the design, construction and maintenance of landscapes to support the integrity of the Sacramento River Watershed. The guidelines provide direction on water and energy conservation, green waste reduction and pollution prevention. The principles are promoted through brochures and workshops.
  - Household Hazardous Waste: The Partnership provides information on proper household hazardous waste disposal and waste collection centers in outreach materials and on the website. Detailed reporting of specific household hazardous waste materials is reported in the Illicit Discharge Element.
  - Pet Waste: The Partnership will encourage the public to properly dispose of pet waste at public outreach events and through its multicultural, mixed media campaign, in addition to the "Scoop the Poop" public participation program.
- The Partnership will maintain existing public-public and public-private relationships and explore opportunities to maximize resources, send consistent messages and further the public outreach mission. Existing and potential new partnerships include those with:
  - Private retailers

  - Non-profit and neighborhood organizations and associations and environmental groups (includes groups that coordinate community outreach events with Partnership support)
  - Multicultural organizations
  - Educational institutions

- Continue to support community outreach events
- Continue to conduct public opinion surveys as needed to gauge the level of awareness and behavior change within a target audience, and to determine if activities or outreach efforts are effective in conveying stormwater messages. The Partnership will continue to conduct periodic (both qualitative and quantitative) surveys. The surveys will be measured against previous surveys to compare results and examine awareness and behavior change. The Partnership will consider other methods to assess public awareness and behavior as research suggests that fewer people use land-line telephones. More cellular phone-based and Internet-based methods may be necessary to achieve statistical valid results.

Public School Education

The Partnership will educate and promote behavioral change in school children by continuing to:

- Implement science-based educational programs such as Splash. Splash provides a year-long curriculum for students to explore the diversity of life in our local creeks, vernal pools and lakes, both in the classroom and in the field. By studying the organisms that inhabit our local aquatic ecosystems, students gain awareness of water quality and watershed issues.
- Conduct interactive school assemblies and presentations that stress the importance of stormwater quality, watersheds and water conservation.
- Provide schools with educational materials (e.g. brochures, activity books, online interactive games etc.) and resources.

Business Outreach

The Partnership will continue to provide outreach to businesses to increase awareness of stormwater pollution and regulations, educate business owners and operators about applicable best management practice (BMPs) and encourage environmental stewardship. The business outreach conducted as part of the Regional Public Outreach Program will continue to focus on mobile businesses that generate waste water and are not easily reached by the Regional Commercial/Industrial Program (section 2.7).

Specifically, the Partnership will:

- Continue to partner with BERC to implement the CWBP Program, that to-date has targeted mobile carpet cleaning companies and pressure washers. However, the program will be re-evaluated for effectiveness and efficiency. Changes to the program will be reported in annual reports and annual work plans. The Partnership aims to create a public demand for CWBP businesses to motivate more business participation, and increase the customer base for CWBP program participating companies by conducting drawings and distributing incentives and prizes for customers who hire a CWBP business.
- Work with the commercial/industrial elements to maintain the upkeep of the business outreach database. For additional information, please see section 2.7 Regional Commercial/Industrial Program.

- Conduct outreach to all businesses in the database at least twice during the permit term. Outreach may include, but is not limited to, letters, surveys, brochures and workshops. For additional information, please see section 2.7 Regional Commercial/Industrial Program.
- Continue to distribute educational materials to priority industries and construction companies, including businesses with languages other than English.
- Work with the River-Friendly Landscaping Coalition, a collaboration of public agencies, non-profit organizations, designers, private landscape architects and contractors to encourage landscape professionals to follow the *River-Friendly Landscaping Guidelines*. The guidelines promote a holistic approach to the design, construction and maintenance of landscapes that support the integrity of the Sacramento River watershed.
- Continue to work with local businesses and train their staff to promote the OWOW and WWPC IPM programs (described in Public Outreach Implementation, above).

Watershed Stewardship

Various permittees in the Partnership will continue to support and work with established watershed and environmental advocacy groups in their jurisdictions to assess conditions and develop and implement regional solutions to urban runoff and water quality problems in the Sacramento area watersheds. The goal is to protect and enhance water quality and beneficial uses in local creeks and rivers and to encourage watershed residents and other stakeholders to actively participate in watershed stewardship. Figure 1.2-2 in Chapter 1 is a map showing the locations of the various watersheds with respect to the permit area and the permittees' jurisdictional boundaries. Table 2.6-1 summarizes the active watershed and environmental advocacy groups in the Sacramento permit area and the permittees working with these groups. Additional details about permittee-specific activities are provided in the next section.

2.6.6 Individual Permittee Public Outreach Activities

Each permittee conducts its own outreach and education activities within its jurisdiction in addition to the regional activities outlined above. The following describes permittee-specific activities:

County of Sacramento (these activities reach or benefit audiences in the unincorporated County and the cities of Citrus Heights and Rancho Cordova unless otherwise noted):

- The County will continue to collaborate with SRCSD's *Be Mercury Free* program to promote proper disposal of fluorescent light bulbs. This comprehensive effort educates Sacramento residents and businesses about the sources and effects of mercury and how to reduce the amount of mercury entering the Sacramento River watershed. The program staffs a booth at several local community events and disseminates utility bill inserts to residents.
- The County plans to install new signs, as needed, discouraging illegal dumping along creeks and parkways ("No dumping" and "Respect, protect, and enjoy our creeks and rivers" signs) in coordination with County Recreation and Park District and County Department of Transportation.
- The County will continue to financially support community outreach events such as Creek Week and Earth Day to further educate the public about water quality and the importance of preserving our creeks and rivers.

- The County will continue to financially support the Effie Yeaw Nature Center that provides interpretive environmental and water-based educational programs to increase awareness of pollution prevention, water conservation and watershed issues. The various programs offered at the Effie Yeaw Nature Center are designed to lead children to make appropriate choices in their own lives that will help improve water quality and restore the ecosystem. These programs include in-class presentations, hands-on activities and field trips that provide a basic understanding of how our choices can impact water quality in local creeks and how water quality is linked to overall environmental problems.
- The County will continue to offer a Watershed Educational Grant program that provides financial assistance to schools to fund projects that educate students and the public about the importance of preserving, protecting, and enhancing local waterways. Past recipients have used the funds for creek and river clean up activities, field trips to nature centers and environmental facilities, water-quality testing projects and planting native vegetation in creek areas. The grants will be available to schools located within the Sacramento County Stormwater Utility boundaries and the cities of Citrus Heights and Rancho Cordova.
- The County will continue to financially support the American River Parkway Foundation's 'Pups on the Parkway' program. This program involves the installation of pet waste bag dispenser stations along the American River Parkway to promote a stewardship ethic among dog owners.
- County staff will continue to support established watershed programs, including reviewing and commenting on work products, providing advice and assistance as requested, and attending meetings and events hosted by the watershed councils and groups (described in Table 2.6-1).The County will continue to administer the Laguna Creek Watershed Prop 50 Grant program on behalf of the Laguna Creek Watershed Council, including providing in-kind services to the grant.
- The County will work with Resource Conservation Districts and others to educate and promote watershed stewardship and pollution prevention in rural County areas.
- The County will assist in identifying and pursuing grant funding for watershed stewardship work, including providing in-kind services.

City of Sacramento:

- The City of Sacramento (Sacramento City) will continue to financially support community outreach events such as Creek Week and Earth Day to further educate the public about water quality and the importance of preserving our creeks and rivers.
- Sacramento City will continue to award Community Action Grants to schools, environmental organizations, and other groups for projects whose goal is to improve the quality of local creeks, rivers and watersheds within Sacramento City. Projects include physical improvements to a water body, education and outreach, or a combination of both.
- Sacramento City will continue to fund Splash in the Class, now in its tenth year of offering a classroom presentation on stormwater pollution to elementary schools throughout Sacramento. Nearly 2,500 students annually participate in the presentation.
- Sacramento City staff will continue to review and comment on work products, provide advice and assistance as requested, and attend meetings and events hosted by the watershed councils and groups, as described in Table 2.6-1.

- Sacramento City will remain active with the Sacramento River Watershed Program (SRWP), including serving on the Board of Trustees; to promote SRWP activities throughout the Sacramento River watershed.

City of Citrus Heights:

Refer to the Citrus Heights SQIP (Section 5.7) for additional outreach activities conducted by the City of Citrus Heights.

Elk Grove:

Refer to the Elk Grove SQIP (Section 6.7) for additional outreach activities conducted by the City of Elk Grove.

Folsom:

Refer to the Folsom SQIP (Section 7.7) for additional outreach activities conducted by the City of Folsom.

Galt:

Refer to the Galt SQIP (Section 8.7) for additional outreach activities conducted by the City of Galt.

Rancho Cordova

Refer to the Rancho Cordova SQIP (Section 9.7) for additional outreach activities conducted by the City of Rancho Cordova.

2.6.7 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes assessment activities relevant to the Regional Public Outreach Program, including proposed methods for evaluating effectiveness during the 2008–13 permit term. Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

The Regional Public Outreach Activities Work Plan (Table 2.6-2) presents effectiveness assessment information for this program. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Section 2.3. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 2.6-2 shows the years in which focused assessments will be conducted to determine if higher outcome levels have been attained.

The Partnership will compile and evaluate data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3), where possible, to assess the effectiveness of its outreach from surveys and focus groups, direct interaction at public events, feedback from children and teachers and other media as opportunities arise. This data will be evaluated to identify potential programmatic enhancement opportunities. Assessing effectiveness of performance standards may be limited pending availability of baseline data.

The Partnership selected the key indicators for public outreach based on their ability to (1) show progress toward meeting the element goal and (2) are specific, measurable and achievable. Table 2.6-2 identifies key indicators that will be used to assess the effectiveness of individual permittee programs and those of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit.

2.6.8 Relationship to Other Program Elements

The staff who manage the Partnership's public outreach efforts coordinate with staff implementing other program element activities to ensure accurate and consistent messaging for all the target audiences. Whenever possible, multiple messages are conveyed in a single integrated product such as a brochure or activity such as a classroom presentation. The following summarizes the regional public outreach associated with the other elements.

Construction Element

As part of the construction element, the Partnership provides outreach to contractors and permittee inspection personnel, primarily through training workshops, informational brochures and guidance manuals. A secondary audience is the do-it-yourselfer, whose activities are typically targeted through general outreach. Do-it-yourselfers have access to brochures that explain proper use and disposal of materials typically used in home construction projects.

Commercial/Industrial Element

Outreach associated with this element increases awareness of stormwater pollution and regulations, educates business owners and operators about applicable BMPs, and encourages environmental stewardship. The Partnership outreaches to businesses through the CWBP program, BERC, industrial inspections and enforcement actions conducted by individual permittees, industry-specific workshops, seminars and direct mailings. Industry-specific brochures include information on auto body, auto repair, commercial auto washing and detailing and landscaping. The Partnership translated and printed several of these brochures into Spanish and Russian.

Illicit Discharge Element

In addition to the existing County of Sacramento hotline (875-RAIN), the Partnership established a permittee-wide hotline (808-4H20) for the public to get general stormwater information, report stormwater-related problems or file complaints (e.g., clogged drains, illicit discharges/dumping, faded or missing drain inlet stencils, etc.). The hotline number is printed on every educational piece produced by the permittees (i.e., billboards, brochures, and utility bill inserts).

New Development Element

New development projects must incorporate control measures that reduce pollutants in project runoff to the maximum extent practicable. The development community, including developers, property owners, planners, engineers, design professionals (landscape architects) and environmental consultants, must understand how to design projects to comply with stormwater quality requirements. The Partnership educates the development community about design approaches and requirements primarily through technical guidance manuals and workshops, coordinated with local organizations such as the Building Industry Association (BIA) and Civil Engineers and Land Surveyors of California (CELSOC) to the extent possible.

2.6.9 Coordination with Other Agencies and Groups

The Partnership coordinates with other agencies and groups to jointly implement outreach, share ideas and experience, and/or promote consistent messages. The following are some of the groups the Partnership works with:

- SRCSD: Sacramento City and County of Sacramento coordinate with SRCSD on several educational and outreach activities (e.g., Splash, OWOW, WWPC) to ensure that consistent messages related to stormwater pollution prevention are delivered to Sacramento residents.

- The Sacramento Area Creeks Council: The County and City of Sacramento participate and support the Council's annual *Creek Week Splash-Off* and *Creek Week* events each year, serve on the organizing committee, provide supplies and equipment for refuse collection at cleanup sites, assist with event publicity and provide educational booths.
- Business Environmental Resource Center (BERC): BERC is a non-regulatory assistance center that provides confidential assistance to help Sacramento County businesses understand and comply with federal, state and local environmental regulations. The Partnership works with BERC to provide workshops for target industries and disseminate outreach materials via BERC's on-site inspections. Because BERC offers confidential, non-regulatory assistance, businesses that would not contact a regulatory agency for fear of reprisal still receive much needed assistance.
- SRWP: The Partnership partners with SRWP to conduct school outreach and participates in local meetings to discuss the state of the watershed.
- River-Friendly Landscaping (RFL) Coalition: The Partnership is an active member of the coalition. The Coalition is a wide-range group of local agencies and organizations that supports the River-friendly landscaping guidelines and provides individuals, businesses and institutions access to information, resources and ideas so that landscapes are designed, built and maintained according to the sustainable practices of the River-Friendly Landscaping principles.
- California Stormwater Quality Association (CASQA): Partnership staff participates at all levels of CASQA, including the Public Information and Public Participation (PIPP) committee. The PIPP shares information regarding successful outreach campaigns from around the State and country and offers assistance to Phase II communities.
- Watershed Councils and Groups: Various permittees in the Partnership support and work with established watershed groups in their jurisdictions to develop and implement regional solutions to stormwater pollution problems in the Sacramento area watersheds, as described previously in this section.

Table 2.6-2

Regional Public Outreach Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard/Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Public Participation												
Participate in clean up events	12.ai.,bi.c.		Engage the public in cleaning up creeks	Tabulation- track number of volunteers per year	Baseline data will be FY08/09 number of volunteers	⇔	⇔	⇔	⇔	⇔	⇔	
		✓	Remove trash and debris from waterways	Quantification- quantify the amount of trash and debris removed	Baseline data will be FY08/09 quantity of trash and debris removed	⇔	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Implement community stewardship pet waste reduction program, "Scoop the Poop"	12.ai., aiv., bi., biv., c.		Engage the public to install stations that encourage proper pet waste disposal	Tabulation-track number of volunteers	Previous year's Annual Report	⇔	⇔	⇔	⇔	⇔	⇔	
			Increase number of stations installed	Tabulation-track number of station installations	Number of stations	⇔	⇔	⇔	⇔	⇔	⇔	
Encourage the public to participate in watershed management groups	12.ai.,bi.,c.		Document participating watershed management groups	Tabulation - track number of groups	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Hotline												
Maintain hotline number for illicit discharges	12.aii,bii.		Continue to promote the use of the hotline	Tabulation-track number of calls received	Number of calls received in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Public Outreach Implementation												
Update the public outreach strategy to account for changes in public awareness and behavior based on survey results, as needed	12.aiii, biii.		Identify areas in the public outreach strategy that need improvement or modification	Confirmation- identify what modifications were made during the update	NA		⇔	⇔	⇔	⇔	⇔	
Continue to develop and distribute brochures and promotional materials, including translating materials in languages other than English	12.aii., biii.		Document/quantify materials distributed	Tabulation-track number of materials distributed	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
			Document/quantify materials developed	Confirmation- identify new materials distributed, if any.	Previous year's Annual Report	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct a mixed media campaign (radio, print ads, television, signage, etc.)	12.aiii., biii.		Document/quantify impressions made	Tabulation-track number of impressions made	Number of impressions made in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Implement a program that addresses fundraiser carwash discharges	12.ai.,aiv., bi., biv., c.	✓	Increase awareness on the impact of fundraiser carwash discharges in waterways	Tabulation-track number of visitors on River-Friendly Fundraiser Carwash website	Baseline data will be FY08/09 number of visitors to the River-Friendly fundraiser carwash website	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	⇔ 2	
		✓	Increase number of River-Friendly Carwashes	Tabulation-track number of River-Friendly Carwashes	Baseline data will be FY09/10 number of River-Friendly Carwashes	⇔	⇔	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
Implement home and garden care programs, including the distribution of educational materials (i.e., Our Water Our World, Waterwise, and River-Friendly Landscaping)	12.aiii., biii.	✓	Reduction in pesticide use and increase public's use of alternative home and garden care.	Survey- identify change in awareness/behavior levels	Previous term's surveys	⇔	⇔	⇔	⇔ 3	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Table 2.6-2

Regional Public Outreach Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard/Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Provide information on proper disposal of Household Hazardous Waste *(refer to Permittee-specific Illicit Discharge Element for additional information)*												
Continue to promote proper disposal of pet waste through the multicultural, mixed media outreach campaign.	12.aiii., biii.		Document/quanitify impressions made and materials distributed	Tabulation - track number of impressions made and materials distributed	Previous year's data	⇔	⇔	⇔	⇔	⇔	⇔	
Continue Public-Public and Public-Private Partnerships with other govermental agencies or special distircts (i.e., River-Friendly Landscaping) and private businesses (e.g. pet stores, nurseries, zoo, educational instituitions, River-Friendly Carwash Program, etc.)	12.aiii., biii.		Maximize the sharing of resources and reach a wider population in the Sacramento region	Confirmation-identify coordination efforts	Previous year's Annual Report	⇔	⇔	⇔	⇔	⇔	⇔	
Support community outreach events	12.aiii.,biii.		Continue to promote public participation in community outreach events	Tabulation- track number of events the program promoted	Number of events attended in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct Public Opinion Surveys to identify changes in awareness and behavior	12.aiii.	✓	Increase in awareness and behavior changes through mixed media campaigns and outreach materials	Survey- identify change in awareness/behavior levels	Previous term's surveys				♦ 3			
Public School Education												
Continue to support Splash	12.aiv., biv.	✓	Continue to financially support Splash and increase awareness of stormwater issues among students	Tabulation-track number of students participating in program / Survey-identify awareness through short quiz	Number of students participating in previous years and survey results.	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	⇔ 2	
Conduct assemblies and classroom presentations	12.aiv., biv.	✓	Document number of school assemblies/presentations conducted and increase awareness of stormwater issues among students	Tabulation-track number of students participating in program / Survey-identify awareness through short quiz	Number of students participating in previous years and 09/10 survey results.	⇔	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	
Provide schools with educational materials or resources	12.aiv., biv.		Document/quantify materials distributed	Tabulation-track number of materials distributed	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Business Outreach												
Work with businesses and industries to encourage pollution prevention through the Clean Water Business Program.	12av., bv.	✓	Increase number of businesses and industries participating in CWBP	Tabulation- track number of businesses participating in program	Total number of businessess participating in previous years	⇔	⇔	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
Maintain upkeep of business outreach database *(refer to section 2.7 Regional Commercial/Industrial Program)*												
Conduct outreach to businesses in database twice during permit term. *(refer to section 2.7 Regional Commercial/Industrial Program)*												

⇔ Ongoing activity/task ♦ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Table 2.6-2

Regional Public Outreach Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard/Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Continue to distribute educational materials to priority industries and construction companies, including businesses with languages other than English	12av., bv.		Document/quantify materials distributed	Tabulation-track number of materials distributed	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
			Document/quantify materials developed	Confirmation- identify new materials distributed, if any	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Work with landscape professionals to encourage the use of River-Friendly Landscaping guidelines	12av., bv.		Document/quantify materials distributed	Tabulation-track number of River-Friendly Landscaping publications distributed	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain partner participation of nurseries and retail outlets and training of their staff to promote pesticide reduction programs (i.e. OWOW and WWPC)	12av., bv.	✓	Increase awareness of stormwater issues among staff	Tabulation-track number of stores participating and number of staff trained (OWOW) / Survey- conduct surveys of store staff to identify changes in awareness	Compare to previous surveys beginning in FY09/10	⇔	⇔ ②	⇔ ②	⇔ ②	⇔ ②	⇔ ②	
Sacramento County Agency-specific Activities												
Continue to coordinate with SRCSD on distributing 'Be Mercury Free' Program materials	12.ai., aiii., 12.bi., biii.		Document/quantify materials distributed	Tabulation-track number of materials distributed	Number of materials distributed in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Continue to coordinate with County Department of Transportation to identify new potential sites that would benefit from signs discouraging illegal dumping ("Respect, protect, and enjoy our creeks and rivers" signs)	12.aiii., biii.		Identify new potential sites	Confirmation- identify new site locations, if any.	Previous year's data		♦					
			Document new sign installations	Tabulation - track number of signs installed	Previous year's data			♦				
			Decrease in illegal dumping	Survey- identify change in awareness/behavior levels	Previous year's data				♦ ❸			
Continue to coordinate with County Parks and Recreational Department and County Department of Transportation to identify and prioritize parks that need signs discouraging illegal dumping (American River Parkway "No Dumping" signs)	12.aiii., biii.		Identify new potential sites	Confirmation- identify new site locations, if any.	Previous year's data			♦				
			Document new sign installations	Tabulation- track number of signs installed.	Number of signs installed in previous years				♦			

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Table 2.6-2

Regional Public Outreach Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard/Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
			Decrease in illegal dumping	Survey- identify change in awareness/behavior levels	Survey				♦ 3			
Financially support community outreach events	12.aiii.biii.		Document supported events	Tabulation- track number of events the program supported and promoted	Number of events attended in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Continue to support the Effie Yeaw Nature Program	12.aiv., biv.		Continue to financially support the Effie Yeaw Nature Center and increase awareness of stormwater issues among students	Tabulation-track number of students participating in program	Number of students participating in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
Provide watershed education grants	12.aiv., biv.		Document schools participating in grant program	Tabulation-track number of students involved in grant program	Number of students involved in previous years	⇔	⇔	⇔	⇔	⇔	⇔	
		✓	Demonstrate an increase in student awareness levels using surveys/quizzes required as part of the final grant report	Grant reports-track number of students that gained a better understanding about stormwater pollution	Baseline data will be FY09/10	⇔	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	
Continue to financially support the "Pups on the Parkway" program	12.ai., aiii., 12.bi., biii.		Document installed stations that encourage proper pet waste disposal	Tabulation-track number of station installations	Previous year's data	⇔	⇔	⇔	⇔	⇔	⇔	
Support estabished watershed programs	63b, 12.ai.,iii.,bi. ,biii.		Represent County at meetings and public events	Tabulation - track number of meetings attended, outcomes	NA	⇔	⇔	⇔	⇔	⇔	⇔	
			Review and comment on work products to ensure mutual benefit	Confimation	NA	⇔	⇔	⇔	⇔	⇔	⇔	
			Participate in technical advisory committees/work groups	Tabulation - track number of meetings attended, outcomes	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Serve as lead grant manager for Laguna Creek Watershed Prop 50 Grant	63b, 12.ai.,iii.,bi. ,biii.		Provide financial support and in-kind services, liaison with State Water Board and oversee report production	Tabulation - track funding and in-kind service hours	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Work with RCDs and others to educate rural residents and promote stewardship/pollution prevention	63b		Identify opportunities to promote stewardship to rural residents	Confirmation - identify stewardship opportunities if any	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Assist in identifying and pursuing grant funding for watershed stewardship work	63b, 12.ai.,iii.,bi. ,biii.		Provide in-kind services support for grant pursuits	Tabulation - track in-kind service hours and dollar amount secured	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Sacramento City Agency-specific Activities												
Participate in area clean up events (e.g., Creek Week)	D.12.a.i, D.12.b.i					⇔ ♦	⇔	⇔	⇔	⇔	⇔	
Community Action Grant (CAG) Program	D.12.a.iii, D.12.b.iii					⇔	⇔	⇔	⇔	⇔	⇔	
Splash in the Class - classroom presentation program	D.12.a.iii, D.12.b.iii	✓	Increased level of awareness and stated behavior	T, S	Survey responses from classes that received presentation	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
Manage Arcade Creek Prop 50 grant	63bviii, 12.ai.,iii.,bi. ,biii.					⇔	⇔	⇔	⇔	⇔	⇔	
Serve on Board of Trustees for Sacramento River Watershed Program (SRWP)	63bviii, 12.ai.,iii.,bi. ,biii.					⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Table 2.6-2

Regional Public Outreach Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key indicators	Performance Standard/Target	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Assist in identifying and pursuing grant funding for watershed stewardship work	63bviii, 12.ai.,iii.,bi. ,biii.					⇔	⇔	⇔	⇔	⇔	⇔	
Track state legislation and regulatory changes and impacts to stormwater permit						⇔	⇔	⇔	⇔	⇔	⇔	
City of Citrus Heights Agency-specific Activities												
Refer to the Citrus Heights SQIP (Section 5.7) for additional outreach activities conducted by the City of Citrus Heights												
City of Elk Grove Agency-specific Activities												
Refer to the Elk Grove SQIP (Section 6.7) for additional outreach activities conducted by the City of Elk Grove												
City of Folsom Agency-specific Activities												
Refer to the Folsom SQIP (Section 7.7) for additional outreach activities conducted by the City of Folsom												
City of Galt Agency-specific Activities												
Refer to the Galt SQIP (Section 8.7) for additional outreach activities conducted by the City of Galt												
City of Rancho Cordova Agency-specific Activities												
Refer to the Rancho Cordova SQIP (Section 9.7) for additional outreach activities conducted by the City of Rancho Cordova												

Notes:

1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated

2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

2.7 Regional Commercial/Industrial Program

2.7.1 Introduction

The primary goal of the Regional Commercial/Industrial Program is to reduce the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminating illegal non-stormwater discharges from Permittee-identified priority commercial and industrial facilities and businesses within the boundaries of the stormwater permit area.

As required by the Stormwater Permit, the Regional Commercial/Industrial Program works to address these conditions by conducting regular compliance inspections at priority commercial and industrial facilities, combined with enforcement when necessary, as well as through outreach targeted at business operators and their employees.

The Sacramento County Environmental Management Department (EMD) conducts triennial stormwater compliance inspections and associated enforcement on behalf of all the Permittees in order to make efficient use of Permittee resources, provide regional consistency, and to minimize impacts to businesses through consolidation of inspections with other environmental compliance programs.

The permit also requires that the effectiveness of the Regional Commercial/Industrial Program be assessed, the findings from which must be used to identify necessary modifications to the program such as guiding the priority industry identification process.

2.7.2 Pollutants Addressed

Permittee activities and requirements under the Regional Commercial/Industrial Program address a wide range of pollutants associated with commercial and industrial activities, including metals such as copper, lead, and mercury, three of the Program's target pollutants (see Section 2.5).

2.7.3 Strategy

The Regional Commercial/Industrial Program employs a variety of strategies to effectively meet the requirement of the Stormwater Permit. The primary activities conducted by this element include:

- Identification of priority industries and industrial pollutants
- Commercial and Industrial Stormwater Compliance Program (CISCP) implementation
- Educational outreach

A core strategy of the Regional Commercial/Industrial Program is to utilize knowledge gained through implementation of these activities to assess the Permittees' effectiveness. The results of such assessments are used to refine element activities. For example, inspection and enforcement-related data collected during the first two rounds of CISCP inspections (first round completed in June of 2007 and second round to be completed in June of 2010) and through Complaint-Based Stormwater Compliance Programs (CBSCP), described in Permittees' respective chapters of the SQIP, will be used to refine the priority industries subject to inspection under the CISCP and targeted outreach.

Another strategy is to efficiently use Permittee staff and resources and minimize inconvenience to regulated businesses by building upon existing environmental compliance programs. The County's Environmental Management Department (EMD) agreed to conduct triennial stormwater inspections on behalf of all the Permittees, in accordance with this strategy. Partnering with EMD has the following advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections.

- EMD can recover costs for their activities without impacting the Permittees' limited funding sources, through their Fee Ordinance.
- Impacts to businesses are minimized by conducting stormwater compliance inspections by the same inspector and at the same time as other EMD compliance program inspections at many facilities. This also minimizes the fees charged to businesses.
- Using EMD to conduct stormwater compliance inspections on behalf of all the permittees results in a uniform county-wide program where businesses are regulated consistently and equitably.

2.7.4 Accomplishments to Date

The following highlights the major accomplishments of the Regional Commercial/Industrial Program since the start of the program in 2002:

- The Permittees adopted stormwater ordinances providing legal authority for regulating commercial businesses and industries with respect to stormwater pollution. The Permittees updated their ordinances twice during the 2002–07 permit term to clarify and enhance enforcement authority. EMD stormwater inspectors are authorized to enforce this ordinance county-wide; ensuring consistent treatment of regulated industries.
- The permittees developed a list of priority commercial businesses and industry categories subject to either routine inspections or targeted outreach and definitions for each. EMD refined the definitions of the priority industries based on field inspection observations.
    - EMD developed and implements the program county-wide on behalf of the permittees. This program is innovative in its use of a pre-existing regulatory compliance program structure and trained inspection staff. EMD established a Fee Ordinance in 2003, and updated it in 2007, in order to recover costs from inspected facilities, minimizing impacts on the permittees' limited stormwater utility or general funds. A copy of the Fee Ordinance is included in Appendix 2E.
- The successful CISCP program is now being referred to by regulators and others in the State as a model for those developing similar programs. EMD is authorized to conduct the CISCP on behalf of the permittees through a Memorandum of Understanding (MOU) executed by each permittee in 2003. Local stormwater ordinances were revised by the Permittees in 2004 to provide EMD with billing and enforcement authority county-wide.
- EMD completed the first three-year cycle of CISCP inspections (July 2004 - June 2007) at approximately 4700 businesses, on time.
- EMD conducted progressive enforcement to ensure that facilities included in the CISCP are in compliance with the Permittee stormwater ordinances.
- The permittees and EMD created industry-specific educational materials, including brochures, guidance manuals and Compliance Assistance Bulletins (CABs). These are distributed by direct mail, in training workshops, by way of BERC, during inspections, and in conjunction with enforcement actions. CABs and other CISCP-related compliance assistance materials are also made available on EMD's web site (http://www.emd.saccounty.net/WP/EMDstormwater.htm). Several outreach brochures were translated into Spanish, Russian, and Chinese.
- The permittees and EMD developed and maintained a comprehensive database to track and document inspection and outreach efforts, for annual reporting and progressive enforcement purposes.

- EMD and the permittees coordinated with the Regional Water Board by referring over 110 Industrial General Permit non-filers , reporting significant violations, promptly investigating Regional Water Board referrals, and assisting with coordinated inspections and outreach to selected industries upon request.
- EMD received the *Outstanding Source Control/Programmatic BMP Implementation* award from the California Stormwater Quality Association (CASQA) in 2007 for implementation of the CISCP.
- The Permittees conducted two rounds of outreach to priority industries.

2.7.5 Regional Commercial/Industrial Activities

This section describes Stormwater Permit requirements applicable to the Regional Commercial/Industrial Program and the activities to be conducted during the 2008–13 permit term.

Table 2.7-1, Regional Commercial/Industrial Activities Work Plan located at the end of this section outlines the planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:

Legal Authority

The Permittees' stormwater ordinances provide legal authority for regulating commercial businesses and industries with respect to stormwater pollution. Stormwater ordinances will be amended as needed during the 2008–13 permit term to ensure that pollutant sources from commercial and industrial activities are effectively addressed.

Priority Industry and Industrial Pollutant Identification

Assessing data collected through implementation of Regional Commercial/Industrial Program activities to focus Permittee resources on industries that pose the most significant threat to stormwater quality is key to demonstrating the effectiveness of this element. Effectiveness assessments will guide priority industry identification processes, including identification of business categories subject to stormwater compliance inspections and those subject to outreach.

The industries initially subject to stormwater compliance inspections and targeted outreach are listed in the sections below. These lists will be refined during this permit term, as needed, based on results of the effectiveness assessments.

Priority industrial pollutants will be identified by taking into consideration monitoring-related benchmark exceedances for facilities covered under the State Industrial General Permit. Monitoring results received by the Regional Water Board from facilities covered by the Industrial General Permit will be evaluated and compiled into table form by the Regional Water Board, after which the Regional Water Board will transmit the table of compiled data to the Permittees. The data included in the table provided by the Regional Water Board shall be limited to the boundaries of the stormwater permit area and exceedances shall be categorized as either "high", "medium" or "low" priority. The table will be evaluated to identify overlaps between benchmark exceedances and the pollutants identified in the Target Pollutant Program described in Section 2.5. Overlapping constituents will be considered priority industrial pollutants. Additional priority industrial pollutants may be identified by the Permittees using alternative criteria. The Permittees will update the list of priority industrial pollutants within three months of receipt of compiled State Industrial General Permit benchmark exceedance tables from the Regional Water Board, but not more frequently than annually. Outreach material will be distributed to targeted businesses having problems addressing the priority industrial pollutants. See Outreach below for more information.

Commercial and Industrial Stormwater Compliance Program (CISCP)

EMD will continue to implement the CISCP on behalf of all Permittees. This program is described in the following sections.

CISCP Legal Authority

The EMD's Fee Ordinance authorizes EMD to recover costs for inspection, enforcement and outreach activities by assessing/collecting fees from facilities inspected. The Fee Ordinance was last updated in 2007 and will be updated again as needed during the 2008–13 permit term.

CISCP Inspections

EMD will continue to conduct triennial inspections at identified priority commercial and industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority commercial and industrial facilities will be inspected:

- Facilities with coverage under the State Industrial General Permit
- Auto body shops
- Auto repair shops
- Auto dealers
- Equipment rental facilities
- Kennels
- Nurseries
- Retail gasoline outlets (i.e., gas stations)
- Restaurants

EMD's Fee Ordinance (Appendix 2E) includes definitions for these commercial and industrial categories.

The permittees may refine this list as they evaluate inspection and enforcement data to better identify significant threats to stormwater quality. At a minimum, the list will be evaluated and revised, as needed, by the end of the permit term.

EMD may de-list certain facilities found during inspection(s) to have no exposure of pollutants from their commercial/industrial activities. EMD will report these "de-listed" businesses in the annual reports and continue to track such facilities in its database.

EMD inspectors will continue to use standardized inspection checklists when conducting stormwater compliance inspections. This will help ensure consistency of inspections county-wide, and maximize efficiency. Checklists will be refined as needed during the permit term.

Stormwater compliance inspections conducted at businesses covered under the State Industrial General Permit will verify that each facility:

- Has a current Waste Discharge Identification (WDID) number
- Has an up to date Stormwater Pollution Prevention Plan (SWPPP) available on-site
- Is effectively implementing BMPs in compliance with the Permittees' stormwater ordinances

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. EMD will also refer suspected Industrial General Permit non-filers to the Regional Water Board, as described later in this section.

CISCP Enforcement

EMD will continue to conduct progressive enforcement to obtain compliance in accordance with Permittees' stormwater ordinances and will maintain a progressive enforcement policy, if needed,

to compliment the enforcement-related procedures contained therein. The Permittees' general approach is to take appropriate administrative enforcement actions in all cases that do not involve criminal behavior, indicate patterns of activity that extend beyond Sacramento County or require significant infrastructure modification. All other cases will be referred to either District Attorneys or the State Attorney General's Office, as appropriate. In addition, significant violations will be reported to the Regional Water Board as described in more detail later in this section.

CISCP Outreach

EMD will continue to develop and refine Compliance Assistance Bulletins (CABs) for distribution to businesses during inspections, in training workshops, through BERC, and on the EMD web site.

EMD will coordinate with others, such as BERC and the Permittees, to assist with stormwater compliance training workshops for regulated industries.

EMD will provide annual training for inspectors. New inspectors will receive field training by Stormwater Compliance Section (SCS) staff. SCS staff will also continue to conduct quality control reviews of stormwater compliance inspection forms submitted by inspectors and conduct follow-up one-on-one training, as needed, based on findings of quality control reviews.

CISCP Data Management

EMD will continue to manage and track data on inspections and enforcement using a computer-based system. Permittee stormwater staff will have access to the database for programmatic evaluation and reporting purposes.

At a minimum, the following information will continue to be tracked for each regulated facility:

- Name and address of owner and operator
- Coverage under Industrial General Permit, or other individual or general NPDES permits
- Narrative description and SIC code that best reflects the commercial or industrial activities at, and principal products of, each facility or business.

The database will be refined as needed during the permit term.

CISCP Interagency Coordination

EMD will continue to coordinate and cooperate with the Regional Water Board in the following ways:

- All significant violations and suspected Industrial General Permit non-filers will be referred to the Regional Water Board in writing or by electronic mail within 30 days of discovery. A tracking spreadsheet will be updated and submitted to the Regional Water Board monthly by EMD that will include any new referrals of non-filers. Within two weeks of receipt of EMD's monthly submittal, the Regional Water Board will update information in the tracking spreadsheet related to status of coverage, enforcement actions, etc. The Regional Water Board will also copy EMD and the permittees on all enforcement actions, and correspondence related to permit status changes or exemptions, such as Notices of Termination (NOTs), Notices of Non-Applicability (NONAs), and No Exposure Certifications (NECs), for all facilities listed. Appendix 2F includes a flowchart of the responsibilities of the Permittees, EMD and the Regional Water Board related to referring and processing non-filers.
- EMD will initiate investigation of complaints referred by the Regional Water Board within three business days of receipt associated with industries included in the CISCP.

- Upon request, EMD will support Regional Water Board enforcement actions targeting facilities included in the CISCP. For example, EMD can provide facility and historical information and EMD staff, when available and appropriate, will participate in joint inspections with the Regional Water Board.

Permittee Evaluations

CISCP Enforcement Data Evaluation

Enforcement-related data will be evaluated to assess the program effectiveness and to refine the list of priority industries subject to inspection and targeted outreach.

Priority Industrial Pollutant Industrial General Permit Benchmark Exceedance Evaluation

Within three months of receipt of compiled State Industrial General Permit benchmark exceedances tables from the Regional Water Board, but not more frequently than annually, the Permittees will update the list of State Industrial General Permit facilities requiring distribution of outreach materials for those facilities with significant priority industrial pollutant benchmark exceedances. Significant exceedances are defined as those classified as priority industrial pollutants that fall into the Regional Water Board's "high" and "medium" priority exceedance criteria.

Outreach

Permittees will continue to conduct outreach to the following priority industries:

- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses
- Swimming pool contractors
- Swimming pool maintenance businesses

Businesses included in priority industries subject to outreach are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, and for these reasons are difficult to regulate.

The Permittees will conduct outreach to priority industries at least twice during the five-year term of the stormwater permit. The objectives of the outreach are to increase awareness of stormwater pollution and applicable regulations, educate business owners and operators about BMPs for addressing pollution, and encourage environmental stewardship.

BERC will continue to manage the outreach database and coordinate direct mailing of educational materials to businesses on behalf of the permittees. As with past years, it is anticipated that two types of outreach materials will be distributed:

- *General brochures and fact sheets*: These publications detail what types of activities may result in illicit discharges to the storm drain system as well as acceptable means of performing typical activities. The brochure entitled “Only Rain Down the Storm Drain” is an example of this type of outreach material.

- *Industry-specific brochures and fact sheets*: These publications provide information on source and treatment control BMPs targeted to specific industries. Source controls prevent the pollutant(s) from contacting site runoff or stormwater, and treatment controls remove pollutant(s) already contained in the runoff. The booklet entitled *BMPs for Pressure Washing and Surface Cleaning* is an example of this type of outreach material.

In addition to direct mail, educational brochures and other information will be distributed at displays at Permittee public counters, by inspectors, through trade associations and industry suppliers, and during workshops and other events.

The Permittees will continue to partner with BERC and other organizations to provide industry-specific BMP workshops for businesses and special districts (e.g. fire and water districts) as needs are identified.

Priority industrial pollutant-specific outreach materials will be developed, as needed, and distributed within six months of receipt of compiled State Industrial General Permit benchmark exceedance tables from the Regional Water Board, but not more frequently than annually.

2.7.6 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the Regional Commercial/Industrial Program.

Activities from the last permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for the 2008-2013 permit term activities.

Table 2.7-1, Regional Commercial/Industrial Activities Work Plan presents planned activities for the program. Each activity or task has an anticipated effectiveness outcome level of between one and four, as described in Section 2.3. An outcome level of one is assumed for each activity or task, unless otherwise indicated. Table 2.7-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Compiling and evaluating data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3), where possible, as a result of the inspection, enforcement and outreach efforts, will be conducted to identify potential programmatic enhancement opportunities.

Key Indicators have been selected for the Regional Commercial/Industrial Program that are a subset of element performance standards which are:

- Intended to demonstrate progression towards goals
- Easily understandable
- Common throughout the Partnership

Key Indicators are identified in Table 2.7-1 and will be used to assess the effectiveness of individual permittee programs as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit.

Evaluations may result in recommended changes to the list of priority commercial/industrial facility categories included in the CISCP, targeted outreach, or other mid-course program refinements.

2.7.7 Relationship to Other Program Elements

The Regional Commercial/Industrial Program relates to other Permittee program elements as follows:

Municipal Operations Element

Many Permittee-owned facilities such as corporation yards, airports, and waste management facilities, are covered under the State Industrial General Permit. Therefore, many of the brochures and BMP guidance materials created through the Regional Commercial/Industrial Program for private industries can also be used to educate and inform managers and staff who maintain and operate Permittee facilities. The Municipal Operations and Regional Commercial/Industrial Program staff work together to provide annual refresher stormwater BMP and awareness training for Permittee employees.

Illicit Discharge Element

There are many businesses addressed by the Regional Commercial/Industrial Program that provide home-related services to residential customers. Examples include carpet cleaning companies, and landscape and concrete contractors. Activities by such businesses could result in illicit discharges to the storm drain system. Commercial/Industrial and Permittee Illicit Discharge Element staff work together to conduct inspections and enforcement in response to complaints and to promote pollution prevention awareness. Common problems include erosion of landscape material stockpiles in public streets and gutters, discharge of concrete and paint wastes into the storm drain and washing dirt and debris from paved surfaces into the drain.

Public Outreach Element

Regional Commercial/Industrial Program staff coordinate regularly with experienced public outreach professionals to assist with the development of high-quality educational and informational materials for targeted businesses. Materials are distributed by inspectors during facility inspections, by direct mail (e.g., with enforcement actions or through targeted outreach), during training workshops, at public events and at Permittee permit counters. Brochures and other guidance materials are updated and translated into other languages as needed. Educational materials are also distributed through BERC.

2.7.8 Coordination between the Permittees and Internal to Permittees

Successful implementation of the Regional Commercial/Industrial Program requires close coordination between the Permittees, EMD, and other entities that regulate or provide assistance to local industries, as described below.

Permittee Coordination

Permittees coordinate with one another on a number of efforts related to the Regional Commercial/Industrial Program, including:

- Revising stormwater ordinances to comply with the stormwater permit
- Identifying priority industries to include in stormwater compliance inspections and targeted outreach activities
- Indentifying priority industrial pollutants and State Industrial General Permit businesses with significant benchmark exceedances
- Providing guidance to EMD on implementation of the CISCP to provide regional consistency
- Conducting coordinated enforcement and/or outreach to individual businesses with multi-jurisdiction locations or services, or entire business categories to address stormwater quality on a regional basis
- Preparing and distributing industry and priority industrial pollutant-specific outreach

Local Sewer Providers

Local sewer providers review and inspect the operations of industrial dischargers to area collection systems. They also work with businesses such as dry cleaners, photo processors and radiator repair shops to help them understand local sewer use regulations and wastewater pollution prevention options. Local sewer providers are responsible for ensuring adequate pre-treatment prior to discharging a waste stream to the sanitary sewer. Lastly, some local sewer providers administer permits that allow short-term discharges to the sanitary sewer. Local sewer providers are also responsible for issuing permits for long-term discharges to their sewer systems. Permittee and EMD staff refer businesses that want to discharge to the sanitary sewer to local sewer providers for guidance.

Coordination with local sewer providers helps to keep commercial and industrial wastes out of the storm drain system.

County Environmental Management Department (EMD)

EMD, under agreement with the permittees, conducts routine stormwater compliance inspections and complaint response at priority commercial and industrial facilities listed in the stormwater permit. Two divisions within EMD participate in the implementation of the CISCP, as follows:

- The Environmental Compliance Division (ECD) contains the Stormwater Compliance Section (SCS), which leads the implementation of the county-wide CISCP. In addition to providing support and training to hazardous materials and environmental health division inspectors (described below), SCS inspectors conduct stormwater compliance inspections at many of the commercial and industrial facilities in the program. They also conduct complaint response and follow-up stormwater compliance re-inspections at Hazmat and Environmental Health Division (EHD) facilities. SCS maintains a database and generates monthly and annual reports to document activities and inform the permittees and Regional Water Board about non-compliant industries. ECD also implements the septic program, as well as other water-related programs.
- The Environmental Compliance Division's Hazardous Materials program (Hazmat) is the State designated Certified Unified Program Agency (CUPA) for Sacramento County and inspects commercial and industrial facilities that generate hazardous waste, store or use hazardous materials, or store hazardous materials (i.e fuel) in underground storage tanks (UST) in quantities above statutory thresholds. Examples of businesses inspected for stormwater compliance by Hazmat include retail gasoline outlets (RGOs). EHD enforces provisions of the California Health and Safety Code at restaurants and public swimming pools, and other facilities. EHD conducts stormwater compliance inspections at restaurants and sends data and/or refers problems to SCS for follow-up. RGOs and restaurants are one of nine categories of businesses regulated by EMD for stormwater compliance.

The Permittees coordinate with EMD in many areas, including: providing guidance on implementation of the CISCP, partnering on outreach events, and conducting coordinated enforcement to address facilities comprehensively (since in many situations EMD may regulate a specific tenant in a complex but not the owner of the complex or other businesses within the complex).

County Business Environmental Resource Center (BERC)

BERC's main mission is to provide confidential environmental compliance assistance and guidance to local businesses in the county upon request. Permittee stormwater staff work with BERC to ensure that appropriate stormwater pollution prevention information is provided to local businesses by BERC. Assistance is provided by BERC to develop and distribute guidance materials for selected industries and to work with Industrial General Permit industries to ensure they have ample opportunity to understand and comply with the regulations. BERC conducts a

variety of commercial and industrial training workshops each year to inform the regulated community about compliance with local and state stormwater laws, at which Permittee staff are often presenters. BERC also developed and regularly updates a database of businesses in priority industries subject to targeted outreach. The Permittees contribute funding to BERC each year.

2.7.9 Coordination with Other Agencies and Groups

Permittee stormwater staff coordinates with various outside agencies and groups that have regulatory and/or economic interests in industries in Sacramento County. This coordination allows for information sharing and ensures that a uniform, consistent message about stormwater pollution prevention is distributed to the regulated community.

- ***Regional Water Board*** — The Permittees coordinate with the Regional Water Board on issues related to Industrial General Permitted industries as well as other businesses. The Permittees initiate investigations of all stormwater problems at businesses referred by the Regional Water Board. The Permittees inform the Regional Water Board of all discovered significant violations and of potential General Permit non-filers. The Permittees also support Regional Water Board actions upon request, by allocating staff, providing documentation of observed problems, etc.
- ***Trade and Business Associations*** — The Permittees cooperates with commercial and industrial businesses through associations and organizations. These associations are provided with outreach materials, information on Industrial General Permit requirements and information on BERC's compliance assistance program.

Table 2.7-1

Regional Commercial/Industrial Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key Indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority												
Revise stormwater ordinance as needed	9.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR	NA	⇔	⇔	⇔◆	⇔	⇔	⇔	one year from SQIP approval
Priority Industry and Industrial Pollutant Identification												
Update priority industry inspection list based on evaluation of enforcement-related data	9.a.ii		Updated list of priority industries for inspection	Confirmation - report revisions in AR	NA					②		
Update priority industry outreach list C29 based on evaluation of enforcement-related data	9.a.ii		Updated list of priority industries for outreach	Confirmation - report revisions in AR	NA					②		
Develop and update list of priority industrial pollutants considering overlaps between benchmark exceedances (compiled data provided by Regional Water Board) and Target Pollutant constituents	9.b.iii		Updated list of priority pollutants at a frequency of no greater than annually and within 3 months of receipt of compiled data tables from the Regional Water Board	Confirmation - report list and revisions in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Commercial and Industrial Stormwater Compliance Program (CISCP) – EMD												
Revise fee ordinance as needed	9.a.iii-viii		Revised fee ordinance (if needed)	Confirmation – report program/ordinance revisions in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Implement enforcement policy as needed	9.a.iii-viii		Implement enforcement policy (if needed)	Confirmation - report any formally adopted policy in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Inspect priority industries once every 3 years	9.a.iii-viii		100% of priority industries inspected during 3-yr cycle	Confirmation - report on completion of next cycle, 2007-10	NA	⇔	⇔◆	⇔	⇔	⇔◆	⇔	
Track violations during 3 year cycle	9.a.iii-viii	✓	Decrease in violations observed from one 3-yr cycle to the next	Tabulation – track number of violations observed and inspections conducted	No. of violations per facility inspection observed during previous inspection cycle					②		
Track follow-up inspections during 3 year cycle	9.a.iii-viii	✓	Decrease in follow-up inspections required from one 3-yr cycle to the next	Tabulation – track the percentage of follow-up inspections conducted	Percentage of follow-up inspections in previous inspection cycle					②		
Track number of businesses with significant priority industrial pollutant exceedances using Regional Water Board compiled data	9.a.iii-viii		Decrease in Industrial General Permit facilities with significant priority industrial pollutant exceedances from one permit cycle to the next	Tabulation – track number of facilities by priorty pollutant	Percentage of Industrial General Permit facilities with significant priority pollutant exceedances in previous inspection cycle					②		
De-list with no exposure of pollutants to stormwater	9.a.iii-viii		Document facilties de-listed and no longer requiring inspection	Tabulation – track number of industries de-listed due to no exposure	NA	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Table 2.7-1

Regional Commercial/Industrial Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key Indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii	✓	Decrease in enforcement actions from one 3-yr cycle to the next	Tabulation – track number of enforcement actions issued and inspections conducted	No. of enforcement actions per facility inspection observed during previous inspection cycle					③		
Conduct workshops, upon request, for the regulated community	9.a.iii-viii		Document workshops conducted	Tabulation - track number workshops held, number people reached in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Provide annual training to CISCP inspectors	9.a.iii-viii		Document training events	Tabulation - track number CISCP inspectors reached in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct post-training quizes of inspectors	9.a.iii-viii		80% minimum average quiz score	Tabulation – track quiz results	NA	②	②	②	②	②	②	
CISCP database - track facility inventory, inspections, enforcement and outreach materials distributed (facilities included to be based on list of priority industries)	9.a.iii-viii		Database updated annually	Confirmation - include updated database in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Refer significant violations to the Regional Water Board	9.a.iii-viii		Document significant violations reported to Regional Water Board	Tabulation – Track number of significant violations reported	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Refer potential Industrial General Permit non-filers to the Regional Water Board	9.a.iii-viii		Document potential non-filers referred to Regional Water Board	Tabulation – Track number of non-filers referred	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Track NOIs filed for potential non-filers referred to the Regional Water Board	9.a.iii-viii		Increase in percentage of non-filers referred to Regional Water Board filing NOIs	Tabulation – Track percentage of non-filers referred that gained coverage	Percentage of non-filers referred that sought coverage during previous inspection cycle					③		
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate	9.a.iii-viii		Document support efforts	Tabulation – Track number of cases where support was provided to the Regional Water Board	NA	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Table 2.7-1

Regional Commercial/Industrial Activities Work Plan (2008-2013)

Activity/Task	Permit Ref	Key Indicators	Performance Standard (Target)	Assessment Method	Baseline Data	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Permittee Evaluations												
Evaluate CISCP enforcement-related data to identify business categories that need not be included in the CISCP	9.a.iii-viii		Identify business categories that can be excluded from the CISCP	Confirmation/Tabulation – evaluate data to identify whether to add or remove business categories to CISCP or Educational Outreach	NA — Internal programmatic change based on data evaluation					③		
Evaluate Industrial General Permit facilities for significant priority industrial pollutant exceedances of using Regional Water Board-compiled data.	9.a.iii-viii		Updated list of GP facilities requiring outreach materials at a frequency of no greater than annually and within 3 months of receipt of compiled data tables from the Regional Water Board	Tabulation – track number of facilities by priorty pollutant	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach												
Develop industry and pollutant-specific eductional materials	9.b.iii		Document industry and pollutant-specific eductional materials developed	Tabulation - track number of revised/new materials in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Track industry and pollutant-specific materials distributed	9.b.iii		Document industry and pollutant-specific materials distributed	Tabulation - track number materials distributed in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Update business database prior to conducting outreach (based on list of priority industries)	9.b.iii		Updated database	Confirmation - include updated list in AR	NA		♦			♦		
Distribute educational materials to priority industries at least twice during permit term	9.b.iii		Increased awareness of pollution prevention	Tabulation – Track number of businesses reached, estimate raised awareness based on surveys or available research data in AR	NA		♦			♦ ②		
Develop priority industrial pollutant-specific eductional materials for priority pollutants	9.b.iii		Document priority industrial pollutant-specific eductional materials developed	Tabulation - track number of revised/new materials in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Track priority industrial pollutant-specific materials distributed	9.b.iii		Document priority industrial pollutant-specific materials distributed	Tabulation - track number materials distributed in AR	NA	⇔	⇔	⇔	⇔	⇔	⇔	

Notes:

1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Chapter 3

County of Sacramento Stormwater Quality Improvement Plan

3.1 Overview

This chapter presents the Sacramento County Stormwater Quality Improvement Plan (SQIP) for the portion of the permit area in unincorporated Sacramento County. Other permittees' SQIPs are presented separately in Chapters 4-9.

This chapter describes the County of Sacramento's SQIP. The County's activities described in this chapter are conducted ***in addition*** to those the County implements jointly with the other Permittees (see Chapter 2).

Characteristics of Sacramento County

Sacramento County was incorporated in 1850 as one of the original 27 counties of the State of California. The County is the major component of the Sacramento Metropolitan Statistical Area which includes Sacramento, El Dorado, and Placer Counties.

Sacramento County encompasses approximately 994 square miles in the middle of the 400-mile long Central Valley, which is California's prime agricultural region. The County is bordered by Contra Costa and San Joaquin Counties on the south, Amador and El Dorado Counties on the east, Placer and Sutter Counties on the north, and Yolo and Solano Counties on the west. Sacramento County extends from the low delta lands between the Sacramento and San Joaquin rivers north to about ten miles beyond the State Capitol and east to the foothills of the Sierra Nevada Mountains. The southernmost portion of Sacramento County has direct access to the San Francisco Bay. The County includes the cities of Sacramento, Elk Grove, Rancho Cordova, Galt, Citrus Heights, Folsom and Isleton.

Most of the county is at an elevation close to sea level, with some areas below sea level. Hills along the eastern boundary rise to several hundred feet. Major watercourses in the county include the American River, Sacramento River and Dry Creek, a tributary of the Sacramento River.

See chapters 1 and 2 for a detailed discussion on Sacramento County watersheds and waterways.

Additional County facts include:

- experiences an average annual rainfall of 19.6 inches
- includes 14 Regional Parks Districts
- boasts 6 million trees (the City of Sacramento has been called the "City of Trees")

- contains 19 major public & private colleges and universities and 16 public school districts

As discussed in Chapter 1, the stormwater permit does not apply to all areas within Sacramento County. Rather, it applies to all the land inside the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport, as shown on Figure 1.3-1. Land within the Urban Service Area includes the cities of Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Sacramento, and unincorporated Sacramento County. The City of Isleton is not included. The unincorporated portion (the area addressed by this County SQIP) is 232 square miles.

The County has a charter form of government. It is governed by a five-member *Board of Supervisors* elected on a non-partisan basis to serve four-year terms. Each is elected from one of the five supervisorial districts of the County. District boundaries are adjusted after every federal census to equalize district population.

Other elected officials include the *Assessor*, *District Attorney* and *Sheriff*. A *County Executive* appointed by the Board of Supervisors runs the day-to-day business of the County.

Three agencies and a number of departments within these agencies support the delivery of countywide services to the unincorporated County and several cities. Figure 3.1-1 illustrates the County's organizational structure.

SQIP Organization

The following describes the organization of the County SQIP in this chapter:

Section 3.2 — Program Management and Training

This section describes the activities conducted by the County (such as legal authority, funding, inter and intra-agency coordination and training) related to implementation of the Stormwater Program and compliance with the stormwater permit.

Section 3.3 — Construction Element

This section describes activities designed to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

Section 3.4 — Commercial/Industrial Element

This section describes activities designed to reduce the discharge of pollutants in runoff from commercial and industrial sites and eliminate non-stormwater discharges associated with commercial and industrial activities.

Section 3.5 — Municipal Operations Element

This section describes activities designed to control stormwater pollution resulting from the operation and maintenance of County-owned facilities.

Section 3.6 — Illegal Discharge Element

This section describes activities designed to eliminate illegal non-stormwater discharges to the storm drain system and local creeks and rivers.

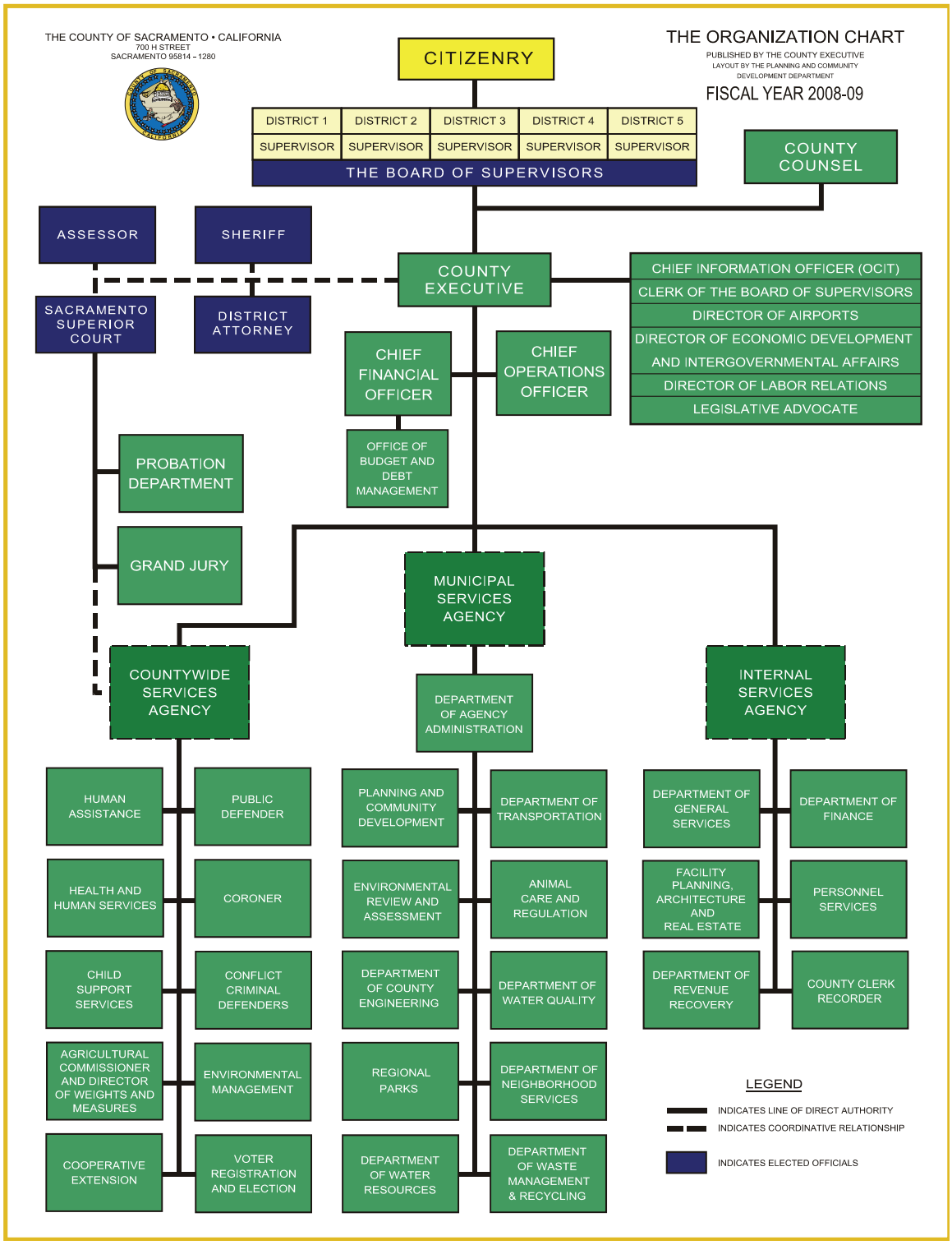
Section 3.7 — Public Outreach Element

This section describes activities designed to raise awareness and foster community stewardship to promote pollution prevention and protect local creeks and rivers.

Section 3.8 — New Development Element

This section describes activities designed to reduce pollutants in runoff from new development and significant redevelopment projects.

Figure 3.1-1 — Sacramento County Organization Chart



3.2 Program Management

Introduction

This section of the SQIP describes activities that will be conducted by the County during the 2008-13 permit term to administer and manage the County's Stormwater Quality Program (County Program) to ensure continued compliance with the stormwater permit. In addition to managing designated stormwater personnel assigned to conduct the activities and prepare the compliance deliverables described in this plan, the County's Program Manager coordinates with internal and external groups, ensures that adequate funding and legal authority is in place, and confirms that annual employee training is conducted.

Table 3.2–3 at the end of this section provides a summary of major tasks and associated five-year implementation schedule.

County Program Organization and Staffing

The County Program is administered and managed by the Stormwater Quality Section within the Municipal Services Agency's Department of Water Resources (see Figure 3.1-1 of the previous section, Sacramento County Organizational Chart). The Department Director provides oversight and certifies all compliance deliverables on behalf of the County.

Eleven qualified full-time equivalent (FTE) staff members are assigned to work on the program within the Department of Water Resources Stormwater Quality Section as listed below:

- Stormwater Program Manager (1 FTE)
- Associate Civil Engineers (4 FTE)
- Principal Engineering Technician (1 FTE)
- Engineering Technician (1 FTE)
- Environmental Specialists (4 FTE)

In addition, Table 3.2–1 lists the various other county agencies and departments that provide staff and resources to implement the County Program.

The County Program Manager periodically conducts briefings with senior managers to keep them apprised of the County Program and the role of their staff in ensuring compliance with the stormwater permit.

The County retains consultants as needed, mainly to help with specialized technical tasks such as monitoring, engineering design standards and regulatory and legal assistance.

Table 3.2–1
County of Sacramento Responsibilities for Compliance with Sacramento NPDES Municipal Stormwater Permit

Program Element	Agency/Department/(Group)	Responsibility
Program Management (Section 3.2)	**Municipal Services Agency** Dept. of Water Resources (Stormwater Quality Section)	Administers and manages the County Stormwater Quality Program on behalf of the County, provides liaison with the Regional Water Board, prepares/submits compliance reports, and provides annual refresher training to affected County staff. Also conducts many of the Program activities.
	County Executive	Oversees County-wide compliance with stormwater permit and authorizes County staff to enforce Stormwater Ordinance.
	County Counsel	Conducts legal reviews, prepares legal certifications, and oversees revisions to ordinances, codes, and other standards.
Construction (Section 3.3)	**Municipal Services Agency** Dept. of County Engineering and Administration (Land Development and Site Improvement Review (LDSIR))	Issues grading permits and checks for NOI, for all sites subject to State General Construction Permit.
	Municipal Services Agency Dept. of Water Resources (Drainage Development and Stormwater Quality Sections)	Reviews erosion and sediment control plans and SWPPPs, as needed.
	Municipal Services Agency Dept. of County Engineering (Construction Management and Inspection Division- Building Inspection)	Provides inspection services during the building phase of construction of private developer facilities. Designated stormwater inspectors provide oversight of contractor erosion and sediment control, construction site housekeeping practices.
	Municipal Services Agency Dept. of County Engineering (Construction Management and Inspection Division)	Provides inspection services during grading phase and installation of public infrastructure (utilities, roads, sidewalks, detention basins, and channels). Stormwater inspection responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	Municipal Services Agency Dept. of Water Resources (Drainage Design)	Designs new storm drain facilities and provides oversight during construction activities, including approval of change orders and SWPPP amendments, as applicable. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	Municipal Services Agency Dept. of Water Resources (Water Supply Planning and Engineering)	Designs, and oversees construction and repair/replacement of all water supply infrastructure, including associated wells, pumps and treatment facilities. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.
	Municipal Services Agency Dept. of Transportation	Oversees construction and repair/replacement of all street and highway improvements, including associated lighting, landscaping and signals. Responsibilities include oversight of contractor erosion and sediment control and Construction General Permit compliance.

Program Element	Agency/Department/(Group)	Responsibility
Commercial/ Industrial (Section 3.4)	**Countywide Services Agency** Environmental Management Department, Environmental Health and Hazardous Materials Divisions (HMD)	Conducts compliance inspections for the nine required industries. During inspections, considers exposure of pollutants to contact with stormwater, prohibited non-stormwater discharges, illicit connections and other conditions that may be violations of local stormwater ordinances and conducts progressive enforcement as necessary to obtain compliance.
	Municipal Services Agency Department of Water Quality	Issues discharge permits for the sanitary sewer system to all industrial users. Conducts plan review and issues permits for connections to the sanitary sewer.
	Municipal Services Agency Department of Water Resources (Stormwater Quality Section)	Conducts complaint-based inspections and enforcement related to reported stormwater pollution issues associated with business activities not covered under the EMD Commercial/ Industrial Stormwater Inspection Program (CISCP). Coordinates with EMD on implementation of CISCP. Conducts business outreach activities businesses in unincorporated Sacramento County.
Municipal Operations (Section 3.5)	**Municipal Services Agency** Dept. of Water Resources (Drainage Maintenance Engineering Section)	Maintains stormwater quality treatment facilities and the storm drain system owned and/or operated by the County in a manner that protects water quality.
	Municipal Services Agency Dept. of Transportation	Maintains all street and highway improvements, including lighting, landscaping, and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.
	Municipal Services Agency Department of General Services	Manages County-owned buildings, parking lots, and other facilities. Responsible for ensuring that activities at these facilities do not contribute to stormwater pollution.
	Municipal Services Agency Regional Parks	Maintains county parks and recreational facilities in a manner which considers stormwater quality impacts.
	Municipal Services Agency Department of Waste Management and Recycling	Provides solid waste management services for residents and businesses in Sacramento County. Program emphasis is placed on waste prevention, recycling, and composting that support the stormwater quality program.
	Municipal Services Agency Department of Water Resources (Stormwater Quality Section)	Conducts training to targeted County employees and ensures that County activities are in compliance with the stormwater permit.
	Internal Services Agency Department of General Services (Fleet Services Division)	Maintains a fleet of heavy-duty vehicles, heavy equipment, light cars, and trucks for use by County Agencies and Departments. Services include maintaining, repairing, fueling, washing, and storing vehicles and equipment. Responsible for ensuring that stormwater quality controls/BMPs are incorporated where required. Some facilities may require coverage under State General Industrial stormwater permit.
	Sacramento County Airport System	Maintains Sacramento International Airport, Mather Airport, Executive Airport, and Franklin Field.

Program Element	Agency/Department/(Group)	Responsibility
Illicit Discharges (Section 3.6)	**Countywide Services Agency** Environmental Management Department , Hazardous Materials Division (HMD)	Responds to hazardous materials spills that may impact stormwater quality and receiving waters, including clean-up, reporting, and referral of problems as appropriate.
	Municipal Services Agency Department of Water Resources (Drainage Maintenance Engineering)	Conducts ongoing field screening for illicit discharges and connections through routine maintenance activities being conducted by field crews. Responds to non-hazardous spills outside of the right of way, including cleanup and proper disposal.
	Municipal Services Agency Dept. of Transportation	Responds to hazardous and non-hazardous spills in the right of way, including cleanup and proper disposal.
	Municipal Services Agency Department of Water Resources (Stormwater Quality Section)	Conducts investigations and enforcement of the Stormwater Ordinance to eliminate illicit discharges/connections detected by way of reports from the public and/or County maintenance crews. Distributes educational materials to the public. Maintains database to track investigations and enforcement conducted by Stormwater Quality staff. Provides County employee training to field screening and illicit discharge response crews annually.
Public Outreach (Section 2.6)	**Municipal Services Agency** Department of Water Resources (Stormwater Quality Section and Public Information staff)	Conducts all public outreach required by the stormwater permit, including working with the City of Sacramento and other permittees to conduct a regional media campaign to address all residents in the County. Oversees development and periodic updating of public education materials such as brochures.
New Development (Section 3.8)	**Municipal Services Agency** Planning and Community Development Department	Processes applications for private developments. Implements General Plan and Zoning code. Routes plans to Department of Water Resources to ensure that stormwater quality controls are incorporated as required. Participates in creation of new stormwater quality standards, including review, evaluation, and modification of County polices, codes, and standards.
	Municipal Services Agency Department of Environmental Review and Assessment	Implements provisions of the California Environmental Quality Act (CEQA) as they apply to Sacramento County, including thorough consideration of stormwater quality impacts. Routes documents to Water Resources Department to ensure that stormwater quality controls are incorporated as required.
	Municipal Services Agency Department of Water Resources (Drainage Development Review Section and Stormwater Quality Section)	Conditions development projects to ensure compliance with County drainage and stormwater quality standards, including the use of on-site and regional stormwater quality treatment facilities. Reviews improvement plans to ensure proper design of stormwater quality measures per the latest stormwater quality development standards.

Legal Authority

Legal authority for the County Stormwater Quality Program is provided in several ways:

- The General Plan contains water quality protection policies.
- The County Code (Sections 15.12 and 16.44) provides the legal authority to implement the County Program and enforce the local regulations.
- Written agreements with other County departments and/or other Permittees provide a means of assigning responsibilities and establishing cost-sharing to implement various components of the County Program.
- The County Improvement Standards, Standard Construction Specifications, Stormwater Quality Design Manual and other County documents specify standards and specifications for the regulated community related to the Construction and New Development Elements of the County Program.

The County's Legal Counsel prepared a statement certifying that the County possesses the legal authority necessary to comply with the stormwater permit (see Appendix 3A).

The following sections describe in more detail, the various legal authority mechanisms held by the County.

General Plan

Two main sections of the Conservation Element of the County's 1993 General Plan contain provisions and policies that lay the framework for water quality protection:

- *Section I, Water Resources Policies, B. Surface Water Quality*
  This section includes policies related to urban runoff controls, erosion control, water quality monitoring, and hazardous materials disposal.
- *Section V, C. Urban Streams*
  This section outlines policies related to floodplain fills, channel modifications, land use adjacent to streams, stream maintenance, and stream restoration.

The 1993 General Plan is undergoing revision and the revision should be completed in 2009. The revised General Plan will incorporate water quality and watershed protection language that is consistent with principles outlined in the stormwater permit.

County Code

The County adopted two ordinances that added sections to the County Code and established legal authority for the County Stormwater Quality Program:

- The Stormwater Management and Discharge Control Ordinance, also known as "The Stormwater Ordinance" *(Chapter 15.12 of County Code)* prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. It also provides legal authority for inspections and enforcement related to the control of illegal and industrial discharges to the County storm drain system and local receiving waters.

- The Land Grading and Erosion Control Ordinance *(Chapter 16.44 of County Code)* requires projects disturbing 350 cubic yards or more of soil or one or more acres of land to have an erosion and sediment control plan. It also gives the County legal authority to inspect projects and enforce the ordinance's requirements.

Agency Agreements

The County Department of Water Resources executes intra-agency agreements with other County agencies, departments, divisions and sections to facilitate compliance with the stormwater permit. These agreements can be either formal (written) or informal (verbal).

A Memorandum of Understanding (MOU) was executed by the permittees to provide the legal authority for jointly administering and implementing certain aspects of the program, including cost-sharing for joint activities. This MOU is discussed in more detail in Chapter 2.

Standard Specifications and Improvement Standards

The County's Standard Construction Specifications and Improvement Standards apply to all new public facilities and to private projects connecting to the County storm drain system or impacting the right of way. These standards include requirements and details for erosion and sediment control and control of other potential stormwater pollutants on development and construction projects in the unincorporated parts of Sacramento County.

Other County Standards and Guidance Manuals

The County's development standards related to post-construction stormwater quality control were adopted in May 2006. The standards are presented, along with technical guidance, in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*, published in May 2007. This manual includes the sizing and design criteria for regional detention basins as well as the design and maintenance criteria for on-site stormwater quality source, treatment and runoff reduction measures.

Additional stormwater pollution control guidance has been produced and is made available through County EMD and Business Environmental Resource Center (BERC) for selected types of commercial/industrial businesses, such as mobile pressure washers.

Funding

The Program budget consists of two parts: funds allocated for joint program activities, described in Chapter 2, and funds allocated for County-specific activities described in this chapter.

The costs of joint activities are generally shared among the Permittees according to the Permittee MOU (described in Chapter 2). Under this agreement, the County contributes 44 percent of the joint Program funding, primarily through Stormwater Utility revenues described below.

Funding for County-specific activities is provided by a combination of funds, as described below:

- **Stormwater Utility revenues** support the Stormwater Quality Section and outside consultants hired to help implement the County Program. The Stormwater Utility also covers the cost of operating and maintaining the County's storm drain system, which includes pipes, channels, and associated structures; creeks; and regional stormwater quality facilities. A portion of each county resident's bimonthly utility bill is designated to the Stormwater Utility.
- **User-based Development Fees** provide funding for plan reviewers, engineers, and inspectors within the Municipal Services Agency's Construction Management and Inspection Division (CMID). These revenues also support planning staff within the Planning and Community Development Division and environmental staff within the Department of Environmental Review and Assessment (DERA). DERA staff ensures compliance with the California Environmental Quality Act (CEQA) and also implements County stormwater quality protection policies. User-based development fees are collected as part of the application processes for grading and building permits.
- **User-based Industrial/Business Fees** provide funding for Environmental Management Department inspectors who routinely inspect industrial establishments to ensure compliance with the Stormwater Ordinance through the Industrial/Commercial Stormwater Inspection Program that was developed during the previous Permit term.

Implementation Priorities

The County SQIP sets out the basic goals and activities for the County Program. The overall goal is to comply with the stormwater permit in implementing a program to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP). For the most part, what constitutes "MEP" is defined by the activities (e.g., "performance standards") established by the stormwater permit.

In areas of the permit where the level of effort is not prescribed, the definition of MEP can vary slightly from year to year based on various factors, some of which are outside the County's control. For instance, if the Sacramento area were to experience an extreme flood, the first priority for the Department of Water Resources would be to protect the public and property. Other activities would be postponed or abbreviated for a short period. For example, during the 1995 and 1997 floods, Stormwater Quality Section staff was temporarily diverted from their regular duties during and immediately after the events; in both cases, regular work resumed in less than a month.

County Stormwater Quality Program priorities are also influenced from year to year by the amount of time and resources needed to respond to the public, environmental groups, and regulatory agencies on various issues of concern. These response activities are impossible to predict, but become a top priority for the County.

Another factor that can affect the County Stormwater Quality Program priorities is staff turnover. The County has found it difficult to find qualified staff with experience working with stormwater issues. For this reason, during years of high turnover, priorities may get shifted slightly to allow time for staff to become educated about the Program and its many activities.

The County evaluates priorities each year as part of its budgeting process. Prioritized activities are proposed in the Work Plan for the coming fiscal year, which is submitted to the Regional Water Board on May 1 each year. Priorities and associated activities are then finalized before the start of the fiscal year on July 1.

In the Annual Report (due October 1 each year), the County reports on its ability to meet its goals and stated priorities for the reporting fiscal year.

Training

Regular training keeps county staff and the regulated community abreast of the constantly evolving stormwater field and regulations. This section describes the County's stormwater training activities for the 2008-13 permit term.

Training for County Staff

Ongoing training and education of county staff and managers is necessary to help ensure continued countywide compliance with the stormwater permit.

The County staff that require stormwater quality training are listed in Table 3.2-2 by program element. Each element manager in the County's Stormwater Quality Section is responsible for working with managers of the targeted staff to plan and facilitate the appropriate type and frequency of refresher training. For the most part, training will be conducted annually. Training and education can be delivered in various formats, such as workshops, presentations, informational meetings and written training materials (e.g., employee handbooks, manuals and brochures). Training accomplishments will be tracked and reported each year in the Annual Report. Additional information about specific training may be found in the individual element sections of this chapter.

Training for Outside Groups

In addition to training employees, the County continues to provide training opportunities for the regulated community. Many of these training events have been done in partnership with the other permittee agencies and/or other local groups. Some examples include:

- Construction stormwater pollution prevention plan (SWPPP) training workshops for local building and engineering community;
- Permittee-sponsored low impact development training for the development community;
- "River friendly landscaping practices" workshops for landscape contractors and residents; and
- Industry-specific stormwater pollution control training workshops for industrial facility owners.

Additional information for these trainings and others can be found in the individual element sections of this chapter.

Table 3.2-2
County of Sacramento Stormwater Quality Training Program Targeted Employees

Program Element	Department/(Group) to be Trained	Objective	Training Frequency
Program Management	Sacramento County Board of Supervisors, County Executive and staff	Make fiscal and programmatic decisions in support of Permit and stormwater ordinance.	Several times/year
	Agency Administrators (3), Various Department Directors	Manage County programs and staff in a manner that complies with Permit and stormwater ordinance.	Several times/year
Municipal Operations	Department of Water Resources (Drainage Maintenance Engineering)	Maintain storm drain system in compliance with Permit and stormwater ordinance. Stormwater pollution prevention, BMP identification and implementation, proper housekeeping practices, as well as identification and reporting of illicit discharges and connections.	Annual
	Department of Transportation (Transportation Maintenance and Operations)	Maintain County-owned roads and respond to hazardous or unidentified pollutant discharges to the storm drain system in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	Annual
	Department of General Services (Facilities Management Division)	Maintain County facilities in compliance with Permit and stormwater ordinance.	Annual
	Department of General Services (Fleet Services Division)	Maintain County-owned vehicles in compliance with Permit and stormwater ordinance.	Annual
	Department of General Services (Parking Services Division)	Maintain County parking facilities in compliance with Permit and Parking Lot Inspection and Maintenance Program.	Annual
	Operators of County-owned facilities subject to State Industrial General Permit	Individual facility operators are responsible for providing training in compliance with Industrial General Permit – SWQ Program provides support as requested.	Annual
	Regional Parks, Recreation and Open Space	Maintain County facilities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	As needed
	Department of Waste Management and Recycling	Conduct waste collection activities in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	As needed
	Animal Care and Regulation	Operate County animal care facility in compliance with Permit and stormwater ordinance. Identification and reporting of illicit discharges/connections.	As needed
	Department of Water Quality	Conduct sewer related maintenance activities in compliance with Permit and stormwater ordinance.	As needed

Program Element	Department/(Group) to be Trained	Objective	Training Frequency
Commercial/ Industrial	Environmental Management Department (EMD)	Conduct Industrial Inspection Program in compliance with Permit and stormwater ordinance.	As needed, based on QC of reports by EMD
Illicit	Department of Planning and Community Development (Code Enforcement)	Identification and reporting of illicit discharges and connections	As needed
	Department of Water Quality (Wastewater Source Control Section)	Identification and reporting of illicit discharges and connections	As needed
	Department of Water Resources (Drainage Maintenance Engineering)	Identification and reporting of illicit discharges and connections.	Annual
Construction	Dept. of County Engineering (Construction Management and Inspection Division)	Conduct public and private construction site inspections in compliance with Permit, stormwater ordinance and Erosion and Sediment Control Plans.	Annual
	All department staff, contractors and consultants engaging in County construction activities (DWR, Water Quality, Transportation)	Conduct construction activities in compliance with Permit, SWPPP and stormwater ordinance.	As required (Project Specific Training Program)
New Development	Dept. of Water Resources (Drainage Development)	Condition and review project plans in compliance with current stormwater design standards.	On-going
	Department of Planning and Community Development	Condition development applications in compliance with current stormwater design standards.	On-going
	Department of Environmental Review and Assessment	Condition environmental documents in compliance with current stormwater design standards.	On-going
	Dept. of County Engineering (Architectural Services Division)	Design County projects to comply with current stormwater design standards.	Annual
	Dept. of Transportation	Design transportation facilities in compliance with current stormwater design standards and review landscaping plans to ensure consistency between stormwater requirements and other County codes.	Annual

Record Keeping and Reporting

Recordkeeping is an integral part of the County Stormwater Quality Program, since documentation is needed to demonstrate continued compliance with the stormwater permit. The Stormwater Quality Section within the Department of Water Resources maintains the stormwater compliance files, as well as an extensive stormwater library. Files are retained for at least five years from the date of generation, as required by the stormwater regulations.

Other County staff with stormwater permit compliance responsibilities also keeps records and logs. These records are summarized every year and submitted to the Stormwater Quality Section for incorporation into the Annual Report. To facilitate easy retrieval of information, each Annual Report is designed to include a separate binder of appendices containing all work products completed in the applicable fiscal year.

Activities for the 2008-13 Permit Term

Program management element activities for the 2008-13 permit term will focus on continued stormwater permit compliance with an increased focus on the demonstration of effectiveness for all activities. In addition to those activities listed in Table 3.2-3 that were implemented starting in the 2002-07 permit term, the following activities are new to the program:

- **Coordination with newly designated NPDES Phase II municipal general permit entities** - As school districts, parks districts and other non-traditional NPDES Phase II entities are designated by the State or Regional Water Board, the County will work with these groups to ensure that activities are consistent and not redundant.
- **Training program effectiveness** – Surveys and other assessment tools will be used in the County's training program to ensure that the program is effective and able to adjust as necessary improvements are identified.
- **Overall program effectiveness** – The overall program will be evaluated each year in the Annual Report to demonstrate effectiveness. Indicator tasks will be identified within each element to help assess effectiveness and these will be discussed in the Annual Report.

Effectiveness Assessment

The County works with the City of Sacramento and other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2. In addition, the County evaluates the effectiveness of its individual activities related to permit compliance. For this program management element, most activities have Level 1 effectiveness outcomes, which require annual documentation that activities have been conducted as required by the permit. The exception to this is training.

During the 2008-13 permit term the County will use surveys and follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of increasing awareness (outcome level 2). In some cases, subsequent surveys and field verification may then be used to assess if behaviors have changed (outcome level 3).

Table 3.2-3 lists the program management element tasks for the 2008-13 permit term and summarizes and proposed effectiveness outcome levels for those tasks.

Coordination within the County

To coordinate with various departments within the County, Stormwater Quality Section staff conducts the following types of tasks:

- Develop and distribute educational materials;

- Provide workshops and presentations to educate County staff;
- Provide technical assistance on how to select and implement best management practices (BMPs) for reducing stormwater pollution;
- Interpret and clarify regulations and permit requirements;
- Provide guidance on how to keep records that provide useful data for evaluating the Program and preparing compliance reports; and
- Help communicate with regulators, environmental groups, and the public as necessary.

Coordination with Other Agencies and Programs

Sacramento Stormwater Quality Partnership

On-going permittee coordination is necessary to share information, ensure the most cost-effective use of permittee resources, and avoid duplication. The County and the City of Sacramento are the two largest permittees and assume a shared leadership role in the Sacramento Stormwater Quality Partnership (Partnership). In this role, the County has been active in coordinating and managing the overall program since its inception in 1990. The City and County of Sacramento typically share the following work on behalf of the entire permittee group:

- Leadership and facilitation of Permittee Committee meetings;
- Preparation and updating of task authorizations and MOUs between permittees;
- Planning, development, implementation, reporting and evaluation of joint program work described in Chapter 2;
- Execution and administration of consultant contracts for joint program activities;
- Liaison with and program representation to the Regional Water Board and outside groups such as the California Association of Stormwater Quality Agencies (CASQA);
- Preparation and submittal to the Regional Water Board of the joint program Annual Work Plan and Annual Report; and
- Preparation (and submittal to the Regional Water Board if required) of other joint program studies and compliance reports.

The County also represents on occasion, and/or provides some stormwater services to some of the smaller cities in the program: Citrus Heights and Rancho Cordova.

Outside Agencies

The County coordinates with several local and regional agencies in efforts related to implementation of the County Stormwater Quality Program:

- **Sacramento Regional County Sanitation District (SRCSD) —** The County's Stormwater Quality Section staff coordinates closely with SRCSD on several common projects. Funds from the Stormwater Utility pay a portion of the Coordinated Monitoring Program (monitoring in local rivers), a function also performed by SRCSD.
- **Special Districts** such as Metro Fire District, Regional Transit, and schools, parks, reclamation and irrigation districts — The County coordinates with special districts on a project-specific basis to implement stormwater controls. As some school districts obtain coverage under the NPDES Phase II municipal stormwater general permit, County staff will coordinate with district staff in order to assist them in complying with the new requirements cost-effectively.
- **Sacramento-Yolo Mosquito and Vector Control District** — The County coordinates with the vector control district as needed in efforts related to vector control issues in local water bodies.
- **Caltrans** — The County coordinates with Caltrans on a project-specific basis to implement stormwater controls.

Other Stormwater Programs

The County coordinates with other stormwater programs within California to share information and identify opportunities to work together. This effort is facilitated through CASQA. The County's participation in CASQA also keeps staff apprised of changing regulations and provides an opportunity to work with members to influence state and national stormwater policy and regulations.

Table 3.2-1 – Sacramento County SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)											
Modify SQIP to reflect the requirements of Stormwater Permit	2		Revised SQIP		♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c		Revised SQIP	Confirmation- submit SQIP to Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	As needed
Annual Work Plan											
Prepare and submit Annual Workplan	3.a		Annual Workplan submitted	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year
Memorandum of Understanding (MOU)											
Review and revise existing permittee memorandum of understanding	3.e		MOU submitted to Regional Water Board		♦						Submit with SQIP 4/30/2009
Legal Authority											

⇔ Ongoing activity/task ♦ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.2-1 – Sacramento County SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Establish and maintain legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance	Confirmation-include revised ordinance in AR			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel to Regional Water Board	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	Confirmation-include statement in SQIP	♦				♦		Submit with SQIP 4/30/2009
Fiscal Analysis											
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report		♦	♦	♦	♦	♦	♦	October 1 each year
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board	Confirmation- ROWD submitted to Regional Water Board by specified date					♦		ROWD due 3/15/2013
Coordination											
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements		⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.2-1 – Sacramento County SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Program Effectiveness											
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October)	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	Submit wih annual reports, October 1 each year
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters	?		Submit information in final AR for permit term (October 1, 2013)	Confirmation- submit ROWD and final AR to Regional Water Board						♦	Submit in final AR 10/1/2013
Long Term Effectiveness Assessment (LTEA)											
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP		♦						Submit with SQIP 4/30/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board	Confirmation - LTEA submitted to Regional Water Board by specified date					♦		Submit with ROWD 3/15/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

3.3 Construction Element

If not properly managed, construction activities can result in erosion and the discharge of sediment and other construction-related pollutants with harmful environmental effects. For example:

> The primary mission of the Construction Element is to prevent sediment and other construction-related pollutants from entering the storm drain system and local creeks and rivers.

- Site grading exposes soil to the erosive effects of rainfall and wind unless the disturbed areas are stabilized as soon as possible after grading and before rain.
- If loose sediments are not adequately retained on the construction site, they can be transported to creeks and rivers where they can harm or destroy aquatic habitat.
- Unless good housekeeping and waste management techniques are used to keep litter, concrete, stucco, paint, and other pollutants on-site, these pollutants can be carried in runoff to creeks and rivers, where they impair the beneficial uses of those water bodies.

Although the rate of land development in the Sacramento region has slowed down recently, it is expected to increase during the 2008-2013 permit term. Current and projected growth in the area is concentrated in the southern and eastern portions of unincorporated Sacramento County. There are several key challenges for this program element:

- Projects are constructed year-round in the Sacramento area due to the climate and there are typically many active grading projects occurring during intense storm events
- There is a myriad of County agencies and departments involved in the design, construction, and administration of projects, and these activities must be coordinated to achieve overall compliance with the Stormwater Permit.
- The state of the practice with respect to erosion and sediment control BMPs is rapidly evolving. To stay abreast of changing technology and learn from the experiences of others, County staff meet with vendors, subscribe to and circulate technical newsletters and journals, attend workshops and conferences, and network with other permittees and stormwater programs.

Pollutants Addressed

The main pollutant addressed by the Construction Element is sediment. Controlling the discharge of sediment from construction sites also reduces the discharge of other pollutants that tend to attach to sediments, such as copper, lead, and other metals that naturally occur in Sacramento's soils. Copper and lead are two of the Program's target pollutants (see Chapter 2, Section 2.5). Sediment itself is also considered a pollutant since excess amounts can harm or destroy aquatic habitat. Construction controls also reduce the discharge of litter, debris, concrete and slurry (high pH), paints (metals) and other construction-related pollutants to local creeks and rivers.

Construction Element Strategy

The County requires that private and public construction sites be managed to reduce the potential for erosion and discharge of sediments and other construction-related pollutants to the County's storm drain system or local creeks. The County's continued approach to ensure compliance includes the following tasks:

- Create and update ordinances and codes to provide continued legal authority to the County for control of construction-related discharges
- Authorize and empower County inspectors and other staff to enforce ordinances and codes; develop and update enforcement policies and procedures as needed
- Provide improvement standards and specifications to the construction community; update as needed
- Conduct plan review and permitting to ensure compliance starting at the earliest possible stage of project design and approval
- Inspect construction sites based on a prioritized threat to water quality and conduct enforcement to ensure compliance
- Help ensure compliance with the State's Construction General Permit
- Educate and inform the construction community about local ordinances and state laws and provide guidance to help ensure compliance with the regulations

Each of these strategies is explained more in the following paragraphs.

Develop and Update Ordinances and Related Documents

In 1993 the County established the Land Grading and Erosion Control Ordinance (*http://municipalcodes.lexisnexis.com/codes/sacramento_co/_DATA/TITLE16/Chapter_16_44_LAND_GRADING_AND.html*) and has updated it since that time. The Erosion Control Ordinance requires projects disturbing one or more acres or moving 350 cubic yards or more of soil to prepare an Erosion and Sediment Control (ESC) Plan as part of the grading permit application process. In addition, the County's Stormwater Ordinance (*http://municipalcodes.lexisnexis.com/codes/sacramento_co/_DATA/TITLE15/Chapter_15_12_STORMWATER_MANAG.html*) prohibits the discharge of sediment and other construction-related pollutants from entering the County's storm drain system. This ordinance was updated in 2005 and applies to all projects, including those not subject to the Erosion Control Ordinance.

Authorize and Empower County Staff to Enforce Ordinances

All County staff, including construction and building inspectors, were authorized by the County Executive in 2000 to enforce the County's Stormwater Ordinance. The County inspectors are also authorized to enforce the Erosion Control Ordinance and issue notices of non-compliance as needed.

Conduct Plan Review and Permitting

The County's Erosion Control Ordinance requires a grading permit and erosion and sediment controls on all private projects, disturbing one acre or more or exceeding 350 cubic yards or more of fill.

Private and public projects in the County disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the County will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit.

Develop Standards, Specifications, and Guidance Materials

The County prepares and updates standards and specifications that provide engineering details and specifications for use in preparing ESC plans. Most of the permittees in the Partnership have opted to use the County's standards and specifications to promote county-wide consistency for the construction community. The ESC plans must specify which BMPs will be used throughout the construction project to minimize pollution risk, given the site conditions. Implementation of the ESC plans requires regular inspection and maintenance of BMPs to prevent pollution at all times.

The County will continue to modify the standards and specifications as newer, innovative, more cost-effective and proven approaches become available.

Inspect Construction Sites According to Water Quality Threat and Conduct Enforcement

Beginning July 1, 2003, the County began inspecting construction sites disturbing one or more acres at a frequency commensurate with the potential threat to water quality. As required by the Stormwater Permit, the County created and regularly updated a prioritized list of sites for inspection. The following factors are used, at a minimum, to determine if sites should be prioritized as "high" or "moderate" threat to water quality:

- *Project size*: All construction sites disturbing five acres or more shall be considered a "high" threat.
- *Erosive or colloidal clay soils*: Projects with sediment-laden runoff which requires filtration (chemical or mechanical), shall be considered a "high" threat.
- *Proximity to Waters of the State*: Any construction site located adjacent to and/or discharging directly into a Water of the State shall be considered a 'high" threat.
- *Previous known violations*: Sites with a project owner or general contractor known to have received one or more stormwater-related enforcement actions from the County, another local agency or the Regional Water Board within the previous two years shall be considered a "high" threat.
- *BMP Status*: Any project site which demonstrates improper installation or maintenance of BMPs or the lack of BMPs shall be considered a "high" threat.

High priority sites are inspected once every two weeks during the wet season (October 1 – April 30) and monthly thereafter. Moderate priority sites are inspected monthly throughout the year.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system.

Help Ensure Compliance with State's Construction General Permit

Although the County has no authority to enforce the State's Construction General Permit, the County is required by the stormwater permit to conduct several tasks to help the regulators ensure compliance for private construction projects disturbing one or more acres:

- County staff must require proof of filing of a Notice of Intent (NOI) to comply with the Construction General Permit prior to issuing a County grading permit for a project.
- County plan checkers must verify that a stormwater pollution prevention plan (SWPPP) has been prepared, including six items specified in the stormwater permit, prior to issuing a County grading permit for a project.
- County stormwater staff will refer verified non-filers to the Regional Water Board.

The County will continue to ensure that County-owned construction projects disturbing one acre or more comply with the Construction General Permit by educating and training staff and reviewing SWPPPs prior to construction. The Directors of various County departments (e.g., Water Resources, Transportation, Water Quality) are responsible for ensuring General Permit compliance for projects conducted by their department, including designating authority for certification of documents required by the General Permit.

Educate and Inform Construction Community

The construction community includes internal County personnel and the external regulated construction community of contractors and their subcontractors. The internal audience includes county construction/project managers responsible for design and construction of county-owned jobs and county inspectors who inspect public and private jobs.

The County provides annual refresher training to staff about proper selection, design, installation, and maintenance of erosion and sediment controls. Typically this training is provided in late summer, just prior to the start of the wet season (October 1). The County also collaborates with the other permittees and organizations such as the Building Industry Association (BIA) to co-sponsor training workshops and informational sessions for the construction community. The County prepares and distributes brochures related to proper use and disposal of paint and concrete wastes, and refers to guidance developed by others, such as the CASQA manual.

The target audience for outreach includes developers, engineers, contractors, plan reviewers, and inspectors working on both public and private projects. These educational

efforts also keep staff and others informed of new and changing regulations, technology, and practices.

Accomplishments To Date

The County has made significant progress in eliminating illegal discharges and controlling erosion and sediment at construction sites in the unincorporated county since the program began in 1990. Key accomplishments include:

- Developed and modified the Stormwater Ordinance and delegated enforcement authority to County inspection staff
- Developed and modified standards and specifications for construction BMPs and hosted a training workshop for permittee staff in cooperation with the City of Sacramento; these standards are now used by all permittees
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects
- Hired designated erosion control staff in the Construction Management Inspection Division and supported stormwater inspection supervisors becoming Certified Professionals in Erosion and Sediment Control (CPESC)
- Consulted with the Building Industry Association (BIA) to develop an Inspectors Checklist for use during construction inspections
- Developed and conducted numerous training workshops for the construction community in coordination with the other permittees in the Partnership, and groups such as the BIA
- Developed and distributed various brochures in several languages
- Required project specific coordination meetings to discuss stormwater issues for all County construction projects
- Developed small construction site brochure
- Provided feedback to the State on new Construction General Permit
- Developed and continually update training for County inspection staff
- All County construction inspection staff trained annually

Activities for the 2008-13 Permit Term

Table 3.3-1 at the end of this section summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 8 of the Stormwater Permit.

This section describes the planned activities in more detail.

Legal Authority

Following adoption of the new State Construction General Permit (anticipated 2009-10); the County will evaluate any necessary changes to this element and related codes and standards, to promote consistency.

Plan Review and Permitting

The County's Land Grading & Erosion Control Ordinance requires a grading permit and erosion and sediment controls on all private projects, disturbing one acre or more or exceeds 350 cubic yards or more of fill.

Private and public projects in the County disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the County will verify that a State-required Notice of Intent (NOI) was filed and will check the SWPPP for six items required by the Stormwater Permit. The County will track grading permits using an electronic database. This is a continuation of activities conducted during the 2002-07 permit term.

Inventory and Prioritization

The City will continue to maintain a database to track public and private active construction sites and will use this information to schedule/prioritize inspections and develop annual reports.

Inspections and Enforcement

The Construction Management Inspection Division will continue to be responsible for day-to-day inspection at project sites and for enforcing the County's erosion and sediment control requirements and the Stormwater Ordinance. Projects will be inspected to ensure compliance with local ordinances, verify that sites adequately address erosion, sediment, and pollution control, and ascertain that SWPPPs and monitoring plans are on-site for applicable projects. The County inspector will give verbal warnings and issue Notices of Violations.

As required by the Stormwater Permit, if a contractor on a project disturbing one acre or more cannot demonstrate that the developer/owner has submitted an NOI or received a Waste Discharge Identification (WDID) number from the state, staff will notify the Regional Water Board within five business days of discovery. Non-filer referrals shall include the project location, developer, estimated project size and records of communication with the developer regarding filling requirements.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

A database of active construction projects and their priorities will be maintained by the County at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks or rivers.

Education and Training for County staff and the Construction Community

The County will continue to provide education and guidance to both County staff (at least annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices.

The County will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the BIA. This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

The County (along with the other co-permittees) will continue to develop and produce outreach materials such as brochures for concrete and painting, printed in English and Spanish.

The County will work with county departments that construct Capital Improvement Projects to develop a policy to address stormwater issues earlier in the planning process.

The County will assess the permitting process which allows Special Districts to construct projects within the County.

Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Construction Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.3-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.3-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Relationship to Other Program Elements

The Construction Element relates to other program elements as follows:

Commercial/Industrial Element (Section 3.4)

Both the Construction Element and the Commercial/Industrial Element target the construction and building trades. County staff working on the two elements collaborate on the development of consistent BMP guidance materials, common educational materials, and training workshops. A mutual enforcement policy and database are shared by the Construction Element, Commercial/Industrial Element, and the Illicit Discharge Element.

Municipal Operations (Section 3.5)

The County requires that County construction projects and construction activities at County facilities follow the same stormwater rules established for private jobs. County staff working on the Construction and Municipal Operations Elements coordinate on annual refresher training for County staff in various different departments to help facilitate continued compliance.

The County conducts site and project-specific training for employees and contractors working on County-owned construction projects.

Illicit Discharge Element (Section 3.6)

County staff implementing the Illicit Discharge Element have developed notification and referral procedures for use by construction inspectors and field maintenance crews when illicit discharge problems are observed at construction projects. These procedures are discussed in Section 3.6. A mutual enforcement policy and database are shared by the Construction Element, Commercial /Industrial Element, and the Illicit Discharge Element.

Public Outreach Element (Chapter 2, Section 2.6)

Effectively educating the construction community about erosion control requires the expertise and help of those implementing the Public Outreach Element. Assistance is needed to identify and develop messages for target audiences, identify and establish focus groups, develop and implement training, and create effective educational and informational materials.

Brochures have been developed for specific building trades in several languages.

New Development Element (Section 3.8)

County staff implementing the Construction and New Development Elements work closely to:

- Coordinate outreach efforts where possible since both elements target common members of the construction and development communities (e.g., engineers, developers)
- Provide education and guidance to help ensure that post-construction stormwater quality control measures required by the County for development projects are

properly installed and protected from receiving excessive sediment loads during construction

- Ensure that "No Dumping-Drains to Creek" messages are permanently stamped on new storm drain inlets during construction

Coordination within the County of Sacramento

Stormwater staff in the County's Department of Water Resources provide training and informational materials to staff in other County departments/groups involved in design, construction, and/or administration of public and private construction jobs. Relationships are established and maintained with project managers, designers, plan reviewers, inspectors, and their managers to achieve and document compliance.

Most interdepartmental coordination is done on an informal basis through written correspondence and regular meetings. For example, stormwater staff participate in routine meetings with the following groups related to Stormwater Permit compliance on private construction projects:

- Plan reviewers in Land Development and Site Improvement Review (LDSIR) who are responsible for reviewing erosion and sediment control plans and issuing grading permits
- Stormwater construction inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance on grading projects and construction of public utilities and roadways
- Stormwater building inspectors in the Construction Management Inspection Division who are responsible for ensuring stormwater compliance for construction of buildings on private jobs

Coordination with Other Agencies and Groups

The County coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. This coordination is also helpful for other purposes.

The County relies heavily on several existing forums for reaching and receiving feedback from the construction and development communities. For example, the County has worked with the BIA, Consulting Engineers and Land Surveyors of California (CELSOC), International Conference of Building Officials (ICBO), and Associated General Contractors of California (AGC) to provide outreach and receive feedback on various issues. County manager(s) attend meetings with the BIA and special presentations are made as needed, such as a presentation made to BIA in March 2003 regarding the Phase II NPDES impacts to local construction projects. The BIA also helped develop the stormwater inspection checklist used by the County's building inspectors.

The County assists the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied

with the State regulations. Through participation in the California Association of Stormwater Agencies (CASQA), the County tracks and comments on periodic revisions to the Construction General Permit and other regulations by the State Water Board.

Table 3.3-1 – Sacramento County SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise Stormwater Ordinance	8.a.i		Adopt revisions as needed	Confirmation - report revisions in AR			♦				1 YR following Regional Board Approval os SQIP
Revise Land Grading and Erosion Control Ordinance	8.a.i		Adopt revisions after Construction General Permit is issued	Confirmation - report revisions in AR		♦					
Plan Review and Permitting											
Review Grading and Improvement Plans	8.a.ii		Document number of Grading Permits issued	Confirmation - report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Track Improvement Plans	8.a.ii		Document number of sites subjected to erosion & sediment controls	Confirmation - report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Review Grading Plans and applications	8.a.ii	✓	Document percentage of sites incorporating erosion and sediment controls	Tabulation	⇔	⇔	⇔ ③	⇔ ③	⇔ ③	⇔ ③	
Track Grading Permits that require coverage under the State C.G.P.	8.a.ii		Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed.	Confirmation - report list in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Standards, specifications & guidance materials											
Implement and as necessary amend standards and specifications	8.a.ii		Adopt revisions after Construction General Permit is issued	Confirmation – report revisions in AR			♦				
Inventory and Prioritization for active construction sites											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.3-1 – Sacramento County SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Prioritize construction sites	8.a.iii		Document prioritization method/schedule and sites with high, moderate, low priorities.	Tabulation –record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Inventory construction sites	8.a.iii		Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Confirmation – identify that the inventory was developed	⇔	⇔	⇔	⇔	⇔	⇔	
Inspections											
Conduct routine inspections	8.a.vi		Update/revise inspection checklist as needed	Conformation – indetify that checklist was updated	⇔	⇔	⇔	⇔	⇔	⇔	
Track sites subject to inspection	8.a.v		Document number of sites subject to inspections	Tabulation –record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Track sites inspected	8.a.vi		Document number of inspections completed	Tabulation – track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	
Enforcement											
Develop progressive Enforcement Policy	8.a.vii		Evaluate & revise enforcement policy as needed	Conformation - report revisions in AR	⇔	⇔◆	⇔	⇔	⇔	⇔	
Conduct enforcement	8.a.vii		Document number and types of corrective and enforcement actions	Tabulation – record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Notify Regional Water Board about CGP non-filers and when 3 or more local violations at a site	8.a.vii		Document number of referrals made to RWQCB	Tabulation – record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Track enforcment actions	8.a.vii	✓	Decrease in number of chronic violations, repeat offenders and/or non-filer referrals	Tabulation - track decrease in enforcement as indicator of changed behavior	⇔	⇔	⇔	⇔③	⇔	⇔	
Capital Improvement Projects											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.3-1 – Sacramento County SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop Countywide policy to address stormwater requirements on Capital Improvement Projects	8.f		Adopt policy when completed	Confirmation - report in AR		♦	⇔	⇔	⇔	⇔	
Education and Training											
Conduct annual refresher training for County staff involved in construction	8.a.viii		Target 100% County receive annual refresher training.	Confirmation/ Tabulation	⇔	⇔	⇔	⇔	⇔	⇔	
Produce literature for construction community	8.a.viii		Send out a wet season procedure letter to inventory of active construction sites. Wet season is defined as October 1 to April 30.	Tabulation – track number of construction related businesses outreached	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct training for the construction community	8.a.viii		Conduct at least one workshop/year	Tabulation – track training activities performed.	⇔	⇔	⇔	⇔	⇔	⇔	
Provide outreach to the construction community	8.a.viii	✓	Increased awareness of construction community as a result of training	Tabulation – estimate raised awareness based on surveys or available research data	⇔	⇔ (2)	⇔ (2)	⇔ (2)	⇔ (2)	⇔ (2)	

⇔ Ongoing activity/task ♦ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

3.4 Commercial/ Industrial Element

> The goal of the Commercial/Industrial Element is to comply with the requirements of the stormwater permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminating illegal non-stormwater discharges from commercial and industrial facilities and operations

The goal of the Commercial/Industrial Element is to comply with the requirements of the stormwater permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and effectively eliminating illegal non-stormwater discharges from commercial and industrial facilities and operations within the urbanized area of the unincorporated County. The Commercial/Industrial Element works to address these conditions through complaint-based inspection and enforcement as well as through outreach targeted at business operators and their employees.

The County's Commercial/Industrial Element compliments the Regional Commercial/Industrial Program (presented in Section 2.7) by coordinating inspections and enforcement, working together to identify priority industries for stormwater compliance inspections and targeted outreach, developing new (and updating existing outreach) materials, and conducting shared presentations at outreach events.

Pollutants Addressed

The County's activities and requirements under the Commercial/Industrial Element address a wide range of pollutants associated with commercial and industrial activities, including metals such as copper, lead, and mercury, three of the Program's target pollutants (see Section 2.5).

For commercial operations such as carpet cleaning companies and landscape contractors, potential pollutants include chemicals, detergents, sediment, fertilizers, and pesticides such as pyrethroid insecticides. Although not yet formally ranked as a target pollutant, the Permittees recognize that pyrethroids have essentially replaced diazinon and chlorpyrifos in the urban market. The Permittees have begun to address pyrethroids as if they were a high ranking target pollutant based on the results of recent studies in local creeks. Due to the mobile nature of these types of businesses, the pollutants can be discharged into the County's storm drain system or local creeks and rivers either directly, or by way of urban runoff from residential areas where the work is done.

The type and amount of pollutants addressed depend on the specific activities taking place at a commercial or industrial facility or by a mobile business operation and the BMPs employed by the operators and their employees to prevent pollution and/or treat site runoff.

Commercial/Industrial Element Strategy

The County's Commercial/Industrial Element employs a variety of strategies to effectively meet the requirement of the stormwater permit. The primary activities conducted by this element include:

- Priority industry and industrial pollutant identification (described in Section 2.7 of the SQIP)
- Commercial and Industrial Stormwater Compliance Program (CISCP) implementation (described in Section 2.7 of the SQIP)
- Complaint-Based Stormwater Compliance Program (CBSCP) implementation
- Educational outreach

A core strategy of the Commercial/Industrial Element is to utilize knowledge gained through implementation of these activities to assess the County's effectiveness. The results of such assessments are used to refine element activities. For example, enforcement-related data collected during the first two rounds of CISCP inspections (first round completed in June of 2007 and second round to be completed in June of 2010) and the CBSCP will be used to refine the priority industries subject to inspections under the CISCP and targeted outreach.

Another strategy is to efficiently use County staff and resources and minimize inconvenience to regulated businesses by building upon existing environmental compliance programs. The County's Environmental Management Department (EMD) agreed to conduct triennial stormwater inspections on behalf of all the permittees, pursuant this strategy.

Accomplishments to Date

The following highlights the major accomplishments of the Commercial/Industrial Element since 1990:

- The County Board of Supervisors adopted the County Stormwater Ordinance in 1998, which provides legal authority for regulating commercial businesses and industries with respect to stormwater pollution. The County updated the ordinance twice during the 2002–07 permit term to clarify and enhance enforcement authority. EMD stormwater inspectors are authorized to enforce this ordinance county-wide; ensuring consistent treatment of regulated industries.
- The permittees developed a list of priority commercial businesses and industry categories subject to either routine inspections or targeted outreach, and definitions for each. EMD refined the definitions of the priority industries based on field inspection observations.
- The permittees and EMD created industry-specific educational materials, including brochures, guidance manuals and Compliance Assistance Bulletins (CABs). These are distributed by direct mail, in training workshops, by way of BERC, during inspections, and in conjunction with enforcement actions. CABs and other CISCP-related compliance assistance materials are also made available on EMD's web site (http://www.emd.saccounty.net/WP/EMDstormwater.htm). Several outreach brochures were translated into Spanish, Russian, and Chinese.
- The permittees and EMD developed and maintained comprehensive databases to track and document inspection and outreach efforts, for annual reporting and progressive enforcement purposes.

- EMD and the permittees coordinated with the Regional Water Board by referring over 110 Industrial General Permit non-filers , reporting significant violations, promptly investigating Regional Water Board referrals, and assisting with coordinated inspections and outreach to selected industries upon request.

Activities for the 2008–13 Stormwater Permit Term

This section describes stormwater permit requirements applicable to the Commercial/ Industrial Element and the activities to be conducted during the 2008–13 permit term.

Table 3.4–1 at the end of this section outlines the activities that will be conducted under the Commercial/Industrial Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:

Legal Authority

The County's Stormwater Ordinance provides legal authority for regulating commercial businesses and industries with respect to stormwater pollution. The Stormwater Ordinance will be amended as needed during the 2008–13 permit term to ensure that pollutant sources from commercial and industrial activities are effectively addressed.

Priority Industry and Industrial Pollutant Identification

Refer to Section 2.7 for a description of priority industry and industrial pollutant identification activities of the CBSCP for the 2008–13 permit term.

Commercial and Industrial Stormwater Compliance Program (CISCP)

Refer to Section 2.7 for a description of CISCP activities of the CBSCP for the 2008–13 permit term. Evaluation of data collected through this program may result in changes to priority industries subject to inspection and outreach.

Complaint-Based Stormwater Compliance Program (CBSCP)

County stormwater staff will inspect businesses within the unincorporated County not addressed through EMD's CISCP program on a complaint basis. Complaints are referred by the public, other County agencies and departments, the Regional Water Board, and other sources. Stormwater staff will refer any complaints related to businesses included in the CISCP to EMD for investigation. All other complaints will be investigated, and associated progressive enforcement will be conducted, by County stormwater staff to ensure compliance with the Stormwater Ordinance. Complaints related to businesses in other permittee jurisdictions will be referred to the respective permittee.

CBSCP Inspections

Inspections of businesses will verify compliance with the County Stormwater Ordinance, including that there are neither illicit connections nor prohibited non-stormwater discharges evident, and that the potential for discharge of pollutants from on-site sources is reduced to the maximum extent practicable.

CBSCP Enforcement

The County will continue to conduct progressive enforcement to obtain compliance in accordance with the County Stormwater Ordinance and will maintain a progressive enforcement policy, if needed, to compliment the enforcement-related procedures contained therein.

CBSCP Outreach

County stormwater staff will provide relevant educational materials, including BMP guidance materials, to businesses during inspections, in conjunction with enforcement actions, through trade associations and industry suppliers, during workshops and other events, through BERC and through the County's website (*http://www.sactostormwater.org/industry.asp*).

CBSCP Data Management

County stormwater staff will maintain a database of reported cases including associated findings and enforcement actions. Data will be evaluated and findings will be used to guide the priority industry identification process.

CBSCP Interagency Coordination

The County stormwater staff will continue to coordinate and cooperate with the Regional Water Board related to non-compliant facilities and suspected Industrial General Permit non-filers, as indicated by the flowchart in Appendix 2F.

Outreach

Refer to Section 2.7 for a description of CISCP activities of the CBSCP for the 2008–13 permit term. Evaluation of data collect through this program may result in changes to priority industries subject to inspection and outreach.

As with past years, it is anticipated that two primary types of outreach materials will be distributed:

- *General brochures and fact sheets*: These publications detail what types of activities may result in illegal discharges to the storm drain system as well as acceptable means of performing typical activities. The brochure entitled "Only Rain Down the Storm Drain" is an example of this type of outreach material.
- *Industry-specific brochures and fact sheets*: These publications provide information on source and treatment control BMPs targeted to specific industries. Source controls prevent the pollutant(s) from contacting site runoff or stormwater, and treatment controls remove pollutant(s) already contained in the runoff. The booklet entitled *BMPs for Pressure Washing and Surface Cleaning* is an example of this type of outreach material.

In addition to direct mail, as described in Section 2.7, educational brochures and other information will be distributed at displays at County public counters, by inspectors, in conjunction with enforcement, through trade associations and industry suppliers, and during workshops and other events.

The County will continue to partner with BERC, the other permittees, and other organizations to provide industry-specific BMP workshops for businesses and special districts (e.g. fire and water districts) as needs are identified.

Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities relevant to the Commercial/Industrial Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.4-1 presents planned activities for the 2008-13 permit term. Each activity or task has an anticipated effectiveness outcome level of between one and six, as described in Section 2.3. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.4-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Compiling and evaluating data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3), where possible, as a result of the inspection, enforcement and outreach efforts, will be conducted to identify potential programmatic enhancement opportunities.

Key Indicators have been selected for the Commercial/Industrial Element that are a subset of element performance standards which are:

- Intended to demonstrate progression towards goals,
- Easily understandable, and
- Common throughout the Partnership.

Key Indicators are identified in Table 3.4-1 and will be used to assess the effectiveness of individual permittee programs as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit.

Evaluations may result in recommended changes to the list of priority commercial/industrial facility categories included in the CISCP, targeted outreach, or other mid-course program refinements.

Relationship to Other Program Elements

The Commercial/Industrial Element relates to other program elements as follows:

Construction Element (Section 3.3)

Coordination between the Commercial/Industrial and Construction Elements helps ensure that commercial and industrial facility owners and operators adhere to applicable local and state regulations for erosion and sediment control when engaging in remodeling and

other on-site construction activities. Element staff collaborate to provide outreach materials and activities, such as brochures and informational workshops, to construction-related businesses in the county. Permittee staff work with the County's Business Environmental Resource Center (BERC; discussed more later in this section) to provide training workshops for pressure washers and other targeted businesses. Brochures have been developed (in English and Spanish) for concrete, swimming pool, and paint-related businesses. These brochures and other educational materials are distributed at construction workshops and in the field by County construction inspectors.

Municipal Operations Element (Section 3.5)

Many County-owned facilities such as corporation yards, airports, and waste management facilities, are covered under the State's Industrial General Permit, as discussed in Section 3.5. Therefore, many of the brochures and BMP guidance materials created through the Commercial/Industrial Element for private industries and businesses in the county can also be used to educate and inform managers and staff who maintain and operate County facilities. The Municipal Operations and Commercial/Industrial Element staff work together to provide annual refresher stormwater BMP and awareness training for County employees.

Illicit Discharge Element (Section 3.6)

There are many businesses addressed by the Commercial/Industrial Element that provide home-related services to residential customers. Examples include carpet cleaning companies, and landscape and concrete contractors. Activities by such businesses could result in illicit discharges to the storm drain system. Commercial/Industrial and Illicit Discharge Element staff work together to conduct inspections and enforcement in response to complaints and to promote pollution prevention awareness. Common problems include erosion of landscape material stockpiles in public streets and gutters, discharge of concrete and paint wastes into the storm drain and washing dirt and debris from paved surfaces into the drain.

Public Outreach Element (Section 3.7)

Commercial/Industrial Element staff coordinate regularly with experienced public outreach professionals to assist with the development of high-quality educational and informational materials for targeted businesses. Materials are distributed by inspectors during facility inspections, by direct mail (e.g., with enforcement actions or through targeted outreach), during training workshops, at public events and at County permit counters. Brochures and other guidance materials are updated and translated into other languages as needed. Educational materials are also distributed through BERC.

New Development Element (Section 3.8)

Developers of commercial and industrial properties and facilities are required to implement stormwater quality control measures in their projects, as required by the New Development Element. County staff reviews environmental impact reports, proposed improvement plans, and various use applications for commercial and industrial projects, to ensure that control measures are integrated into project design as appropriate.

County development plan review also helps ensure that non-stormwater sources are not plumbed from new commercial and industrial facilities to the storm drain system unless specifically allowed by the County's Stormwater Ordinance.

Coordination within the County of Sacramento

Successful implementation of the Commercial/Industrial Element requires close coordination with several County entities that regulate or provide assistance to local industries, as described below.

County Department of Water Quality

- *The Wastewater Source Control Section (WSCS)* reviews and inspects the operations of industrial dischargers to the Sacramento Area Sewer District's collection system. They also work with businesses such as dry cleaners, photo processors and radiator repair shops to help them understand local sewer use regulations and wastewater pollution prevention options. WSCS is responsible for ensuring adequate pre-treatment prior to discharging a waste stream to the sanitary sewer. Lastly, they administer short term discharge permits to the sanitary sewer.

Stormwater staff refers businesses that want to discharge to the sanitary sewer to WSCS for guidance.

- *The Water Quality Permit Services Section* is responsible for issuing permits for long term discharges to the Sacramento Area Sewer District's collection system. Stormwater staff refers businesses that want to discharge to the sanitary sewer to Permit Services for guidance.

Coordination with WSCS and Permit Services Section helps to keep commercial and industrial wastes out of the storm drain system.

County Environmental Management Department (EMD)

EMD implements the CISCP on behalf of the Permittees.

The Permittees coordinate with EMD in many areas, including: providing guidance on implementation of the CISCP, partnering on outreach events, and conducting coordinated enforcement to address facilities comprehensively (since in many situations EMD may regulate a specific tenant in a complex but not the owner of the complex or other businesses within the complex).

Refer to Section 2.7 for more details on coordination with EMD.

County Business Environmental Resource Center (BERC)

BERC's main mission is to provide confidential environmental compliance assistance and guidance to local businesses in the county upon request. County stormwater staff work with BERC to ensure that appropriate stormwater pollution prevention information is provided to local businesses by BERC. Assistance is provided by BERC to develop and distribute guidance materials for selected industries and to work with Industrial

General Permit industries to ensure they have ample opportunity to understand and comply with the regulations. BERC conducts a variety of commercial and industrial training workshops each year to inform the regulated community about compliance with local and state stormwater laws, at which County staff are commonly presenters. BERC also developed and regularly updates a database of businesses in priority industries subject to targeted outreach. The County contributes funding through the Stormwater Utility and EMD to BERC each year.

Coordination with Other Agencies and Groups

County stormwater staff coordinate with various outside agencies and groups that have regulatory and/or economic interests in industries in Sacramento County. This coordination allows for information sharing and ensures that a uniform, consistent message about stormwater pollution prevention is distributed to the regulated community.

- ***Regional Water Board*** — The County coordinates with the Regional Water Board on issues related to Industrial General Permitted industries as well as other businesses. The County initiates investigations of all stormwater problems at businesses referred by the Regional Water Board, within three business days of referral. The County informs the Regional Water Board of all discovered significant violations and of potential General Permit non-filers within 30 days of discovery. The County also supports Regional Water Board actions upon request, by allocating staff, providing documentation of observed problems, etc.
- ***Trade and Business Associations*** — The County cooperates with commercial and industrial businesses through associations and organizations. These associations are provided with outreach materials, information on Industrial General Permit requirements and information on BERC's compliance assistance program.

Table 3.4-1 – Sacramento County SQIP
Commercial/Industrial Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise stormwater ordinance as needed	9.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR	⇔	⇔	♦ ⇔	⇔	⇔	⇔	1 yr. from SQIP approval
Complaint-Based Stormwater Compliance Program (CBSCP) – County DWR/Stormwater Section											
Implement enforcement policy as needed	9.a.iii-viii		Implement enforcement policy (if needed)	Confirmation - report any formally adopted policy in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Investigate business-related complaints	9.a.iii-viii		Document business-related complaints investigated	Tabulation – track number of complaints investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii		Decrease in enforcement actions from one permit cycle to the next	Tabulation – track number of enforcement actions issued	⇔	⇔	⇔	⇔	③	⇔	
Conduct workshops, upon request, for the regulated community (including special districts such as fire and water districts)	9.a.iii-viii		Document workshops requested and conducted	Tabulation - track number workshops held, number people reached in AR	⇔	⇔	⇔	⇔	⇔	⇔	
CBSCP database - track inspections, enforcement and outreach materials distributed, businesses by category	9.a.iii-viii		Use data adjust and improve program	Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCP or Educational Outreach					③		
Refer potential Industrial General Permit non-filers to the Regional Water Board	9.a.iii-viii		Document potential non-filers referred to Regional Water Board	Tabulation – Track number of non-filers referred	⇔	⇔	⇔	⇔	⇔	⇔	
Track NOIs filed for potential non-filers referred to the Regional Water Board	9.a.iii-viii		Increase in percentage of non-filers referred to Regional Water Board filing NOIs	Tabulation – Track percentage of non-filers referred that gained coverage					③		
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.4-1 – Sacramento County SQIP
Commercial/Industrial Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate	9.a.iii-viii		Document support efforts	Tabulation – Track number of cases where support was provided to the Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach											
Develop industry and pollutant-specific eductional materials	9.b.iii		Document industry and pollutant-specific eductional materials developed	Tabulation - track number of revised/new materials in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Track industry and pollutant-specific materials distributed	9.b.iii		Document industry and pollutant-specific materials distributed	Tabulation - track number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

3.5 Municipal Operations Element

The primary mission of the Municipal Operations Element is to control stormwater pollution resulting from the operation and maintenance of County-owned facilities. A secondary mission is to set an example of model pollution prevention for the public.

The Municipal Operations Element addresses operation and maintenance of County-owned facilities within urbanized Sacramento County. The County's operation and maintenance activities take place at either fixed facilities, at a specific location, or are part of field programs that take place over a broader, non-specific area. The Municipal Operations Element goal is to prevent County facilities and operations from causing or contributing to stormwater pollution.

Examples of County-owned fixed facilities include: buildings (e.g. structures, parking lots, and landscaping), corporation yards (e.g. vehicle and equipment maintenance and parking, and materials storage), solid waste facilities (e.g. landfills and transfer stations), and recreational facilities (e.g. regional parks). Examples of County-owned facilities addressed by field programs include transportation facilities (e.g., roads, roadside ditches, medians, and shoulders); drainage collection, transmission, and detention systems (e.g., drain inlets, manholes, pipes, channels, flood control basins, and stormwater pump stations); water quality facilities (e.g., water quality detention basins).

Various Sacramento County agencies operate facilities that are covered by the State General Industrial Permit. Additionally, some operations and maintenance activities are covered by the Aquatic Pesticide General Permit or the Limited Threat Discharges General Permit. County construction projects disturbing one or more acres are subject to the Construction General Permit. Kiefer Landfill is also covered by an Individual NPDES Permit. County agencies and departments with facilities and activities covered under state permits are not only responsible for ensuring compliance with those permits but are also responsible for complying with the requirements of the County's Municipal Separate Storm Sewer System (MS4) Permit.

The Municipal Operations Element does not address facilities operated by or operations conducted by special districts (e.g., fire, parks, reclamation, sanitation, school, vector control, water) or federal or state government agencies (e.g., California Department of Transportation, U.S. Bureau of Reclamation) that are outside the County's jurisdictional control. Special districts within the unincorporated County are addressed through the Commercial / Industrial Element.

Pollutants Addressed

The County's activities and requirements under the Municipal Operations Element address a wide variety of pollutants typically found in urban runoff, including the target pollutants previously identified by the Partnership Program (See Chapter 3, Section 3.5.) For the most part, the activities are designed to remove pollutants from the storm drain system, or reduce the contribution of pollutants. However, if not properly conducted, some routine maintenance activities may have the potential to contribute pollutants to stormwater runoff, as described below.

Examples of activities with potential stormwater pollutant sources include: materials storage and handling; waste collection, storage, and disposal; vehicle and equipment parking, maintenance, and washing; road maintenance and street sweeping; drainage pipe, channel, and detention basin repair and cleaning; vegetation control; and construction and retrofit of County facilities.

These activities are properly managed and continually evaluated to reduce the potential for pollutants to be discharged to the storm drain system and/or local receiving waters. Pollutants addressed will vary, depending on the activity. For example:

- Outdoor materials and waste storage and handling areas at County facilities have the potential to contribute oils, greases and sediments to site runoff. Therefore, staff that design, construct, operate, and maintain these public facilities are trained and evaluated on their knowledge, implementation, and management of stormwater Best Management Practices (BMPs).
- Vehicle and equipment maintenance and washing facilities can contribute oils, grease, solvents, petroleum hydrocarbons, and detergents to the storm drain system. These activities are conducted in areas that are not exposed to stormwater contact and do not result in non-stormwater discharges to the storm drain system.
- Vehicle and equipment parking areas can accumulate automotive fluids, sediments and debris. Sweeping and oil stain removal are Source Control BMPs implemented prior to each rainy season in parking areas exposed to stormwater contact.
- Construction of new and retrofit of existing County facilities can contribute sediments and construction related pollutants to local receiving waters. Erosion, sediment, and other pollution control measures are installed, inspected and maintained through all phases of construction.
- Cleaning and maintenance of County-owned facilities such as buildings, parking lots, streets, pipes, channels, and detention basins could cause a non-stormwater discharge. BMPs such as protecting storm drain inlets, minimizing the use and capturing of wash water during street and parking lot cleaning, and using integrated pest management techniques that minimize the use and/or toxicity of herbicides for removing vegetation, are implemented.
- Management of vegetation along roadsides and in drainage channels can contribute to pesticides and fertilizers in runoff. BMPs are employed to reduce the amount of chemicals used and training is provided to staff related to proper application and handling methods.

Municipal Operations Strategies

The County employs the following strategies to minimize potential adverse environmental impacts:

- Conduct targeted employee training, provide technical assistance for managers and contractors, and create/implement Municipal Storm Water Pollution Prevention Plan (Municipal SWPPP) at selected facilities.

- Periodically evaluate Municipal SWPPPs, facilities and field activities in order to recommend new or improved BMPs; and
- Create and maintain record keeping tools that provide data for effectiveness assessments and continuous improvement.

These combined efforts help ensure countywide compliance with the stormwater permit in order to reduce stormwater pollution to the maximum extent practicable.

Each of these strategies are explained in greater detail in the following paragraphs.

Educate County Employees and Contractors

Outreach and training targets several audiences:

- County designers and design consultants are provided guidance related to the selection and design of stormwater quality controls for new and redevelopment public projects.
- Contractors working on County projects are required to comply with the County's Land Grading and Erosion Control Ordinance (Grading Ordinance) and the State Construction General Permit. Information is presented through training workshops and other educational materials. Refer to Section 3.3 for more details.
- Targeted employees are educated about proper housekeeping practices and the selection and implementation of appropriate stormwater quality BMPs through presentations at staff meetings and site visits by County stormwater staff (discussed later in this section). Guidance materials are developed or obtained from other agencies (e.g., statewide BMP guidance manuals, Caltrans, etc.) and distributed to demonstrate proper techniques. Technical assistance is also provided through periodic evaluations of work-sites or Municipal SWPPPs to identify problems and adjust BMPs.
- Maintenance personnel are educated about conducting maintenance in a way that prevents discharges to the storm drain system and protects local creeks and rivers. This education is done primarily through staff meetings, annual training, one-on-one correspondence and written guidance materials.

Evaluate and Continuously Improve Operations

Evaluations are conducted periodically by collecting and reviewing records and data, evaluating Municipal SWPPPs, conducting site and field evaluations, or conducting surveys of County staff to assess employee awareness and program effectiveness. The goal is to continuously improve stormwater pollution prevention.

Maintain Records and Documentation

Recordkeeping and reporting helps demonstrate compliance with the stormwater permit and provides data for evaluating and improving activities. Each department and group in the County maintains their own recordkeeping system and supplies data and information to the County stormwater staff at least annually for incorporation into the October 1 Annual Report. County stormwater staff maintains records related to employee training and evaluations conducted. Every attempt is made to quantify efforts in ways that relate to protection of water quality. For example, records of the tonnage or volume of wastes removed from street sweeping and storm drain system maintenance are recorded in order to demonstrate the County's goal to reduce the amount of such material discharged downstream to local creeks and rivers.

Accomplishments To Date

Since the inception of the Program in 1990, the County has made the following accomplishments related to the Municipal Operations Element:

- Provided education and outreach to various designers of County projects who now include specific requirements intended to ensure compliance with local and State stormwater quality regulations in their project specifications
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., County maintenance staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned)
- Worked with local environmental groups to determine alternative environmentally-friendly ways to conduct overbank cleaning of natural creeks and streams
- Evaluated priority facility operations and maintenance activities to identify improved BMPs and provided outreach and training to staff in targeted positions
- Provided assistance to County facilities subject to the Industrial General Permit relative to reviewing SWPPPs, evaluation of facility operations, and recommendation of improved BMPs, as requested
- Provided assistance to County agencies, departments, divisions, and sections related to compliance with the State's Aquatic Pesticides General Permit
- Implemented cleaning and maintenance programs for prioritized streets and parking lots
- Stenciled 95% of all storm drain inlets located within the County's boundaries with a "No Dumping – Drains to Creek" message
- Stormwater staff developed and distributed door hangers to be used by stormwater staff and field crews to educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges

- Implemented the Parking Lot Inspection and Maintenance Program. Assisted County agencies with establishing inspection procedures and maintenance activities
- Implemented the County-wide Integrated Pest Management Policy
- Coordinated with Sacramento County Aircraft Rescue Fire Fighting (ARFF) to establish BMPs for non-emergency fire fighting flows
- Created and maintained Municipal SWPPPs at County corporation yards, and other facilities conducting vehicle maintenance or material storage that have the potential to discharge pollutants to the storm drain system or local waterways

Activities for the 2008–13 Stormwater Permit Term

This section describes the stormwater permit requirements applicable to the Municipal Operations Element and the activities to be conducted during the 2008–13 permit term. Additional details are provided about the effectiveness methods (introduced in Table 3.5-1) that the County plans to use to demonstrate effectiveness during the 2008–13 term. County documents outlining maintenance procedures, programs and policies are updated as needed to reflect current practices. Revised documents pertaining to Municipal Operations will be submitting in Annual Reports as they occur.

Tasks

Provision 10 of the stormwater permit pertains to the Municipal Operations Element. The requirements of this provision are described in detail in Table 3.5–1 at the end of this section and can be summarized as follows:

Illicit Discharge Response

County crews will respond to reported illegal discharges and conduct first response activities, containment, cleanup, and disposal of materials for non-hazardous and hazardous pollutant discharges to the storm drain system.

New Development and Construction Requirements for Municipal Projects

The County will continue to implement New Development Standards at applicable Municipal projects. The County will comply with the Construction Program Element requirements during Municipal Capital Improvement Projects, and will obtain coverage under the General Construction Permit when applicable.

Facility Management

Municipal SWPPPs were developed during the 2002 – 2007 permit term for all County facilities not covered under the General Industrial Permit that are vehicle maintenance facilities, material storage facilities and corporation yards having the potential to discharge pollutants to the storm drain system. Municipal SWPPPs will be evaluated during the 2008-2013 permit term in order to assess the effectiveness of the Municipal SWPPP implementation. BMPs will be adjusted if identified to be inadequate and the Municipal SWPPP will be updated to address any BMP modifications. A database will be used to track the number and types of facilities, operating agency, evaluations performed, including the frequency of evaluations.

Landscape and Integrated Pest Management

The County will continue to implement the Integrated Pest Management (IPM) Policy and conduct pesticide storage, usage and disposal procedures as described in the Sacramento County Pesticide Plan. Pest management activities associated with County operations, and County-owned facilities and property shall be in accordance with the principles of IPM Policy, State and Federal pesticide use laws and regulations, and the Municipal Stormwater Permit. Stormwater staff will continue to oversee the implementation of pesticide management and other IPM strategies as part of the landscape management activities and operation of recreational facilities. Refer to appendix 3B for a copy of the County-wide Integrated Pest Management Policy.

Storm Drain Operations and Maintenance

The County will conduct storm drain operation and maintenance in accordance to the manhole and pump station sump maintenance program provided in 2003 SQIP.

Catch basin and sump cleaning will continue to be based upon the following criteria:

- The manhole's proximity to sensitive receiving waters
- The manhole's proximity to regional stormwater quality BMPs (e.g., water quality detention basin)
- The presence or absence or downstream manholes or sumps.
- High priority manhole sumps will be inspected annually, prior to the rainy season, and cleaned, as needed, based upon inspection. The remainder will be cleaned during regular maintenance program activities.

Refer to appendix 3C for a copy of the Sacramento County Procedures for Manhole and Pump Station Sump Inspection and Cleaning.

County of Sacramento maintains creeks and channels within the unincorporated portions of the County, and in the Cities of Citrus Heights and Rancho Cordova. Visual inspections are performed annually of all creeks and channels to check for erosion, vegetation, debris, illicit connections and flow obstructions. Refer to appendix 3D for a copy of the Sacramento County Guidelines for Operating and Maintaining Creeks and Channels.

Stormwater staff will continue to evaluate the storm drain operation and maintenance activities to ensure that proper BMPs are implemented, storm drain inlet markers are replaced when illegible, and that adequate record keeping capturing overall maintenance activities and quantities of waste removed is performed.

Storm Drain Stenciling

The County labeled 95% of storm drain inlets with the "No Dumping" message during 2002 - 2007 permit term. As part of the drainage system maintenance activities, the County will continue to ensure that drain inlets are labeled and existing labels replaced if illegible.

Street and Road Maintenance

The County of Sacramento Department of Transportation sweeps prioritized streets according to the street prioritization requirements established during 2002-2007 permit. Stormwater staff will annually review the total amount of pollutants removed from street sweeping activities. Refer to appendix 3E for a copy of the Sacramento County Street Sweeping Prioritization Guidelines.

Stormwater staff will conduct evaluations ensure that BMPs are implemented during street cleaning and roadway maintenance operations. Evaluations of street and road maintenance activities will be performed to ensure that BMPs are implemented to prevent street sweeper rinse out water, concrete chute rinse water, and saw cut slurry from entering the storm drain system.

Parking Facilities Management

The County will continue to perform its Parking Lot Inspection and Maintenance Program established during the 2002-2007 permit. The primary objective of the Parking Lot Inspection Program is to inspect parking facilities to assess maintenance needs, and perform the necessary maintenance prior to October 1st of each year in order to reduce source pollutants.

Stormwater staff will continue to evaluate procedures to ensure that BMPs are implemented during maintenance activities and annually collect data related to the type of maintenance activities performed.

Non-Emergency Fire Fighting Flows

Stormwater staff will continue to assist Sacramento County ARFF staff with preventing non-emergency flows from entering the storm drain system during training and maintenance activities. ARFF staff will continue to implement the BMPs established during the 2002 – 2007 permit.

Employee Outreach and Training

Stormwater staff provides annual stormwater pollution prevention training for employees in targeted positions. Targeted employees will receive training related to stormwater pollution prevention, BMP identification and implementation, proper housekeeping practices, as well as identification and reporting of illicit discharges and connections. Stormwater staff will continue to provide annual training and will conduct employee awareness surveys during the 2008 – 2013 permit to assess employee awareness levels and training effectiveness. Survey results will be submitting in the annual report at the end of the permit term.

Detention Basin Maintenance

The County will continue to maintain detention basins within its jurisdiction according to the Sacramento County Detention Basin Maintenance Manual. Stormwater staff will continue to evaluate, and adjust as needed, guidelines for operation and maintenance of water quality detention basins, catch basins and sumps in order to minimize the discharge of pollutants during maintenance activities. Refer to appendix 3F for a copy of the Sacramento County Detention Basin Maintenance Guidelines, and appendix 3G to view a

copy of the County's Standard Protocol for Application of Herbicides and Pesticides for use at Creeks, Channels and Detention Basins.

Emergency Procedures

Stormwater staff will continue to work with targeted departments to ensure that during emergency responses to repair essential public services and infrastructures, that stormwater BMPs are implemented to the extent that measures do not compromise public health and safety.

Municipal Operations Effectiveness Assessment

Stormwater staff will conduct effectiveness assessment throughout the permit term to establish permit compliance, areas of success, and any necessary modifications. Assessment results will be reported in the Annual Reports. Proposed effectiveness methods were addressed earlier in this chapter.

Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Municipal Operations Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.5-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.5-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

The key challenge for the 2008–13 permit term will be to identify ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 & 3) as a result of training and facility/activity BMP evaluations.

Key Indicators have been selected for the Municipal Operations Element that are a subset of element performance standards which are:

- Intended to demonstrate progression towards goals,
- Easily understandable, and
- Common throughout the Partnership.

Key Indicators are identified in Table 3.5-1 and will be used to assess the effectiveness of individual permittee programs as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the stormwater permit.

Evaluations may result in recommended changes to maintenance activities, corporation yard management, and training materials or topics.

Relationship to other Program Elements

The Municipal Operations Element relates to other elements as follows:

Construction Element (Section 3.3)

State regulations require that County construction projects disturbing one acre or more of land be covered under the State's Construction General Permit. The Construction General Permit calls for preparation and implementation of SWPPPs to describe erosion and other stormwater controls at the site, including inspection and maintenance for the BMPs. Typically the SWPPPs are prepared and implemented by the County's prime contractor or his/her subcontractor, but SWPPP certification, review and oversight is provided by a County official and the responsible County project manager.

County inspectors, however, are not authorized to enforce the State Construction General Permit. For this reason, the County may also require separate erosion and sediment control plans for its projects, which are enforceable by the County inspectors.

Project specific training about construction stormwater pollution prevention requirements is provided to County designers, project managers, inspectors, and contractors, as described in Section 3.3.

Commercial/Industrial Element (Section 3.4)

The County operates industrial-like facilities such as the corporation yard, therefore, the educational materials developed for the commercial/industrial target audiences described in Section 3.4 would apply to some County managers and staff as well. The County strives to set an example for local businesses and industries by ensuring that County facilities comply with the same requirements that apply to private commercial and industrial facilities in unincorporated Sacramento County.

Illicit Discharge Element (Section 3.6)

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in the County's storm drain system. From here, the pollutants could migrate to local creeks and rivers. Designated staff in the Transportation and Water Quality Departments respond to reports of possible illicit discharges. These specially trained staff will investigate and cleanup the materials and report the incident to the stormwater staff in the Department of Water Resources for further investigation and enforcement.

Other County maintenance personnel are also trained about how to identify potential illicit discharges and refer the problem for investigation and cleanup (see Section 3.6).

Public Outreach Element (Section 3.7)

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to various County audiences through workshops, correspondence, and educational materials so that all targeted staff receives the important message of protecting stormwater quality.

New Development Element (Section 3.8)

County planners, designers and their consultants are educated about stormwater quality and flow control requirements applicable to redevelopment of County facilities and are provided guidance such as the Stormwater Quality Design Manual discussed in Section 3.8.

Coordination within the County of Sacramento

The Municipal Operations Element regularly coordinates with the other agencies, departments, divisions, and sections listed in Table 3.2-1 located in Section 3.2.

Coordination with Other Agencies and Groups

The County coordinates with the other Permittees, stormwater programs, and local, state, and federal agencies to share information and strategies related to operation and maintenance of County facilities.

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge Element		⇔	⇔	⇔	⇔	⇔	⇔	
New Development and Construction Requirements for Municipal Capital Improvements Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction and New Development Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.		Implement Municipal SWPPPs at facilities not covered under the State General Industrial Permit.	Confirmation / Tabulation- Track number of Municipal SWPPPs	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct Municipal SWPPP evaluations twice during Permit term			Document site evaluations performed	Confirmation / Inspection - Coduct two site evaluations during Permit term. First round of ev	♦				♦		

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Maintain database for tracking of facilities, activities, evaluations and correspondence with facility managers			Provide BMP and activity modification guidance to implementing departments	Tabulation - Track Municipal SWPPP programs	⇔	⇔	⇔	⇔	⇔	⇔	
Assess Municipal SWPPP effectiveness		✓	Identify changes in BMP implementation and employee behavior	Tabulation / Inspection - Track Municipal SWPPP modifications	1				3		
Integrated Pest Management Program											
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv. , 10.b.iii.		Decrease amount of pesticides and herbicides used by County staff	Confirmation - Track agencies implementing IPM policy	⇔	⇔	⇔	⇔	⇔	⇔	
			Document number of agencies and IPM programs implemented	Tabulation - Track IPM programs	⇔	⇔	⇔	⇔	⇔	⇔	
Ensure proper pesticides storage, usage, and disposal practices			Minimize contact with rain water and potential for spills	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Continue to implement standardized protocols for routine and non-routine application of pesticides, herbicides and fertilizers			Ensure staff are complying with the County's standardized protocols for routine and non-routine application of pesticides, herbicides and fertilizers	Confirmation - Track County groups that apply pesticides, herbicides and fertilizers	⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain System Maintenance											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Clean prioritized catch basins and sumps		✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Visually monitor Permittee owned open channels and perform maintenance as needed based upon sediment and trash accumulation		✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Storm Drain Stenciling Program											
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi		Document number of storm drain inlets labeled by County Crews	Confirmation - Document Stenciling Program	⇔	⇔	⇔	⇔	⇔	⇔	
			Replace illegible storm drain markers with new markers as needed	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
Street Sweeping Program											

⇔ Ongoing activity/task ◆ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct street sweeping activities	10.a.vii. , 10.b.v.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Clean streets according to prioritization requirements established in 2002-2007 Permit term			Document prioritized streets	Tabulation - Track number of streets and miles swept	⇔	⇔	⇔	⇔	⇔	⇔	
Prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.			Implement BMPs during road maintenance and construction activities	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Parking Lot Maintenance											
Maintain Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.viii., 10.b.vi.		Document number of parking lots maintained and type of maintenance performed	Tabulation - Track number of facilities and activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
			Evaluate Parking lot maintenance programs and adjust as needed	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Non-Emergency Fire Fighting Flows											

⇔ Ongoing activity/task ◆ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant source of pollutants to waters of the State. The response plan and BMPs shall be updated and submitted with the Annual Reports.	10.a.ix. , 10.b.ix.		Implement BMPs for non-emergency flows from County agencies	Confirmation - Document that BMPs are implemented	⇔	⇔	⇔	⇔	⇔	⇔	
			Ensure Sacramento County Aircraft Rescue Fire Fighting implements BMPs during non-emergency flows	Confirmation - Document that BMPs are implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Employee Training											
Conduct training to targeted employees to increase awareness of BMPs/pollution prevention practices	10.a.x. , 10.b.x		Conduct annual refresher training	Tabulation - Track number of employees trained and training activities	♦	♦	♦	♦	♦	♦	
Assess effectiveness of employee training	10.a.xi, 10.b.xi	✓	Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	
Detention Basin Maintenance											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.5-1 – Sacramento County SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Implement Detention Basin Operation and Maintenance Program	10.b.vii.		Evaluate program to ensure that adequate BMPs are implemented	Confirmation / Tabulation- Track number of activities modified	⇔	⇔	⇔	⇔	⇔	⇔	
Emergency Procedures											
BMPs shall be implemented during emergency responses to minimize pollutants discharged to the storm drain system as long as it does not compromise public health and safety.	10.b.viii.		Increase awareness of BMP implementation during emergency responses	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Municipal Operations Element Effectiveness Assessment											
Conduct and assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.	10.a.xi.		Submit effectiveness Assessment results in AR each year (October)	Confirmation- include effectiveness assessment results in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

3.6 Illicit Discharge Element

The primary mission of the Illicit Discharge Element is to effectively eliminate illegal non-stormwater discharges to the County's storm drain system and local creeks and rivers.

The goal of the Illicit Discharges Element is to comply with the requirements of Provision 11 of the Stormwater Permit by reducing the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges from non-commercial sources.

The storm drain system consists of a network of drain inlets, manholes and pipes, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Illicit discharges can result from dumping of liquid or solid wastes into the storm drain system, or from allowing pollutants to come into contact with stormwater (or stormwater runoff) where they are then transported into the storm drain system.

Examples of illicit discharges include:

- Draining used motor oil or other automotive fluids into the gutter or storm drain inlet
- Washing off paint brushes or concrete tools without containing the wastewater
- Dumping garbage or other wastes into drainage channels and creeks
- Allowing leaking automotive fluids to accumulate on a driveway or street and get washed into the nearest drain inlet during the next rain event

Many sources of illicit discharges can be readily observed by the trained eye. Illicit connections, however, are sources of illicit discharges that are often not visible to the passer by. An illicit connection occurs when a wastewater or process water source is illegally plumbed directly to the storm drain system (often underground to a drain inlet, manhole or pipe). In order to detect illicit connections it is often necessary to enlist the help of the County crews that operate and maintain the storm drain system. Examples of illicit connections include:

- Washing machine wastewater plumbed to a roadside ditch
- Septic system plumbed to a drainage channel
- Indoor floor drain connected to a drain inlet
- Outdoor wash area connected to a manhole

Any material dumped or discharged into the County's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

Pollutants Addressed

The County's activities and requirements under the Illicit Discharge Element address virtually every pollutant commonly found in urban runoff. The type and amount of pollutants addressed will depend on the source(s) of the pollutants. For example, detergents would be addressed in cases where County staff identified and eliminated illicit discharges created by a household discharging washing machine wastewater to the County's storm drain system.

Illicit Discharges Element Strategy

The three major components to the County's strategy for eliminating illicit discharges are as follows:

- Maintain an effective Stormwater Ordinance and other local regulation to prohibit illicit discharges
- Educate County staff and the public about how to identify and report illicit discharge problems and maintain a hotline for public reporting of problems
- Conduct investigations and enforcement of the Stormwater Ordinance to eliminate illicit discharges/connections detected by way of reports from the public and/or County maintenance crews conducting ongoing screening for illicit discharges/connections

Each of these strategy components is explained in the following paragraphs.

Maintain an Effective Stormwater Ordinance

In 1998, the County adopted a Stormwater Ordinance that prohibits discharges of pollutants into the County's storm drain system (Sacramento County Code 15.12; see Section 3.2). The term "pollutants" is widely defined to include a range of materials and wastes. Most non-stormwater discharges and all illicit connections are prohibited. The County Executive issued a memorandum in 2000 authorizing all County employees to enforce the Stormwater Ordinance.

The Stormwater Ordinance was updated twice during the 2002–07 permit term and will be updated, as needed, during the 2008–13 permit term.

Educate County Staff and the Public

The County provides education at many levels — with the general public, contractors, business owners, and County maintenance crews — regarding ways to prevent and report potential illicit discharges and connections to the County for investigation. Most informational materials (e.g., brochures) developed by the County and all media pieces include the County's hotline number (875-RAIN) for reporting of problems. All joint program outreach uses a joint reporting hotline number (808-4H2O), which forwards the caller to 875-RAIN for the unincorporated county. Response and notification procedures are followed to facilitate quick response and cleanup to protect the storm drain system and local waterways.

Investigate Reports of Illicit Discharges/Connections and Enforce the Stormwater Ordinance

County staff that conducts routine maintenance of the storm drain system is trained to look for, identify, and report suspicious discharges to County responders and the stormwater staff. Following cleanup by response personnel, County stormwater staff conducts investigations to try to determine the source(s) of the pollutants. If a commercial/industrial site is suspected, inspections may be conducted at the facility to further investigate and verify the source. If the facility is one the priority industries included in the County Environmental Management Department's (EMD's) stormwater compliance program, EMD inspectors then conduct follow-up investigations. Once source(s) have been verified, progressive enforcement is conducted to eliminate the illicit discharge and pollutant sources.

To prevent the installation of new illicit connections during new development and redevelopment activities, County building inspectors check that selected areas of facilities are properly connected to the sanitary sewer system, rather than the storm drain system. This includes waste storage areas, vehicle and equipment wash areas, maintenance shops/bays, etc.

Accomplishments to Date

The following highlights major accomplishments of the Illicit Discharge Element since 1990:

- During the early part of the Program (1990-1995), the County conducted a field screening program. Outfalls to channels were investigated in the field for possible illicit discharges/connections, and follow-up was conducted to eliminate problems. No illicit connections were identified through this program; however, one ongoing illicit discharge was identified and eliminated.
- In 1998 the County Board of Supervisors adopted the County's Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted). Additional details about the Stormwater Ordinance are provided in Section 3.2. The County also delegated responsibility for enforcement of the Stormwater Ordinance to other County agencies outside of the Municipal Services Agency. The Stormwater Ordinance was revised twice during the 2002–07 permit term.
- Ninety-five percent of storm drain inlets in existing areas of the County were stenciled with the "No Dumping — Drains to Creek" message, primarily using volunteers. As required by the County's Improvement Standards, permanent "No Dumping" stamps were applied to all new concrete storm drain inlets, beginning in the mid 1990's.
- In 1999, the County Consolidated Utilities Billing System (CUBS) Nuisance Abatement Hotline began accepting calls from the public to report illicit discharges. This number is still in operation and the public also has the option of submitting online reports. Calls related to illicit discharges are forwarded to stormwater staff.

- In 2000, operators of the County's drainage complaint hotline (875-RAIN) began accepting and referring public reports of illicit discharges and other stormwater problems to the stormwater staff.
- In 2005, the permittees began using 808-4H2O for all joint outreach efforts. Illicit discharge complaints from the unincorporated county received through this hotline are directed to 875-RAIN.
- In 2006, stormwater staff began accepting calls on the internal county Stormwater Quality Hotline (874-4SWQ) which is advertised to crews during training workshops as the number to call for investigation and enforcement support related to Stormwater Ordinance violations.
- During the 2002-07 permit term, stormwater staff developed and distributed door hangers. The door hangers were designed to be used by stormwater staff and field crews to help educate the public about stormwater quality and to elicit reporting in the vicinity of illicit discharges, or a response and mitigation by a culpable party. The door hangers contain pockets where outreach brochures can also be provided where appropriate. Re-sealable envelopes that are printed with guidance to field crews on how to properly use the door hangers, illicit discharge response procedures, and information on reporting requirements are also distributed with the door hangers.

Activities for the 2008–13 Permit Term

This section describes Stormwater Permit requirements applicable to the Illicit Discharge Element and the activities to be conducted during the 2008–13 permit term.

Table 3.6–1 at the end of this section outlines the activities that will be conducted for the Illicit Discharge Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following describes the major activities in more detail:

Legal Authority

The County's Stormwater Ordinance provides legal authority for regulating pollutant discharges to the storm drain system. The Stormwater Ordinance will be amended as needed during the 2008–13 permit term to ensure that it contains adequate legal authority to prohibit pollutant discharges from non-commercial activities.

Reporting of Potential Stormwater Ordinance Violations

Both 875-RAIN and the CUBS Nuisance Abatement Hotlines will be maintained for reporting by the public of potential illicit discharges/connections. The internal 874-4SWQ hotline for crews to access stormwater staff for investigation and enforcement support will also be maintained.

Screening for Illicit Connections

Maintenance crews will continue to screen for illicit connections to the storm drain system as part of their regular maintenance activities. Screening will be conducted according to the procedures developed and implemented during the 2002–07 permit term, and will be amended as needed. These procedures are provided in Appendix 3H.

Investigation

Stormwater staff will continue to investigate, with the support of maintenance crews, as needed, reports of illicit discharges/connections. Reports of non-hazardous discharges will be investigated within five days and discharges suspected of being hazardous within one day of discovery. Reports of illicit connections and suspected illicit connections indicated by evaluations of dry weather monitoring data will be investigated within twenty-one days.

Response, Containment and Cleanup

County crews will continue to provide response, containment and cleanup of illicit discharges to the storm drain system. Whenever possible, the discharger and/or property owner will be required to immediately cease any discharges and will be required to conduct cleanup of pollutants discharged and/or pollutant sources. When this cannot be accomplished, and in urgent situations, County crews will cleanup the pollution, take steps to eliminate the pollutant source and pursue cost recovery on behalf of the department(s) providing response. The procedures for the County's Department of Transportation's response and cleanup of hazardous or unknown material and waste spills and the Area Plan for Emergency Response to Hazardous Materials Incidents are provided in Appendix 3I and 3J, respectively. Response, containment and cleanup procedures will be amended as needed throughout the stormwater permit term.

Enforcement

The County will continue to conduct progressive enforcement to obtain compliance in accordance with the County Stormwater Ordinance and will maintain a progressive enforcement policy, if needed, to compliment the enforcement-related procedures contained therein.

Data Management

Stormwater staff will maintain a database that tracks complaints, referrals, inspections and enforcement actions. Locations of illicit discharges and connections will be plotted on a map which may be used to help identify targeted areas for outreach or to support investigations of potential illicit connections indicated by evaluation of dry weather monitoring data. A copy of this map will be provided in Annual Reports.

Outreach

Stormwater staff will continue to develop and distribute educational brochures and other materials to educate the public on how to conduct their activities in accordance with the Stormwater Ordinance and to encourage public reporting of those responsible for violating the Stormwater Ordinance. Outreach materials will be distributed in conjunction with investigation and enforcement actions as well as at outreach events.

Training

County staff involved in response, containment cleanup and reporting of illicit discharges/connections and ongoing screening for illicit connections will continue to be trained annually during the 2008–13 permit term.

Provide Disposal Options for Disposal of Toxic Substances

The County will continue to maintain its household hazardous waste drop-off center located at the North Area Recovery Station and provide links on our website for other toxic waste disposal facilities within the County. The Department of Waste Management and Recycling will continue their program for curbside collection of used motor oil. Quantities of toxic substances collected will be presented in annual reports.

Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the Illicit Discharge Element, including proposed methods for evaluating effectiveness and baseline data requirements for 2008-13 permit term.

Activities from the 2002-07 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for the 2008-13 permit term activities.

Table 3.6-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.6-1 shows the years in which focused assessments will be conducted to determine if a higher outcome level has been attained.

Compiling and evaluating data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3), where possible, as a result of the inspection, enforcement and outreach efforts, will be conducted to identify potential programmatic enhancement opportunities.

Key Indicators have been selected for the Illicit Element that are a subset of element performance standards which are:

- Intended to demonstrate progression towards goals
- Easily understandable
- Common throughout the Partnership

Key Indicators are identified in Table 3.6-1 and will be used to assess the effectiveness of individual permittee programs as well as that of the partnership as a whole in the Long-Term Effectiveness Assessment (LTEA) required by the Stormwater Permit.

Evaluations may result in identification of targeted outreach opportunities or other mid-course program refinements.

Relationship to Other Program Elements

The Illicit Discharge Element relates to the other program elements as follows:

Industrial Element (Section 3.4)

County stormwater staff and EMD inspectors are trained to look for evidence of illicit connections and discharges during their inspections of local commercial and industrial facilities (see Section 3.4). In addition, stormwater staff review reports of illicit discharges furnished by the public or County field crews, conduct field investigations if needed, and notify EMD if it is suspected that an industrial facility is the source of the discharge. The two groups then collaborate on a course of action to eliminate the discharge.

Municipal Operations Element (Section 3.5)

County personnel responsible for operating and maintaining County facilities and the storm drain system are required to attend annual training. The training educates them about ways to minimize pollutant discharges to the storm drain system during operation and maintenance activities, as well as procedures for detecting, reporting and clean-up of spills, illicit discharges, and illicit connections to the County's storm drain system. County facility operators are educated about how to employ BMPs to effectively address pollutant sources associated with their activities. Examples include information about the use of appropriate BMPs during vehicle washing and maintenance and proper storage and disposal of materials and waste products. The County's goal is to be a model of pollution prevention for the rest of the community.

The Municipal Operations Element includes an activity to ensure that 95% of the County's storm drain inlets are stenciled with "No Dumping" messages. This activity helps to educate the public that pollutants do not belong in storm drains and over time will hopefully help to reduce the number of illicit discharge incidents.

Public Outreach Element (Section 3.7)

Stormwater staff working on the Illicit Discharge Element assists the County's public outreach staff to design educational materials which include information on how to identify and report suspected illicit discharges to the County's hotline number. The materials also include information on alternatives for safe disposal of household hazardous wastes and recycling programs. Illicit Discharge Element staff also attends public events and demonstrate — using tools such as the educational watershed model for kids— how illicit discharges and connections in the urban environment can impair water quality.

New Development Element (Section 3.8)

The County development plan review process ensures that non-stormwater sources are not connected to the storm drain system unless specifically allowed by the County's Stormwater Ordinance. Such discharges are typically discharged to the sanitary sewer under agreement with the Sacramento Regional County Sanitation District (SRCSD) and Sacramento Area Sanitation District (SASD).

Coordination within the County of Sacramento

Almost all Illicit Discharge Element activities involve partnership with other County Departments. The Illicit Discharge Element relies heavily on the activities of other County groups to carry out its mission. Relationships with other County departments are maintained largely on an informal basis, although intra-agency agreements can be established if needed. The following describes the interaction of the Illicit Discharge Element with activities of other County entities:

Maintenance and Operations Crews

County maintenance crews and other personnel within the Departments of Water Resources, Transportation, Waste Management and Recycling, and Water Quality may encounter spills and other illicit discharges during their routine maintenance activities. Water Resources and Transportation crews conduct first response activities, containment, cleanup, and disposal of materials for non-hazardous and hazardous pollutant discharges to the storm drain system, respectively. Their activities are followed up with reports to stormwater staff for tracking, investigation and enforcement purposes.

County Environmental Management Department (EMD)

EMD implements a number of programs that address a wide array of pollutant sources. Staff from three EMD divisions is trained to identify and refer stormwater violations:

- The Water Protection Division (WPD) and the Hazardous Materials Division (HMD) were recently merged into a single branch, and activities of both divisions are now conducted under the HMD branch. HMD staff is responsible for implementing the Commercial and Industrial Stormwater Compliance Program (CISCP), the county's septic program and regulates solid waste facilities. Stormwater staff coordinate with HMD, as needed, to address specific situations related to these programs. HMD is also the lead agency for enforcement of hazardous materials regulations for the County. Stormwater staff coordinated with HMD, as needed, to address specific situations related to hazardous materials storage, handling, etc.
- The Environmental Health Division (EHD) enforces provisions of the California Health and Safety Code at restaurants and public swimming pools. Stormwater staff coordinate with EHD, as needed, to address specific situations related to EHD programs.

Plan Reviewers

Plan reviewers in various County departments and County building inspection staff may also detect proposed or newly constructed illicit connections. Following action to eliminate the connection, such findings are reported to County stormwater staff.

Waste Management and Recycling

County solid waste programs provide various disposal options to the general public that help reduce illegal dumping into the storm drain system and local creeks and rivers. These programs include household hazardous waste events and collection centers; battery, oil, and paint recycling centers; and curbside recycling of used motor oil. The

County also has a Conditionally Exempt Small Quantity Generator Program to allow small businesses to dispose of their hazardous waste, since they are not allowed to use residential household hazardous waste events. County stormwater staff collects data on the quantity of recycled material or hazardous waste collected as a result of these programs.

Coordination with Other Agencies and Groups

The County coordinates with the other permittees to maintain the 808-4H2O reporting hotline and to develop outreach materials.

The County contracts with the Sacramento Metro Fire District and City of Sacramento Fire Department to provide emergency response for major hazardous materials spills that cannot be easily handled by the Department of Transportation's Hazmat Team. Coordination is also important in the event of a spill that impacts multiple jurisdictions and/or threatens a major waterway in the Sacramento area.

Table 3.6-1 – Sacramento County SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Adopt stormwater ordinance revisions as needed	11.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR			♦				One year following Regional Board approval of SQIP
Reporting of Illicit Discharges and Connections											
Maintain public hotline for reporting of illicit discharges and connections	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - track no. of complaints received through 875-RAIN and CUBS Nuisance Abatement	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Maintain hotline for County crews to report illicit discharges and connections	11.a.ii		Decrease in no. of reports of illicit discharges and connections received from County crews	Tabulation - track no. of reports from County crews received through 874-4SWQ and other mechanisms	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Screening for Illicit Connections											
Conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii		Decrease in no. of illicit connections detected by field screening activities since last permit term	Tabulation - include no. of illicit connections detected by way of field screening activities in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Investigations of Illicit Discharges and Connections											
Investigate illicit discharges	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report, hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - include no. of non-hazardous and hazardous illicit discharge investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.6-1 – Sacramento County SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
			Decrease in no. of illicit discharges investigated since last permit term	Tabulation					③		EA due 12/13
Investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - Include no. of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in Ar yearly
			Decrease in no. of illicit connections investigated since last permit term	Tabulation					③		EA due 12/13
Illicit Discharge and Connection Response, Containment and Cleanup											
Develop response, containment and cleanup procedures, revise as needed			Revised response, containment and clean up procedures (if needed)	Confirmation - report revisions in AR	⇔◆	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, update due 09/10
Respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Decrease in no. of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - track no. of illicit discharge responses	⇔	⇔	⇔	⇔	⇔③	⇔	Reported in AR yearly, EA due 12/13
Respond to and abate illicit connections	11.a.iii ; 11.b.ii		Decrease in no. of responses and abatements of illicit connections since last permit term	Tabulation - track no. of illicit connections abated	⇔	⇔	⇔	⇔	⇔③	⇔	Reported in AR yearly, EA due 12/13
Enforcement											
Implement enforcement policy as needed			Implement enforcement policy (if needed)	Confirmation - report any formally adopted policy in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in no. of enforcement actions since last permit term	Tabulation - track no. of enforcement actions conducted	⇔	⇔	⇔	⇔	⇔③	⇔	Reported in AR yearly, EA due 12/13
Data Management											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.6-1 – Sacramento County SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Maintain CBSPC database to track investigations, enforcement actions and outreach materials distributed	11.a.v		Completed revisions of CBSPC or its uses (if needed)	Confirmation - report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - submit map and report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Outreach/Training											
Distribute educational materials to public, and document/quantify materials distributed			Completed revisions of outreach materials (if needed) and tabulations of no. of individuals that received outreach materials	Confirmation/Tabulation - track no. of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Provide County employee training to field screening and illicit discharge response crews annually	11.b.vi		Track no. of County employees trained	Tabulation - track no. of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
			Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	
Facillitation of Proper Household Hazardous Waste Disposal											
Maintain operation of the County's household hazardous waste drop-off centers and curbside used motor oil collection program		✓	Increase in the quantities of household hazardous waste and used motor oil collected from public since previous permit term	Tabulation - track amounts of HHW collected at County sites	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

3.7 Public Outreach Element

The County's Public Outreach Element tasks are described in Section 2.6, the Regional Public Outreach Program.

3.8 New Development Element

The primary mission of the New Development Element is to mitigate urban stormwater impacts associated with new development and redevelopment.

Urbanization and land development can harm Sacramento creeks and rivers in several ways:

- Replacing natural ground with impervious surfaces (such as roofs and pavement) increases the volume and peak flow rate of stormwater runoff. Those changes to hydrology can lead to stream bank erosion, flooding, and habitat impairment.
- Adding impervious surfaces such as parking lots, streets, and roofs increase the temperature of the water discharged to creeks, potentially harming aquatic life.
- Converting land uses from rural to urban increases pollutant load from activities such as automobile and landscape maintenance.

The permit requires the permittees to ensure that new development and redevelopment projects mitigate their stormwater impacts. The County works closely with other permittees to ensure that all permittees approach development mitigation in a consistent way, and the County is in charge of regulating development within the unincorporated areas of the County. Through its development standards, *Stormwater Quality Design Manual for Sacramento and South Placer Regions (Stormwater Quality Design Manual),* and permit review process, the County ensures that new development and redevelopment projects in the unincorporated areas of the County are designed to mitigate their associated stormwater impacts. The mitigation strategies are discussed in the section on *New Development Strategy*.

To date, the focus of the New Development Element has been on mitigating stormwater quality impacts. However, the new permit contains requirements to also address impacts to runoff volume and rate (hydromodification impacts) where those impacts could cause creek erosion or otherwise harm the creek. The new requirements are discussed in the section on *Activities for the 2008-2013 Term*.

Pollutants and other Stormwater Impacts Addressed

The New Development Element is designed to reduce development-related pollution, which can include virtually every pollutant commonly found in urban runoff. The type and quantity of pollutants associated with development differ depending on the land use.

Pollutants Associated with Various Land Uses

Industrial and commercial sites typically have activities that can affect stormwater quality if not controlled at the source. Runoff from roadways and outdoor parking areas typically contains oil, grease, and total petroleum hydrocarbons from cars, and sediments from air deposition.

Runoff from single-family and multi-family residential land uses typically contains pollutants generated from cars and everyday household activities. For example, landscaping activities can contribute pesticides, herbicides, and phosphorus from

fertilizers into stormwater runoff; home and auto maintenance can also result in illegal dumping of pollutants such as paints, solvents, and used motor oil.

The County encourages developers to select control measures that are most appropriate for the pollutants associated with the planned land use.

Pollutants Addressed by Various Control Measures

Once the pollutants associated with a certain project are identified based on the land use, appropriate stormwater quality measures should be incorporated. Stormwater quality treatment control measures are engineered technologies designed to remove pollutants from site runoff. The treatment control measures are sized and configured using either a volume-based or flow-based design approach. Volume based measures depend on storage and gravitational settling for pollutant removal (e.g., detention basins, vaults); therefore they are designed for the water quality volume. Flow-based measures are designed for the water quality flow because they depend on filtering the runoff through vegetation and do not require long detention times for pollutant removal (e.g., vegetated swales).

National studies have shown that volume-based treatment control measures such as wet detention basins are effective at reducing total suspended solids (TSS), total and dissolved phosphorus, and total and dissolved metals, including copper and lead. Basins are not designed to remove pesticides, but may result in some removal when pesticides adhere to sediment.

Flow-based treatment control measure such as grassy swales and filter strips have been shown to be effective in reducing TSS, total phosphorus, metals (including copper and lead), and total petroleum hydrocarbons.[1] Coliform results for these devices are highly variable.[2] As with detention basins, these measures may remove some pesticides through sedimentation.

Underground vaults and other types of proprietary devices have varying degrees of predicted removals, depending on the unit and vendor laboratory/field tests. Many are designed to remove litter and coarse sediments, and some of the total metals (e.g., copper and lead) that attach to sediment. They can also reduce oil and grease if they contain oil-absorbing pillows in the first chamber. But most proprietary measures cannot remove fine particulates.

Other Stormwater Impacts Addressed by the New Development Element

Historically, the County of Sacramento and other permittees have sought to control stormwater runoff from urban development in order to protect the quality of the receiving water bodies. In recent years, it became apparent that managing the runoff volume and duration changes caused by new development in ways that prevent/reduce the erosion of these receiving bodies (hydromodification management) is just as important. The US EPA defines hydromodification as: “Alteration of the hydrologic characteristics of coastal and non-coastal waters, which in turn could cause degradation of water resources.

[1] American Society of Civil Engineers, National Stormwater Best Management Practices (CONTROL MEASURES) Database, Version 1.0, June 1999.

[2] Municipality of Seattle and Richard Horner, *Biofiltration Swale Performance, Recommendations and Design Considerations (Publication No. 657)*, Seattle, Washington, October 5, 1992.

In the case of a stream channel this is the process whereby a stream bank is eroded by flowing water. This typically results in the suspension of sediments in the water course."

The new permit requires the permittees to address hydromodification. Please refer to table 3.8-1 for more details on the proposed activities to deal with this requirement.

New Development Strategy

The County seeks to mitigate the potential harmful stormwater impacts from development and redevelopment with the following approach:

- Integrate stormwater quality considerations and requirements as early as possible into the planning, initial site design, and environmental review processes.
- Provide technical guidance and training opportunities and conduct ongoing outreach to the development community.
- Require site design features that help control pollution at its source.
- Require stormwater quality treatment control measures (preferably aboveground, vegetated) that cleanse runoff before it reaches creeks and rivers.
- Adopt quantitative and qualitative development standards to require implementation of Low Impact Development (LID) strategies.

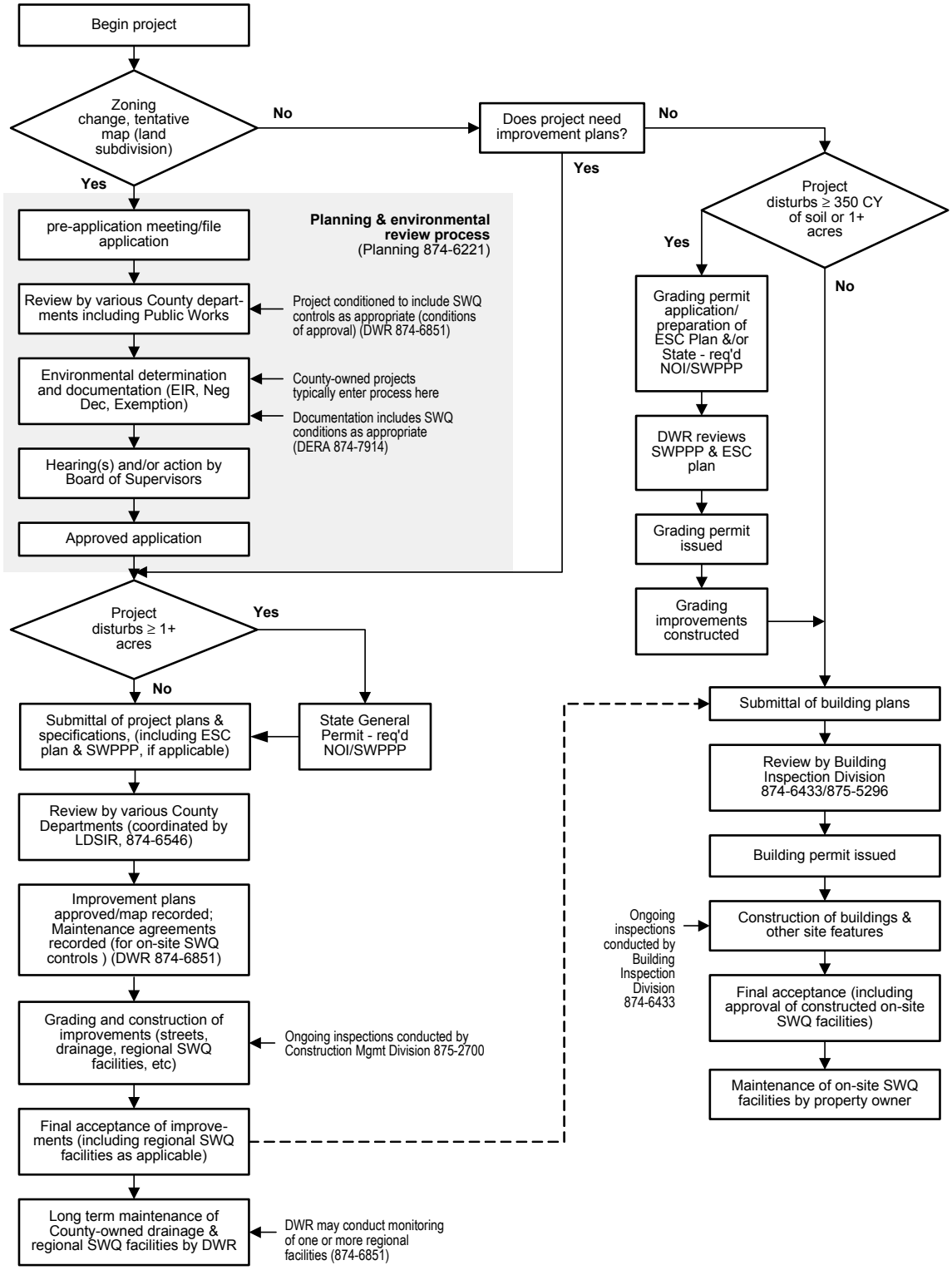
Each of these strategies is explained more in the following paragraphs.

Address Stormwater Impacts Early in the Design Process

The County's goal is to consider stormwater impacts of proposed projects early in the design process. The planning review processes ensure that the project applicant considers appropriate stormwater quality control methods at the site layout and design stage of development. The County stormwater staff works closely with Planning Department staff and attends regular pre-application meetings hosted by the County planners to educate engineers and developers about stormwater quality requirements. In addition, most development projects are conditioned to include stormwater quality control measures through the environmental review process conducted by the County's Department of Environmental Review and Assessment (DERA) in conformance with the California Environmental Quality Act (CEQA)

Figure 3.8–1 presents the County's typical review and approval process for new and redevelopment projects. The flowchart indicates steps in the process where stormwater quality reviews and approvals are required/ conducted.

Figure 3.8–1.
Typical County of Sacramento Development & Review Process
for incorporating Stormwater Quality (SWQ) & Erosion & Sediment Control (ES) Controls



DWR — Department of Water Resources; LDSIR — Land Development & Site Improvement Review; DERA — Department of Environmental Review & Assessment; NOI — Notice of Intent; SWPPP — Stormwater Pollution Prevention Plan; SWQ — Stormwater Quality

Provide Technical Guidance to the Development Community

The County provides technical guidance to the development community through the *Stormwater Quality Design Manual,* which was published in May 2007. In addition, information related to development standards and guidance is posted on the joint program web site: *www.sacramentostormwater.org*. The County will continue working with other permittees to make information available to the development community about locally-accepted stormwater quality control measures.

Control Pollution at Its Source

This strategy can be one of the most cost-effective ways to protect local creeks and rivers. New development projects can control pollution at its source through site design features that limit contact of pollutants with stormwater runoff. For example, such design features include:

- Designing trash collection areas in commercial and multi-family residential developments to minimize contact of runoff with pollutants.
- Providing a central car wash area for apartment complexes and draining the wash area to the sanitary sewer instead of the storm drain system.
- Applying "No Dumping — Flows to Creek" messages to storm drain inlets to educate the public that dumping pollutants can harm local creeks and rivers.

Refer to the *Stormwater Quality Design Manual* for information on selecting source control measures.

Require Stormwater Treatment Control Measures

Treating runoff is required for projects above certain size thresholds, which vary with respect to project category (please refer to table 3-2 in the *Stormwater Quality Design Manual*). Treatment control measures are intended to filter and settle pollutants out of runoff before it travels off the site. Information needed to select and size treatment control measures is detailed in the *Stormwater Quality Design Manual.*

Require Incorporation of LID Measures

The *Stormwater Quality Design Manual* encourages the use of LID measures by incorporating runoff reduction and vegetated treatment measures into development projects. Runoff reduction measures, such as permeable pavement and disconnected down spouts, manage runoff close to its source by promoting infiltration by minimizing impervious surfaces. Other runoff reduction measures such as tree canopy interception provide shade (which reduces runoff temperatures) and allow for infiltration and evapotranspiration thus reducing the runoff volume. It is anticipated that these runoff reduction measures will be required as part of the revisions to the development standards to comply with the stormwater permit LID requirements.

Accomplishments to Date

Since the inception of the Program in the early 1990s, the County has made significant progress in controlling urban runoff pollution from new development. Among its major accomplishments, the County:

- Prepared and submitted a Development Standards Plan (DSP) on December 1, 2003.
- Within one year of approval of the DSP by the Regional Water Board, adopted development standards in May of 2006 and began applying them to new and redevelopment projects.
- Partnered with the City of Sacramento to develop City/County stormwater quality design standards, including methods for selecting, sizing and configuring water quality detention basins. These standards were in place from 2000 until the new design manual was published in May 2007.
- Partnered with Cities of Sacramento, Folsom, Rancho Cordova, Citrus Heights, Elk Grove, Galt, and Roseville to create the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, first published in draft form in December 2006, updated in February 2007 and finalized in May 2007. This two-year process entailed outreach with the development community and meetings with a newly formed stormwater committee of the local Building Industry Association.
- Amended the California Environmental Quality Act (CEQA) review process to provide additional stormwater quality protection language in July of 2003.
- Added stormwater quality and watershed protection principles to the County General Plan during the 2006-2010 update process.

Activities for the 2008-2013 Permit Term

This section describes the stormwater permit requirements applicable to the New Development Element and the activities to be conducted during the 2008-2013 permit term.

Stormwater Permit Requirements

The stormwater permit requires that the permittees regulate new development and redevelopment projects so that they incorporate measures to mitigate associated stormwater quality impacts. In addition, the new permit requires mitigating the hydromodification impacts associated with new development. When development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and other harm.

The permit now requires that the permittees develop a plan to mitigate hydromodification impacts associated with new development where the runoff could cause erosion or other harm to the local creeks. This will result in new requirements for some development and redevelopment projects.

In addition, the stormwater permit requires the permittees to develop quantitative and qualitative LID standards to require all priority new development and redevelopment projects to incorporate LID measures. The developed criteria will be incorporated into the *Stormwater Quality Design Manual.*

Overview of Proposed Activities

Table 3.8–1 outlines the activities that will be conducted for the New Development Element during the 2008–13 permit term. This table presents planned activities, associated performance standards and effectiveness assessment methods, as well as a five-year implementation schedule.

The following sections describe the major activities in more detail.

Development-Related Standards, Policies and Codes

The County will continue to periodically evaluate and amend the standards to incorporate new permit requirements as needed during the 2008–13 permit term**.** The *Stormwater Quality Design Manual* will be revised to incorporate detailed LID criteria and hydromodification mitigation criteria 6 months after the amendment of the development ordinances and standards. The County will convene meetings of the steering committee (which includes representatives from each permittee) periodically during the 2008–13 permit term to update the *Stormwater Quality Design Manual* as needed.

Stormwater quality requirements need to be coordinated with other County and other agency codes and standards (such as those related to tree preservation/landscaping, water conservation, sanitary sewer and solid waste) in order to avoid conflict and overlap. The County stormwater staff will continue to work with the County Planning Department, Department of Transportation and other departments, as well as with outside agencies such as County Sanitation District-1 and Metro Fire District, to evaluate and amend policies and codes as needed for consistency.

The County General Plan is being updated and the final draft is expected to be adopted in winter of 2009. Stormwater quality and watershed protection principles were integrated into the General Plan during the update process. Further updates to the General Plan are not expected during the 2008–13 permit term.

Waiver Program

The County will work with other permittees to develop a waiver program for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The owners of projects that qualify for a waiver would pay into an in-lieu fund; the applicable local permitting agency would use the fund to conduct other stormwater quality control programs elsewhere in the affected watershed.

It is anticipated that the waiver program will be used where stormwater requirements conflict with other County objectives, particularly those reflected in “Smart Growth Projects”. There is an inherent conflict between achieving the “Smart Growth” densification objectives and using space on these dense projects for above-ground stormwater conveyance, runoff reduction measures and stormwater quality treatment features. The County will continue to work with other organizations, such as the Sacramento Area Council of Governments (SACOG) to identify and resolve issues between stormwater requirements and Smart Growth objectives.

Hydromodification Management Plan (HMP)

The County will work with other permittees to meet the requirements of the stormwater permit with regards to hydromodification management (see the prior section on permit requirements). As a first step, the permittees will determine where the requirements would apply in Sacramento County based on which waterways have the potential for erosion and habitat degradation. For those areas where it is determined that hydromodification management measures apply, geomorphic studies will be conducted as needed to assess the degree of susceptibility to erosion and degradation. Based on the outcome of those studies, approaches and tools will be recommended for future development and redevelopment projects to retain/detain flows at the specified erosion susceptibility level. Once the requirements are in place, the County will condition projects to comply.

To comply with the permit requirements, the permittees are submitting a work plan for the HMP as part of this document. Please refer to Appendix **2B** for the proposed HMP Work Plan. One year after the Regional Board approves the work plan, the permittees will submit the HMP document.

Treatment Strategies for Roadway Projects

Roadway projects of five or more acres must include stormwater quality treatment control measures. This is a challenge since few treatment options work for these types of projects, given space constraints and the difficulty in isolating the drainage for a portion of a roadway. The challenge is even greater with public road projects because of safety and maintenance concerns about the treatment control measures. The County stormwater staff will continue to work with the Department of Transportation to identify solutions. It is anticipated that ongoing research results from Caltrans' demonstration projects will help in this effort.

Maintenance of Stormwater Quality Control Measures

The County will continue to evaluate the best approach for educating owners of private treatment control facilities about their maintenance responsibilities.

The County will ensure long-term maintenance of treatment control measures by requiring maintenance covenants to be executed before the approval of the project. Also, the County stormwater staff will require property owners to certify that the treatment measures on their sites are properly maintained. In addition, the County will continue training construction inspectors to ensure proper installation of the treatment control measures. The stormwater staff will review and update the maintenance procedures for publicly owned facilities as needed.

Control Measures Effectiveness Studies

The County will continue to work with other permittees to conduct several studies of the effectiveness of local stormwater control measures and will publish results in the Annual Monitoring Report. See Chapter 2.4 for more details.

Outreach to Educate the Development Community

The Sacramento area development community includes developers, property owners, engineers, landscape architects, architects, environmental specialists, and others who plan and design projects in the public and/or private sectors. The County's effectiveness in reducing stormwater pollution depends on the level of knowledge and understanding this community has regarding mitigation methods and stormwater requirements. The County therefore works collaboratively with the other permittees to share information with the development community and promote consistency across municipal boundaries. The County also provides technical guidance and design support to help the development community comply with stormwater quality requirements.

The permittees post information related to development standards and guidance on the joint program web site: *www.sacramentostormwater.org*, and will update that website as needed.

Employee Training

The County conducts ongoing internal education with its various agencies and departments to make sure that staff consistently applies new development policies to private developments as well as to the design of County buildings and facilities.

Each year, stormwater quality staff will continue to train County employees in the Planning, Development Review, and Environmental Review departments regarding stormwater quality requirements. Training will also be provided to other employees in targeted positions as needed.

Effectiveness Assessment

The County's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the New Development Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Activities from the 2002-2007 permit term were evaluated to identify modifications necessary to demonstrate effectiveness and baseline data requirements for 2008-2013 permit term activities.

Table 3.8-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated. Table 3.8-1 shows the years in which focused assessments will be conducted to determine if a higher outcome levels have been attained.

Relationship to Other Program Elements

The New Development Element relates to other Program elements as follows:

Construction Element (Section 3.3)

The County requires temporary erosion and other pollution controls to be applied during the construction phase of development projects. The County also requires that permanent stormwater-quality control measures be protected from excessive sediment loading. If the permanent facilities are not adequately protected during construction, the County requires that the contractor clean and/or repair them before the new stormwater facilities will be accepted for County ownership. In addition, the County requires engineers to certify in the development submittals that the stormwater-quality control measures on the site were installed properly.

Commercial/Industrial Element (Section 3.4)

The County's requirements for stormwater quality treatment apply to development and redevelopment of commercial and industrial properties/facilities (as well as other types of development). The County's guidance manuals and standards call for selection of control measures best suited for the land use and pollutants anticipated to be present in site runoff.

Finally, through the multi-departmental plan review process for new industrial and commercial facilities, the County ensures that unauthorized non-stormwater flows are directed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

Municipal Operations Element (Section 3.5)

The County owns, operates and maintains the regional detention basins that are constructed to treat runoff from newly developed areas. The County Stormwater Program Staff provide facility guidelines and procedures to County maintenance crews for inspection and maintenance. The goal is to ensure that the facilities are operating optimally to remove pollutants from stormwater runoff.

The County makes every effort to include on-site stormwater quality control measures at new County-owned buildings and facilities. The County is responsible for long-term maintenance of those control measures once construction is complete.

Illicit Discharge Element (Section 3.6)

If not properly controlled, accidental or illegal non-stormwater discharges and spills could end up in regional detention basins or on-site stormwater quality control measures. From here, the pollutants could migrate to local creeks and rivers. The County's notification and referral procedures discussed in Section 3.6 would be implemented if spills were to impact a stormwater treatment facility. The County response team would notify the stormwater staff and follow-up investigations would be conducted to verify that receiving waters were not impacted.

Additionally, as noted above for the Commercial/Industrial element, the County's plan review process for newly developing properties ensures that unauthorized non-

stormwater flows are plumbed to the sanitary sewer system or otherwise treated, rather than connected to the storm drain system.

Public Outreach Element (Section 3.7)

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to the development community. Public information experts help identify target audiences and associated messages and tools, conduct training and outreach, and collaborate on the design of educational materials.

Coordination within the County of Sacramento

Due to the many phases of project design, approval and construction, coordination within the County of Sacramento is critical to the success of the New Development Element. Coordination is needed to ensure that pollution prevention occurs on County projects as well as those in the private sector.

The stormwater staff within the Department of Water Resources manages the New Development Element. This section coordinates with the following other agencies and departments:

- Municipal Services Agency — Department of Water Resources (Development Review, Design and Maintenance Sections), Department of Transportation (Engineering/Planning Section), Department of Water Quality, Department of County Engineering and Administration.
- Community Development and Neighborhood Assistance Agency — Department of Environmental Review and Assessment, Department of Planning and Community Development.

Coordination with Other Agencies and Groups

As previously explained, the County works closely with the other permittees, especially the City of Sacramento, regarding several New Development Element Activities. Notably, the County works with other permittees to create design criteria and guidance materials, study the effectiveness of stormwater quality treatment control measures, and conduct outreach to the development community. The coordinated approach ensures that the development community is receiving a consistent, uniform message.

Special districts that fall outside the County's jurisdiction and control (e.g., regional transit and fire, water, school, park, and reclamation districts) generally follow different review processes than private projects. It is more difficult to ensure that these projects include stormwater quality controls at the earliest review stage possible, but the County strives to have stormwater quality control measures included on each site as applicable. Outreach to and education of these special districts is an important goal.

The County provides information to the development community through several organizations with local Sacramento chapters. These include: the Business Industry Association (BIA), Associated General Contractors of California (AGC), Consulting Engineers and Land Surveyors of California (CELSOC), American Society of Civil Engineers (ASCE), American Institute of Architects (AIA), and American Society of Landscape Architects (ASLA).

Table 3.8-1 – Sacramento County SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles.	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Development of Standards and/or Guidance											
Develop Low Impact Development (LID) design criteria	15.b		Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔ ♦				6 months after approval of HMP.
	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development standards.
Develop HMP Work plan as part of the revised SQIP.	15.c		Outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔ ♦						30-Apr-09
Develop HMP	15.c		Develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento.	Confirmation - submit work products to Regional Water Board **1 year** after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan
Develop design criteria for hydromodidfiaction management measures.	15.c, 26		Include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards
Develop a mitigation fund if needed	19		Develop a mitigation fund framework to support regional stormwater projects.	Confirmation – develop framework when needed and submit to regional Board.	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.8-1 – Sacramento County SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop a waiver program	20		Propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			
Protect groundwater quality	23		Apply restrictions to the use of structural treatment measures which are designed to function infiltration devices in areas of high ground water table.	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned.	Tabulation - track no. of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track no. of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track no. of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.8-1 – Sacramento County SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop a database to track priority projects that have been issued a permit to construct treatment control measures.	22		Update database of priority projects	Tabulation - track no. of projects that completed the construction of treatment control measures and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition priority development projects through CEQA to include stormwater quality control measures as applicable.	13.b-d, 13.g, 21		Update list of priority development project conditioned.	Tabulation - track no. of projects conditioned and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Track the incorporation of stormwater quality measures from the planning phase until completion of project.	Tabulation - compare no. of projects that submitted Pre-Application forms to no. of projects that implemented the stormwater quality measures correctly.	⇔	⇔	⇔	⇔	⇔	⇔ ③	
	13.i	✓	Increase in number of priority projects that correctly incorporated treatment measures.	Tabulation - compare no. of acreage treated to total acreage developed and report in Annual Report.		③	③	③	③	③	
Stormwater Maintenance Agreement											
Verify maintenance of treatment measures	13.b, 13.e, 18		Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures.	Tabulation and Confirmation – track no. of executed maintenance agreements and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.8-1 – Sacramento County SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Require property owners to self-certify the maintenance of the treatment measures on their sites annually			Track number of self certification requests.	Tabulation – track no. of responses to self-certification requests.							
	13.i	✓	Increase awareness of proper maintenance procedures.	Tabulation - track response time to demonstrate proper maintenance.	⇔	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
	13.i	✓	Ensure proper maintenance of manufactured devices by tracking amount of sediment collected.	Quantification - track depth of sediment removed from manufactured devices.	⇔	⇔	⇔	⇔	⇔	⇔ 4	
Outreach and Training											
Conduct outreach to the development community about the latest stormwater quality policies and requirements.	24		Continue outreach about the Planning and New Development Program Element	Tabulation - track no. of revised/new materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increased awareness of stormwater quality requirements and criteria.	Tabulation – estimate raised awareness based on surveys or available research data.	⇔	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track no. of employees trained and report outcome in the Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 3.8-1 – Sacramento County SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
	13.i	✓	Increased awareness of targeted employees about stormwater quality requirements as measured by surveys and quizes.	Tabulation – estimate raised awareness based on surveys/quizes or available research data.	⇔	⇔ 2	⇔ 2	⇔ 2	⇔ 2	⇔ 2	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Chapter 4

City of Sacramento SQIP

4.1 Introduction

4.1.1 Plan Organization

This chapter presents the City of Sacramento Stormwater Quality Improvement Plan (Sacramento City SQIP). The activities described in this chapter are conducted by Sacramento City in addition to the Partnership (Regional) Activities described in Chapter 2. The Sacramento City SQIP provides a comprehensive plan to direct the Sacramento City Stormwater Management Program (Sacramento City Stormwater Program) and its priorities and activities through the 2008-2013 permit term. The Sacramento City SQIP also includes information on the Sacramento City Stormwater Program's history and accomplishments.

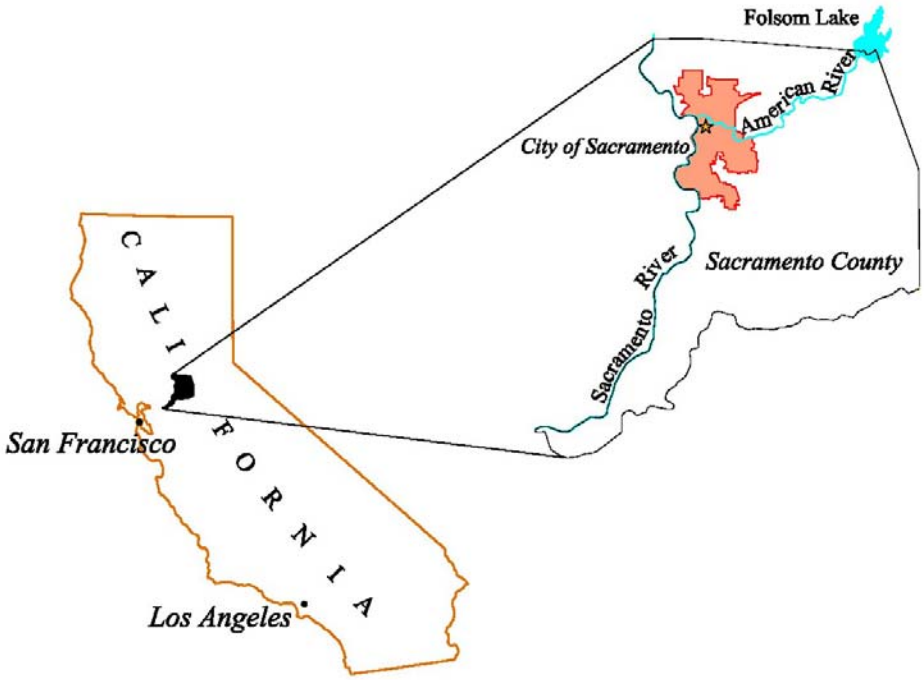
This chapter describes Sacramento City's specific activities for the 2008-2013 permit term and includes the following sections:

- Section 4.1 Introduction
- Section 4.2 Program Management
- Section 4.3 Construction Element
- Section 4.4 Commercial/Industrial Element
- Section 4.5 Municipal Operations Element
- Section 4.6 Illicit Discharge Element
- Section 4.7 Public Outreach Element
- Section 4.8 New Development Element

4.1.2 City Overview

Sacramento City has a population of approximately 476,000 as of January 2008 and encompasses approximately 63,360 acres. Sacramento City is located at the confluence of the lower American River and the Sacramento River (see Figure 4.1-1 on the next page). The lower American River is a high-quality waterway that flows from the Folsom Reservoir westward through Sacramento City. The larger Sacramento River defines Sacramento City's western boundary, flowing south on its way to the Delta and the San Francisco Bay. These rivers provide Sacramento City's primary drinking water supply and support extensive recreational use, fisheries, and salmon and steelhead migration. The Sacramento River is also the major drinking and agricultural water supply source for the State of California.

Figure 4.1-1
Vicinity Map of Sacramento, California



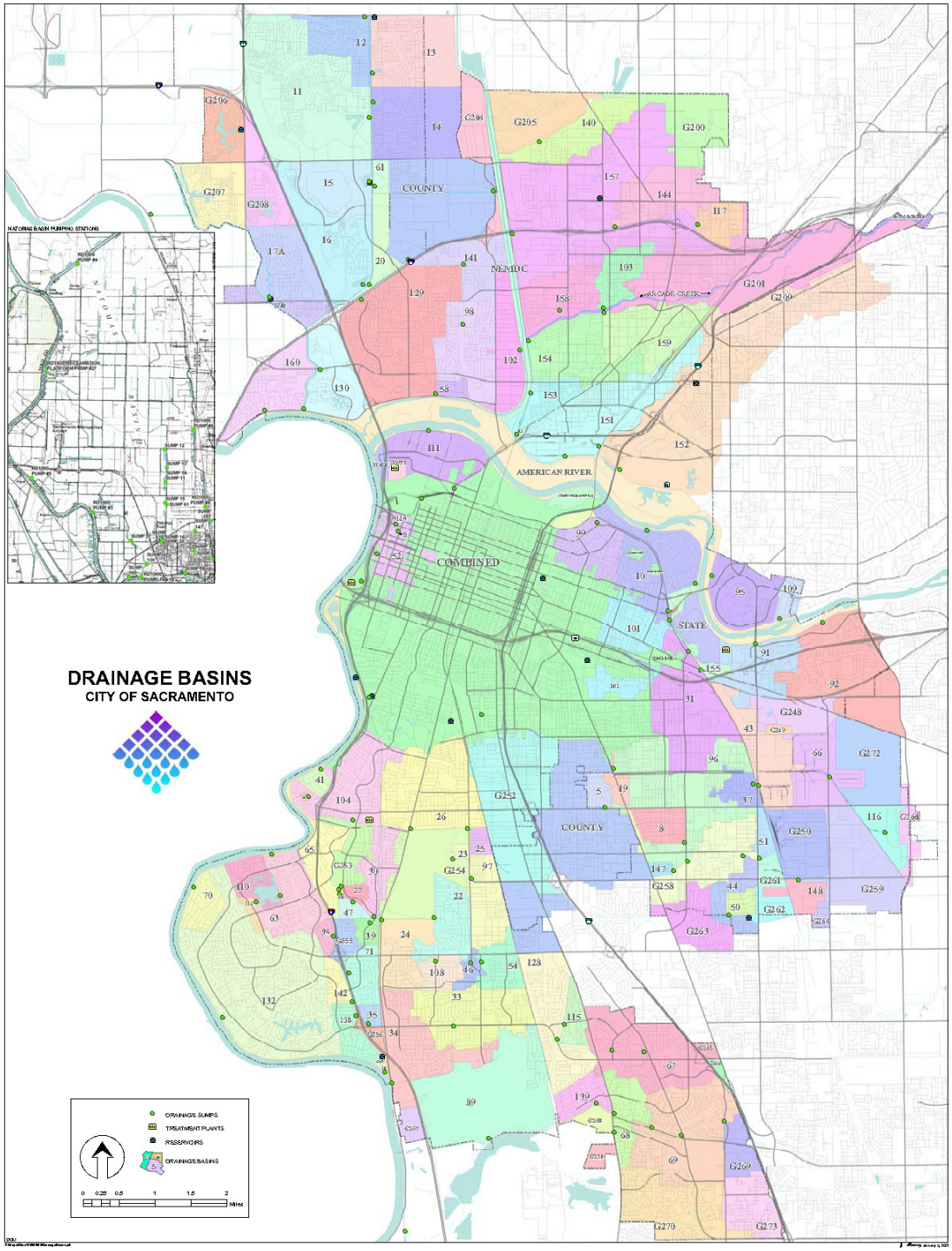
Sacramento City operates and maintains a large municipal storm drainage system that consists of 104 pump stations, hundreds of miles of pipe, and numerous detention basins. For almost two decades, Sacramento City has committed to improving the quality of urban runoff through the development and implementation of a proactive, comprehensive stormwater management program that recognizes Sacramento's unique position in the Sacramento River and the American River watersheds and the need to protect these important resources.

City of Sacramento Storm Drainage System

- 65 miles of canals and ditches
- 100 miles of roadside ditches
- 970 miles of pipeline
- 104 storm drainage pump stations
- 40,000 drain inlets
- 26 detention basins

Drainage facilities include gutters, swales, ditches, culverts, storm drain inlets, catch basins, storm drainage pipes, canals, detention basins, and pump stations. Since much of Sacramento City is in low lying areas protected by flood control levees, most of the storm runoff in Sacramento City must be pumped from the collection system to discharge into the rivers and urban creeks. Runoff from the central area of Sacramento City is collected by a combined storm and sanitary sewer system and conveyed to the Sacramento County Regional Sanitation District for treatment. The combined sewer system is regulated under a separate National Pollution Discharge Elimination System (NPDES) permit and not by the Stormwater Permit for Sacramento's City urban stormwater. Figure 4.1-2 on the next page provides a map of the City that shows the combined sewer area, and stormwater drainage areas.

Table 4.1-2
City of Sacramento Drainage Basins and Facilities



4.1.3 Program Overview

The City of Sacramento Stormwater Management Program is a federally mandated, municipal effort that has proactively addressed local urban runoff water quality issues and worked to reduce pollutants to the maximum extent practicable through innovative, cost-effective measures and strategies.

Sacramento City's initial emphasis for its stormwater program was to develop a comprehensive program, secure political support and stable funding, and design the basic program structure under which activities would be implemented. Many innovative programs and activities have been initiated since the program's inception. A core program has evolved to implement activities that are essential, innovative and cost effective.

Established Core Program

- *Meets state/federal regulations.*
- *Improves understanding of local creek and river water quality concerns.*
- *Creates strategies to identify and control problematic pollutants.*
- *Utilizes innovative and cost-effective BMPs.*
- *Increases integration with other programs with related objectives.*

After nineteen years, the Sacramento City Stormwater Program has become a mature, established effort that effectively reduces pollutants to the MEP by continuing to implement successful control measures and develop and utilize new, innovative best management practices (BMPs).

In 1997 and again in 2004, the Program was honored with the U.S. Environmental Protection Agency (EPA) National Storm Water Control Program Excellence Award for its cost-effective, proactive approach to identifying and controlling pollutants in Sacramento City's urban runoff.

The Sacramento City Stormwater Program core elements are: Construction, Commercial/Industrial, Municipal Operations, Illicit Discharge, Public Outreach, and New Development. Other major Sacramento City Stormwater Program activities also include Regional Activities, such as the Sacramento Stormwater Monitoring Program (Monitoring Program) and the Target Pollutant Program.

The Sacramento City Stormwater Program recognizes the importance of effective stormwater management and has allocated resources to ensure adequate administration and implementation of program activities. Management of the Sacramento City Stormwater Program is provided by the Department of Utilities (DOU) Engineering Services Division, Water Quality Section.

4.1.4 Summary of Program Accomplishments

As the Sacramento City Stormwater Program has progressed, many stormwater activities have been successfully integrated into Sacramento City activities, leaving Sacramento City Stormwater Program staff available to further develop BMPs, provide training and guidance, and develop monitoring and other special studies. Examples of activities integrated with other Sacramento City efforts include master planning, development review, inspection of drainage facilities, spill response, oversight of municipal construction activities, and solid waste management alternatives for illegal dumping.

In addition to coordination with other Sacramento City activities, interagency agreements have been formed with some County of Sacramento agencies for efforts such as the Sacramento Coordinated Monitoring Program (CMP); Business Environmental Resource Center (BERC); the Water Wise Integrated Pest Management Program; and the Splash Program. Other coordination efforts include the County Industrial Waste Division (sewer pretreatment), Hazardous Materials Division, and Environmental Management Division (food service facility) inspections. Some of these activities are conducted as joint efforts with the other Permittees. More details on some of these activities can be found in Section 4.2, Program Management, of this Chapter.

A comprehensive summary list of Sacramento City Stormwater Program accomplishments by Program Elements is included in Appendix 4A. A complete history of the permit and the Partnership's efforts to manage urban runoff quality over the years is included in Appendix 1C.

This page left intentionally blank.

4.2 Program Management

4.2.1 INTRODUCTION

This section presents the City of Sacramento Stormwater Management Program's (Sacramento City Stormwater Program) strategy, management priorities, legal authority, organization, interrelationships, planning and reporting activities, budget and staff resources, and staff training.

4.2.2 PROGRAM STRATEGY

The Sacramento City Stormwater Program strategy is to develop and implement programs to reduce or eliminate discharge of pollutants and eliminate prohibited non-stormwater discharges to the Sacramento City's storm drainage system to the maximum extent practicable (MEP), thereby protecting local receiving waters and complying with federal and state laws and regulations.

This strategy supports the following Sacramento City Program vision and mission statements:

Program Management

- *Provides direction for the Sacramento City Stormwater Program activities.*
- *Ensures that Sacramento City complies with both state and federal regulations.*
- *Pursues innovative programs and technology.*
- *Coordinates efforts with other local, regional, statewide, and national programs.*

VISION

Establish behaviors and attitudes that contribute to the reduction of urban runoff pollution and that help promote community stewardship of local creeks and rivers, thus improving the health of local waterways.

MISSION

Provide resources and direction toward achieving:

- Reduction of stormwater pollution to the maximum extent practicable (MEP)
- Elimination of non-stormwater discharges in accordance with the Sacramento Stormwater Permit
- Ultimately, protection of beneficial uses to include meeting applicable water quality objectives

Sacramento City Stormwater Program activities encourage environmental stewardship and continue to build partnerships with other agencies and with the community to foster active participation in accomplishing the Sacramento City Stormwater Program mission. One of the goals of the Sacramento City Stormwater Program in accomplishing the mission is for all of Sacramento City's employees to be concerned and knowledgeable as well as responsible stewards for protecting the quality of local water resources.

Stormwater Quality Improvement Plan (Sacramento City SQIP)

The Sacramento City Stormwater Program strategy is pursued through the Sacramento City SQIP described in this chapter as well as through the implementation of regional activities described in Chapter 2, Partnership Activities, which are implemented collectively by the Permittees. The Sacramento City SQIP is an enforceable part of the Stormwater Permit that undergoes periodic modifications as part of the program implementation cycle to ensure the mission is effectively accomplished.

Program Implementation Cycle

As discussed in Chapter 1, the following 4-step cycle allows for effective implementation and provides a continuous feedback loop.

Step 1: Plan and Develop

The SQIP programs, elements and activities are planned and developed to meet regulatory and local needs to address stormwater pollution. The SQIP and annual work plans are prepared to identify specific activities, tasks and performance standards.

Step 2: Implement Activities

The activities included in the SQIP and annual work plans are implemented.

Step 3: Evaluate and Assess

Progress is documented, program effectiveness is assessed, and feedback is obtained for future improvements to the program. See Section 2.3, Program Effectiveness and the individual elements for the Sacramento City effectiveness assessment approach

Step 4: Refine and Modify

New or revised activities are developed based on the results of the effectiveness assessments, input from regulators, and new identified needs. Some activities may also be eliminated during this step. As specified in the Stormwater Permit, the annual reports submitted on October 1 of each year will serve as the mechanism for proposing modifications to this SQIP for review and approval by the Regional Water Board.

4.2.3 Program Management Priorities

Sacramento City Stormwater Program priorities for the 2008-2013 permit term include implementing the Sacramento City SQIP and the Partnership activities. The Sacramento City Stormwater Program Management Activities and schedule are listed in Table 4.2-4, City of Sacramento Program Management Activities Work Plan.

A summary of the Sacramento City Stormwater Program Management priorities are as follows:

Achieve regulatory compliance:

- Submit annual work plans, annual reports and other documentation to the Regional Water Board.
- Complete permit-required activities.
- Ensure adequate staffing and resources to carry out Sacramento City Stormwater Program activities.
- Ensure adequate legal authority
- Seek and administer grants.
- Modify Sacramento City SQIP as needed.
- Implement enforcement procedures.

Focus Program activities on target pollutant reduction:

- Seek and participate in partnerships to conduct studies and implement target pollutant reduction programs.
- Seek new, effective target pollutant control measures and strategies.

- Continue to implement target pollutant control measures and strategies.
- Participate in regional, state, and national efforts to reduce target pollutants.

Ensure the Program is effective and innovative:

- Consider new technology for program improvements.
- Continue coordination with internal and external partners.
- Participate in local and regional committees and work groups.
- Utilize data management tools to improve the evaluation of water quality data.
- Evaluate activities, elements and program for effectiveness in meeting outcome levels.
- Make changes to activities, elements and program as needed based on effectiveness evaluations.
- Look for and report measurable results.
- Emphasize higher outcome levels for key indicators.

Conduct watershed stewardship and monitoring activities to assess and improve beneficial uses of local creeks and rivers:

- Implement the Arcade Creek Watershed grant.
- Continue to incorporate watershed stewardship activities into Sacramento City Stormwater Program Elements.
- Manage the Regional Monitoring Program in partnership with County of Sacramento.
- Identify monitoring needs.
- Coordinate with other local monitoring programs and Sacramento City's own drinking water and source water protection studies and efforts.
- Incorporate the best available analytical monitoring and sampling techniques as appropriate.

4.2.4 Program Effectiveness Assessment

The Partnership's effectiveness assessment approach is discussed in Section 2.3, Program Effectiveness. The Partnership activities will be assessed as outlined in Section 2.4 through 2.7. Assessments of Sacramento City-specific and Partnership (regional) activities will be conducted annually.

Sacramento City will document the work plan activities conducted during the year in the annual reports. This confirmation will demonstrate compliance with the Stormwater Permit requirements (outcome level 1 – Documenting Activities).

Each program element has identified several key indicators used in assessments to demonstrate progress towards meeting the program element goals. The Sacramento City SQIP includes Element key indicators as representative activities used to define and assess the effectiveness of a program element in producing outcome levels ranging from outcome level 2 – Raising Awareness to outcome level 4 – Reducing Loads from Sources. See the work plan tables found at the end of each element's section in this Chapter for the specific element key indicators (indicated by a checkmark) and their assessment method, baseline data, and targeted outcome level).

Sacramento City will modify the planned schedule and execution of tasks (including key indicators) during the permit term as program priorities change. Any change to the planned activities as currently outlined in the work plan tables will be documented in subsequent annual work plan(s) and reported upon in the appropriate annual report(s).

4.2.5 Legal Authority

The principal regulatory vehicles for protection of water quality in California are the federal Clean Water Act and the State of California Porter-Cologne Water Quality Control Act. This legislation and implementing regulations require the Sacramento City reduce or eliminate pollutant stormwater discharges. Sacramento City derives its legal authority to implement a municipal stormwater management program from the California Water Code and the California Environmental Quality Act and Subdivision Map Act that provides municipalities with authority to establish conditions for development projects. This legislation, coupled with Sacramento City's local ordinances, provides sufficient legal authority to implement the SQIP. The City of Sacramento Stormwater Management and Discharge Control Ordinance No. 98-007 and Grading and Erosion and Sediment Control Ordinance No. 93-068 are provided in Appendix 4B and 4C respectively. Sacramento City ordinances are reviewed and revised as necessary throughout the permit term.

Appendix 4D includes the statement certified by the City of Sacramento Attorney's Office that Sacramento City has adequate legal authority to implement and enforce the Stormwater Permit.

As discussed in Section 2.2, the Permittees entered into a memorandum of understanding (MOU) that formalizes the manner in which the Permittees coordinate and fund regional activities required in the Stormwater Permit. See Appendix 2A for a copy of the Permittee MOU. Sacramento City also entered into an MOU in 2003with Sacramento County's Environmental Management Division (EMD), authorizing EMD to conduct inspections on behalf of Sacramento City. See Appendix 4E for a copy of the EMD MOU.

4.2.6 Program Organization

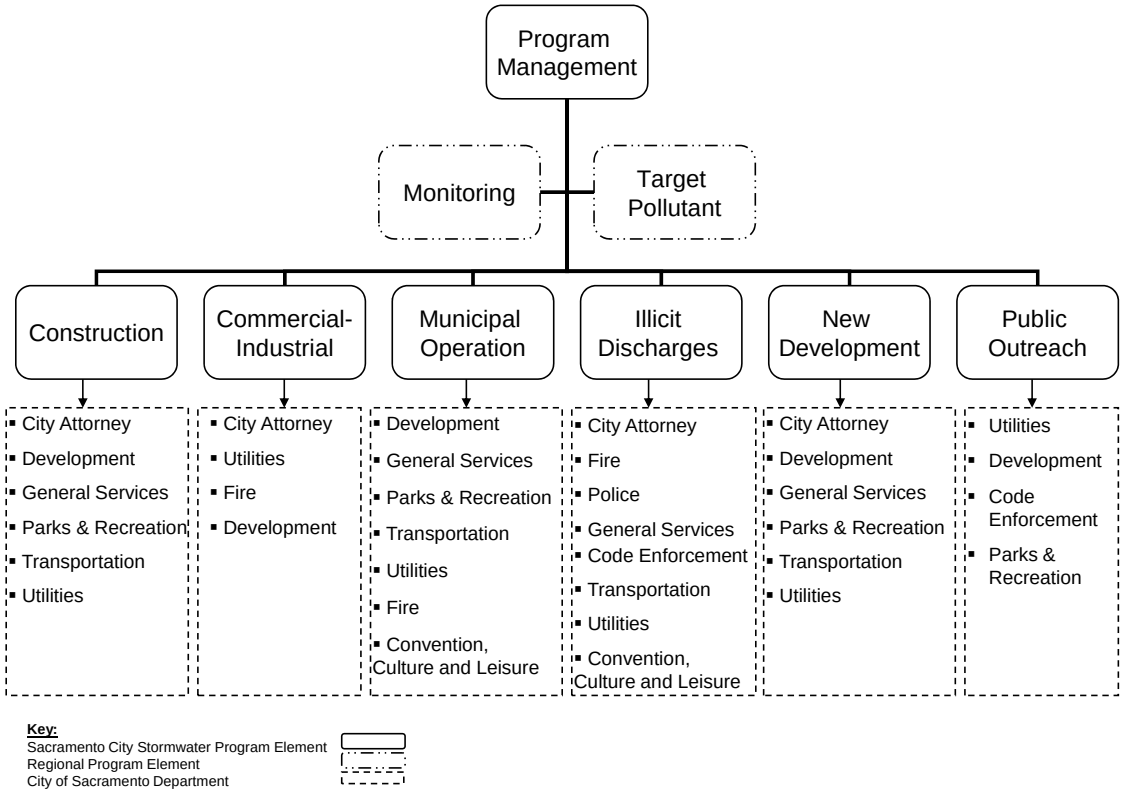
The Sacramento City Stormwater Program includes the Construction, Commercial/Industrial, Municipal Operations, Illicit Discharge, Public Outreach, New Development Elements and regional activities. The regional activities, such as the monitoring and target pollutant programs, are discussed in Chapter 2. The Sacramento City Stormwater Program organization and structure is shown on Figure 4.2-1. The figure includes a list of the various departments within Sacramento City that implement components of the Stormwater Permit or are affected by the stormwater requirements. Some City departments have direct responsibilities for pollution prevention programs (for example, the Department of Utilities provides recycling, household hazardous waste collection, and street sweeping programs through its Solid Waste Division).

Sacramento City as a whole, including elected officials, department heads and city employees, is responsible for compliance with the Stormwater Permit requirements and the Sacramento City SQIP. The organizational structure for the City is provided in Appendix 4F.

Sacramento City owns the municipal separate storm drain system subject to federal and state regulations, which is described in Section 4.1.1 of this chapter. The Department of Utilities (DOU) is Sacramento City's agency responsible for construction, maintenance and operation of the storm drainage system as well as the administrative and management functions of the Sacramento City Stormwater Program. Direct management of the Sacramento City Stormwater Program is provided by the DOU Engineering Services Division, Water Quality Section.

The Supervising Engineer for the Water Quality Section is the Sacramento City Stormwater Program Manager, and is responsible for the Sacramento City Stormwater Program development and implementation. Water Quality Section staff assignments include responsibilities associated with the Program Elements; Partnership Activities such as the Monitoring Program and the Target Pollutant Program; as well as assistance with other program management activities (e.g., coordination with other agencies).

Figure 4.2-1
City of Sacramento Stormwater Management Program Organization and Interdepartmental Relationships



4.2-6 Program Interrelationships

Since program implementation effectiveness and cost savings are enhanced by integrating the Sacramento City Stormwater Program with existing resources, programs and functions whenever possible; other staff from the five divisions of the DOU - Engineering Services, Field Services, Plant Services, Solid Waste and Business Services - as well as staff from several other Sacramento City departments and regional agencies also provide significant levels of resources and support services to ensure successful citywide implementation of the Sacramento City Stormwater Program. The Program Management Element ensures coordination between program elements and allocates resources accordingly in order to complete tasks as specified in this SQIP. Table 4.2-1 provides a comprehensive list of Sacramento City Stormwater Program interrelationships with other agencies and departments.

Table 4.2-1

City of Sacramento Stormwater Management Program Coordination with City Departments and Other Agencies

City Departments / Other Local Agencies	Summary of Activities	Major Related Stormwater Management Program Elements
City Department		
City Attorney	Guidance on legal authority and enforcement, approval of maintenance agreements for new development control measures	Construction, Illegal Discharge, Commercial/Industrial, New Development, Program Management
Fire	Hazardous material spill response	Illegal Discharge, Industrial
Code Enforcement	Code enforcement, support for illegal discharge, neighborhood clean-up events and other community programs	Illegal Discharge, Public Education, Watershed Stewardship
Parks and Recreation	Pollution prevention activities, joint-use detention basins, storm drain stenciling and creek restoration projects, construction of park facilities	Construction, Illegal Discharge, New Development, Public Education, Watershed Stewardship
Police	Enforcement, referrals and investigations as needed	Illegal Discharge
Development • Building and Engineering	Issuance of grading permits, collection of fees, private construction inspections, distribution of stormwater pollution prevention brochures	Construction, New Development, Commercial/Industrial, Municipal Operations, Public Outreach
• Planning (including environmental review)	Incorporation of construction mitigation and new development criteria into CEQA reviews and entitlements, issuance of entitlements, participation in creek restoration planning	Construction, New Development, Commercial/Industrial, Municipal Operations, Watershed Stewardship
General Services • Facility leases or construction	Incorporation of pollution prevention into site planning and activities	Municipal Operations, New Development, Construction, Industrial
• Maintenance Services	Administration and implementation of pollution prevention at City facilities, corporation yards	

City Departments / Other Local Agencies	Summary of Activities	Major Related Stormwater Management Program Elements
Transportation • Capital Improvements	Inspection of public projects for construction and new development controls, public facilities design, issuance of grading permits	Construction, New Development, Illicit Discharge
• Maintenance Services	Administration and implementation of pollution prevention at City corporation yards	Construction, New Development, Municipal Operations
Utilities • Solid Waste	Curbside recycling (including Curb Your Crude Program), recycling and household hazardous waste programs, operation of household hazardous waste collection center, composting program, educational programs, street sweeping	Illicit Discharge, Municipal Operations, Public Outreach
• Engineering Services	Incorporation of construction and post construction control measures not City Projects, development project review, inspection of private development and City Projects, administration of City's NPDES Stormwater Permit	Construction, Commercial/Industrial, Municipal Operations, New Development, Watershed Stewardship
• Plant Services	Pump station sediment cleaning and sample collection, illegal discharge reporting, street wash inspection program	Illicit Discharge, Commercial/Industrial, Public Outreach, Target Pollutant
• Field Services	Maintenance of MS4 system including detention basins	Illicit Discharge, New Development, Construction, Target Pollutant
• Business Services	24-hour clearing house for spills and illegal dumping complaints	Illicit Discharge, Construction, Municipal Operations
Convention, Culture and Leisure	Incorporate public outreach messages into facility displays and events. This includes the zoo, Fairy Tale Town, Old Sacramento, Convention Center, marinas, museums, etc.	Public Outreach
<u>Local Agencies</u>		
Business Environmental Resource Center (BERC)	Outreach to and regulatory consultation for private industry	Construction, Illicit Discharge, Commercial/Industrial, Municipal Operations, New Development, Public Outreach, Target Pollutant
District Attorney	Enforcement of pollution prevention laws, Environmental Task Force meetings	Illicit Discharge, Commercial/Industrial, Target Pollutant
Sacramento Public Library Authority	Exhibit displays and points of distribution for volunteer storm drain stenciling program brochures	Illicit Discharge, Public Outreach

City Departments / Other Local Agencies	Summary of Activities	Major Related Stormwater Management Program Elements
Sacramento County Environmental Management Division	Food service and industrial facility inspection program, illegal discharge referrals	Illicit Discharge, Commercial/Industrial
Sacramento Regional County Sanitation District	Industrial facility inspection, coordination of post construction controls, general permit outreach	Illicit Discharge, Commercial/Industrial, New Development, Public Outreach
State and Federal Agencies/Organizations		
State Department of Fish and Game	Spill response, and enforcement and investigation	Illicit Discharge, Commercial/Industrial, Public Outreach, Watershed Stewardship
UC Extension IPM Program	Water Wise Pest Control Program	Public Outreach , Target Pollutant
UC Extension Master Gardeners	Water Wise Pest Control Program	Public Outreach, Target Pollutant
Bay Area Stormwater Management Agencies Association	Implement outreach such as Our Water Our World outreach in local hardware stores and the EcoWise IPM certification program for professional pest control applicators.	Public Outreach, Target Pollutant
Sacramento-Yolo Mosquito and Vector Control District	Conduct public outreach regarding pest control activities.	Public Outreach, Target Pollutant
County Agricultural Commission	Compiles pesticide use information for the Partnership area.	Target Pollutant
Department of Pesticide Regulations	Implement pesticide use regulations	Target Pollutant
Delta Tributary Mercury Council	Coordinates regional mercury control strategies and public outreach activities.	Target Pollutant
Mercury TMDL Stakeholder group	Coordinates development of regional mercury control strategies.	Target Pollutant
CALFED Bay Delta Program	This federal and state interagency organization is dedicated to restring the ecological health of the Bay-Delta system. Sacrament urban runoff is one of many pollutant sources to the Bay-Delta and CALFED has significant grant opportunities for activities that would result in Bay-Delta improvements.	Program Management

City Departments / Other Local Agencies	Summary of Activities	Major Related Stormwater Management Program Elements
Central Valley Drinking Water Policy Work Group	Coordinates development of Regional Water Board policies for drinking water constituent of concern. Urban runoff is one of many pollutant sources affected by the policy.	Program Management
California Stormwater Quality Association	The association is a non-profit corporation that includes California stormwater program, state, and federal regulatory agencies, and environmental groups. CASQA discusses and shapes stormwater policy.	Program Management

Collaboration on activities across Sacramento City Stormwater Program Elements ensures consistency in program task implementation. This collaboration also ensures that compliance is achieved in a cost effective manner. Therefore, most Sacramento City Stormwater Program Elements interrelate with each other. Additionally, Partnership activities, such as the Monitoring Program (Section 2.4), Target Pollutant Program (Section 2.5), Regional Public Outreach Program (Section 2.6), and Regional Commercial/Industrial Program (Section 2.7) also coordinate with Sacramento City Stormwater Program Elements to ensure reduction of pollutants discharged into the waterways.

Sacramento City's relationships with the other Permittees are described in Chapter 1 and 2. A discussion of the various agencies and groups that the Partnership and Sacramento City coordinate with is also included in Chapter 1 and Table 4.2-1.

Participation in Regional, Statewide and National Activities

Since 1990, Sacramento City has taken a leadership role in stormwater management programs by closely tracking national activities, developing regulations and forming stormwater management programs. Sacramento City continues to be involved in state and regional stormwater management activities, as demonstrated by its involvement in the California Stormwater Quality Association (CASQA), a statewide nonprofit corporation comprised of stormwater NPDES permit holders and other interested stakeholders. Sacramento City was also instrumental in founding the Urban Pesticide Committee (UPC) an open forum for exchange of information on water quality, toxicity impacts of pesticide use in urban areas, and discussions of potential control measures.

Sacramento City Stormwater Program staff continue to participate in several statewide and regional efforts to share information on topics related to stormwater quality issues, stormwater program implementation, and urban runoff within the context of the watershed as a whole, including UPC and CASQA activities; the Sacramento River Watershed Program (SRWP), which seeks to improve the health of the watershed by identifying problems and implementing solutions; refer to Table 4.2-1 for a listing of additional efforts.

4.2.8 Annual Planning and Reporting Activities

A list of annual planning and reporting activities can be found in Table 4.2-4, at the end of this section. Additionally, the Sacramento City annual work plan is implemented in the fiscal year (July 1 through June 30) following the May 1st submittal of the work plans to the Regional Water Board. The budget development for the work plans is initiated in the December prior to the May 1st submittals.

4.2.9 Budget/Staff Resources

As described above and Table 4.2-1, other Sacramento City departments provide significant resources and support services to the Sacramento City Stormwater Program. This includes resources for a full range of municipal activities that implement pollution prevention measures such as street sweeping, detention basin operation and maintenance, inlet cleaning, hazardous waste pick up, spill response, etc. Resources are also provided to implement pollution prevention measures such as at corporation yards or for chemical weed control activities. The costs for completing these Sacramento City Stormwater Program activities are included in the existing department budgets for these activities and are not quantified.

As described previously, the DOU Water Quality Section oversees the Sacramento City compliance effort for the Stormwater Permit. The Sacramento City Stormwater Program budget for activities conducted by DOU Water Quality Section is approximately $2.8 million, including staff salaries, implementation costs and monitoring activities costs. These costs are funded by an existing stormwater utility fee and by development fees.

The Sacramento City Stormwater Program staff resources include one Supervising Engineer, two Senior Engineers, an Associate Engineer, an Assistant Engineer, two Program Analysts, and two Stormwater Program Inspectors (one currently vacant). This staff complete work for the Stormwater Program and for other National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for Sacramento City and therefore are not fully allocated to the Stormwater Program. The Sacramento City Stormwater Program also utilizes students on a part-time basis. Resources equal to approximately 9 full-time equivalent positions (FTEs) are committed to the Sacramento City Stormwater Program. Table 4.2-2 provides a breakdown of the estimated staffing needed to accomplish all annual work plan goals and to ensure the Sacramento City Stormwater Program's continued progress.

Table 4.2-2
Staff Resource Allocations (2009)

Program Function/Element	Staff FTEs
Stormwater Program Management	0.7
Construction	2.7
Commercial/Industrial	0.8
Municipal Operations	0.9
Illicit Discharge	0.6
Public Outreach (including Watershed Stewardship)	1.1
New Development	.0.8
Monitoring Program (including Special Studies)	1.0
Target Pollutant Program	0.4
TOTAL	9.0

4.2.9 City Employee Training

Sacramento City Stormwater Program staff implements training requirements for various Program Elements and provides outreach to other Sacramento City staff. Training and outreach includes topics such as current regulations; changes in regulations or procedures; program-specific requirements; and new practices and control measures. Outreach and training may take the form of training sessions during staff meetings, enrollment in classes offered through City University (a training curriculum unique to the City of Sacramento), fact sheets, workshops, tailgate meetings, and/or brochures.

Table 4.2-3 lists the sections and groups targeted for training, the Sacramento City Stormwater Program Elements addressed and the frequency of training sessions. Additional groups and training frequencies will be added to this table as new training sessions are developed. The Training Summary Table will be included in the annual reports and updated annually as new groups and messages are identified.

Table 4.2-3
City Employee Training

Department	Section/Group	Element/Program Addressed	Frequency
CONSTRUCTION ACTIVITIES			
Development	Environmental Review	Construction	Annual
Development	Building/Plan Review	Construction	Twice a permit term
Development	Building/Inspection	Construction	Twice a permit term
Development	Development Engineering/Matrix	Construction	Twice a permit term
General Services	Facilities & Property Management/Design & Inspection	Construction, Municipal	Annual
Parks and Recreation	Park Planning, Design & Development Services	Construction, Municipal	Annual
Transportation	Engineering Services/Project Managers	Construction, Municipal	Annual
Transportation	Engineering Services/Inspection	Construction, Municipal	Annual
Utilities	Engineering Services/CIP Project Managers	Construction, Municipal	Annual
Utilities	Engineering Services/CIP Inspection	Construction, Municipal	Annual
Utilities	Engineering Services/Development Review	Construction	Annual
DESIGN/NEW DEVELOPMENT ACTIVITIES			
Development	Current Planning and Long Range Planning	New Development	Annual
Development	Environmental Review	New Development	Annual
Development	Building/Plan Review	New Development	Annual
Development	Building/Inspection	New Development	Annual
Development	Development Engineering/Matrix	New Development	Twice a permit term
General Services	Facilities & Property Management/Design & Inspection	Municipal, New Development	Annual
Parks and Recreation	Park Planning, Design & Development Services	Municipal, New Development	Annual
Transportation	Engineering Services/Project Managers	Municipal, New Development	Annual
Transportation	Engineering Services/Inspection	Municipal, New Development	Twice a permit term

Department	Section/Group	Element/Program Addressed	Frequency
Utilities	Engineering Services/CIP Project Managers	Municipal, New Development	Twice a permit term
Utilities	Engineering Services/CIP Inspection	Municipal, New Development	Twice a permit term
Utilities	Engineering Services/Development Review	New Development	Annual
FACILITIES MANAGEMENT			
General Services	Facilities/Property Management/Managers	Municipal, Target Pollutants, Illicit Discharge	Twice a permit term
General Services	Fleet Management/Managers	Municipal, Target Pollutants, Illicit Discharge	Twice a permit term
Convention, Culture & Leisure	Old Sacramento	Municipal, Target Pollutants, Illicit Discharge	Twice a permit term
Convention, Culture & Leisure	Fairytale Town	Municipal, Target Pollutants, Illicit Discharge	Twice a permit term
Convention, Culture & Leisure	Capital City Golf	Municipal, Target Pollutants	Twice a permit term
MAINTENANCE AND OPERATION ACTIVITIES			
Code Enforcement	Neighborhood Code Enforcement	Illicit Discharge	Twice a permit term
Code Enforcement	Housing & Dangerous Buildings	Illicit Discharge	Twice a permit term
Fire	Operation Services	Municipal	Twice a permit term
Transportation	Street Maintenance Services/Pavement Maintenance	Municipal, Target Pollutants, Illicit Discharge	Annual
Transportation	Street Maintenance Services/In-Source Concrete	Municipal, Illicit Discharge	Annual
Transportation	Street Maintenance Services/Concrete	Municipal	Twice a permit term
Transportation	Street Maintenance Services/Streetscapes	Municipal, Target Pollutants, Illicit Discharge	Twice a permit term
Transportation	Street Maintenance Services/Signs and Markings	Municipal	Twice a permit term
Transportation	Street Maintenance Services/Signals and Lighting	Municipal	Twice a permit term
Transportation	Urban Forest/Pesticide Applicators	Target Pollutant	Annual
Utilities	Solid Waste/Control 4	Municipal	Twice a permit term
Utilities	Solid Waste/Corp Yard	Municipal, Illicit Discharge	Twice a permit term
Utilities	Plant Services/Field staff	Municipal, Illicit Discharge	Annual
Utilities	Field Services/Drainage (all field staff)	Municipal, Illicit Discharge	Annual
Utilities	Field Services/Drainage (pesticide applicators)	Target Pollutant	Annual
Utilities	Field Services/First Responders	Illicit Discharge	Annual
Utilities	Field Services/Water Distribution	Municipal	Annual
Utilities	Field Services/Waste Water	Municipal, Illicit Discharge	Annual
Utilities	Engineering Services/Stormwater Inspectors	Municipal	Twice a permit term
Convention, Culture & Leisure	Capital City Golf/Pesticide applicators	Target Pollutant	Annual
Convention, Culture & Leisure	Capital City Golf/Golf Course Superintendents and Supervisors	Municipal, Target Pollutants	Twice a permit term
Parks & Recreation	Park Maintenance Services/Field Staff	Municipal	Twice a permit term
Parks & Recreation	Park Maintenance Services/Pesticide Applicators	Target Pollutant	Annual

Table 4.2-4

City of Sacramento Program Management Activities Work Plan (2008-2013)

Element Goal: The goal for the Program Management Element is to provide direction for Program activities and administration and to ensure that the City complies with the Sacramento Stormwater Permit.

Legend: ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	FY08/09	Schedule/Target Outcome Level FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Legal Authority												
Submit certified Legal Authority statement	D.6					♦						April 30, 2009 (6 months after Permit effective date)
Review and if necessary revise existing ordinances	D.5					N/A	⇔	⇔				1 year after SQIP approval
Regulatory Submittal												
Revise Sacramento City SQIP based on adopted Stormwater Permit	D.2					♦						April 30, 2009 (6 months after Permit effective date)
Finalize Sacramento City SQIP based on the Regional Water Board comments	D.3.c					N/A	♦					
Submit Sacramento City's Annual Work Plan	D.3.a					♦	♦	♦	♦	♦	♦	May 1st
Submit Sacramento City's Annual Report including fiscal analysis	D.3.b					♦	♦	♦	♦	♦	♦	October 1st
Assess effectiveness of Sacramento City SQIP and report in the Sacramento City Annual Report	D.3.b					⇔♦	⇔♦	⇔♦	⇔♦	⇔♦	⇔♦	October 1st

This page left intentionally blank.

4.3 CONSTRUCTION ELEMENT

4.3.1 Goal

The goal of the Construction Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable (MEP) by requiring construction sites to reduce both sediment in site runoff and other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. Excessive discharge of sediment can cause erosion and harm creek habitat through both scour and smothering of spawning areas.

POLLUTANTS ADDRESSED BY THIS ELEMENT

- **Sediment***
- **Metals***
- Nutrients
- **Pesticides***
- Construction waste
- Other non-stormwater discharges

***Target pollutant for Sacramento area**

4.3.2 Evolution

During past permit terms, activities under the Construction Element were concentrated on developing ordinances and standards, incorporating these requirements into the development review process and project management procedures. Currently, the development review process successfully incorporates stormwater requirements for private development projects from the planning process to the completion of construction.

In the last permit term, the Sacramento City began to:

- Verify that the stormwater pollution prevention plans (SWPPPs) submitted to Sacramento City contained specific required State Construction General Permit components
- Prioritize construction sites as a high or moderate threat to water quality
- Inspect construction sites at minimum inspection frequencies
- Annually train Sacramento City employees who are engaged in construction related activities on stormwater runoff prevention procedures

A comprehensive list of accomplishments to date for the Construction Element is provided in Appendix 4A.

In this permit term, the Construction Element will concentrate on updating:

- Existing standards, procedures and specifications such as Sacramento City's Administrative and Technical Procedures Manual for Grading, Erosion and Sediment Control (Grading Manual)
- Control measures with current, innovative Erosion and Sediment Control (ESC) measures and housekeeping practices

If necessary, City codes will be revised to comply with any new requirements in the upcoming reissued State Construction General Permit. Resources will also focus on providing annual training of Sacramento City staff on both local and state requirements.

A detailed list of tasks and schedules for implementation can be found in Table 4.3-1 – City of Sacramento Construction Element Activities Work Plan (2008-2013).

4.3.3 Strategy

The Construction Element strategy includes the following components:

- Ensure that plan review and approval procedures, standards and field requirements are clear and effective.
- Ensure that the development and construction community:
  - Comply with local grading, erosion and sediment control requirements
  - Properly implement the required BMPs associated with construction activities
  - Maintain good housekeeping practices associated with construction activities
  - Obtain the State Construction General Permit if applicable
- Ensure that City project managers:
  - Obtain coverage under the State Construction General Permit for all applicable municipal improvement projects
  - Comply with local erosion and sediment control requirements
- Provide plan review, inspections and enforcement.
- Evaluate and incorporate new technologies and alternative control measures.
- Provide training and technical support to Sacramento City staff on local and state stormwater quality requirements and procedures.
- Conduct outreach and provide guidance to the development and construction community on stormwater quality requirements related to construction activities.
- Conduct periodic meetings with Sacramento City Stormwater Program Inspectors to evaluate current and proposed ESC requirements and good housekeeping practices.

4.3.4 Activities

A list of tasks and their associated schedule is presented in Table 4.3-1 – City of Sacramento Construction Element Activities Work Plan (2008-2013), located at the end of this section.

Legal Authority

The City of Sacramento Grading, Erosion and Sediment Control Ordinance (Grading Ordinance) available in Appendix 4C will be evaluated periodically and updated as necessary to include new requirements from the State Construction General Permit.

Erosion, sediment and pollution control standards and specifications will also be evaluated and revised as necessary based on construction practices and on the latest technology. Alternative and innovative control measures may be identified and evaluated through networking with other programs, product research, literature reviews, and BMP performance studies. Water quality control requirements and standards drawings are included within with Sacramento City's Standard Specifications. See Appendix 4G for the City of Sacramento Standard Specifications (June 2007), Section 16 Water Quality Control.

After reissuance of the State Construction General Permit, components of the Construction Element will be re-evaluated to identify any standards and/or procedures that should be revised to effectively reduce construction site-related pollution to the MEP.

Permitting, Inspection and Enforcement

Developers, contractors, and/or project managers are notified of Sacramento City erosion, sediment and pollution control and State Construction General Permit requirements during the entitlement and plan review process. Local and state requirements are incorporated into environmental documents such as Environmental Impact Reports (EIRs), Mitigation Monitoring Plans (MMPs), and standard conditions for entitlements such as tentative maps and special permits.

Development projects must adequately address city and state requirements through the entitlement and plan approval process as well as municipal procedures, by ensuring that each project includes an adequate ESC plan and, if applicable, obtains a State Construction General Permit. Prior to issuing a grading or a building permit for projects requiring a State Construction General Permit, Sacramento City Department of Utilities Development Review staff will require the submittal of a completed SWPPP and the project's State-issued Waste Discharge Identification (WDID) number to verify that a State Permit was obtained.

SWPPPs submitted to the City must contain the following items at a minimum:

- Vicinity map
- Site map
- List of potential sources of stormwater pollution
- Type and location of ESC BMPs
- Name and number of the person responsible for implementing the SWPPP
- Signed landowner certification

Municipal project managers must ensure that ESC plan(s) are prepared and that State General Construction Permit(s) are obtained and implemented for all applicable municipal projects. Municipal construction projects are also briefly discussed in Section 4.5, the Municipal Operations Element.

Construction projects are inspected to ensure that sites comply with City of Sacramento Grading Ordinance. Inspection staff ensures that control measures are implemented, properly installed and maintained throughout the entire construction phase of a project.

Minimum construction inspection frequencies will be established for construction projects disturbing one acre or more, by prioritizing sites as a high threat or moderate threat to water quality. Factors utilized to rate these construction projects inspection frequencies include:

- The project size, including all aspects of the construction phase (i.e., grading, improvements and structures), the activity level and the type of land use
- Whether the site is located in the area of a previous project with known erosive soils that was required to use mechanical and/or chemical filtration systems
- Whether the site borders and/or discharges directly to a water of the State and/or a 303(d)-listed water body that is sediment-impaired
- The number of previous violations of local stormwater ordinances, including recent State Construction General Permit violations obtained by the developer and/or the contractor(s) in Sacramento City's jurisdiction
- The quality of the site's BMP implementation and housekeeping practices

Projects designated as a high threat to water quality will be inspected a minimum of once every two weeks during the wet season (from October 1 to April 30) and once a month during the remainder of the year. Development sites designated as a moderate threat to water quality will be inspected a minimum of once a month throughout the entire year. These inspection frequency schedules are minimum standards and, when possible, Sacramento City Stormwater Program staff will meet the Construction Element goal of inspecting each private development project every two weeks.

Inspection and enforcement of private development projects is conducted by Sacramento City Stormwater Program Inspectors, and inspection and enforcement of municipal projects is conducted by Sacramento City Construction Inspectors from the responsible department (e.g., Departments of Parks and Recreation, General Services, Transportation, and Utilities). Municipal Construction Inspectors will regularly enforce local stormwater requirements and document actions in their daily logs.

Sacramento City Stormwater Program inspectors will enforce the local stormwater requirements at private development projects. Enforcement actions include verbal warnings, notices to comply, stop work orders and administrative penalties. The Sacramento City Stormwater Program Inspector will also assist the Municipal Construction Inspectors when needed.

Sacramento City's enforcement authority is contained in the Grading Ordinance and the Stormwater Ordinance (Stormwater Ordinance is attached in Appendix 4B). In addition to these ordinances, Sacramento City Stormwater Program staff utilizes the Administrative Penalty Guidelines for Prohibited Non-Stormwater Discharges **(**attached in Appendix 4H) when issuing administrative penalties. Sacramento City Stormwater Program staff will formalize the Sacramento City progressive enforcement procedures used by the Sacramento City Stormwater Program.

If Sacramento City Stormwater Program staff cannot determine whether the developer/owner has submitted a Notice of Intent (NOI) or received a Waste Discharge Identification (WDID) number, Sacramento City Stormwater Program staff will notify the Central Valley Regional Water Quality Control Board (Regional Water Board) within 5 business days of discovery. Such non-filer referrals will include the project location, the developer, the estimated project size, and any records of communication between Sacramento City Stormwater Program staff and the developer regarding filing requirements.

The Sacramento City Stormwater Program utilizes a Microsoft Access database to track grading permits issued, WDID numbers, SWPPPs submitted, site prioritization, inspections conducted, and enforcement actions issued for private development projects.

Training and Outreach

Sacramento City Stormwater Program staff will educate and provide guidance to Sacramento City staff (engineers, CIP project managers, building and construction inspectors, etc.) and to the construction and development communities on local and state requirements and procedures, as well as new technologies and practices, to ensure effective implementation of stormwater quality construction standards for municipal and private development projects. Outreach will include topics such as current regulations; changes in regulations, procedures or requirements; and new practices and control measures. Outreach may take the form of fact-sheets on regulations, workshops, staff meetings, preconstruction meetings, boilerplate ESC plans, brochures for specific practices (e.g., landscaping), etc.

Sacramento City staff who are engaged in construction activities, including the Sacramento City Department of Utilities Development Review staff, project managers, and inspectors, will be trained annually. See Table 4.2-1 in Section 4.2 – Program Management for a summary table of the various Sacramento City departments identified for training and for their training frequency. Outreach to the construction and development community will be conducted as needed.

Sacramento City Stormwater Program staff will coordinate bi-weekly meetings with Sacramento City Stormwater Program Inspectors to resolve issues identified from inspections and ensure effective and consistent enforcement.

4.3.5 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the Construction Element.

Activities discussed above and listed in Table 4.3-1 will be documented and reported in the annual report(s). Activities have the outcome level of 1 – Documenting Activities unless otherwise specified in Table 4.3-1. Element key indicators, indicated by checkmarks in Table 4.3-1, have outcome levels of 2 through 3, and will be used to demonstrate progress towards meeting the element goal. The work plan table also shows the schedule for the effectiveness assessment and the progression of the outcome levels.

Any change, if necessary, to the planned activities will be documented in annual work plan(s) and reported in the appropriate annual report(s). Results of the effectiveness assessment will be used to focus and modify activities for maximum environmental benefit.

The Construction Element is currently implementing effectiveness assessments at outcome level 1 – Documenting Activities. Activities used in the past to assess the element's effectiveness included:

- A special study on the effectiveness of inlet protection
- Plan quality and field implementation assessments conducted by Stormwater Program staff
- An independent third party audit and observations and feedback on improvements in knowledge and field implementation

The focus during this permit term will be on assessing the effectiveness of plan review, field implementation and staff training. Selected ESC plans will be regularly assessed to ensure the plans meet stormwater quality requirements, selected construction sites will be evaluated to ensure BMPs are implemented and properly maintained, and surveys will be developed to assess staff's understanding of training concepts.

Table 4.3-1

City of Sacramento Construction Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Construction Element is to reduce the discharge of stormwater pollutants at construction sites to the maximum extent practicable (MEP) by requiring erosion, sediment and pollution controls .

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	FY08/09	Schedule/Target Outcome Level FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Legal Authority												
Review and revise ordinance, city codes and/or policies	D.8.a.i					N/A			⇔			After reissuance of State Permit
Review and if necessary revise city's grading, erosion and sediment control design standards and specification to comply with reissued State Construction General Permit	D.8.a.ii					N/A		⇔	⇔			After reissuance of State Permit
Permitting, Inspection and Enforcement												
Participate in CEQA documents review and provide comments as needed	D.8.a.i					⇔	⇔	⇔	⇔	⇔	⇔	
Review and condition private development projects through the entitlement process	D.8.a.i					⇔	⇔	⇔	⇔	⇔	⇔	
Ensure that all applicable development projects include Erosion and Sediment Control (ESC) plans	D.8.c.v					⇔	⇔	⇔	⇔	⇔	⇔	
Monthly assess the quality of the ESC plans for 30% of permits issued for applicable private development projects	D.8.a.ii	✓	All regulated projects include adequate ESC plans	C, T	Percent of permits with ESC plans that meet stormwater quality requirements	N/A	⇔3	⇔3	⇔3	⇔3	⇔3	
Require development projects to submit the mandated SWPPP and WDID number for all applicable projects in accordance with the State Construction General Permit	D.8.c.v	✓	Prior to the issuance of a building or grading permit a SWPPP and WDID are provided for all applicable projects	C, T	Percent of permits with SWPPPs and approved WDID numbers	⇔	⇔3	⇔3	⇔3	⇔3	⇔3	
Ensure that all applicable municipal construction projects comply with the State Construction General Permit requirements and, for those projects disturbing less than one acre, at a minimum submit ESC plans	D.8.a.vi	✓	By the fifth year of the permit term, show that 100% of municipal construction projects disturbing greater than or equal to one acre file for a NOI	C, T	Previous term percentage	⇔1	⇔1	⇔1	⇔3	⇔3	⇔3	
Inspect all applicable private construction projects to ensure the required BMPs are implemented and maintained	D.8.a.vi	✓	All regulated construction sites implement and maintain the required BMPs	C, T, I	Percent of audited projects correctly implementing and maintaining the required BMPs	⇔1	⇔1	⇔3	⇔1	⇔3	⇔1	
Inspect all applicable municipal construction projects to ensure the required BMPs are implemented and maintained	D.8.a.vi	✓	All regulated construction sites implement and maintain the required BMPs	C, T, I	Percent of audited projects correctly implementing and maintaining the required BMPs	⇔1	⇔1	⇔1	⇔3	⇔1	⇔3	
Issue enforcement actions as appropriate	D.8.a.vi					⇔	⇔	⇔	⇔	⇔	⇔	
Continue maintaining priority inspection database for construction projects based on project type, size, construction schedule, and levels of impacts	D.8.a.v					⇔	⇔	⇔	⇔	⇔	⇔	
Refer State Construction General Permit non-filer projects to the Regional Board	D.8.c.v					⇔	⇔	⇔	⇔	⇔	⇔	
Review and revise progressive enforcement policy and procedures	D.8.a.v					N/A	⇔					

Table 4.3-1

City of Sacramento Construction Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Construction Element is to reduce the discharge of stormwater pollutants at construction sites to the maximum extent practicable (MEP) by requiring erosion, sediment and pollution controls .

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Evaluate current Street Washing Certification program	D.8.a.ix					N/A	⇔					
Training and Outreach												
Continue to train annually development review staff on stormwater quality requirements for development projects	D.8.a. viii	✓	All trained staff understand stormwater quality requirements for development projects	C,T,S	Pre-training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Continue to train annually project mangers from General Services, Transportation, Parks and Utilities departments on stormwater quality requirements for applicable municipal projects	D.8.a. viii	✓	All trained staff understand stormwater quality requirements for all municipal projects	C,T,S	Pre-training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Continue to train annually City inspectors on NPDES program and proper implementation of BMPs on municipal projects	D.8.a. viii	✓	All trained inspectors understand the importance of the NPDES program and have knowledge of current BMPs and proper implementation	C,T,S	Pre-training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Conduct outreach and provide guidance to the construction and development community on revised stormwater quality requirements	D.8.a. viii					N/A			⇔			
Conduct the pre-wet season forum and/or distribute rainy season reminder (winterization) letter in September or October	D.8.a. viii					⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate bi-weekly meetings with City Stormwater Program inspectors regarding private construction site compliance	D.8.c					⇔	⇔	⇔	⇔	⇔	⇔	

This page left intentionally blank.

4.4 COMMERCIAL/INDUSTRIAL ELEMENT

4.4.1 Goal

The goal of the Commercial/Industrial Element is to reduce or eliminate the discharge of pollutants into the City of Sacramento (Sacramento City) storm drainage system that are produced from all types of business activities to the MEP.

POLLUTANTS ADDRESSED BY THIS ELEMENT

- **Sediment***
- Metals:
  - **Copper***
  - **Lead***
  - **Mercury***
  - Other Metals
- **Pesticides***
- Concrete
- Other non-stormwater discharges

***Target pollutant for Sacramento area**

4.4.2 Evolution

One of the first tasks of the Commercial/Industrial Element was to inform the industrial community about stormwater regulations and the State Industrial General Permit. Sacramento City staff conducted outreach, including a workshop in 1996, for industries that staff thought would need coverage under the Industrial General Permit; however, industry participation was low. In July 2004, the County of Sacramento Environmental Management Department (EMD) began conducting inspections under the Commercial and Industrial Stormwater Compliance Program (CISCP). Since 2004, the Commercial/Industrial Element has been more successful at identifying industries that need coverage under the Industrial General Permit and reporting non-filers to the Regional Water Board.

In 1996, the Sacramento City Stormwater Program staff prioritized 40 common industrial and commercial business types based on their potential to impact water quality using five different descriptive categories. The 2004 Stormwater Permit required that the industry list be updated using additional criteria specified by the Regional Water Quality Control Board (Regional Water Board). The following industries were chosen for inspection: auto repair shops and body shops; auto sales, lease and rental dealerships; gas stations; restaurants; nurseries; kennels; equipment rental businesses; and, facilities with coverage under the State General Industrial Stormwater Permit.

In the spring of 2007, EMD updated the industrial category definitions in order to clarify which industries would be included in the CISCP. The industry list was also used to identify industries that should be targeted for educational outreach. The Partnership conducted outreach twice during the last permit term for industries that ranked in the top 20 of the prioritization list. See Section 2.7 - Regional Commercial/Industrial Program for more information on the inspection program, industry outreach, and the CISCP.

In the last permit term, Sacramento City Program staff conducted investigations on industries that did not fall under the CISCP program; instead, they were covered under the Complaint-Based Stormwater Compliance Program (CBSCP). Complaints from the public, other businesses, or referrals from EMD initiated these investigations. Program staff worked with industries to comply with the Stormwater Ordinance by implementing progressive enforcement actions, cost recovery assessments, and providing educational materials. Appendix 4A provides a comprehensive list of accomplishments for this Element.

In this permit term, the Permittees will continue implementing the CISCP discussed in Section 2.7 - Regional Commercial/Industrial Program and the CBSCP discussed in this section, and will implement outreach to targeted businesses that exceed the Regional Water Board Benchmarks discussed in Section 2.7.

A more specific list of tasks and schedules is presented in Table 4.4-1 – Commercial/Industrial Activities Work Plan (2008-2013).

4.4.3 Strategy

The Commercial/Industrial Element strategy includes the following components:

- Continue implementation of the CISCP.
- Continue implementation of Sacramento City's CBSCP.
- Continue efforts to identify and notify industries in the City that may need coverage under the State Industrial General Permit.
- Continue to encourage increased industry participation in the Clean Water Business Partner (CWBP) Program.
- Continue to encourage industries to use other industry assistance programs such as the Business Environmental Resource Center (BERC).
- Continue to conduct outreach to priority and targeted industries/businesses; particularly those that have a history of significant violations.

4.4.4 Activities

The Commercial/Industrial Element includes Regional Commercial/Industrial Program activities, described in Section 2.7 and Table 2.7-1, and Sacramento City activities, described below and in Table 4.4-1. The regional activities include:

- Priority industry and industrial pollutant identification
- The Commercial and Industrial Stormwater Compliance Program (CISCP)
- Permittee evaluations
- Outreach

A list of Sacramento City tasks and their associated schedules is presented in Table 4.4-1, Commercial/Industrial Activities Work Plan (2008-2013), at the end of this section.

Legal Authority

Sacramento City's Stormwater Ordinance attached in Appendix 4B provides legal authority for regulating pollutant discharges to the storm drain system. This Stormwater Ordinance will be reviewed and amended as needed to ensure that pollutant sources from commercial businesses and industrial facilities are effectively addressed.

Complaint-Based Stormwater Compliance Program (CBSCP)

Sacramento City Program staff investigates complaints involving discharges of prohibited non-stormwater or other pollutants from industrial facilities within five days of the initial report; if the report involves a suspected hazardous substance, the investigation begins within one day of the initial report. CBSCP complaints involve industries not covered by the CISCP inspections. Any complaints received that fall under the CISCP are referred to EMD for investigation. Sacramento City first responder crews respond immediately to any complaint involving a non-stormwater discharge that may need immediate abatement and clean up.

Industrial investigations will verify that each facility and/or activity conducted is in compliance with the Sacramento City Stormwater Ordinance. The progressive enforcement process will be continued, as needed, to issue verbal warnings, notices to comply, notices of violations, and/or administrative penalties. See Appendix 4H for a copy of the Sacramento City Administrative Penalty guidelines for Prohibited Non-Stormwater Discharges. Cost recovery will be used when the City has to clean up a non-stormwater discharge and the discharger is known. City staff will provide relevant educational material to industries during investigations.

Sacramento City Stormwater Program staff will formalize the Sacramento City progressive enforcement procedures used by the Sacramento City Stormwater Program to enforce requirements in the Construction, Illicit Discharge and Commercial/Industrial Elements.

In conjunction with the Illicit Discharge Element, a database will be used to track the investigations and enforcement actions associated with the complaints. The database will be used to determine trends in violations among industries, response time, repeat offenders, and industries requiring outreach.

Sacramento City Stormwater Program staff will continue to coordinate with the Regional Water Board related to non-compliant facilities and suspected Industrial General Permit non-filers. The process used to report non-filers to the Regional Water Board is shown in Figure 4.4-1 on the next page. All referrals from the Regional Water Board will be investigated within three working days.

Outreach

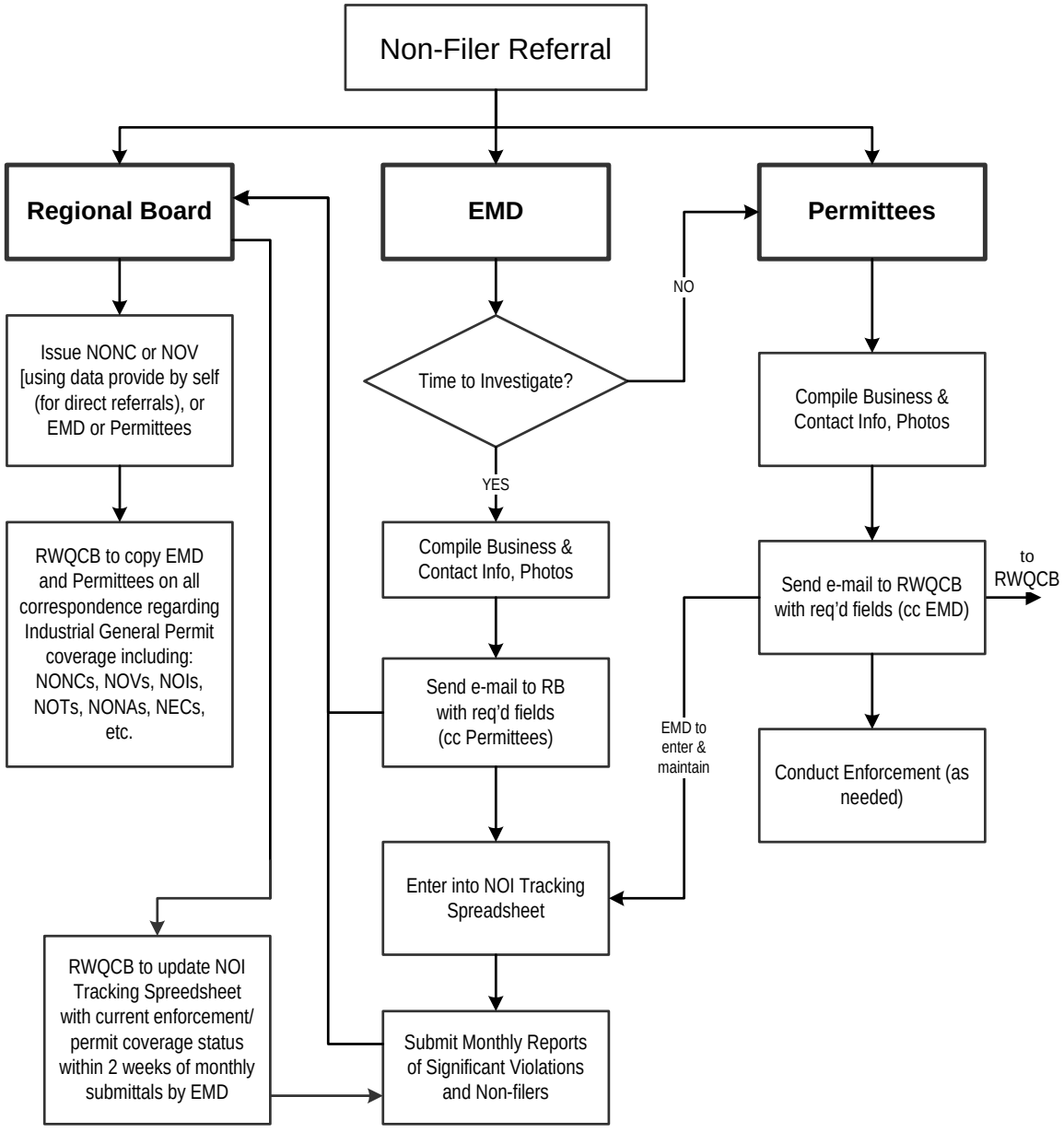
Compliance assistance and information is made available through a variety of outlets and types of media. Brochures, flyers, fact sheets, workshops, site visits, television, and radio all contribute to inform the business community. Commercial/Industrial Element staff routinely work with Public Outreach Element staff and BERC to produce and distribute compliance information.

BERC provides confidential assistance for local industries seeking stormwater compliance information. Sacramento City staff coordinates with BERC to distribute stormwater pollution prevention information to local industries. Also, BERC conducts various stormwater compliance seminars every year targeting specific industries. Sacramento City contributes funds to BERC each year.

The CWBP Program uses a different and more positive approach to achieve compliance, relying on education, not enforcement. Participating businesses agree to: (1) conduct their activities in a manner that prevents stormwater pollution; and (2) provide outreach materials to their customers. In return, the businesses receive promotion and acknowledgement for being Program members. The Business Outreach portion of the Regional Public Outreach Activities section (in Section 2.6.5) provides detailed information on the CWBP Program.

Along with the other Permittees, Sacramento City will continue to conduct outreach twice during the permit term to targeted industries known to potentially cause significant non-stormwater discharges. The goal of the outreach is to increase awareness of stormwater pollution and applicable regulations, educate industry owners and operators about BMPs for addressing pollution, and encourage environmental stewardship. See the Outreach activity under Section 2.7 – Regional Commercial/Industrial Program for more information on the targeted outreach.

Figure 4.4.1
Referral Process for Industrial General Permit Non-Filers



Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the Commercial/Industrial Element. Additional activities and effectiveness assessments are included in Section 2.7, Regional Commercial/Industrial Program and Table 2.7-1.

Activities discussed above and listed in Table 4.4-1 will be documented and reported in the annual report(s). Activities have the outcome level of 1 – Documenting Activities unless otherwise specified in Table 4.4-1. Element key indicators, indicated by checkmarks in Table 4.4-1, have an outcome level of 3, and will be used to demonstrate progress towards meeting the element goal. The work plan table also shows the schedule for the effectiveness assessment and the progression of the outcome levels.

Any change, if necessary, to the planned activities will be documented in annual work plan(s) and reported in the appropriate annual report(s). Results of the effectiveness assessment will be used to focus and modify activities for maximum environmental benefit.

Sacramento City Commercial/Industrial Element is currently implementing effectiveness assessments at outcome level 1 – Documenting Activities. The key indicator will measure the reduction in the number of repeat violations in the CBSCP within a two year period.

Table 4.4-1

City of Sacramento Commercial/Industrial Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Commercial/Industrial Element is to reduce or eliminate the discharge of pollutants into the storm drainage system that are produced from all types of business activities to the MEP .

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Legal Authority												
Review and revise Stormwater Ordinance and/or policies	D.9.a.i					N/A		⇔				
Complaint-based Storm Water Compliance Program (CBSCP)												
Investigate business-related complaints	D.9.a.iii-viii					⇔	⇔	⇔	⇔	⇔	⇔	
Continue to conduct enforcement	D.9.a.iii-viii	✓	Reduction in the number of repeat violations/offenders within a two year period	C, T, I	2008/09 violations/offenders	⇔1	⇔1	⇔3	⇔3	⇔3	⇔3	
Review and revise progressive enforcement policy and procedures	D.9.a.i					N/A	⇔					
Maintain and update database with inspection, enforcement and outreach data	D.9.a.i					⇔	⇔	⇔	⇔	⇔	⇔	
Refer potential State Industrial General Permit non-filers to the Regional Water Board	D.9.a.iii-viii					⇔	⇔	⇔	⇔	⇔	⇔	
Investigate Regional Water Board referrals within 3 working days of receipt of referral	D.9.a.iii-viii					⇔	⇔	⇔	⇔	⇔	⇔	
Training and Outreach												
Provide guidance and educational materials to targeted industries/businesses that have committed violations	D.9.b.iii					⇔	⇔	⇔	⇔	⇔	⇔	

4.5 MUNICIPAL OPERATIONS ELEMENT

4.5.1 Goal

The goal of the Municipal Operations Element is to mitigate potential pollutants generated by municipal facilities and activities to the maximum extent practicable (MEP), to continue pollutant reduction efforts performed by Sacramento City Department of Utilities (DOU) staff, and to set an example of model pollution prevention for the public.

POLLUTANTS ADDRESSED BY THIS ELEMENT

- **Sediment***
- Vegetation waste clippings
- **Metals***
- Nutrients
- **Pesticides***
- Organic Carbon
- Bacteria/Pathogens
- Construction waste
- Maintenance waste
- **Hydrocarbon Products***
- Other non-stormwater discharges

***Target pollutant for Sacramento area**

4.5.2 Evolution

During past permit terms, the Municipal Operations Element has:

- Implemented a spill response program
- Complied with the State Construction General Permit for municipal construction projects
- Begun auditing existing municipal facilities having the potential to discharge pollutants into urban runoff, and identified targeted facilities for written pollution prevention plans
- Conducted prioritized storm drain system maintenance activities based upon accumulation of debris, customer complaints, and seasonal concerns
- Performed street sweeping for all curbed streets at least once per month
- Marked Sacramento City storm drain inlets with either long-term markers, stenciling, or permanent concrete stamps
- Trained Sacramento City staff on the impacts of stormwater pollution and associated prevention activities.

A comprehensive list of accomplishments for this Element is provided in Appendix 4A.

During the upcoming permit term, the Municipal Operations Element will continue implementing these activities, but staff will also develop and implement other activities, including:

- Facility Pollution Prevention Plans (FPPPs) including tracking of BMP implementation for facilities and corporation yards involved with vehicle/equipment maintenance and material storage
- Integrated Pest Management strategies for all Sacramento City departments involved with pesticide applications
- Inspection frequencies and maintenance procedures for Sacramento City-owned parking lots exposed to rainfall
- Adaptive Management Plans (AMPs) or Lake Management Plans (LMPs) for water quality detention basins
- Response plan for emergency and non-emergency fire-flow discharges

A more specific list of tasks and schedules is presented in Table 4.5-1, Municipal Operations Element Activities Work Plan (2008-2013).

4.5.3 Strategy

Existing Sacramento City inspections and cleanings of the drainage collection system and monthly sweeping of curbed streets provides for a substantial reduction in stormwater pollutant discharges into receiving waters. Additionally, the Municipal Operations Element will implement new or continue to enhance existing municipal services and mitigate potential pollutant generating activities in order to meet its goal. The strategy will include activities in the following categories:

- Spill response
- New Development and Construction Requirements for Municipal Capital Improvement Projects
- Pollution Prevention at City Facilities
- Landscape and Pest Management
- Storm Drain System Maintenance
- Street Cleaning and Maintenance
- Curbside Green Waste Collection
- Parking Facilities Maintenance
- Detention Basin Maintenance
- Emergency Procedures
- Non-Emergency Fire Fighting Flows
- Training

4.5.4 Activities

A list of tasks and their associated schedule is presented in Table 4.5-1, Municipal Operations Element Activities Work Plan (2008-2013), located at the end of this section.

Spill Response

Sacramento City implements an extensive Supervisory Control And Data Acquisition system (SCADA) that is used to remotely monitor and manage flows of the drainage and sanitary sewer pumping stations (Sumps). The SCADA system provides real-time information regarding Sump volumes and associated pumping activities, and its remote monitoring of Sumps is conducted at all times without interruption. The SCADA system monitoring of the sanitary-sewer Sumps provides for effective prevention, identification and correction of sanitary sewer overflows (SSOs) to the drainage system, and is also utilized in the mitigation of reported illicit discharges into the drainage system. In the event of a SSO or of an illicit discharge entering the drainage system, the pumps at the associated drainage Sump are shut off until proper clean-up procedures have been implemented. The SCADA system and the associated spill response procedures routinely prevent non-stormwater discharges and sewage from reaching receiving waters. See Appendix 4I for the Wastewater Collection Standard Operating Procedure (SOP). This SOP outlines procedures pertaining to the sanitary sewer system, combined sewer system and weather related events.

Sacramento City's DOU Field Services Division's Drainage Section (Drainage Section) first responders will continue responding to reported illicit discharges and spills entering, or threatening to enter, the drainage collection system. The first responders will abate the hazard, clean the impacted drainage lines and associated appurtenances, and arrange for proper disposal of the discharged substance. Sacramento City's drainage first responders coordinate with Sacramento County and Sacramento City HAZMAT crews, outside contractors and other regulatory agencies when necessary. See Section 4.6, Illicit Discharge Element, for further details.

Sacramento City also has coverage under the recently adopted Statewide General Waste Discharge Requirements (WDR), Order No. 2006-0003, for all publicly owned sanitary sewer collection systems. The purpose of the WDR is to prevent SSOs and requires Sacramento City to develop and implement a Sewer System Management Plan (SSMP) to eliminate SSOs. The Sacramento City Council certified the City's SSMP on April 21, 2009.

New Development and Construction Requirements for Municipal Capital Improvement Projects

Sacramento City Stormwater Program staff will review and if necessary revise the procedures for design and construction of public capital improvement projects to ensure that post-construction requirements are implemented, where applicable, for public construction projects. Sacramento City staff will continue to obtain coverage under the State Construction General Permit for applicable Sacramento City construction sites. See Section 4.3, Construction Element and Section 4.8, New Development Element for further details.

Pollution Prevention at City Facilities

The Sacramento City Stormwater Program staff have audited existing facilities that have the potential for discharging pollutants to Sacramento City's drainage system and/or receiving waters. These audits identified potential pollutant discharges resulting from the activities conducted at these sites and the existing BMPs implemented to reduce the potential discharges. Plumbing of wash areas were investigated (except for fire stations) to ensure that all connections were either self-contained, equipped with a clarifier, equipped with an alternative pre-treatment device, or plumbed to the sanitary sewer system. During these audits, additional BMPs, guidance materials and training required to further reduce potential pollutant discharges from Sacramento City facilities were identified and will be addressed in facility-specific pollution prevention plans. See Appendix 4J for the initial facility audit report.

Sacramento City Stormwater Program staff will review and update existing Storm Water Pollution Prevention Plans (SWPPPs) for General Industrial permitted facilities, and develop similar Facility Pollution Prevention Plans (FPPPs) for targeted, non-permitted facilities with the potential of discharging pollutants into the drainage system. These pollution prevention plans will include good housekeeping practices, material storage control and leak and/or spill control. SWPPPs and FPPPs will be reviewed and revised every year for the first three years after implementation, and subsequent reviews will be conducted at least once per permit term. See Appendix 4K for an example of an existing SWPPP and Appendix 4L for an example of a newly developed FPPP. Additionally, inspection frequencies will be established to ensure adequate BMP implementation and maintenance. A database will be developed to track site-specific BMP selection, inspections and effectiveness rankings.

Maintenance of Sacramento City-maintained ornamental ponds and ponds at City-maintained golf courses will be further evaluated during FPPP inspections to ensure that no discharge of contaminated pond water enters the storm drainage system. As FPPPs for Golf Courses are being updated, documentation of pond maintenance will be included in the updated FPPPs and in the associated database. Currently, none of the ponds associated with Sacramento City-maintained golf courses are ever routinely drained.

Landscape and Pest Management

Sacramento City Stormwater Program staff will continue developing and implementing Integrative Pest Management (IPM) policies and procedures that apply to all of Sacramento City's pest management activities (see Appendix 4M for Sacramento City's current IPM Policy). IPM, which focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation and modification of cultural practices, ensures that:

- Pesticides are used only after monitoring indicates they are needed and according to established guidelines
- Treatments are made with the goal of removing only the target organism
- Pest control materials are selected and applied in a manner that minimizes risks to human health, to beneficial and non-target organisms, to water quality, and to the environment

In addition to adopting IPM management strategies, Sacramento City staff will continue implementing standardized protocols for chemical applications of pesticides (including pre-emergents) and fertilizers that:

- Prohibit application or storage of banned or unregistered pesticides
- Require staff applying pesticides to be certified by the California Department of Pesticide Regulation, or under the direct supervision of a certified pesticide applicator
- Require the storage of fertilizers and pesticides indoors or under cover on paved surfaces, or the use of secondary containment
- Minimize the use, the storage and the handling of pesticides to reduce the potential for spills
- Require the regular inspection of storage areas

Pest management decisions for each specific Sacramento City owned and/or operated facilities will follow an IPM Implementation Plan, and include contract provisions for Pest Control Operators requiring IPM services. In addition, training and guidance materials will be developed, where necessary, to support the effective implementation of IPM strategies at these facilities. See Appendix 4N for a sample of the current contract language associated with structural pest control.

Storm Drain System Maintenance

Sacramento City staff will continue to remove accumulated debris and sediment from the storm drainage system (i.e., pumping stations, underground drainage lines, drainage inlets, manholes, and drainage channels). By following prescribed maintenance procedures, Sacramento City staff ensures removal of pollutants to the MEP and protection of the habitat within the improved and/or natural drainage facility. Sacramento City staff will also continue to implement existing storm drain maintenance procedures that minimize the discharge of pollutants during maintenance of the drainage channels, ditches and creeks. Sacramento City staff will also continue to measure the quantity of waste removed, to properly dispose of material removed, and to keep accurate records of maintenance operations. Sacramento City's drainage Sumps are maintained by the DOU Plant Services Division, and the remaining drainage infrastructure is maintained by the Drainage Section field crews.

The drainage system for Sacramento City is broken up into several drainage sheds, and drainage from the majority of these sheds is collected at Sumps. Sump designs incorporate flood control features as well as sedimentation features within their wet wells. Furthermore, drainage Sumps are considered "downstream BMPs" because of the ability to trap litter and sediment. Large screens will contain litter and prevent it from entering the pump intake location, helping to minimize damage to pumping mechanisms. Litter is removed from screens during normal cleaning operations and disposed of properly.

All drainage Sumps are visually inspected on a weekly basis for evidence of contamination and preventative maintenance needs. Key factors for cleaning frequencies of Sumps include the amount of rainfall, the accumulation of debris, and the land use within the drainage shed. Of the 104 drainage Sumps within Sacramento City, approximately 75 are scheduled to be cleaned each year. If it is determined that there is an unusually high level of sediment and debris, then the Sump is placed on an accelerated cleaning cycle.

Sacramento City staff will continue implementing maintenance procedures for drainage channels, ditches and creeks as specified in the existing maintenance agreements with the California Department of Fish and Game. These agreements identify the environmental character of each drainage facility and appropriate maintenance activities and schedules to adequately address flood control needs within that facility.

Chemicals are sometimes used for weed control during channel maintenance. This type of chemical application adheres to strict oversight and guidelines as required by federal, state, and local regulations. All chemical applications are overseen by certified staff, and further guidance and oversight is performed by a contracted Pest Control Advisor (PCA). The DOU Field Services' contracted PCA provides regular training and recommendations for weed control; demonstrates knowledge of Integrated Pest Management (IPM) principles; provides guidance to all staff involved with chemical applications on the recommended use, the recommended application techniques, required safety practices, and on required disposal guidelines associated with the weed control chemicals. According to California State law, all PCAs require licensing by the California Department of Pesticide Regulation. In order to obtain such licensing, the PCA must show expertise in identifying and appropriately managing pests within an appropriate pest category, and the PCA can only make recommendations for that category.

Drainage Section field crews have been implementing a comprehensive maintenance and inspection program for the underground collection system for several decades which has met the Stormwater Permit requirements. Routine maintenance includes the inspection of mains, manholes, and drain inlets. Crews are typically inspecting for structural integrity, for flood related issues (which includes accumulation of debris), and for signs of illicit discharges and/or connections. All storm lines, drain-inlet leads and manholes are on a 3, 6, 12, 24, or 36-month cleaning schedule depending on the priority of the drainage facility. Priority is based on accumulation of waste, customer complaints, and flood control issues.

Another component of the storm drain system maintenance includes marking of the drain inlets with the "No Dumping" message to discourage illicit discharges. During the first two permit terms, Sacramento City used volunteers to mark drain inlets with the spray painted message, "No Dumping Drains to River." In the third permit term, Sacramento City Stormwater Program staff oversaw completion of a project to attach a more permanent curb marker conveying more information than the prior spray-painted message. The new markers include the river or creek name, the regional 916-808-4H20 public hotline number to report suspected spills and illegal dumping activities, and the Sacramento City Stormwater Program website internet address; thus establishing a stewardship between Sacramento City and its community to protect water quality. Initially, listing the river or creek name on the marker will educate the public about the specific receiving water being impacted by discharges in the specific inlets. These curb markers also match signs placed at creek crossings to discourage illegal dumping along creeks. When a marker needs to be replaced, a more general marker that does not designate a specific water body will be placed in order to simplify tracking and maintenance. At least 95 percent of the City's MS4 drain inlets associated with curb and gutter now have a no dumping message with either a concrete stamp or a curb marker; consequently, the volunteer stenciling program is no longer necessary and will be discontinued. Sacramento City Stormwater Program staff will oversee maintenance of the curb markers as needed either through field staff, volunteers or consultant services, replacing the affected curb markers.

Pollutant discharges into Sacramento City drainage facilities or into receiving waters will also be minimized by continuing to implement existing procedures for special events which requires special-use permits that require proper management of trash and litter.

Street Cleaning and Maintenance

Fine particles and pollutants naturally tend to accumulate along the curbs of roads in between rainfall events. Street sweeping is a source-control BMP employed by Sacramento City. Each year, Sacramento City street sweepers collect and dispose of sediment and debris that would otherwise be transported into the drainage collection system. The presence of downstream BMPs (i.e., drainage Sumps and their associated cleaning schedule) provide further defense against potential roadway-pollutants entering local receiving waters. Additionally, potential roadway-pollutants that have entered the drainage collection system may also be removed during cleaning of the underground pipes and appurtenances provided by Drainage Section field crews.

Sacramento City Solid Waste Division staff have categorized all city streets with a curb as Priority A, which are swept at least once per month, including curbed streets in the Sacramento City downtown area, which are on an accelerated schedule and are swept once per week. Wash water and solid waste collected as part of the street sweeping activities will continue to be disposed of properly, following applicable solid waste disposal requirements.

During this permit term, Sacramento City Stormwater Program staff will work with the DOU Solid Waste Division to evaluate Sacramento City's street sweeping program to determine if practices could be adjusted to capture additional amounts of accumulated sediments. The evaluation process will consider economic feasibility in order to justify any changes that may impact utility rates.

Sacramento City Stormwater Program staff has coordinated with the Street Maintenance Section of the Sacramento City Department of Transportation (DOT) to evaluate routine maintenance practices. Standardized BMP implementation practices specific to that section's activities were identified, and the appropriate supervisors assisted in the development of written standard procedures (see Appendix 4O for the Street Maintenance BMP Standard Operating Procedures). BMP practices are regularly implemented on all routine paving and concrete maintenance projects, and training specific to these routine activities is conducted annually. Any complaints received pertaining to street maintenance activities are addressed. The maintenance supervisors are very responsive to implementing corrective measures.

Various street-maintenance activities require sawcutting in the streets or in the right-of-way. Sawcut slurry is recovered with an on-site vacuum system and is disposed of properly. There are five Sacramento City Construction Inspectors dedicated to inspection of concrete activities that ensure proper BMP implementation of contracted sawcutting and concrete work. Also, all concrete wash water from Sacramento City's DOT In-Source Concrete crews is handled and disposed of appropriately; and any complaints received regarding improper disposal of concrete wash water is directed to the Concrete Supervisor who is responsive to implementing corrective measures.

Sacramento City Stormwater Program staff will continue to audit street maintenance practices and revise them, as needed, to ensure recovery and proper disposal of sawcutting waste; proper management of concrete and other street maintenance materials and wastes; and use of designated areas for concrete washout.

Curbside Green Waste Collection

On September 27, 1977, city voters approved Measure A, which adopted an ordinance to prohibit Sacramento City from requiring the mandatory containerization of yard and garden refuse within Sacramento City limits, unless this prohibition is repealed or amended by a vote of the majority of the electors of Sacramento City at any municipal election. The deposit and collection of garden refuse in the city streets results in various impacts that have resulted in numerous Sacramento City residents requesting that Sacramento City provide an option to subscribe to a containerized collection service as an alternative. Measure A prohibits mandatory containerization, but does not prohibit Sacramento City from providing an optional containerization collection service. Since the property owner's decision to participate in the program would be voluntary, Sacramento City would not be mandating or requiring containerization.

In 2004, Sacramento City's City Council approved an ordinance and associated resolutions amending Sacramento City's City Code to allow a voluntary containerization component to the lawn and garden collection services (see Appendix 4P for those resolutions and ordinance). Lawn and Garden Services include the collection of garden refuse from city streets, the disposal of garden refuse, and the periodic sweeping of those streets. The voluntary containerized collection service also provides collection and disposal of refuse placed in containers on Sacramento City streets and periodic street sweeping of those streets.

The voluntary containerized collection schedule includes weekly collection of containerized yard waste, and bi-weekly collection of loose material during the following seasons: Leaf Season (months of November and December), Pruning Season (end of February thru March), and Growth Season (end of April thru August). Sacramento City residents can learn more about the program and submit a request for participation through the DOU public website at the following internet address: www.cityofsacramento.org/utilities/solid-waste-recycling/residential/residential_voluntary_containerization.cfm. When enough residents from a particular neighborhood show interest in participating, the entire neighborhood will be offered the program. When a neighborhood has been targeted for green waste cans, Sacramento City staff send out a letter prior to container delivery and conducts a community meeting ten days before collection begins. This letter and accompanying community meeting provide information pertaining to the details of the program. Upon delivery of the container, additional outreach material is provided. See Appendix 4Q for examples of the letter mailed and of the outreach material distributed.

At the end of the third permit term, approximately 50,000 Solid Waste Division customers were participating in the voluntary containerization program. Sacramento City's City Council approved a proposal to offer 20,000 green-waste cans per year for five years to customers. By the end of 2014, all Sacramento City DOU Solid Waste Division customers (approximately 113,000) should have the option to participate in the voluntary containerization program.

Parking Facilities Maintenance

Most Sacramento City facilities are properly maintained with regularly scheduled maintenance. Typical maintenance activities include sweeping, trash pickup, and leaf blowing. This maintenance is primarily done by Sacramento City staff though some is contracted out. Downtown parking garages, which are all located within Sacramento City's combined drainage and sewer system, are maintained at the highest level adding power scrubbing to regularly scheduled maintenance.

During this permit term, Sacramento City Stormwater Program staff will evaluate and document inspection and maintenance practices for Sacramento City-owned and maintained parking lots exposed to rainfall. The evaluation will identify prioritized categories of parking facilities and corresponding inspection and maintenance frequencies to prevent build-up of debris and excessive oil to the MEP. Only parking facilities discharging into the drainage collection system will be evaluated.

Detention Basin Maintenance

Adaptive Management Plans (AMPs) provide guidance for the long-term maintenance and operations for water-quality detention basins, with unique features for each detention basin. Key maintenance issues include, but are not limited to:

- Algae control
- Vegetation management
- Fuel load management and fire control
- Pond sediment removal,
- Irrigation system operation
- Inlet maintenance
- Water quality control
- Mosquito control

Each basin is divided into separate maintenance zones based on a variety of factors, including slope, topography, hydrology, and anticipated use. Maintenance activities prescribed for each of these zones address the target condition of the area, the types of management activities needed to maintain the target condition, and the frequency of these management activities. Recommended visual-monitoring activities are included as a type of maintenance activity to support the adaptive approach to basin management. See Appendix 4R for an example of an AMP.

During this permit term, Sacramento City Stormwater Program staff will review and revise existing AMPs to address current regulatory standards. Chemical and fertilizer activities will be evaluated and adjusted to ensure permit compliance. Revised AMPs will serve as a developmental model for additional plans to be developed and implemented for targeted and newly constructed water-quality detention basins.

Additional water-quality basins within the North Natomas community of Sacramento City that are maintained by Home Owner Associations (HOAs) have Lake Management Plans (LMPs) similar to the AMPs. Drainage agreements between the HOAs and Sacramento City include language requiring these LMPs to address water quality concerns, and specify responsibilities and obligations relative to the maintenance of the detention basin and all of its related facilities. As part of the LMPs, the HOAs collect water quality data on a quarterly basis, implement BMPs, and maintain the aesthetics (i.e., algae, trash, invasive plants) of the lakes. Water quality monitoring reports are submitted to Sacramento City Stormwater Program staff for review. Sacramento City Stormwater Program staff will coordinate with HOA managers to revise LMPs to address identified inadequacies, if any, identified discovered in the submitted monitoring reports. See Appendix 4S & 4T for examples of a drainage agreement, an LMP and a HOA-submitted monitoring report.

Emergency Procedures

Sacramento City staff has identified principal hazards that are potentially threatening to its infrastructure, and has developed a City of Sacramento Emergency Operations Plan in April 2005. Hazards identified in this plan include floods, dam failures, earthquakes, hazardous materials incidents, major transportation accidents, multi-casualty incidents, urban-wildland interface fires, power outages, weather-related hazards, and homeland security hazards. Initial emergency response in this plan focuses on the preservation of life and property. Environmental protection is implemented once life and property issues have been addressed.

The Sacramento Regional Fire/EMS Communications Center dispatches appropriate personnel and equipment during emergency situations. Dispatch for fire-related calls includes notification of the DOU's Plant Services Division staff if there is a potential threat to the intake structures of the water treatment plants (which usually only occurs on a 3rd alarm fire or greater), or if there is a need for an increase of pressure to the water distribution system for the fire suppression activities. A call to this division alerts them to the location of the fire so that pumps at Sump stations in that area can be shut down. Experienced fire captains directly notify DOU's Field Services Division Drainage crews of fire runoff impacting the drainage collection system regardless of the level of alarm, and DOU's Plant Services and Field Services Drainage crews coordinate with each other. If hazardous materials are suspected to be involved within a fire, then such fire-debris are handled the same way as waste is handled during a hazardous material response. The cost for capture and disposal of all fire-suppression-waste water may be cost prohibitive; however, floatables can be affordably cleaned out of Sumps. Sacramento City Stormwater Program staff will coordinate with appropriate agencies to evaluate existing BMP implementation practices and develop written procedures.

Non-emergency Fire Fighting Flows

Sacramento City fire crews typically utilize porous, open areas for fire hose manipulation training. Additionally, these crews do much of their training with other fire agencies at the McClellan facility which has incorporated water quality BMPs. Non-emergency fire activities will be evaluated and written BMP implementation practices will be developed.

Training

Training of Sacramento City staff and contracted employees is an integral part of the Municipal Operations Element strategy. Various groups are targeted to address Stormwater Permit requirements, to promote a clear understanding of the potential for municipal activities to pollute stormwater, and to identify and select appropriate BMPs. Training may include information and requirements for other Elements as well. See Table 4.2-1 in Section 4.2, Program Management for a summary table of the various City departments identified for training and for the frequency of the training provided.

4.5.5 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the Municipal Operations Element.

Activities discussed above and listed in Table 4.5-1 will be documented and reported in the annual report(s). Activities have the outcome level of 1, Documenting Activities, unless otherwise specified in Table 4.5-1. Element key indicators, indicated by checkmarks in Table 4.5-1, have outcome levels of 2 through 4, and will be used to demonstrate progress towards meeting the element goal. The work plan table also shows the schedule for the effectiveness assessment and the progression of the outcome levels.

Any change, if necessary, to the planned activities will be documented in annual work plan(s) and reported in the appropriate annual report(s). Results of the effectiveness assessment will be used to focus and modify activities for maximum environmental benefit.

The Municipal Operations Element is currently implementing effectiveness assessments at outcome levels 1 through 4. During past permit terms, the focus of this element had been on reviewing/documenting activities and training (outcome level 1) and quantifying amount of waste removed (outcome level 4) from the drainage collection system and from street sweeping operations.

During this permit term, the Municipal Operations Element will continue to utilize an implementation assessment approach in order evaluate the effectiveness of select activities to meet the element goal. An implementation assessment approach focuses on activities such as inspections, training, street sweeping, debris collection, and the development/implementation of pollution prevention plans. In order to advance other Municipal Operations Element key indicators from an outcome level 1, Documenting Activities, to higher outcome levels, the following key indicators will be used to assess effectiveness:

- Track the number of developed pollution prevention plans that are signed by authorized representatives acknowledging responsibility for implementation.
- Inspect Sacramento City facilities with pollution prevention plans to determine the effectiveness of BMP implementation by utilizing an effectiveness ranking system.
- Quantify the total amount of accumulated waste removed during street sweeping operations and cleaning operations of the drainage collection system.

- Track the increase in participation of Solid Waste customers in the voluntary green waste collection program.
- Survey staff's awareness of available BMPs and pollution prevention practices by utilizing results of quizzes conducted during training.

During this permit term, assessing the effectiveness of training activities and the development and implementation of pollution prevention plans will be emphasized. Surveys will be developed to assess staff's increase in awareness associated with training on applicable stormwater topics. The survey will be conducted twice in the permit term, and the first survey will be utilized as the baseline for effectiveness assessment. Site-specific pollution prevention plans for targeted facilities will also be developed and implemented. A database will be developed to track site-specific BMPs, inspections and the newly developed ranking system. This ranking system will consider the effectiveness of a particular BMP implementation practice and an evaluation of the potential for a discharge. BMPs implemented for activities associated with a higher potential of discharge will be weighted more than BMPs implemented for activities associated with a lower potential of discharge. For example, material storage inside a fixed structure will be given less weight than material storage exposed to rainfall.

Table 4.5-1

City of Sacramento Municipal Operations Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Municipal Operations Element is to mitigate potential pollutants generated by municipal facilities and activities to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Spill Response												
See Section 4.6 - Illicit Discharge												
New Development and Construction Requirements for Municipal Capital Improvements Projects												
Continue to implement Development Standards and construction requirements as they apply to Municipal Capital Improvement Projects	D.10.a.ii., D.10.b.i., D.14.b., 8					⇔	⇔	⇔	⇔	⇔	⇔	
Pollution Prevention at City Facilities												
Develop SWPPPs for facilities with an Industrial General Permit and Facility Pollution Prevention Plans (FPPPs) for other targeted City facilities	D.10.a.iii., D.10.b.ii.					⇔	⇔					
Obtain approval of developed SWPPPs and FPPPs by responsible staff for implementation	D.10.a.iii., D.10.b.ii.	✓	Show plans are developed and have been signed by an authorized City representative acknowledging acceptance of responsibility for implementation	C, T	Initial audit data	⇔2	⇔2	⇔2	⇔2			
Establish inspection frequencies for each facility	D.10.a.iii., D.10.b.ii.					N/A	⇔					
Review and revise SWPPPs and FPPPs annually for the first three years of implementation	D.10.a.iii., D.10.b.ii.					⇔	⇔	⇔	⇔			
Develop and maintain database to track site-specific BMPs, inspections and effectiveness ranking system	D.10.a.iii., D.10.b.ii.					N/A	⇔	⇔	⇔	⇔	⇔	
Establish BMP implementation baseline data from observations collected during SWPPP/FPPP development	D.10.a.iii., D.10.b.ii.					N/A	⇔					
Conduct inspection at established frequencies and audit facilities for conformance with site-specific pollution prevention plans	D.10.a.iii., D.10.b.ii.	✓	Show an increase in the effectiveness ranking for all sites by the end of the permit term	C, T, I	Effectiveness rankings developed from conditions prior to pollution prevention plan development and implementation	⇔1	⇔1	⇔1	⇔3	⇔3	⇔3	
Evaluate maintenance practices of golf course ponds and other ornamental ponds during facility inspections, and document activities within pollution prevention plans	D.10.a.iii., D.10.b.ii.					N/A	⇔	⇔				
Landscape and Pest Management												
Continue developing and implementing integrated pest management (IPM) procedures for the City's landscape management area of responsibilities	D.10.a.iv., D.10.b.iii., D.27.a.i.					⇔	⇔	⇔	⇔	⇔	⇔	
Ensure pesticides storage, usage, and disposal practices are documented within applicable FPPPs	D.10.a.iv., D.10.b.iii., D.27.a.i.					⇔	⇔	⇔	⇔			
Review structural IPM Implementation Plans developed by contracted Pest Control Operator to determine if revisions are needed	D.10.a.iv., D.10.b.iii., D.27.a.i.					N/A	⇔	⇔	⇔	⇔	⇔	once per permit term for each facility

Table 4.5-1

City of Sacramento Municipal Operations Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Municipal Operations Element is to mitigate potential pollutants generated by municipal facilities and activities to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Storm Drain System Maintenance												
Continue implementing the inspection and cleaning schedule for drainage collection system and collect sediment samples from select Sump stations	D.10.a.v., D.10.b.iv.	✓	Quantify total amount of waste removed within the entire drainage collection system, and estimate pounds of target pollutants removed	C, T, Q	Previous term's data	⇔4	⇔4	⇔4	⇔4	⇔4	⇔4	
Maintain "No Dumping" message on MS4 drain inlets	D.10.a.vi.					⇔	⇔		⇔		⇔	
Street Cleaning and Maintenance												
Continue to implement street sweeping program, and collect sediment samples from select sweeper loads	D.10.a.vii., D.10.b.v.	✓	Quantify total amount of waste removed from street sweeping efforts, and estimate pounds of target pollutants removed	C, T, Q	Previous term's data	⇔4	⇔4	⇔4	⇔4	⇔4	⇔4	
Evaluate sweeping practices, and determine if current practices can be improved	D.10.a.vii., D.10.b.v.					N/A		⇔				
Continue to implement BMPs for activities involving street sweeper rinse water, saw cutting activities, street maintenance materials and waste, and concrete waste	D.10.b.v.					⇔	⇔	⇔	⇔	⇔	⇔	
Curbside Green Waste Collection												
Continue implementing the Voluntary Containerized Green Waste Program	D.4.b., 10.a.vii.	✓	Increase participation in the voluntary program to 90% of customers (approximately 102,000)	C, T	50,000 Solid Waste Customers participating by end of Fiscal Year 2008	⇔3	⇔3	⇔3	⇔3	⇔3	⇔3	
Parking Facilities Maintenance												
Continue to maintain City-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	D.10.a.viii., D.10.b.vi.					⇔	⇔	⇔	⇔	⇔	⇔	
Evaluate Parking lot maintenance programs and adjust as needed	D.10.a.viii., D.10.b.vi.					N/A				⇔	⇔	
Detention Basin Maintenance												
Review and revise targeted existing Adaptive Management Plans (AMPs) for water-quality detention basins	D.10.a.v., D.10.b.vii.					⇔	⇔	⇔	⇔	⇔	⇔	each plan once per permit term
Evaluate any chemical applications to wet basins and document BMPs implemented	D.10.a.v., D.10.b.vii.					N/A			⇔	⇔	⇔	
Develop and implement additional AMPs for targeted and newly constructed water-quality detention basins when necessary	D.10.a.v., D.10.b.vii.					N/A			⇔	⇔	⇔	
Provide support as needed in the development of Lake Management Plans (LMPs) for new water-quality detention basins that will be managed by Home Owner Associations (HOAs)	D.10.a.v., D.10.b.vii.					⇔	⇔	⇔	⇔	⇔	⇔	
Periodically review and revise existing LMPs, and work with HOAs to revise if necessary	D.10.a.v., D.10.b.vii.					N/A			⇔	⇔	⇔	
Emergency Procedures												

Table 4.5-1

City of Sacramento Municipal Operations Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Municipal Operations Element is to mitigate potential pollutants generated by municipal facilities and activities to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	FY08/09	Schedule/Target Outcome Level FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other Notes
Implement Sacramento Regional Fire/EMS Communications Center dispatch procedures to minimize environmental damage in emergency situations	D.10.a.ix.					⇔	⇔	⇔	⇔	⇔	⇔	
Review existing practices and develop a written response plan for fire flow discharges into the City's drainage system	D.10.a.ix.					N/A			⇔	⇔		
Non-emergency Fire Fighting Flows												
Review existing practices and develop written procedures for BMP implementation practices for non-emergency fire-fighting flows	D.10.a.ix.					N/A			⇔	⇔		
Training												
Provide regular training to targeted staff on applicable components of the SQIP, and evaluate awareness of BMP practices by conducting a survey twice in the permit term	D.10.a.x.	✓	Increase awareness of available BMPs and pollution prevention practices	C, T, S	First survey (FY 11/12)	⇔1	⇔1	⇔1	⇔2	⇔2	⇔1	

4.6 ILLICIT DISCHARGE ELEMENT

4.6.1 Goal

The goal of the Illicit Discharge Element is to abate, contain and/or clean up reported illicit discharges and connections to the storm drainage system.

POLLUTANTS ADDRESSED BY THIS ELEMENT

- **Hydrocarbon Products ***
- Automotive fluids
- **Sediment***
- Paint
- Concrete
- Other non-stormwater discharges

***Target pollutant for Sacramento area**

4.6.2 Evolution

During past permit terms, the Illicit Discharge Element:

- Established the legal authority of Sacramento City to prohibit illicit discharges and enforce those prohibitions;
- Established illicit discharge response and reporting procedures;
- Responded to reports of illicit discharges;
- Performed field work to clean and abate illicit discharges;
- Implemented household hazardous waste collection programs.

In 2004, Sacramento City revised the 1997 ordinance previously used for enforcement of stormwater regulations for use in Illicit Discharge enforcement.

Between FY 95/96 and FY96/97, Sacramento City conducted an extensive illicit connection screening program for all Sacramento City drainage basins. This investigation found only two illicit connections, subsequently removing both. Until FY06/07, Sacramento City conducted ongoing screening in several selected drainage basins during the dry season to identify any illicit connections but none were located. In FY07/08, Sacramento City ended specific illicit connection screening due to the lack of illicit connections found during previous years and the high cost of the screening program.

During the last permit term, Sacramento City Stormwater Program Inspection staff conducted enforcement response in support of First Responder activities. Sacramento City staff also developed a database to track reports of illicit discharges and enforcement response to these reports.

A comprehensive list of accomplishments for this Element is provided in Appendix 4A.

In the 2008-2013 permit term, the database will be modified to allow for specific report queries to identify, where possible, high-priority areas within the City or high-priority groups of dischargers for future outreach efforts. Once the areas are identified, Sacramento City Stormwater Program staff will coordinate outreach and, if necessary, enforcement activities to address specific illicit discharge issues.

Sacramento City Stormwater Program staff will continue to provide annual training for Department of Utilities (DOU) Field Services staff regarding illicit discharge response activities and identification of potential illicit connections.

A more specific list of tasks and schedules is presented in Table 4.6-1, Illicit Discharge Element Activities Work Plan (2008-2013).

4.6.3 Strategy

The Illicit Discharge Element strategy includes the following components to achieve the goal of abating, containing and cleaning up reported illicit discharges and connections to the storm drainage system:

- Use an Illicit Discharge and Illicit Connection Communication and Response Plan as illustrated in Figure 4.6-1 on the next page.
- Annually evaluate complaints of illicit discharges to determine the most common types of discharges.
- Develop outreach materials to address these activities.
- Provide annual training to spill response personnel on their job duties.

4.6.4 Activities

A list of tasks and their associated schedule is presented in the Table 4.6-1 – Illicit Discharge Element Activities Work Plan (2008-2013), located at the end this section.

Legal Authority

Sacramento City's Stormwater Ordinance provides legal authority for regulating pollutant discharges to the storm drain system. This Stormwater Ordinance will be amended as needed during the 2008–2013 permit term to ensure that pollutant sources from non-commercial activities are effectively addressed. Sacramento City Stormwater Program staff continues to provide enforcement of Sacramento City's Stormwater Ordinance using the Illicit Discharge and Illicit Connection Communication and Response Plan shown in Figure 4.6-1.

Illicit Connections and Discharges Response and Enforcement

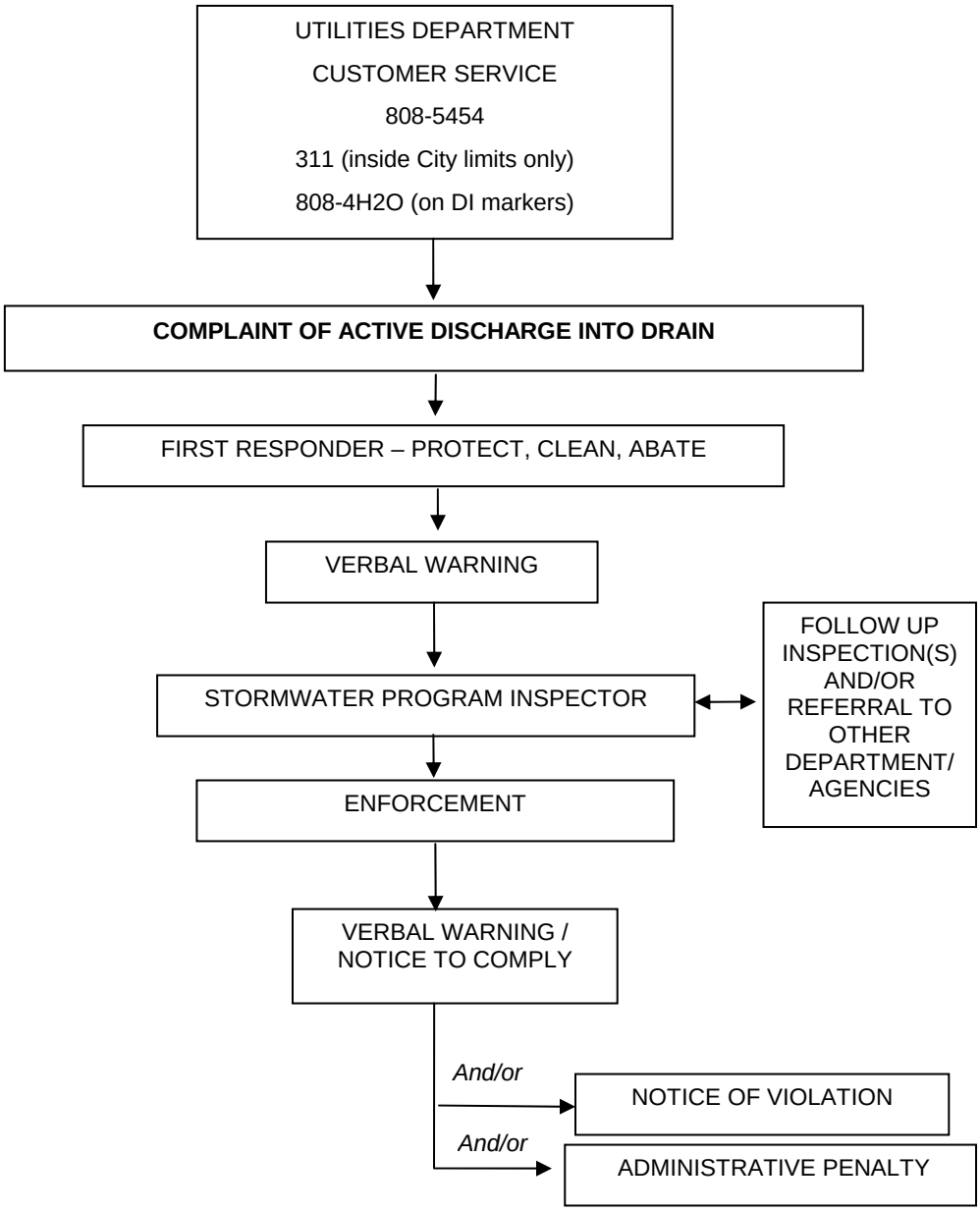
Sacramento City's outreach and maintenance practices are key components in the detection of illicit discharges and connections. Inspection, enforcement, and outreach efforts of the Commercial/Industrial, Construction, Public Outreach, and Municipal Operations programs all contribute to raising awareness about the prevention, detection and reporting of illicit discharges. When Sacramento City's DOU Field and Plant Services crews perform routine maintenance and inspections on the drainage collection system and the pumping stations, they investigate anything that looks out of the norm for possible illicit discharge and/or connection. During manhole inspections or any closed-circuit television (CCTV) surveillance of the drainage system, crews inspect for illicit discharges and illicit connections. If Sacramento City crews identify a new illicit connection, it is immediately eliminated. Drainage crews can plug the connection and initiate remediation and enforcement actions.

The Sacramento City DOU provides 24-hour, on-call, drainage maintenance staff and Sacramento City Fire Department Hazmat staff who respond to reports of illicit discharges draining into the storm drain system. DOU Field Services' Drainage Section has two First Responder teams responsible for investigating and containing illicit discharges. First Responders coordinate investigation and enforcement efforts with the Sacramento County Environmental Management Department (EMD), the Sacramento County District Attorney's investigator, Sacramento City's Fire Department, Sacramento City Stormwater Program inspection staff and/or other Sacramento City staff depending on the specific needs of the situation.

If the discharge is small and non-hazardous, then First Responders abate the discharge, clean the lines, and arrange for proper disposal of the discharged substance. If the discharge requires additional resources, then the First Responders contacts appropriate personnel, including outside contractors if necessary. If the discharger is identified, the Sacramento City Stormwater Program Inspector conducts follow-up education and/or enforcement within five days of receiving the initial report.

Figure 4.6-1

2009 Illicit Discharge and Illicit Connection Communication and Response Plan



First Responders carry Sacramento City's Drainage/Sewer Mapbook in their vehicles to assist them in tracking a discharge to its source. This mapbook identifies the location of all drainage inlets, pipes, manholes, pump stations, outfalls, ditches, and all water bodies. Since many miles of drainage channels and underground pipes exist, staff also uses additional resources that further identify the drainage system's division into sub-drainage sheds. Drainage crews access the Computerized Maintenance Management System (CMMS). The CMMS contains the entire drainage infrastructure mapped using digital Graphical Information System (GIS) tools, allowing crews to look at any page in the Mapbook and electronically trace the flow. The CMMS enhances the crews' ability to perform inspections, do a condition assessment analysis, collect data electronically, and create Proposition 65 forms with attached work order numbers for ease of reference.

When a hazardous material emergency occurs, multiple resources are available. The Sacramento City Fire Department leads the response activities under the direction of the Sacramento County EMD. The Fire incident Commander-on-Scene directs the Sacramento Regional Fire/Emergency Medical Services Communications Center to dispatch City crews to contain and abate the illicit discharge. Also, the City's Environmental Health and Safety Office (EH&S Office) is notified if City crews have neither the training nor equipment necessary to handle the release. The EH&S Office contracts with a hazardous materials response contractor and can authorize its response as needed. If the discharger is identified, the Sacramento City Stormwater Program Inspector conducts follow-up education and/or enforcement. Enforcement actions include verbal warnings, notices to comply, notices of violation and administrative penalties.

Once the discharge is abated and cleaned up, the Sacramento City Stormwater Program Inspector may conduct follow-up inspections if there is concern of possible repeated discharges. The number of follow-up inspections and the length of time between follow-up inspections vary depending on the individual situation and the risk of possible repeat discharges. All initial and follow-up actions are entered into a Microsoft Access database used by the Illicit Discharge, Commercial/Industrial and Public Outreach Elements. During the 2008-2013 permit term, the database will be modified to allow element managers to identify geographic areas of the City, particular pollutants, or specific types of businesses that are repeat dischargers. Targeted outreach and/or enforcement campaigns will then be implemented to address these situations.

Public Outreach and Reporting

Sacramento City staff conducts several activities in addition to standard public outreach to help prevent illicit discharges, including:

- Promoting the City of Sacramento 311 Call Center, designed to provide a single point of contact for many Sacramento City services. "311" calls reporting an illicit discharge are routed to the proper department for a Sacramento City crew to respond, 24-hours a day, seven days a week.
- Maintaining the Public Stormwater Hotline at (916) 808-4H2O. Calling the hotline supplies them with general outreach information and also can connect them immediately to a Sacramento City operator to report an illicit discharge. The Hotline number is publicized on all stormwater outreach materials, including printed items, websites, stormdrain inlet permanent markers, and TV and radio media campaigns.
- Promoting and providing alternatives to the public for waste disposal such as the household hazardous waste (HHW) collection center located on Fruitridge Boulevard. This facility accepts waste from the public and from small quantity generators.
- Promoting and providing biweekly curbside pickup of used automotive oil and filters.

- Providing outreach materials on proper disposal of the types of hazardous wastes typically involved in illicit discharge reports at several Sacramento City public service counters, from Sacramento City Inspectors in the field, and from the Business Environmental Resource Center (BERC).

Training

Sacramento City Stormwater Program staff annually trains staff involved in the reporting, spill response, and clean-up of illicit discharges. Training covers the proper methods for receiving reports from the public and from other agency staff, initiating spill response and clean-up, and coordinating with other agency staff (e.g., Sacramento County EMD, Sacramento Fire Hazmat, etc).

Trained staff include:

- Sacramento City Operators
- Sacramento City Department of Utilities Customer Service Representatives
- Sacramento City Department of Utilities Field Service First Responders
- Sacramento City Department of Utilities Stormwater Inspectors
- Sacramento City Department of Utilities Water Quality Section staff
- Sacramento City Code Enforcement staff

4.6.5 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the Illicit Discharge Element.

Activities discussed above and listed in Table 4.6-1 will be documented and reported in the annual report(s). Activities have the outcome level of 1 – Documenting Activities unless otherwise specified in Table 4.6-1. Element key indicators, indicated by checkmarks in Table 4.6-1, have outcome levels of 2 and 4, and will be used to demonstrate progress towards meeting the element goal. The work plan table shows the schedule for the effectiveness assessment and the progression of the outcome levels.

Any change, if necessary, to the planned activities will be documented in annual work plan(s) and reported in the appropriate annual report(s). Staff will use the results of the effectiveness assessment to focus and modify activities for maximum environmental benefit.

The Illicit Discharge Element is currently implementing effectiveness assessments at outcome level 1 – Documenting Activities and level 4-Reducing Loads from Sources.

The focus during this permit term will be on assessing the effectiveness through the use of the following key indicators: preventing discharges to receiving waters, quantifying material prevented from entering receiving waters, quantifying the amount of oil collected and amounts of other HHW disposed of at Collection Centers, and increasing awareness of illicit response procedures through training surveys.

Table 4.6-1

City of Sacramento Illicit Discharge Element Activities Work Plan (2008-2013)

Element Goal: The goal of the Illicit Discharge Element is to abate, contain, and/or clean up reported illicit discharges to the storm drain system.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Legal Authority												
Review and if necessary revise existing Stormwater Ordinance	D.11.a.i					N/A	⇔				⇔	twice per permit term (including one year after SQIP approval)
Reporting of Illicit Connections and Discharges Response and Enforcement												
Investigate reports of illicit connections and eliminate identified connections	D.11.a.ii-iv, 11.b.ii-iv					⇔	⇔	⇔	⇔	⇔	⇔	
Continue providing illicit discharge response and clean-up	D.11.a.ii-iv, 11.b.ii-iv	✓	Prevent discharges to receiving bodies to the MEP and quantify material prevented from entering receiving waters	C, T, I, Q	Percentage of potential discharges, and total amount, prevented from entering receiving waters during previous year	⇔	⇔4	⇔4	⇔4	⇔4	⇔4	
Investigate reports of illicit discharges (non-hazardous)	D.11.a.ii-iv, 11.b.ii-iv	✓	Initiate investigation within five (5) days of initial report	C, T	Percentage of potential discharges investigated within five (5) days of report during previous year	⇔1	⇔1	⇔1	⇔1	⇔1	⇔1	
Investigate reports of illicit discharges (hazardous)	D.11.a.ii-iv, 11.b.ii-iv	✓	Initiate investigation within one (1) day of initial report	C, T	Percentage of potential discharges investigated within one (1) day of report during previous year	⇔1	⇔1	⇔1	⇔1	⇔1	⇔1	
Issue enforcement actions as appropriate	D.11.a.ii-iv, 11.b.ii-iv					⇔	⇔	⇔	⇔	⇔	⇔	
Maintain database of illicit discharge inspections and enforcement actions	D.11.a.ii-iv, 11.b.ii-iv					⇔	⇔	⇔	⇔	⇔	⇔	
Maintain map of illicit discharges to identify areas for targeted outreach	D.11.a.ii-iv, 11.b.ii-iv					⇔	⇔	⇔	⇔	⇔	⇔	
Public Outreach and Reporting												
Maintain public hotline (916) 808-4H2O for public reporting of illicit discharges	D.11.b.v					⇔	⇔	⇔	⇔	⇔	⇔	
Promote used oil curbside pickup program and use of Household Hazardous Waste (HHW) Collection Centers	D.11.b.v	✓	Quantify amount of oil collected and amounts of other HHW disposed of at Collection Centers	C, Q	Previous year's data	⇔4	⇔4	⇔4	⇔4	⇔4	⇔4	
Training												
Train City staff annually in proper methods for receiving and responding to illicit discharge reports to ensure minimum response time and maximum response effectiveness	D.11.b.vi	✓	Increase awareness of illicit responses procedures through training surveys	C, T, S	First survey (FY 10/11)	⇔1	⇔1	⇔2	⇔1	⇔2	⇔2	

4.7 Public Outreach Element

Public Outreach activities for Sacramento City are mostly conducted in conjunction with other Permittees.

Description of the Public Outreach element can be found in Chapter 2 – Partnership Activities, Section 2.6 – Regional Public Outreach.

Effectiveness Assessment of the Public Outreach Element is also included in Section 2.6.

This page left intentionally blank.

4.8 NEW DEVELOPMENT ELEMENT

4.8.1 Goal

The goal of the New Development Element is to protect local creeks and rivers by reducing the discharge of stormwater pollutants that can result from new developments to the Maximum Extent Practicable (MEP) and by mitigating increased flows that can cause erosion and degrade habitat. Generally, new developments may result in an increase in the total urbanized area, with an attendant increase in the overall load of pollutants discharged into local creeks and rivers; and an increased impervious area, with an attendant increase in the volume of stormwater runoff flows.

POLLUTANTS ADDRESSED BY THIS ELEMENT

- **Sediment***
- **Metals***
- Nutrients
- **Pesticides***
- **Hydrocarbon products***

***Target pollutant for Sacramento area**

4.8.2 Evolution

In past permit terms, the emphasis of the New Development Element has been to develop ordinances, design standards, guidance manuals, and maintenance protocols; and to incorporate these requirements into the development review process. Currently, the development review process successfully integrates stormwater quality requirements into environmental documents, conditions projects during the entitlement process, incorporates control measures during the plan approval process, and requires maintenance agreements for privately maintained treatment control measures.

A comprehensive evaluation of the stormwater quality development standards, numeric sizing criteria, and planning procedures and policies was conducted in 2003 and submitted to the Central Valley Regional Water Quality Control Board (Regional Water Board) in the *Sacramento Stormwater Management Program Development Standards Plan* (DSP), which was approved by the Regional Water Board in May 2005. The updated development standards went into effect on May 18, 2006, and include eight categories of new development and redevelopment projects, corresponding source and treatment control thresholds, and revised numeric sizing criteria.

In addition, a regional *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* (Stormwater Design Manual, available on the internet at http://www.sacramentostormwater.org/SSQP/documents/DesignManual/SWQ_DesignManual_May07_062107.pdf) was completed in May 2007, which replaces the *City of Sacramento Guidance Manual for On-Site Stormwater Quality Control Measures (January 2000)*. The regional Stormwater Design Manual was a collaborative effort between the County of Sacramento and the cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, and Roseville. This manual includes the stormwater quality requirements for new development and redevelopment projects; low impact development strategies (i.e., runoff reduction control measures); and guidance for selecting, designing and maintaining stormwater source control, runoff reduction, and treatment control measures.

A comprehensive list of accomplishments for this Element is provided in Appendix 4A.

Currently, the New Development Element mitigates the effects of new development on stormwater quality with the installation and maintenance of source controls and structural control measures on both a regional scale, such as detention basins, and on individual properties, such as vegetated swales. Control measures referred to as treatment control measures in this report are essentially pollutant removal best management practices (BMPs).

Redevelopments are also part of this Element, because they offer opportunities to incorporate on-site controls using the same procedures established for new developments. The current stormwater quality requirements for new development and redevelopment are outlined in Table 3-2: Stormwater Quality Control Measure Selection Matrix in the Stormwater Design Manual.

In this permit term, Sacramento City Stormwater Program staff will continue implementing the revised development standards, resolving conflicts in City codes, conducting training and outreach, and improving the development review process to ensure that stormwater treatment controls are properly constructed and maintained. Sacramento City Stormwater Program staff will continue to improve the process requiring maintenance agreements for privately-maintained treatment control measures and ensure long-term performance of these measures through annual maintenance verification.

In addition, Sacramento City Stormwater Program staff will explore ways to integrate Low Impact Development (LID) principles into the planning and plan review process. Sacramento City Stormwater Program staff will work with the Permittees to develop a hydromodification management plan (HMP) and quantitative LID design criteria and implement these criteria for applicable new development and redevelopment projects. Sacramento City Stormwater Program staff will also work with Permittees staff to develop a waiver program for new development and redevelopment projects where structural treatment control measures are infeasible.

A detailed list of tasks and schedules is presented in Table 4.8-1 – New Development Element Activities Work Plan (2008-2013).

4.8.3 Strategy

The New Development Element strategy includes the following components:

- Incorporate water quality and watershed protection principles into Sacramento City procedures and policies.
- Improve the development review process to ensure effective implementation of the development standards for new development and redevelopment projects.
- Implement stormwater quality development standards for all regulated new development and redevelopment projects.
- Ensure that standards and maintenance requirements are clear and effective.
- Require maintenance provisions for all privately maintained treatment control measures.
- Develop the hydromodification management plan and update the Stormwater Design Manual with new design criteria for hydromodification measures.
- Evaluate new technology and alternative control measures.
- Provide training and technical assistance to Sacramento City staff (planners, engineers, CIP project managers, building and construction inspectors, etc) on stormwater quality requirements and procedures to ensure effective implementation of stormwater quality development standards for municipal projects and private development projects.
- Provide training and outreach to the development community on the stormwater quality development standards.

4.8.4 Activities

A list of tasks and their associated schedule is presented in Table 4.8-1 – New Development Element Activities Work Plan, located at the end of Section 4.8.

Legal Authority

Sacramento City Stormwater Program staff will work to resolve conflicts in city codes as they are identified. Upon development of the Hydromodification Management Plan, the Stormwater Ordinance will be revised to include new requirements for development projects if necessary.

Policy and Standards

Development standards include policies, ordinances and codes; planning practices; site design; source, treatment and runoff reduction controls; and maintenance requirements. Activities in those areas include:

- General Plan: On March 3, 2009, the City of Sacramento's City Council adopted the Sacramento 2030 General Plan (available on the internet at http://www.sacgp.org/). Sacramento City Stormwater Program staff will provide updates of any new requirements and criteria for water quality in future updates to the 2030 General Plan. Sacramento City Stormwater Program staff will continue to review the community plans to ensure implementation of the General Plan water quality protection policy.
- California Environmental Quality Act (CEQA) process: Sacramento City Stormwater Program staff will review and, if necessary, work with Sacramento City Planning Department staff to revise the environmental review procedures to ensure stormwater quality requirements are incorporated into environmental documents such as environmental impact reports (EIRs) and mitigation monitoring plans.
- Hydromodification: Sacramento City Stormwater Program staff will work with the Permittees to develop the Hydromodification Management Plan (HMP). As part of this HMP requirement, the HMP Work Plan was completed and is attached in Appendix 2B. Upon completion of the HMP, the Permittees will develop the design criteria for the hydromodification measures and quantitative and qualitative LID requirements for new development and redevelopment projects.
- Design standards and manual: The Stormwater Design Manual was completed in May 2007. Future updates to the standards and manual will be conducted upon approval of the HMP and new HMP standards and quantitative LID criteria will be included in the Stormwater Design Manual. Alternative and innovative control measures will be identified and evaluated through networking with other programs, product research, literature reviews, and BMP performance studies. The Stormwater Design Manual will be updated as needed based on new technical information, new innovative technologies, and control measure effectiveness.
- Waiver Program: Sacramento City Stormwater Program staff will continue to work with the Permittees to develop a waiver program for projects where structural treatment control measures are infeasible. The Permittees will obtain Regional Water Board approval prior to implementation of the waiver program.

Development Standards Implementation

Development projects are required to address stormwater quality requirements during the entitlement process. Post-construction stormwater quality requirements are incorporated into environmental documents such as initial studies, environmental impact reports (EIRs), and mitigation monitoring plans; and standard conditions for entitlements such as tentative maps and special permits. Source controls and treatment controls are required to be incorporated in all new development and redevelopment projects as specified in Table 3-2 of the Stormwater Design Manual. Regional facilities will be incorporated as a part of large master-planned developments and, where feasible, will be integrated into new drainage basins and into retrofit projects constructed by the City of Sacramento. In areas without regional controls, treatment controls will be incorporated into the project and will be privately maintained.

Sacramento City Stormwater Program staff and/or Department of Utilities Development Review staff will continue to participate in the review of and comment on CEQA documents. Development review staff condition private development projects through the entitlement process. They will continue to require stormwater quality development standards including source control, runoff reduction and treatment control measures for applicable projects. They will also continue to require regional facilities to be incorporated when applicable. Sacramento City Stormwater Program staff will update the development review standard conditions to include new requirements on HMP and LID upon approval of the HMP.

Municipal project managers will be required to ensure that all regulated municipal projects incorporate source and treatment control measures through the development approval process and/or other municipal procedures. Construction inspection staff will ensure that regional control measures are properly constructed. Implementation of control measures and proper installation of treatment controls for municipal projects will be improved through annual staff training and cooperative efforts with the Municipal Operation Element.

Sacramento City Stormwater Program staff will provide technical assistance to the development community and other Sacramento City staff in selection and design of stormwater treatment control measures.

The Partnership website (www.sacramentostormwater.org) and Sacramento City's Stormwater website (www.sacstormwater.org) will be updated to include the new HMP and LID requirements when these requirements are completed and/or approved.

Maintenance Verification for Treatment Control Measures

Development review staff requires maintenance agreements for all privately maintained treatment control measures during the entitlement process and/or before issuing a permit. Private property owners are required to sign maintenance agreements with the City of Sacramento for all treatment control measures installed on their property.

Program staff will develop a self-verification checklist for proper construction of privately maintained stormwater treatment control measures. The design engineers will be required to provide a verification letter as proof of proper construction or installation of stormwater treatment control measures. Sacramento City Stormwater Program staff may conduct inspections during the installation and construction of the on-site treatment control measures or devices.

Sacramento City Stormwater Program staff will send out annual maintenance request letters to private property owners with stormwater treatment control measures and require maintenance documentation. Staff will review the maintenance reports, document maintenance information in the database and compile pollutant removal data if any is available. Staff will also follow up with non-respondents and with sites that send insufficient data to the annual maintenance survey. If maintenance problems are identified through inspection, notices will be sent out to the property owner(s) to address the issues and follow-up inspections will be conducted to ensure compliance.

Regional treatment facilities (i.e. water quality detention basins) are operated and maintained by Sacramento City. Detention basin maintenance is discussed in Section 4-5 Municipal Operations Element.

Sacramento City Stormwater Program staff maintains a Microsoft Access database of the on-site treatment control measures constructed by new development and redevelopment projects. This current database is designed to include the following information:

- Project address
- APN and property owner information
- Property contact for maintenance
- BMP information (type of device/measure, numbers of device(s)/measure(s))
- Agreement document information
- Annual maintenance request and reply tracking
- Maintenance verification tracking

This database will be improved to include additional information required under D.22.C.i of the Stormwater Permit. This database will also be expanded to include tools that can be used for effectiveness assessment of the Element.

The Sacramento City's Stormwater Program website will be updated with additional information on maintenance including photos, maintenance guidelines and illustrations.

Training and Outreach

Sacramento City Stormwater Program staff will conduct training and serve as a technical resource for municipal staff on proper design, construction, inspection, and maintenance of stormwater quality control measures and new technology. Sacramento City staff who are engaged in development planning, including development review staff, planners and project managers, will be trained annually on the stormwater quality standards. Sacramento City inspectors will be trained annually on how to inspect stormwater treatment control measures. See Table 4.2-1 in Section 4.2 – Program Management for a summary table of the various Sacramento City departments identified for staff training and the training frequency. Sacramento City Stormwater Program staff will improve department and inter-department communications by participating in regular staff meetings and being involved in the review process of large projects.

Sacramento City Stormwater Program staff will continue to improve the effectiveness of other Sacramento City staff training. Surveys and training questionnaires will be developed for targeted groups (i.e., Development review staff) to evaluate the effectiveness of the training and solicit comments for future training-focused areas.

Sacramento City Stormwater Program staff will conduct outreach to the development community to provide information and serve as a technical resource on policies, requirements, and new technology and practices. This will be accomplished through one or more of the following: workshops, presentations at professional organizations, newsletters, fact sheets. Upon completion and approval of the HMP and LID criteria, a workshop will be conducted with the development communities and design/consulting engineers to provide information and education on the new requirements.

4.8.5 Effectiveness Assessment

The Permittees' general approach to assessing the effectiveness of its stormwater programs is described in Section 2.3, Program Effectiveness. This section specifically describes the assessment activities and associated methods for evaluating the effectiveness of the New Development Element.

Activities discussed above and listed in Table 4.8-1 will be documented and reported in the annual report(s). Activities have the outcome level of 1 – Documenting Activities unless otherwise specified in Table 4.8-1. Element key indicators, indicated by checkmarks in Table 4.8-1, have outcome levels of 2 through 4, and will be used to demonstrate progress towards meeting the element goal. The work plan table also shows the schedule for the effectiveness assessment and the progression of the outcome levels.

Any change, if necessary, to the planned activities will be documented in annual work plan(s) and reported in the appropriate annual report(s). Results of the effectiveness assessment will be used to focus and modify activities for maximum environmental benefit.

The New Development Element is currently implementing effectiveness assessments at outcome level 1 – Documenting Activities. Activities used in the past to assess the New Development Element's effectiveness included documentation of implementation activities such as the number of projects conditioned and treatment controls constructed, assessment of workshops through feedback on evaluation forms, and extensive research on treatment control measure performance. Some of the special studies conducted include the following:

- Stormwater interceptor and catch basin insert effectiveness study
- Dry extended detention basin effectiveness study (Brown Road Detention Basin)
- Vegetated swale effectiveness study
- Proprietary device effectiveness investigation
- Wet water quality detention basin study (North Natomas Basin 4) (ongoing)

Section 2.4 contains more information on the special studies conducted. Additional research will be conducted on proprietary treatment devices to investigate the performance and effectiveness of these alternative measures, see Section 2.4 Monitoring Program, Special Studies for more details.

During this permit term, the effectiveness assessment will focus on trainings and/or workshops (by utilizing results of quizzes); percentage of plans incorporating accepted treatment controls; percent of on-site treatment measures with design engineer's verifications; and/or the estimated load of pollutants removed by the installed treatment controls. Some of the baseline data will be developed from the existing New Development database.

Table 4.8-1

City of Sacramento New Development Element Activities Work Plan (2008-2013)

Element Goal: The goal of New Development Element is to protect local creeks and rivers by reducing the discharge of stormwater pollutants that can result from new developments to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Legal Authority												
Resolve development requirements conflicts in codes when indentified	D.5, D.14 , D.15					⇔	⇔	⇔	⇔	⇔	⇔	
Revise existing Stormwater Ordinance and other city codes to incorporate requirements from Hydromodification Management Plan (HMP) and Low Impact Development (LID) strategies	D.5, D.14 , D.15					N/A		⇔	⇔♦			six months after HMP approval
Policy and Standards												
Review 2030 General Plan for compliance with NPDES Permit	D.16					⇔				⇔		
Review and update the environmental review procedures (i.e. CEQA Checklist)	D.21					⇔	⇔			⇔	⇔	FY2010 and upon HMP approval
Develop HMP work plan	D.15					♦						April 30, 2009
Develop HMP	D.15					N/A	⇔	⇔♦				one year after approval of HMP work plan
Develop design criteria for the hydromodification measures	D.15					N/A		⇔	⇔♦			six months after HMP approval
Develop quantitative and qualitative LID requirements	D.15					N/A		⇔	⇔♦			six months after HMP approval
Review and update Stormwater Quality Design Manual to integrate HMP and LID requirements	D.26					N/A		⇔	⇔♦			six months after amendment of development
Develop mitigation funding for regional control and develop infeasibility criteria for the waiver program	D.19, D.20					N/A		⇔	⇔	⇔		
Development Standards Implementation												
Participate in CEQA documents review and provide comments as needed	D.17					⇔	⇔	⇔	⇔	⇔	⇔	
Review and condition regulated private development projects through the entitlement process	D.17					⇔	⇔	⇔	⇔	⇔	⇔	
Amend conditions of approval to incorporate HMP and LID requirements	D.15					N/A			⇔♦			Upon HMP approval
Incorporate regional facilities in development projects when applicable	D.14, D.22					⇔	⇔	⇔	⇔	⇔	⇔	
Require source control, runoff reduction and/or treatment control measures for regulated development projects	D.14, D.22	✓	All regulated development projects incorporate required stormwater treatment control measures per development standards	C, T	% of audited projects correctly incorporating the stormwater treatment controls	⇔1	⇔1	⇔3	⇔3	⇔3	⇔3	
Incorporate proper source control, runoff reduction and/or treatment control measures for applicable municipal CIP projects	D.14, D.22	✓	All regulated CIP projects include adequate stormwater control measures	C, T	% of audited CIP projects correctly incorporating the stormwater treatment controls	⇔1	⇔1	⇔3	⇔3	⇔3	⇔3	

Table 4.8-1

City of Sacramento New Development Element Activities Work Plan (2008-2013)

Element Goal: The goal of New Development Element is to protect local creeks and rivers by reducing the discharge of stormwater pollutants that can result from new developments to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Provide technical assistance to the development community and City staff on selection and design of stormwater treatment control measures for specific projects	D.22, D.26					⇔	⇔	⇔	⇔	⇔	⇔	
Update program website to include new criteria on HMP and LID requirements	D.26					N/A			⇔			after HMP approval
Maintenance Verification for Treatment Control Measures												
Require and process maintenance agreements for all treatment control measures on private property through the permitting process	D.18					⇔	⇔	⇔	⇔	⇔	⇔	
Develop, update if needed, field inspection checklist for maintenance verification of post-construction stormwater treatment control measures	D.22					⇔	⇔	⇔	⇔	⇔	⇔	
Develop, update if needed, self-verification checklist for proper construction of stormwater treatment control measures	D.22					N/A	⇔	⇔				
Obtain Design Engineer's certification/verification upon completing construction of the stormwater treatment control measures	D.22	✓	All treatment control measures are constructed per design as being verified by design engineers	C, T	% of treatment control measures with certification from design engineers	N/A	⇔1	⇔1	⇔3	⇔3	⇔3	
Send annual maintenance information request to property owners and record response	D.22					⇔	⇔	⇔	⇔	⇔	⇔	
Annually review maintenance reports	D.22	✓	All treatment control measures on private property are properly maintained	C, T	% of compliant responses to annual maintenance verification request	⇔1	⇔1	⇔1	⇔3	⇔3	⇔3	
Annually estimate pollutant removal from treatment devices	D.22	✓	Quantify the amount of pollutants removed from the stormwater treatment devices	C, T, Q	Accumulated pollutant load from previous year	N/A	⇔4	⇔4	⇔4	⇔4	⇔4	
Follow-up with sites that send insufficient maintenance verification or do not respond to the annual maintenance request	D.22	✓	Increase awareness of proper maintenance of stormwater treatment control measures and reduce % of inadequate and/or non-response	C, T, I	% of non-compliant responses and/or non-responses to annual maintenance verification request	⇔1	⇔1	⇔3	⇔3	⇔3	⇔3	
Follow-up with sites that are identified through inspection as having maintenance problems	D.18	✓	Reduce sites with improper maintenance of stormwater treatment control measures	C, I	% of sites with corrected maintenance for the treatment measures per inspection follow-up	⇔1	⇔1	⇔1	⇔3	⇔3	⇔3	
Update program database to include project information listed under D.22 C.i.	D.22						⇔					one year after SQIP approval
Track treatment control measures, maintenance agreements and records in program database	D.22					⇔	⇔	⇔	⇔	⇔	⇔	

Table 4.8-1

City of Sacramento New Development Element Activities Work Plan (2008-2013)

Element Goal: The goal of New Development Element is to protect local creeks and rivers by reducing the discharge of stormwater pollutants that can result from new developments to the MEP.

Legend: C-Confirmation, T-Tabulation, S-Survey, I-Inspection, Q-Quantification, M-Monitoring; ⇔ Ongoing task; ♦ Permit Deliverable; # Outcome level

Activity/Task	Permit Ref	Key Indicator?	Performance Standard / Target	Assessment Method	Baseline Data	Schedule/Target Outcome Level						Due Date/ Status/Other Notes
						FY08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	
Update website with maintenance information (Examples, Illustrations, and Maintenance Guidance)	D.22					⇔	⇔	⇔	⇔	⇔	⇔	
Training and Outreach												
Conduct annual training for planners and development review staff on stormwater quality requirements for private development projects	D.25	✓	All trained staff understand stormwater quality requirements for development projects	C, T, S	Pre- training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Conduct annual training for City staff (Project Managers from departments of General Services, Parks, Transportation and Utilities) on stormwater quality requirements for municipal projects	D.25	✓	All trained staff understand the stormwater quality requirements for regulated municipal projects	C, T, S	Pre- training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Conduct annual training for City inspectors on the procedures to inspect stormwater treatment control measures	D.25	✓	All trained field inspectors know how to identify potential problems of the stormwater treatment control measures	C, T, S	Pre- training survey results	⇔1	⇔1	⇔2	⇔2	⇔2	⇔2	
Conduct outreach to the development community on stormwater quality requirements after development and approval of HMP and LID criteria	D.24					N/A				⇔		once this permit term

This page left intentionally blank.

Chapter 5

City of Citrus Heights Stormwater Quality Improvement Plan

5.1 Introduction

The Citrus Heights (City) Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Citrus Heights is a permittee. The required certfication for the SQIP is presented in the front of the entire SQIP document.

Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

The City-specific activities described and referenced in this chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other permittees as described in Chapter 2. The City contracts with the County of Sacramento (County) and other organizations for some of its stormwater services, as explained in this chapter.

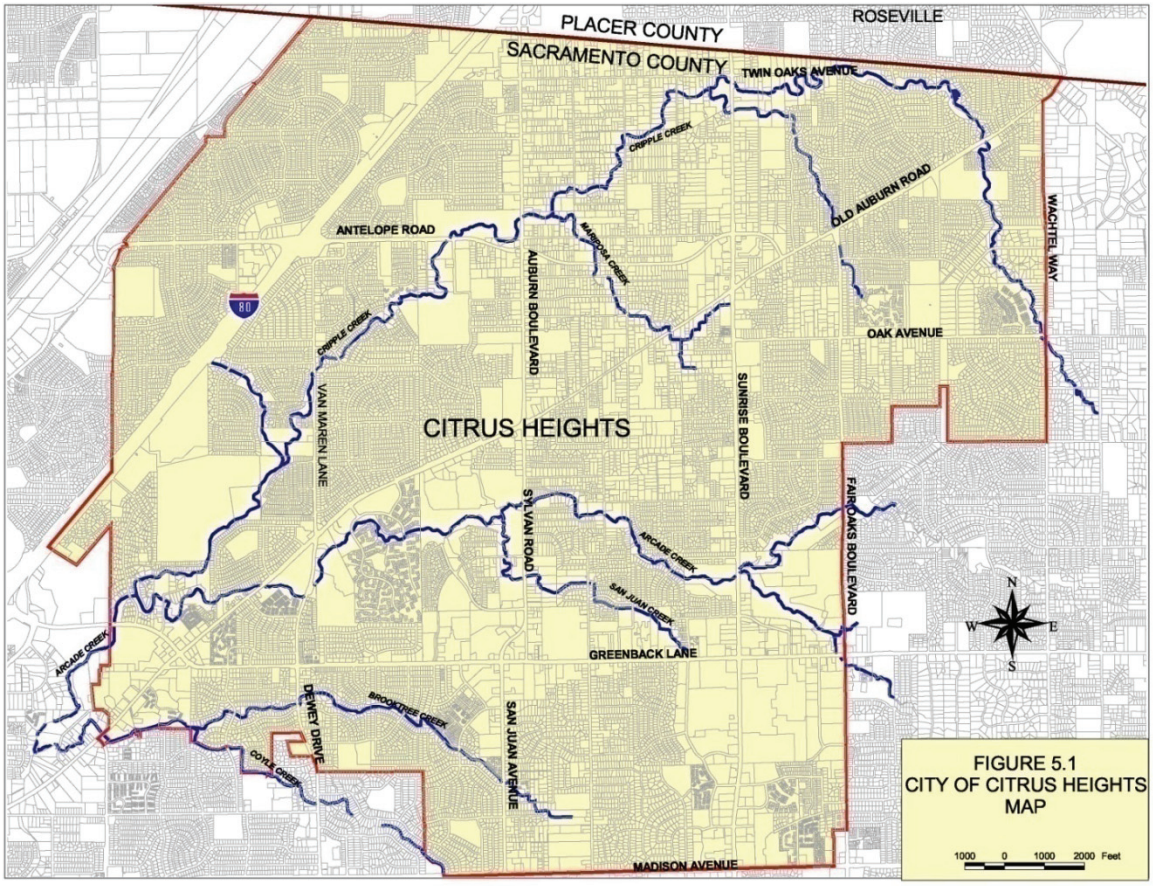
Background

Citrus Heights incorporated on July 1, 1997. The City was officially named as a Permittee to the Stormwater Permit when it was reissued in December 2002. For 12 years before that, the area within the City limits was covered under the County of Sacramento's Stormwater Permit. However, the City has been proactively involved in the Sacramento Stormwater Quality Partnership (Partnership) since incorporation. The Stormwater Permit is issued to Citrus Heights and six other co-permittees (Sacramento County and the Cities of Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento) by the Central Valley Regional Water Quality Control Board (Regional Water Board). The original Stormwater Permit was issued in 1990 (first permit term) has been renewed three times since: in 1996, 2002 and most recently in 2008 (2008-13 permit term).

City of Citrus Heights Characteristics

Citrus Heights is located in the northern portion of Sacramento County (County), just south of the Placer County line. The city boundaries are shown in Figure 5.1-1.

Figure 5.1-1. City of Citrus Heights and Creeks In the City



The City has a population of approximately 90,000 and is 14.1 square miles in size. Citrus Heights is made up primarily of residential and commercial land uses. Nearly built-out, Citrus Heights has about 150 acres of remaining vacant land with the largest at approximately 20 acres.

The City is traversed by approximately 26 miles of stream groups comprised of natural and man-made facilities, including Arcade Creek, Cripple Creek, San Juan Creek, Mariposa Creek, Brooktree Creek, Coyle Creek, and various unnamed tributaries. As shown on Figure 5.1-1, these stream groups generally originate within the Citrus Heights boundaries and eventually all drain to Arcade Creek near the southern limits of Citrus Heights. Arcade Creek then flows through portions of Sacramento County and the City of Sacramento before it discharges into the Natomas East Main Drainage Canal (also known as Steelhead Creek) near the confluence of the American and Sacramento Rivers at Discovery Park.

Overview of Citrus Height's SQIP

This SQIP describes activities that Citrus Heights will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Water Board on October 1 each year.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

Section 5.2: Program Management and Training — A description of how Citrus Height's Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the city and externally with other programs and agencies.

Section 5.3: Construction Program Element —Activities designed to control the runoff of sediment and other pollutants from construction sites.

Section 5.4: Commercial/Industrial Program Element — Activities and control programs intended to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated with industry.

Section 5.5: Municipal Operations Program Element —Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

Section 5.6: Illicit Discharge and Detection Program Element —Activities intended to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

Section 5.7: Public Outreach Program Element —Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

Section 5.8: New Development Program Element — Activities intended to mitigate water quality and quantity impacts from newly developing and redeveloping areas for the life of the project, after construction is complete.

This page intentionally left blank

5.2 Program Management and Training

Program Organization and Staffing

The City of Citrus Heights is a Council-Manager form of government. The Stormwater program is under the direction of the General Services Director and City Engineer, as shown in Figure 5.2-1. The City has assigned a Senior Civil Engineer to manage the Stormwater Program and participate in permittee meetings and other joint Program activities as needed. Assistance is provided by an Associate Engineer, construction inspector and drainage coordinator. Additionally, building inspection, administration, and contract services staffing is provided by other City departments. The approximate staffing breakdown is shown in Table 5.2-1.

Figure 5.2-1. City of Citrus Heights Organizational Chart

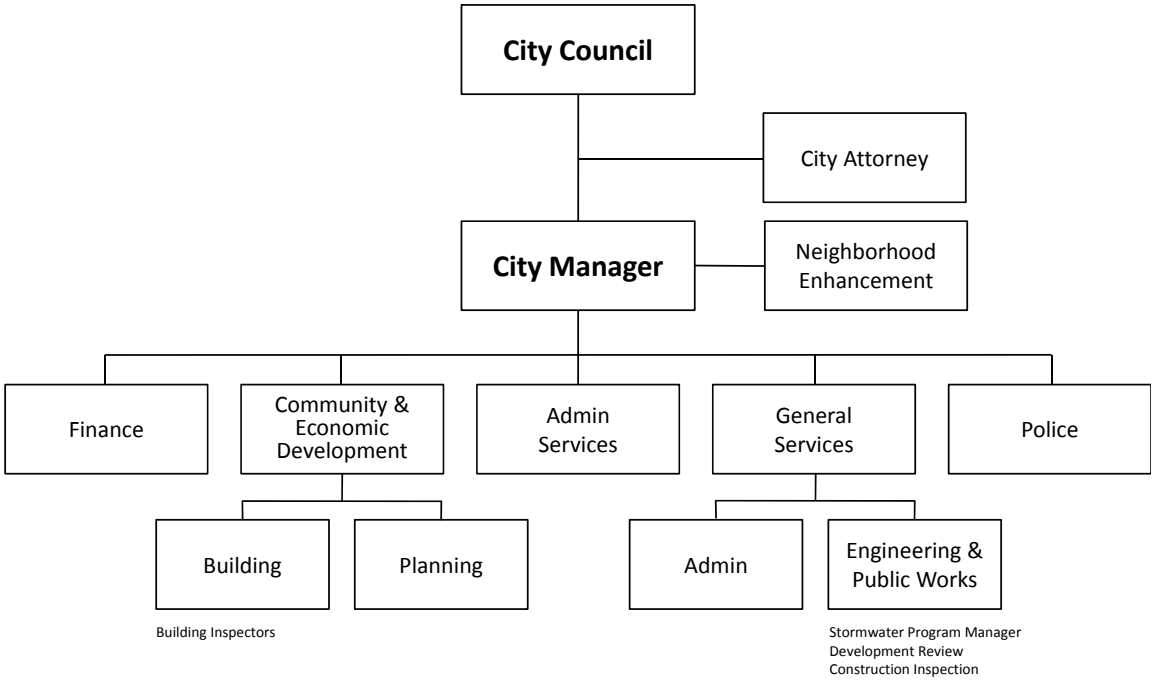


Table 5.2-2 indicates roles and responsibilities of various city departments for implementation of activities designed to comply with the Stormwater Permit. In addition, the table describes services that are contracted to the County of Sacramento. When the City incorporated in 1997, it entered into an agreement with Sacramento County that specified that the County would provide Citrus Heights the same level of and type of drainage and flood control services as provided in the unincorporated area. This has continued, with the exception that the City conducts creek and channel maintenance, largely through contracts with the Sacramento Local Conservation Corps.

Table 5.2-1

Staffing for the Citrus Heights Stormwater Program (2009-10 figures)

Staff	FTE*
Principal Civil Engineer	0.30
Associate Civil Engineers	0.70
Administrative Assistant	0.30
Construction Inspector	0.30
Maintenance Coordinators	0.20
Building Inspection/permits	0.30
Total	2.1

*Full time equivalent

Table 5.2-2. Responsibilities for Compliance with NPDES Stormwater Permit in Citrus Heights

Program Element	Department/Group	Major Responsibilities
Program Management and Training (Section 5.2)	Engineering/Public Works	Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Water Board and prepares/submits compliance reports.
	Admin Services	Conducts legal reviews, prepares legal certifications and oversees revisions to ordinances, codes and other standards.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Assists with preparation of Permit compliance deliverables; represents Citrus Heights at permittee coordination meetings.
Construction (Section 5.3)	Engineering/Public Works	Issues grading permits and checks for NOI/SWPPP for all sites subject to State General Construction Permit.
	Community & Economic Development/Building Division	Provides inspection services for public infrastructure, public buildings and private development. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit.
	Consultant Contracts & City Inspectors	Constructs and inspects all street and highway improvements located in the City, including lighting, landscaping and signals. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit.
Commercial/ Industrial (Section 5.4)	County Environmental Management Department (under contract to City)	Conducts inspections of all Permit-required industries in Citrus Heights once every 3 years, and conducts outreach, database management and reporting. Also see Chapter 2, Section 2.7 for more details.
	County Environmental Health Division (under contract to City)	Conducts plan review, issues permits for and inspects food-related facilities in Citrus Heights. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.
	County Hazardous Materials Division (under contract to City)	Conducts plan review, issues permits for and inspects facilities that handle or store hazardous materials in Citrus Heights. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Works with Business Environmental Resource Center (BERC) to conduct business outreach activities required by the Permit for businesses in the City. Also see Chapter 2, Section 2.7 for more details.
Municipal Operations (Section 5.5)	Engineering/Public Works	Oversees maintenance of stormwater drainage system to ensure that system is maintained in manner that minimizes water quality impacts. Maintains creeks and channels within the City to remove accumulated debris and obstructions in order to make them hydraulically efficient to minimize over-bank flooding, bank erosion, and transport of pollutants.
	County Dept. of Water Resources/Drainage O&M (under contract to City)	Performs maintenance of the City's storm drain system, except non-concrete lined channels and creeks. Also see Chapter 3, Section 3.5 for more details.

Program Element	Department/Group	Major Responsibilities
	Public Works/Engineering (Through contracts with various private vendors)	Maintains all street and highway improvements located in the City, including lighting, roadside ditches and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.
	General Services/Facilities & Fleet (Public Works)	Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities do not add to stormwater pollution.
	Sunrise Parks and Recreation District	Constructs and maintains City parks and recreational facilities in a manner which complies with applicable water quality laws.
	Allied Waste Management	Provides solid waste services to the City under contract.
Illicit Discharges (Section 5.6)	County EMD Hazardous Materials Division (under contract to City) Parc Environmental (under contract to City) Metro Fire District	Responds to hazardous materials spills in the City that may impact stormwater quality and receiving waters, including cleanup and proper disposal.
	Parc Environmental (under contract to City) Metro Fire District	Respond to non-hazardous spills, including cleanup and proper disposal.
	County Dept. of Water Resources/Drainage O&M (under contract to City)	Conducts ongoing field screening activities during routine maintenance of the storm drain system in Citrus Heights. May respond to non hazardous spills, including cleanup and proper disposal.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Conducts follow-up investigations as needed to confirm/eliminate illicit discharges. Responds to calls from the public for situations in Citrus Heights.
	Allied Waste Management	Provides solid waste management services for residents and businesses in the City. Program emphasis is placed on waste prevention, recycling, and composting, which support the stormwater quality program goals.
Public Outreach (Section 5.7)	Engineering/Public Works	Provides public outreach to individual property owners and developers and handles calls from the public routed to the City. Provides volunteers to work in Partnership booths at some regional public events. Also contributes funds to the Sacramento Urban Creeks Council to support annual Creek Week activities.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Works with City of Sac to manage/conduct regional public outreach required by the Stormwater Permit, including a regional media campaign that addresses Citrus Heights residents and businesses. Also see Chapter 2, Section 2.6 for more details.
New Development (Section 5.8)	Community & Economic Development/Planning	Processes applications for private developments. Conducts CEQA reviews. Implements General Plan and Zoning code. Routes plans to Engineering/Public Works to ensure that stormwater quality controls are incorporated as required.
	Engineering	Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including establishing requirements for stormwater quality control measures.

Program Element	Department/Group	Major Responsibilities
	Engineering	Ensures that stormwater quality control measures are incorporated into design/construction of public projects, as applicable.
	Engineering/Public Works (w/consultant contracts)	Provides planning and design for all street and highway improvements located in the City, including addressing stormwater quality requirements, where applicable.
Monitoring, Special Studies and Target Pollutant Reduction (Chapter 2)	Engineering/Public Works	Reviews and certifies reports and compliance submittals; approves consultant contract decisions; processes payments to the City/County of Sacramento for consultant services according to the cost-share MOU.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Represents Citrus Heights in permittee work group meetings to discuss these joint Program activities; reviews draft reports and compliance submittals; administers consultant contracts for the technical studies.

Legal Authority

Legal authority for Citrus Heights' Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations,
- The General Plan and Zoning Ordinance contains water quality protection policies
- The City uses the County Standard Construction Specifications and Improvement Standards which describe requirements for development projects, and
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City's certification of legal authority for implementation of the program is included in Appendix 5A.

City Code

The Citrus Heights Municipal Code is the primary basis for the legal authority for the City's Stormwater Management Program. The code constitutes a codification of the general and permanent ordinances of the city. The source materials used in the preparation of the code were the Sacramento County Code adopted by the City shortly after incorporation in 1997 and ordinances subsequently adopted by the City Council.

The predominant municipal code provision is in Chapter 98 - Utilities, Article V Stormwater Discharge (also known as the "Stormwater Ordinance"), adopted by the City in September 22, 2004 (Ordinance No.2004-08). It prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., flows from emergency fire-fighting activities) pursuant to NPDES federal regulations. The Stormwater Ordinance provides legal authority to Citrus Heights and the County for inspections and enforcement related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and local creeks.

A number of other code sections also provide Citrus Heights with additional legal authority related to stormwater pollution control and water quality/watercourse protection. Those include:

- Chapter 1 General Provisions (various sections related to authority to issues violations and assess penalties, right to appeal)
- Chapter 18 – Building and Building Regulations (Article XII – Land Grading and Erosion Control)
- Chapter 34 – Environment (Article IV - Water Pollution)
- Chapter 42 – Floods (various sections designed to protect floodways and erosion-prone areas)
- Chapter 78 – Streets, Sidewalks and Other Public Places (Article II – Watercourses)
- Chapter 82 – Subdivisions and Land Development (Article XV – Design and Improvement Standards)
- Chapter 98 - Utilities (Article IV Storm Drainage Fee)
- Chapter 106 – Zoning (Ordinance No. 2006-02, adopted by the City Council on October 5, 2006)

General Plan

Citrus Heights adopted the County's General Plan upon incorporation in 1997. The City completed its own General Plan in November 2000. The General Plan and other development codes and standards can be accessed on the City's web site:

http://www.citrusheights.net (see Community Development, Planning Division)

The General Plan is the long-term policy guide for the physical, economic, and environmental growth of the City. It is composed of goals, policies, and implementation programs, all based on an assessment of current and future needs and available resources. The General Plan contains the provisions that lay the framework for protection of water quality and implementation of the Stormwater Management Program. Some of the adopted General Plan policies that best apply to the Stormwater Management Program are listed by Element as follows:

Community Development Element

> *Policy 6.3* – **"**Enhance and improve the City's tree cover as a valuable community resource."
>
> *Policy 7.3* – **"**Require new development to preserve and enhance significant natural features (such as creeks, wetlands and trees) and retain the existing topography...."

Resource Conservation Element

> *Policy 35.1* – **"**Preserve continuous riparian corridors and adjacent habitat along the City's creeks and waterways."
>
> *Policy 35.2* – **"**Achieve and maintain a balance between conservation, development and utilization of open space."

Policy 35.3 – **"**Provide for "no net loss" of sensitive habitats such as aquatic and riparian areas."

Policy 37.1 **–** **"**Incorporate existing trees into development projects. Avoid adverse effects on health and longevity of native oaks or other significant trees through appropriate design measures and construction practices."

Policy 38.3 – "Consider potential impacts to natural habitat areas when establishing links between developed areas. Identify alternative sites for linkages where sensitive habitat areas have the potential to be adversely impacted."

Policy 39.3 – **"**Require buildings to conform to existing natural topography, and minimize cutting and filling."

Policy 39.4 – *"*Utilize the services and expertise of organizations involved in resource conservation and open space protection."

Community Health Element

Policy 48.8 – **"**Reduce pollutants being discharged into the drainage system to the maximum extent feasible to meet required federal National Pollution Discharge Elimination System standards."

Policy 50.3 - Work with Sacramento County and other public agencies to inform businesses and consumers about the proper use and disposal of hazardous materials and waste.

As required by the 2002 Stormwater Permit, during the next update process, the General Plan will be evaluated and amended as needed to include additional water quality protection language.

Standard Specifications and Improvement Standards

The City has adopted the County's Improvement Standards and Standard Construction Specifications which are applicable to all projects citywide, private or public. These standards are periodically reviewed and updated to reflect evolving industry standards and regulations.

Guidance for design, construction and maintenance of post-construction stormwater quality control measures is provided in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions* (May 2007).

Intra and Inter-Agency Agreements

Intra-agency agreements between City departments and groups will be executed if needed as the program progresses to ensure cooperation within the City for compliance with the Stormwater Permit. Because the City is so small and all departments are housed in the same building, coordination is not an issue and such agreements are not warranted at this time.

Legal authority for administering and implementing the Sacramento Stormwater Quality Partnership jointly with the other permittees is provided by a memorandum of understanding (MOU). The MOU describes administrative roles and responsibilities for management of the program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore may be subject to change during the term of the Stormwater Permit. More details about the MOU and Citrus Heights' percentage cost share are included in Chapter 2, Section 2.2.

A MOU was executed between the City and the County Environmental Management Department (EMD) in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened. More details about the MOU with EMD and EMD's enforcement policy and procedures are included in Chapter 2, Section 2.7.

Agreements with other agencies will be executed as needed. Such agreements are not warranted at this time.

Funding

Funding for Citrus Heights' stormwater program comes primarily from Stormwater Utility fees collected and administered by the County. Each year, the City works with the County to develop an annual work plan to describe revenues that will be reimbursed to the City for drainage and stormwater services it provides. The actual and projected revenues and program expenditures are detailed each year in the City's Annual Work Plans and Annual Reports, submitted to the Regional Water Board. Stormwater Utility revenues are used to fund City-specific stormwater activities as well as the Partnership activities described in Chapter 2.

In addition to revenues derived from Stormwater Utility fees, Citrus Heights collects development impact fees from developers to fund some stormwater-related activities. This would include items such as plan checking for drainage and stormwater-related features, erosion and sediment control inspections during construction, and inspecting installation of stormwater quality facilities by the developer.

The City is also using some Measure A and gas tax funds to rehabilitate and maintain streets and associated drainage structures, including drain inlets, culverts, and roadside drainage ditches.

Recordkeeping and Reporting

The City prepares and submits the following documents to the Regional Water Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).

- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data are collected from all responsible City departments and groups each summer to prepare the Annual Report. The County also assists in compiling and describing information for the activities it conducts on the City's behalf.

The City's stormwater program staff maintains NPDES Stormwater Permit compliance files at City Hall, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

Training for City Staff

The City ensures that all affected City staff and County contract staff receive annual refresher training as required by the Stormwater Permit. Staff are informed and educated about the Stormwater Permit and its impacts on their positions and responsibilities. Training typically covers the following types of topics:

- General stormwater quality awareness objectives: where stormwater goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

The City trains the inspectors and engineers once a year in the fall, prior to the wet weather season. Training for City staff is also accomplished through courses offered by Caltrans, Sacramento County, and other agencies.

Training for County contract staff is described in Chapter 3, Section 3.2.

Coordination with Other Agencies and Programs

Sacramento Stormwater Quality Partnership

The City is a member of the Partnership Steering Committee and participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of regional Partnership activities, such as monitoring, target pollutant reduction, industrial stormwater compliance inspections, and regional public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Partnership, such as the development of statewide BMP manuals by the California Stormwater Quality Association (CASQA).
- Overall program evaluation and assessment.

- Proposed modifications to the SQIPs and/or stormwater permit.

Outside Agencies

The City coordinates with the following local and regional agencies in order to ensure City-wide compliance with the Stormwater Permit:

- Sunrise Parks & Recreation District – owns and operates 15 parks in the city
- Sacramento Waste Management
- Sacramento Area Sewer District (formerly CSD-1) – owns and operates the sanitary sewer collection system in the City.
- Sacramento Regional County Sanitation District (SRCSD) - owns and operates the interceptor collection system and wastewater treatment plant, to which the City's sanitary sewage is delivered. Also, a portion of the funds from the City's Stormwater Utility is paid to the SRCSD to help fund continued Sacramento and American River monitoring in compliance with the Stormwater Permit (see Chapter 2, Section 2.4)
- Citrus Heights, Cal American and Sacramento Suburban Water Districts- own water pipes and associated structures in the public right of way and have utility easements and obtain encroachment permits to repair/replace facilities as needed
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric and other local utilities (e.g., Roseville Telephone, Comcast Cable) - own private utilities in the public right of way and have utility easements and obtain encroachment permits to repair/replace facilities as needed
- Sacramento Metropolitan Fire District – conducts fire and hazardous materials spill response operations in the city

Other Stormwater Programs

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Stormwater Quality Association (CASQA).

Activities for the 2008-13 Stormwater Permit Term

Table 5.2-3 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with various provisions of the Stormwater Permit, as indicated on the table.

This section describes the planned activities in more detail.

Recordkeeping and Reporting

SQIP

Following the submittal of this April 2009 SQIP, the City will revise the SQIP based on Regional Water Board comments and/or comments received during the 30-day public review process conducted by the Regional Water Board. From then on, proposed modifications to the SQIP will be included in the annual reports, as required by the stormwater permit.

Annual Report and Annual Work Plan

As required by the stormwater permit, the City will submit an Annual Report by October 1st of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format created in coordination with the other permittees.

By May 1st of each year, the City will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Regional Partnership Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 2 for additional information about regional Partnership activities.

Permittee Memorandum of Understanding (MOU)

The City will participate in the process to finalize the updated MOU in 2009 (see Chapter 2, Section 2.2 for more details). If needed based on population growth or other factors, the City will work with the other permittees to prepare additional updates for the MOU during the 2008-13 permit term.

Legal Authority

Update Codes and Standards As Needed

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program and ensure compliance with the 2008 Stormwater Permit. This will be done if needed within one year of the Regional Water Board's adoption of the 2009 SQIP. The City will also automatically adopt any changes made by the County during the 2008-13 permit term to other applicable ordinances (e.g., Land Grading and Erosion Control) and the Standard Construction Specifications and the Improvement Standards, as discussed elsewhere in this SQIP.

The City will continue to require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

Incorporate Water Quality Principles into General Plan Update

The City will begin the process to update the General Plan in 2009, with completion anticipated by the end of 2010. As required by the Stormwater Permit, additional water quality and watershed protection principles will be incorporated as needed during the update process.

Legal Authority Certifications

The legal authority certification by Citrus Heights's legal counsel is included in this SQIP as Appendix 5A. Another certification will be prepared for submittal with the ROWD in March 2013, as required by the stormwater permit.

Fiscal Analysis

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1).

Report of Waste Discharge (ROWD)

As required by the stormwater permit, the City will work with the other permittees to prepare a Report of Waste Discharge for submittal to the Regional Water Board 180 days prior to expiration of the current permit (submittal date March 2013). The ROWD will include a revised SQIP.

Training for City Staff

Training is an important aspect of Citrus Heights' Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. See Sections 5.3 - 5.8 for additional information about training that will be conducted related to each of the program elements.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

Intra and Interagency Coordination

The City will coordinate internally to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. If needed, the City will develop agreements to define roles and responsibilities between the various City departments responsible for compliance with the Stormwater Permit. This was not necessary during the last permit term.

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Citrus Heights will attend Steering Committee meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate with other outside agencies during the 2008-13 permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, Placer County, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others. A complete list of agencies was presented earlier in this section.

Effectiveness Assessment

The City will work with the other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2, Section 2.3. This approach is based on guidance provide by CASQA in its *Effectiveness Assessment Guidance* document (2007). In addition, the City will evaluate the effectiveness of its own program management activities related to permit compliance, as described in Table 5.2-3. This assessment will be done each summer during preparation of the annual report, and recommendations for program improvements or modifications will be made based on the results.

For this program management element, most activities have Level 1 effectiveness outcomes; this requires annual documentation that activities have been conducted as required by the stormwater permit. Level of effort (e.g., number of meetings attended) and resources expended (staff hours or costs) may also be tracked (also outcome level 1). The exception to this is training. During the 2008-2013 permit term, the City (or the County, on the City's behalf) will use quizzes, surveys and/or follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of increasing awareness (outcome level 2).

The City will contribute resources (per the permittee cost-share MOU) to the long term effectiveness assessment required by the stormwater permit (due with ROWD in March 2013).

This page intentionally left blank.

5.3 Construction Element

The goal of the Construction Element is to reduce the discharge of sediment and construction-related pollutants to the City's storm drain system and local creeks (e.g., Arcade Creek) to the maximum extent practicable.

Citrus Heights has relatively little new construction underway or planned for the future, since most of the City is already built out. Following completion of a few large commercial sites and the Stock Ranch residential project in 2003, construction will consist mainly of redevelopment and roadway improvement projects.

Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy includes outreach and education, plan review and permitting, inspection and enforcement. The program applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit.

For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Stormwater Ordinance (discussed in Chapter 5.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems. As discussed previously, since it is built-out, the City's work in this area is expected to focus on redevelopment activities during the 2008-13 permit term.

Intra and Interagency Coordination

The two city departments most directly involved in construction activities are General Services (Engineering/Public Works) and Community Development (Building). Most interdepartmental coordination is done on an informal basis through written correspondence and regular meetings related to specific projects. All city staff meets bi-weekly in the Council Chambers to discuss City Council items and management meets every other month to discuss projects. Development staffs in Building, Planning and Engineering as well as SMUD, Metro Fire and Citrus Heights Water meet bi-monthly to discuss all the development projects.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same standard construction specifications and improvement standards as the County and other permittees.

The City meets quarterly with Sacramento Regional County Sanitation District (SRCSD) and Sacramento Area Sewer District (SASD) representatives to discuss upcoming projects and issues such as sewage spill response.

The Citrus Heights Water District attends the City's bimonthly development meetings. The district has also sent their construction inspectors and managers to the City's annual NPDES training.

Lastly, the City attends monthly construction coordination meetings with all the utility agencies in the region. This forum includes a discussion of upcoming major projects and attempts to coordinate construction within the public right-of-way. This helps minimize the traffic and stormwater impacts.

The City assists the Regional Water Board in its enforcement of the State Construction General Permit by enforcing compliance with comparable local ordinances, verifying Notice of Intent (NOI) filings to obtain general permit coverage, spot checking the Stormwater Pollution Prevention Plans (SWPPPs) required by the general permit, and referring site operators who are suspected of not complying with the State regulations.

Accomplishments to Date

Since becoming a permittee to the Stormwater Permit in 2002, Citrus Heights has made several notable accomplishments related to the construction element:

- Adopted the Citrus Heights Municipal Code, including Chapter 18 (Building and Building Regulations, Article XII – Land Grading and Erosion Control) and Chapter 98 (Utilities, Article V - Stormwater Discharge) to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of NOI to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects
- As of June 1, 2007, hired City employees to issue building permits and conduct building inspection. The outside vendor had limited contract obligations which affected their ability to resolve stormwater issues at construction sites. City employees in the building department have no contract restrictions on enforcing and inspecting for stormwater violations.

Activities for the 2008-2013 Stormwater Permit Term

Table 5.3-1 at the end of this chapter summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 8 of the Stormwater Permit.

This section describes the planned activities in more detail.

Legal Authority

The City's Land Grading and Erosion Control Ordinance (Municipal Code Chapter 18, Article XII) requires a grading permit and erosion and sediment controls on all private projects disturbing 50 cubic yards or more of soil or one or more acres of land. All projects, including those disturbing less than one acre and public projects, are subject to the City's Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system. All projects that disrupt or modify the drainage pattern are subject to review and permitting.

During the 2008-13 permit term, the City will revise its Land Grading and Erosion Control Ordinance for consistency with the State's new Construction General Permit, based on changes made by the County to its ordinances.

Plan Review and Permitting

The City will continue to conduct plan review and issue grading permits for construction projects in Citrus Heights for conformance with applicable ordinances, codes and standards described previously. Improvement plans will be checked for inclusion of erosion and sediment control (ESC) plan sheet(s) to satisfy the requirements. This ESC plan will be checked in the field by the City inspector during construction. During the planning stage, projects will also be checked to verify that any other applicable environmental permits have been obtained from Dept. of Fish and Game (1600 Streambed Alteration Agreement), US Army Corps of Engineers (404 permit) and Regional Water Board (401 Certification).

In addition to satisfying all applicable local permitting requirements, private and public projects in Citrus Heights disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit. Prior to issuing a grading permit, the City will continue to verify that a State-required NOI was filed and will check the SWPPP for six items required by the stormwater permit.

The City plans to continue using standards and specifications adopted by the County to describe requirements for BMPs at construction projects to control sediment and other pollutants. All erosion and sediment control plans for projects in Citrus Heights will be checked for conformance with the standards and specifications. The County may update these documents during the 2008-13 permit term following the update of the Land Grading and Erosion Control Ordinance to reflect the State's new Construction General Permit.

Pollution Control at City-Owned Construction Projects and Other Projects Not Subject to City's Permitting Process

All City construction projects will be subject to the same ordinances and standards as private projects. Provisions will be included in design and construction contract specifications to require compliance. City project managers or their consultants will obtain coverage under the State's Construction General Permit as required. City inspectors will inspect and conduct enforcement for these projects as described later in this section.

The City lacks jurisdictional control over projects that may be constructed in Citrus Heights by utilities, special districts (e.g., water, sewer, schools, parks) and other agencies; therefore, such projects are not subject to the City's plan review and permitting process. However, the projects will be subject to the City's Stormwater Ordinance. The City will coordinate with these agencies on a project basis to ensure compliance with the Stormwater Ordinance and to ensure coverage as required by the State's Construction General Permit. In addition, the City will continue to:

- meet quarterly with SRCSD and SASD representatives to discuss upcoming projects and issues such as sewage spill response
- invite the Citrus Heights Water District to attend the City's bimonthly development meetings

- Invite water district construction inspectors and managers to attend the City's annual NPDES training
- Attend monthly construction coordination meetings with all the utility agencies in the region to discuss upcoming major projects and coordinate construction within the public right-of-way (this helps minimize traffic and stormwater impacts)

Track/Inventory Active Construction Projects

The City will continue to maintain a database to track public and private active construction sites and will use this information to schedule/prioritize inspections and develop annual reports.

Inspection and Enforcement

Citrus Heights' Engineering/Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders (3 or more violations) will be referred to the Regional Water Board as required by the Stormwater Permit.

The City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspect according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

Education and Training

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff will be encouraged to attend events sponsored by the Partnership, as described below.

The City will support Partnership-sponsored pre-wet season and other training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats might include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, preconstruction meetings, and example documents. Citrus Heights will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 5.3-1 describes the assessment methods the City will use to more specifically evaluate the construction program element activities during the 2008-13 permit term. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

5.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Citrus Heights.

Commercial/Industrial Element Strategy

Citrus Heights contracts with others to most effectively perform some of the activities required for this program element.

The City has a MOU with Sacramento County EMD to conduct triennial inspections as required by the stormwater permit of over 270 commercial/industrial facilities in Citrus Heights. The types of facilities are described in Table 5.4-1 to characterize the make-up of the City's commercial and industrial sectors. The majority of these facilities are restaurants, and there a quite a few gas stations and auto repair shops, but virtually no industry. The EMD MOU authorizes trained and qualified EMD inspectors to conduct inspections and issue enforcement actions, using the legal authority provided by the City's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened. The work performed by EMD on the City and other permittees' behalf is described in Chapter 2 (Section 2.7).

Table 5.4-1. Commercial/Industrial Facilities in Citrus Heights Subject to EMD Inspections

Commercial/Industrial Category	No. Facilities (2008)
Auto body shops	8
Auto repair shops	31
Auto dealers	5
Equipment rental facilities	0
Kennels	4
Nurseries	2
Retail gasoline outlets (i.e., gas stations)	22
Restaurants	198
Facilities covered by the State's Industrial General Permit	1
Total	**271**

The City contracts with Sacramento County to conduct complaint-based inspections of other businesses within the city. See Chapter 3, Section 3.4 for details. Citrus Heights and other permittees contract with the Business Environmental Resource Center (BERC) to conduct outreach to targeted local businesses in each of their jurisdictions. This work, which is described in Chapter 2 (Section 2.7), includes maintaining and updating a database of businesses receiving the outreach materials each year.

Intra and Interagency Coordination

The City signed an MOU with EMD to conduct stormwater compliance inspections on its behalf as described previously. The City participates in periodic (approximately biannual) meetings with the other permittees and EMD to discuss the permit-required inspection program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees, BERC and various business groups and trade associations during the course of implementing the program. Additional details about this coordination are contained in Chapter 2, Section 2.7.

The County takes care of all other coordination needed for conducting the activities described in this section on the City's behalf; this work is covered by the City/County agreement for services that was executed when the City incorporated.

Accomplishments To Date

Refer to Chapter 2, Section 2.7 for a description of accomplishments to date.

Activities for the 2008-2013 Stormwater Permit Term

The following information briefly describes the activities conducted by County EMD, County DWR and BERC on the City's behalf. Refer to Chapter 2 (Section 2.7) and Chapter 3 (Section 3.4) for additional details, including tables that show proposed activities, performance standards, assessment methods and the five-year implementation schedule.

Legal Authority

The County's Stormwater Ordinance will continue to provide legal authority to the EMD and the County for regulating commercial businesses and industries in Citrus Heights with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-13 permit term.

Priority Industry Identification

The industries and commercial business categories subject to EMD stormwater compliance inspections were listed in Table 5.4-1. The businesses subject to targeted outreach by BERC are mainly mobile operations without a fixed base of operation. These are the same business categories that were targeted during the 2002-08 permit term. These lists will be refined if needed during the 2008-13 permit term. See Chapter 2, Section 2.7 for more details.

Triennial Industrial Stormwater Compliance Inspections

EMD will continue to conduct triennial inspections at priority industrial facilities in Citrus Heights (see Table 5.4-1) and conduct associated enforcement and education, on the City's behalf. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Citrus Heights Annual Reports.

Refer to Chapter 2, Section 2.7 for more information.

Complaint-Based Stormwater Compliance Inspections

County DWR stormwater staff will inspect other businesses not addressed by EMD's program described above within the City of Citrus Heights on a complaint basis. Refer to Chapter 3, Section 3.4 for more information.

Educational Outreach

BERC will conduct outreach to targeted businesses within Citrus Heights, under contract to the Partnership. Outreach will be conducted with businesses considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses (e.g., carpet cleaners, pressure washers) are mobile operations without a single base of operation, so they are difficult to track. Educational materials will also be distributed via City and County public counters, through trade associations and industry suppliers, and at workshops and other events.

Refer to Chapter 2, Section 2.7 for more information.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Section 2.7 in Chapter 2 and Section 3.4 in the County's SQIP describe the assessment methods EMD, the County (on the City's behalf) and BERC will use to more specifically evaluate the commercial/industrial program element activities conducted during the 2008-13 permit term. Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

5.5 Municipal Operations Element

The Municipal Operations Element specifies activities for controlling stormwater pollution which may occur during operation of city-owned facilities in Citrus Heights, to keep pollutants from entering storm drains and local creeks. City-owned facilities include public buildings, parking lots, roads, bridges, landscape medians, storm drains and drainage ways. The City is not responsible for facilities and operations managed by parks and school districts, the sewer district, water purveyors and private utilities.

Typical municipal activities include solid waste hauling and disposal; hazardous and recycling waste collection, storage and disposal; vehicle and equipment washing and maintenance, pipe, channel and basin maintenance and repair/replacement, street cleaning, street overlays and repairs, vegetation management and graffiti abatement. Municipal operations activities will be conducted in a manner that does not inadvertently contribute pollution to local waterways. Another important goal is to set the example of model pollution prevention for the public.

Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of City-owned facilities within the Stormwater Permit area (urbanized areas), not already covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

Buildings – The City owns and operates the City Hall complex and the Police Service Center. Vehicle maintenance and parking lot maintenance is contracted to offsite vendors. There are no known stormwater issues with this complex. The City does not own a corporation yard.

City parks – 15 parks within the City are operated and maintained (including vegetation and waste management) by the Sunrise Recreation and Parks District, a separate agency within the City. The District follows the County's guidelines for stormwater quality.

Storm Drain System

Piped storm drain system – Approximately 150 miles of storm drain pipe and 2,900 associated manholes (as reported in the 2007/08 annual report) are maintained by the County Department of Water Resources under contract. See Chapter 3, Section 3.5 for a description of County maintenance practices.

Storm drain inlets – The City has almost 6,000 storm drain inlets within its jurisdiction that are maintained by County DWR (as reported in the 2007/08 annual report). Most storm drain inlets were marked with "no dumping" messages in previous years through the City's contract with the Sacramento Local Conservation Corps. The remaining inlets will be marked during the 2008-13 permit term and County crews will replace any illegible markings observed during routine storm drain maintenance activities.

Channels and creeks – Over 40 miles of manmade drainage channels and natural creeks are maintained by the City (as reported in the 2007/08 annual report), including portions of Arcade, Cripple, San Juan, Mariposa, Brooktree, Coyle, and Sunrise Branch Creeks, and various unnamed tributaries.

The City contracts with the Sacramento Local Conservation Corps to maintain the vegetated channels and creeks. The supervising field managers are taught the proper methods for clearing vegetation without exposing the slopes to excessive erosion. All cropped vegetation is removed from the creek and taken to the landfill.

Detention basins – The City has no water quality detention basins in its jurisdiction.

Transportation Facilities

Curbed Streets – About 710 curb miles of curbed streets are cleaned by a vendor under contract with Public Works (as reported in the 2007/08 annual report). The frequency schedule is:

- Priority A streets – Once a month, March through October, Twice a month, during leaf drop
- Priority B streets – Once a month, March through October, Twice a month, during leaf drop
- Priority C streets – Once a month, year round

Roads and Roadside Vegetation – Various contractors retained by Public Works maintain and repair roads and roadside vegetation. This work is performed in a manner that minimizes erosion and protects stormwater quality. Roadside ditches are hand-trimmed by the Local Conservation Corps. A section of Old Auburn is sprayed with Round-up after the rainy season has ended and the weeds have stopped growing.

City-owned parking lots – The City owns a 2-acre parking lot exposed to rainfall (associated with the City Hall complex and Police Center); this is cleaned by a maintenance contractor hired by the City's Public Works Department. For budgeting purposes the City Public Works conducts a detailed inspection of the entire facility on yearly basis.

State, Federal and Special District Agency Facilities and Activities

The City's activities under the Municipal Operations Element do not address facilities operated by federal or state governmental agencies or special districts (e.g., San Juan Unified School District). City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the City-owned storm drain system or local creeks.

Municipal Operations Element Strategy

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMPs to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City and contractor operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

Intra and Interagency Coordination

The City coordinates with the other permittees to share information, strategies, and recommended practices related to operation and maintenance of City-owned facilities.

The City coordinates with special districts (listed previously in Section 5.2) to make sure that measures are in place to protect the City's storm drain system and local creeks and rivers.

Accomplishments To Date

Since becoming a permittee to the Stormwater Permit in 1997, Citrus Heights has made several notable accomplishments related to the Municipal Operations Element:

- Compiled the inventory of City-owned facilities and operations. The inventory helps with tracking activities and the City updates the inventory each year for the annual report.
- Established contracts needed to complete municipal operations activities, including contracts with Sacramento County DWR, a waste hauler, a street cleaning contractor and various maintenance vendors.
- Worked with local environmental groups to determine alternative environmentally-friendly ways to conduct overbank cleaning of natural creeks and streams
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., County and City staff routinely log the quantity of pipes, channels, basins, storm drain inlets, manholes, and roadways cleaned.) This information is tallied and presented in annual reports.
- Through the Partnership, supported the County's development of the *River Friendly Landscaping Guidelines* (2007) and associated *Homeowners' Guide (2008)*. This program won the 2008 Environmental Leadership award from the Sacramento Environmental Commission.

Activities for the 2008-2013 Stormwater Permit Term

Table 5.5-1 at the end of this chapter summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 10 of the Stormwater Permit.

This section describes the planned activities in more detail. The City contracts with County DWR to conduct some of the activities for this program element. Those activities are summarized very briefly below; see Chapter 3, Section 3.5 for more details about County activities.

Illicit Discharge Response

The County, on behalf of the City, will respond quickly to all incidents where an illicit discharge threatens to enter or enters the storm drain system. See Section 5.6 and Chapter 3, Section 3.6 for a description of these activities.

Stormwater Pollution Control for Construction and Development of City-Owned Projects

Construction and development of City projects (e.g., new facilities, widened roadways) will be subject to the same requirements applying to private construction and development projects, as described in Sections 5.3 and 5.8.

Facility Management

Maintenance of Buildings

The buildings owned by the City at the City Hall complex will be maintained by maintenance contractors and a couple staff members. Maintenance will include vegetation management, pest control, and parking lot cleaning. Weeding and parking lot cleaning will be accomplished by volunteers and juveniles sent by the Police Department for minor infractions. Power washing or mechanical sweeping is required on the City campus. See the pest management and parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants to the storm drains and creeks

The City does not own a corporation yard or any other buildings. The City does not have any leased facilities at this time.

Integrated Pest Management

The City and its contractors will implement IPM procedures in compliance with the Pesticide Plan developed by the Partnership and approved by the Regional Water Board. The following is a summary of the activities:

- Pest control operations contracted by the City relate to City-owned buildings will be done only when ant problems arise; cats in the area have controlled any rodent issues.
- City will continue to use pesticides on its rose garden as little as possible.

- Herbicides will continue to be applied by City maintenance contractors for weed control at City's direction but never in the creek areas. Use varies by rain pattern and growth.
- The landscape contractors will not use chemicals in the medians and roadside ditches.
- A section of Old Auburn will continue to receive a dose of Round-up once a year at the end of the rainy season; the work will be conducted by licensed pest applicators.
- The City will promote and distribute the award-winning River Friendly Landscaping Guidelines and associated Homeowners' Guide to residents and landscape contractors doing work in the City.

The City is not responsible for pest control or other maintenance activities conducted at parks and open space in the city.

Storm Drain System Maintenance

Maintenance of the Piped Storm Drain System

The City will continue to contract with the County DWR to conduct these services on the City's behalf. The County will employ the same procedures they use for cleaning their own system. Refer to Chapter 3, Section 3.5 for this information.

Maintenance of Creeks and Channels

The City will continue to contract with the Sacramento Local Conservation Corps to maintain the creeks and channels in the city. Hand methods will continue to be used for this cleaning and vegetation is retained on slopes to prevent erosion.

Storm Drain Inlet Marking

Because storm drain inlet stenciling does not last long, the City now uses glue-down permanent decals. The new decals used on inlets have handling restrictions on the glue that preclude volunteers from doing the work.

County maintenance crews will continue to check the legibility of existing storm drain stencils and markings during routine maintenance activities and replace any that are noted as damaged or missing as soon as practicable. The city planners, engineers and field inspectors will continue to verify that new storm drain inlets installed in new developments include a permanent "No Dumping" message.

Operation and Maintenance of Transportation Facilities

Prioritized Street Sweeping for Curbed Streets

The City will continue to contract with a vendor for street sweeping on curbed streets, to follow the prioritized schedule described at the beginning of Section 5.5.

Maintenance of Roads and Roadside Vegetation

The City will continue to contract with vendors to conduct these services on the City's behalf.

Road maintenance contractors that apply paints, therma-plastic, bituminous materials, crack seal compound, slurry seal and other products are required to provide wet-street brooming when they disturb the base rock, shoulder soils, or apply a rock chip. If a water truck is required to help scrub the pavement, rock bags and DI filters are required.

Roadside vegetation is hand trimmed and the vegetation is removed and dumped into green waste receptacles. The crews are trained and supervised on the proper trimming methods to minimize future erosion.

Inspection and Maintenance of City-Owned Parking Lots

The City owns two acres of parking lot exposed to rainfall (associated with the City Hall complex and Police Center); these will be cleaned by a vendor under contract to the City's Public Works Department at least annually prior to the wet season, but likely much more frequently. Maintenance activities will include trash/debris removal, sweeping, and pressure washing of oil stains (involving collection and proper disposal of the waste water.)

Waste Management Services

The City will continue to contract with a waste collection contractor for residential solid and green waste and general recycling collection and hauling services in the city. Waste oil is also collected curbside as well as paints and a limited amount of household hazardous wastes. The contractor does not have any storage/staging yards or facilities within the city. Wastes are taken to a transfer facility located outside the city limits, and from there the wastes are transported to appropriate landfills/disposal sites.

Citrus Heights residents will be able to continue to take household hazardous wastes to one of the two regional transfer stations operated by the City and County of Sacramento. The City pays for this service (set fee per vehicle) to make it free and as convenient as possible for residents. See Chapter 3, Section 3.5 and Chapter 4, Section 4.5 for descriptions of the facilities.

Operation and Maintenance of City Parks

The Sunrise Recreation and Park District will continue to manage the 15 parks within the city limits. The City of Citrus Heights will coordinate with the district during the 2008-13 permit term to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the Park District's operations.

Employee and Contractor Training

Training for County employees conducting work in the city is described in Chapter 3, Section 3.5. City contractors are responsible for training their own personnel to comply with all applicable regulations, including the City's stormwater ordinance.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 5.5-1 describes the assessment methods the City will use to more specifically evaluate the municipal operations program element activities which it conducts. Assessment activities to be conducted by the County on the City's behalf are described in Chapter 3, Section 3.5. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the city and County employees and contractors) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

5.6 Illicit Discharge Element

The goal of the Illicit Discharge Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate prohibited non-stormwater (illicit) discharges. Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and rivers, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, recreation and aesthetics are all examples of benefits that can be impacted.

The storm drain system consists of a network of drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Illicit Discharge Element Strategy

The City's strategy for eliminating illicit discharges to the storm drain system and local waterways is essentially the same as the County's. It includes:

- Maintaining adequate legal authority to prohibit illicit discharges. This is accomplished through the City Stormwater Ordinance. Since Citrus Heights adopted the County Stormwater Ordinance into its municipal code, prohibitions of illicit discharges apply within city in the same manner as they do in the county. City and County staff are authorized to enforce the ordinance within the City limits.
- Conducting ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers. The City contracts with County DWR for these services for the piped system, and with Sacramento Local Conservation Corps for the natural creek system.
- Providing convenient means for residents to dispose of solid and household hazardous wastes.
- Educating City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.

- Providing a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose.

Intra and Interagency Coordination

The City coordinates with the County for maintenance of the storm drain system in Citrus Heights. County crews conduct ongoing field screening for illicit discharges and connections as part of this work. They, in turn, will coordinate with other appropriate County departments or the City to clean up and dispose of any polluted wastewater. If progressive enforcement action against the discharger does not eliminate the problem, the County will then coordinate with legal counsel.

The City coordinates with field crews from the Sacramento Local Conservation Corps to make sure that they have the education and training needed to detect and report illicit discharges to the creeks in the city.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

The City contracts with Allied Waste for solid waste management and curbside pickup of used oil for residents of Citrus Heights. Allied also collects limited household hazardous waste, which is manifested to the proper landfill.

Accomplishments To Date

The following highlights major accomplishments for the Illicit Discharge Element:

- In 1998 the City adopted the County's Stormwater Ordinance (Citrus Heights Municipal Code Chapter 98, Article V), which makes most discharges to the storm drain system illegal and in recent years the City revised the ordinance to strengthen its legal authority.
- 95% of storm drain inlets in the City were stenciled with the "No Dumping — Drains to Creek" message, primarily using volunteers.
- As required by the County's Improvement Standards (used by the City), permanent "No Dumping" stamps were applied to all new concrete storm drain inlets installed as part of development projects such as Stock Ranch.
- In 2006, the Partnership set up a new hotline, 808-4H20, which allows callers to report incidents of illegal dumping and illicit discharges. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- The City contracted with the County to conduct field screening of its storm drain system. Open channels, priority piped outfalls and outfalls larger than 36 inches were all inspected in a phased program over a two-year period. No illicit discharges or connections were discovered during these investigations.

- Starting in 2004, the County created and annually updated an illicit discharges map to identify "hot spot" problem areas in Citrus Heights requiring additional or more frequent investigations. To date, no such areas have been identified.

Activities for the 2008-2013 Stormwater Permit Term

Table 5.6-1 at the end of this chapter summarizes the activities that will be conducted for the this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 11 of the Stormwater Permit.

This section describes the planned activities in more detail. The City contracts with County DWR to conduct some of the activities for this program element. Those activities are summarized very briefly below; see Chapter 3, Section 3.6 for more details about County activities.

Update Stormwater Ordinance and Improve Enforcement Authority as Needed

The City has adopted the County's Stormwater Ordinance into its code, therefore, amendments made by the County during the permit term to enhance legal authority will also apply to the City.

Reporting of Illicit Discharges

Through the contract with the County, the City will continue to contribute funding to the Partnership's 808-4H20 hotline to facilitate public reporting of problems in the City. Also, County crews will distribute doorhangers and other educational materials in neighborhoods where they observe illicit discharge problems.

Ongoing Field Screening to Detect Illicit Discharges and Connections

Activities to prevent and reduce illicit discharges to the piped storm drain system and creeks within the City of Citrus Heights will continue as a coordinated activity by Citrus Heights, the County and the Sacramento Local Conservation Corps.

County, City and Sacramento Local Conservation Corps crews responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges. Follow-up will be conducted for any observed flows suspected of containing pollutants to attempt to trace the flow to its source and eliminate any unauthorized non-stormwater discharges.

County and City crews will also respond to complaints from the public and referrals from County industrial inspectors, the Regional Water Board and others. Problems will be addressed on an individual basis depending on the nature of the discharge.

Illicit Discharge Response, Containment and Clean-up

The County will continue to conduct response, containment and clean-up activities on behalf of the City as needed to eliminate illicit discharges in Citrus Heights. See Chapter 3, Section 3.6.

Enforcement

City staff in the Neighborhood Enhancement and Building Divisions or County DWR staff will continue to use the Stormwater Ordinance to conduct enforcement against illicit dischargers. The County's activities are described in Chapter 3, Section 3.6.

Data Management

The County will continue to track data and update the Citrus Heights illicit discharge map that shows the location of illicit discharges for identifying potential needs for further investigation or possibly outreach. See Chapter 3, Section 3.6. A new Geographical Information System (GIS)-based computer maintenance management system, Cityworks, is being implemented in May 2009 to track work orders and service requests. The City's maintenance coordinators will open work orders for the city vendors, to include the Conservation Corps. Vendors will return the work orders with the quantities of work as well as quantities of waster or debris collected. This system will allow the City to identify and better focus future maintenance efforts on the problem areas.

Solid Waste and Household Hazardous Waste Programs

Citrus Heights will continue to contract with a private waste hauler to provide waste, recycling and green waste collection and disposal services for the city residents, as a means of deterring illegal dumping. This program includes curbside pickup of used motor oil. Residents must take household hazardous waste to the North Area County transfer station. Refer to Section 5.5 for more details.

Education and Outreach

To educate the public and to minimize illegal discharges of waste into the storm drain system, County maintenance crews will continue to mark or re-label storm drain inlets with "No Dumping" decals. Additional "No Dumping" signage along the creeks may be installed based on future recommendations from the public or maintenance crews.

Employee and Contractor Training

Training for County employees conducting work in the city is described in Chapter 3, Section 3.6. City contractors are responsible for training their own personnel to comply with all applicable regulations, including the City's stormwater ordinance.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 5.6-1 describes the assessment methods the City will use to more specifically evaluate the illicit discharge program element activities which it conducts. Assessment activities to be conducted by the County on the City's behalf are described in Chapter 3, Section 3.6. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the city and County employees and contractors) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

5.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

Public Outreach Element Strategy

The City contracts with Sacramento County to conduct most of the public outreach activities for Citrus Heights residents. For details about the County's public outreach activities, refer to Chapter 3, Section 3.7. Citrus Heights also contributes to regional public outreach (discussed in Chapter 2, Section 2.6) through the permittee cost-share MOU.

In addition, the City conducts these types of public outreach activities on its own, as discussed in more detail later in this section:

- Educating City Council and department managers about the stormwater program and impacts to the city, and garnering support for Partnership efforts.
- Responding to local resident and business phone calls received by 808-4H20.
- Making Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter.
- Working with community groups and neighborhood associations on various efforts.

Public Outreach Target Audiences in Citrus Heights

There are approximately 90,000 residents in the City of Citrus Heights. The San Juan Unified School District operates 11 schools within the City limits, including 2 high schools, 1 middle school and 11 elementary schools, with a combined total student population of about 10,945. About 3,700 students are enrolled in grades 3-6 (this has traditionally been a target age range for stormwater pollution prevention messages).

There are numerous community organizations, 11 homeowner associations and environmental groups represented in Citrus Heights; the most influential being the neighborhood associations. Each neighborhood is represented on the Resident's Empowerment Association of Citrus Heights (REACH), a non-profit umbrella organization which can apply for grants to fund neighborhood activities, projects, and improvements. Staff has used these neighborhood meetings in the past to discuss flooding and water quality issues.

The Sacramento Bee is the major newspaper serving the region and the City of Citrus Heights. The City publishes its own *Citrus Heights Connections* community newsletter about four times a year. Other media includes television and radio stations that serve the greater Sacramento area.

Intra and Interagency Coordination

The City's Engineering Dept. in General Services coordinates with City Council, the City Manager's office and other departments as needed throughout the year to educate and share information.

Citrus Heights coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee steering committee meetings, described in Chapter 2, Section 2.2.

Accomplishments To Date

Chapter 2, Section 2.6 describes major Partnership accomplishments related to public outreach. In addition, the following describes several major accomplishments made by the City:

- The City helped coordinate and host the Partnership stormwater informational booth at various annual local community events, such as the Harvest Festival, the Community Campout and the Safety Fair.
- The City annually contributed funding to the Urban Creek Council's Creek Week program and hosted a creek week clean up event in Citrus Heights.
- Working through a school network program called "Building Bridges", City staff provided articles in the school paper and promotional materials to classrooms, some of which focused on the environment and storm drain protection.
- City staff initiated and coordinated volunteer stenciling of storm drain inlets in the city as an educational activity. Through this program, community and civic organizations were encouraged to apply "No Dumping" messages to storm drain inlets using City-supplied materials and instructions.
- The City participated in the Arcade Creek watershed project, an effort spearheaded by the City of Sacramento. The project is designed to assess/restore the health of Arcade Creek and its tributaries.

Activities for the 2008-2013 Stormwater Permit Term

Partnership Activities

See Chapter 2, Section 2.6 for detailed information about activities that will be conducted by the Partnership related to regional public outreach. Residents, businesses and students attending Citrus Heights schools are addressed through those efforts.

City-Specific Activities

Table 5.7-1 at the end of this chapter summarizes the City-specific activities that will be conducted for the this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with portions of Provision 12 of the Stormwater Permit.

This section describes the planned activities in more detail.

- Meet with City managers periodically throughout the Stormwater Permit term to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.
- Improve the "Drainage, Stormwater and Sewer" Page on the City's web site to better address the stormwater pollution prevention program and provide links to Partnership web site. The web address is: *http://www.citrusheights.net/home/index.asp?page=814*
- Include an article regarding stormwater pollution prevention in the City's "Connections" newsletter
- Continue to work with the County to sponsor and staff a stormwater booth at the following types of community events:
    - Citrus Heights Harvest Festival – October
    - Urban Creeks Council Creek Week Splash Off Event
    - Citrus Heights Community Campout
    - Safety Fair
- Continue to annually contribute funding to the Urban Creek Council's Creek Week program and host a creek week clean up event in Citrus Heights.
- Continue to support and participate in the Arcade Creek watershed project, an effort facilitated by the City of Sacramento. Sponsor meeting facility as needed.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 5.7-1 describes the assessment methods the City will use to more specifically evaluate its City-specific public outreach program element activities during the 2008-13 permit term. Assessments of regional public outreach activities will be conducted by the Partnership as described in Chapter 2, Section 2.6. In general, the goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various City-specific and regional public outreach tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

5.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

New development within the City of Citrus Heights is generally associated with redevelopment as there is very little vacant developable land remaining in the City. Redevelopment projects with substantial tenant improvements will be required to re-work the site to capture the water on-site and improve runoff quality. Many older sites currently sheet-flow directly into the city streets.

New Development Element Strategy

Potential impacts from development and redevelopment within Citrus Heights will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training.

The City believes that the best way to make in-roads on new development water quality is to improve planning guidance. The recently adopted Citrus Heights Zoning Code provides guidelines for improving the site design to address water quality. With up-front information and requirements to address water quality, the architect and developer will not be so reluctant to address these issues. Most of the reluctance to incorporate BMPs stems from the need to re-design the existing new designs.

Intra and Interagency Coordination

The City's Engineering and Planning Division share responsibilities in coordinating new development. This group meets with the developer at the planning stage. This meeting provides an opportunity to interact with the local neighborhood.

Engineering provides a development services manager to meet with the public and attend all planning commission meetings.

The City also coordinates with the other permittees regarding regional activities such as the new Design Manual and hydromodification and low impact development (LID) standards, described more later in this section.

Accomplishments To Date

County Activities Prior to Incorporation

The area now served by the City of Citrus Heights has been covered by the Sacramento Stormwater Permit since the permit was first adopted in 1990. Prior to incorporation of the City in 1997, the County established and implemented stormwater controls for newly developing projects in this area.

The County maintained a proactive role in this regard, requiring regional water quality detention basins for new development via the master drainage planning process. Redevelopment projects and other newly developing sites where runoff does not get directed to regional basins typically require on-site stormwater quality treatment devices. Long-term maintenance of these devices is the responsibility of the property owners in accordance with maintenance agreements recorded with the deeds for the properties.

Accomplishments Since 1997

- The City significantly increased public awareness of stormwater quality and subsequently added more internal and field inspection staff in the Building Department. The City increased the Building Division's duties to include stormwater quality. This in turn, increased the frequency and number of inspections possible.
- The Sacramento Local Conservation Corps was hired to provide the City with better visibility in the creek area and to monitor encroachments associated with development.
- On the City's behalf, the County worked with the other permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness, and conducted other activities. These accomplishments are described in more detail in Chapter 3, Section 3.8.
- Since 2006, the City has been requiring and establishing maintenance agreements with property owners to ensure long-term maintenance of new stormwater quality facilities.

Activities for the 2008-2013 Stormwater Permit Term

The stormwater permit requires that the permittees continue to regulate new development and redevelopment projects so that they incorporate measures to mitigate stormwater quality impacts. The 2008 stormwater permit includes new provisions to require a plan for mitigating the hydromodification impacts associated with new development in the permit area. (As described in more detail in Section 3.8, when development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and degrade habitat.) In addition, the 2008 stormwater permit includes a new provision specifying that the permittees require all priority new development and redevelopment projects to incorporate low impact development (LID) measures. Both new hydromodification and enhanced LID criteria will be incorporated into the updated *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* by the Partnership.

Table 5.8-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provisions 13-26 of the Stormwater Permit.

This section summarizes the planned activities. The City contracts with County DWR and the Partnership to conduct many of the activities for this program element; therefore, see Chapter 3, Section 3.8 for more details.

Development-Related Ordinances, Plans, Policies and Procedures

Ordinances/Municipal Code

The City's stormwater ordinances provide adequate authority to establish new requirements for development projects; no revisions to the ordinance are warranted.

Plans, Policies and Procedures

The City plans to do a major update to the 2000 General Plan starting in 2009, with completion anticipated at the end of 2010. As part of that process, water quality and watershed protection goals and policies will be incorporated or strengthened as needed.

Development Standards and Technical Guidance

Standards, Codes and Technical Guidance

Development projects in Citrus Heights will be conditioned to comply with City stormwater quality and drainage development standards. Currently, developers may use any California Stormwater Quality Improvement Design Manual. Many times, Bay area developers utilize those found in their jurisdiction. The City will evaluate and amend its stormwater quality development standards to comply with new permit requirements during the 2008–13 permit term**.**

Working with the Partnership, the *Stormwater Quality Design Manual* will be updated to include additional/enhanced criteria for hydromodification mitigation and LID following the amendment of the development ordinances and standards. The hydromodification criteria are discussed in the next section. Citrus Heights will contribute funding through the permittee cost-share agreement for the update of the design manual. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures; see Chapter 2, Section 2.4 for more details about that effort.

Stormwater quality requirements need to be coordinated with the City's zoning and building codes (such as those related to tree preservation/landscaping, water conservation, sanitary sewer and solid waste) in order to avoid conflict and overlap. The City planning staff will review and update as needed, various City codes (Zoning, Building, etc.) that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency. This work will be built on lessons learned from similar County activities.

Hydromodification Management Plan (HMP)

The City will work with other permittees to meet the requirements of the stormwater permit with regards to hydromodification management. However, due to build-out status, it is uncertain how these requirements will apply to development projects in Citrus Heights. Additional details about proposed work are provided in the County's SQIP, Chapter 3, Section 3.8.

To comply with the stormwater permit requirements, the permittees are submitting a Hydromodifcation Management Plan (HMP) work plan as part of this SQIP (see reference in Chapter 3, Section 3.8). One year after the Regional Water Board approves the work plan, the permittees will submit the HMP document.

Waiver Program/Mitigation Fund

The stormwater permit allows the permittees to develop a waiver program/mitigation fund alternative for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The County is taking the first step to develop initial parameters for their potential waiver program. The City will review the results of the County's work and consider application to future development projects in Citrus Heights.

Permitting and Plan Review (Entitlement) Process

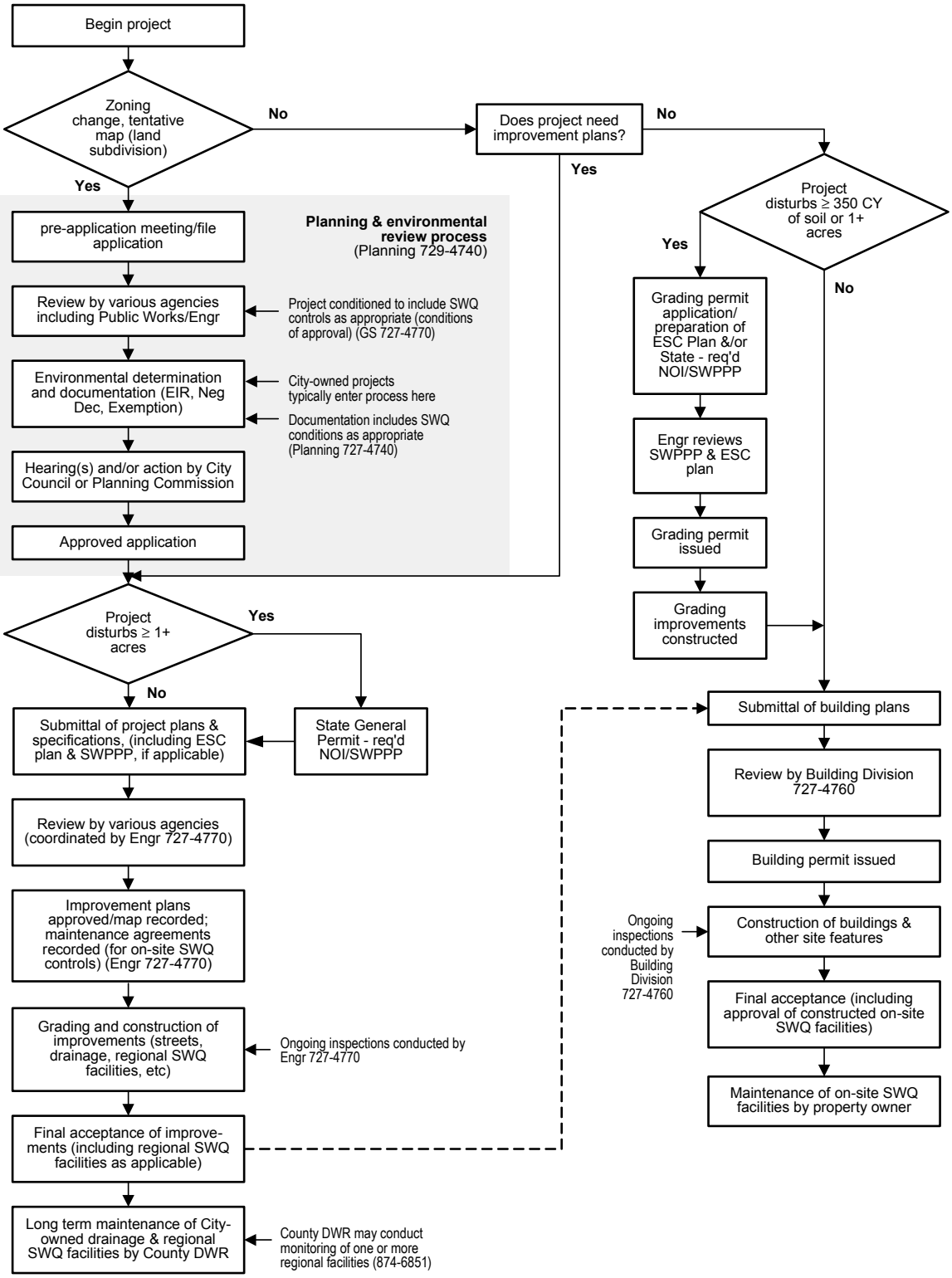
Development and redevelopment projects in Citrus Heights will be conditioned for mitigation of receiving water impacts from urban runoff quality and quantity in the same manner as projects are conditioned in Sacramento County. See Figure 5.8-1 for a flowchart depicting the City's development review/entitlement process and indicating how stormwater quality is addressed in the process.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City planning staff will promote the voluntary use of runoff reduction (LID) control measures on development projects as a means of mitigating downstream habitat and erosion impacts until such measures become mandatory for projects in certain areas in compliance with the Stormwater Permit.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

Figure 5.8-1
City of Citrus Heights Development Process Flowchart



GS - City General Services Dept.; Engr - City Engineering/Public Works Division; DWR — Department of Water Resources; ESC — Erosion and Sediment Control; NOI — Notice of Intent; SWPPP — Stormwater Pollution Prevention Plan; SWQ — stormwater quality

Maintenance of Stormwater Quality Control Measures

The City will continue to ensure long-term maintenance of treatment control measures on private development by requiring maintenance agreements to be executed before the final approval of the project. The new Cityworks system will track the properties with these devices. Letters will be sent to these properties requiring a re-certification of the device by either the manufacturer or a certified inspection company. Properties that do not provide the necessary re-certification will be fined and a lien placed on the property based on the City ordinances.

Through the annual refresher training and other opportunities, the City will train its construction inspectors to check for proper installation/operation of stormwater control measures before final acceptance of the project.

Outreach to Educate the Development Community

The City planners and engineers will continue to work collaboratively with the County and other permittees to share information with the development community and promote consistency across municipal boundaries. The City and County will continue to provide technical guidance and design support to help the development community working in Citrus Heights to comply with stormwater quality requirements. Refer to Chapter 3, Section 3.8 for more information on work that will be conducted by the County in this regard.

Employee Training

The City's planners and engineers will receive annual training related to hydromodification, LID and other evolving development standards, including how such standards will impact development in Citrus Heights. It is anticipated that this will entail one or a few staff members attending an outside training seminar and then providing an internal class based on this training.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 5.8-1 describes the assessment methods the City or County will use to more specifically new development element activities during the 2008-13 permit term. In general, the goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

Table 5.2-3 – City of Citrus Heights SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)											
Modify 2007 draft SQIP to reflect the requirements of Stormwater Permit and Public Review Process	2		Revised SQIP submitted to Regional Water Board by April 30, 2009.	Confirmation- submit SQIP to Regional Water Board	♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c, 3d		Proposed SQIP modifications (as needed) submitted to Regional Water Board as part of Annual Report	Confirmation- submit AR to Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	As needed; Oct 1 each year
Annual Work Plan											
Prepare and submit Annual Workplan	3.a		Annual Workplan submitted to Regional Water Board	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year
Memorandum of Understanding (MOU)											
Review and revise existing permittee memorandum of understanding	3.e		MOU submitted to Regional Water Board	Confirmation	♦						Submit with SQIP 4/30/2009

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.2-3 – City of Citrus Heights SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Evaluate, and amend if needed, legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance as needed *(note, necessary updates to other codes and standards are discussed in other sections of this SQIP)*	Confirmation-include revised ordinance in AR			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel with revised SQIPs	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	Confirmation-include statement in SQIP	♦				♦		Submit with SQIP 4/30/2009 and ROWD/SQIP 3/2013
Fiscal Analysis											
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report	Confirmation	♦	♦	♦	♦	♦	♦	October 1 each year
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board. This is a Partnership activity; see Chapter 2, Section 2.2.	Confirmation- ROWD submitted to Regional Water Board by specified date					♦		ROWD due 3/2013

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.2-3 – City of Citrus Heights SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Coordination											
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Training											
Plan and oversee implementation of Citrus Heights stormwater training program for targeted City staff and contractors	various		Track training events and number of people participating; conduct surveys to measure awareness. See individual program elements 5.3-5.8 for details	Confirmation – describe training accomplishments in AR; Surveys - see program element sections 5.3-5.8	⇔	⇔	⇔	⇔	⇔	⇔	
Program Effectiveness											
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October 1)	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	Submit wih annual reports, October 1 each year
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters			Submit information in final AR for permit term (October 1, 2013). This is a Partnership activity; see Chapter 2, Section 2.3.	Confirmation- submit ROWD and final AR to Regional Water Board						♦	Submit in final AR 10/1/2013
Long Term Effectiveness Assessment (LTEA)											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.2-3 – City of Citrus Heights SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP. This is a Partnership activity; see Chapter 2, Section 2.3.		♦						Submit with SQIP 4/30/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board. This is a Partnership activity; see Chapter 2, Section 2.3.	Confirmation - LTEA submitted to Regional Water Board by specified date					♦		Submit with ROWD 3/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.3-1 – City of Citrus Heights SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise Stormwater Ordinance if needed	8.a.i		The City has adopted the County's ordinances. County will adopt revisions as needed	Confirmation - report revisions in AR			♦				1 year following SQIP approval
Revise Land Grading and Erosion Control Ordinance	8.a.i		County will adopt revisions to LGECO after State Construction General Permit is issued	Confirmation - report revisions in AR		♦					After CGP adopted
Plan Review and Permitting											
Review Grading and Improvement Plans; verify compliance with ordinances and appropriate BMPs included	8.a.ii, 8.c.i-iv	✓	Document percentage of plans incorporating erosion and sediment controls (target is 100% of projects subject to requirements should include appropriate ESC BMPs in plans)	Tabulation - report data in AR	⇔	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
Track Grading Permits for projects that require coverage under the State C.G.P.	8.a.ii, 8.c.v		Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed; check for 6 SWPPP items (see list in stormwater permit 8cv)	Tabulation - report data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Verify that other applicable regulatory permits have been obtained prior to issuing grading permits	8d		Request/include copy of other permits from the other agencies with project approval paperwork	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Standards & Specifications/BMPs for Controlling Sediment and Pollutants											
Implement standards and specifications to require BMPs for construction sites	8.a.iii, 8.c.i-iv		The City uses the County's standards/specs. The County will determine if revisions are needed to reflect new Construction General Permit	Confirmation – report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	After CGP adopted

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.3-1 – City of Citrus Heights SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Pollution Control at City-Owned Construction Projects and Other Projects Not Subject to City's Permitting Process											
Obtain coverage under the State's CGP for applicable City projects	10a.ii, 8c		Document number of municipal projects covered by CGP each year	Tabulation – report data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Continue to ensure compliance with stormwater ordinance and CGP on City construction projects	10a.ii, 8c		Include separate bid item for stormwater compliance on all bid and spec documents for City construction projects; require mini SWPPP for small jobs and full SWPPP for those disturbing 1+ ac	Confirmation – report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate with utilities, special districts (e.g., schools, RT, parks) and others to ensure compliance with Stormwater Ordinance			Document meetings and coordination activities	Confirmation – report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Inventory, Prioritize and Track Active Construction Sites											
Inventory and track active construction sites	8.a.iv		Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Tabulation - track no. active sites each year	⇔	⇔	⇔	⇔	⇔	⇔	
Prioritize sites for inspection based on threat to water quality and other factors	8b, 8e		Document prioritization method/schedule and sites with high, moderate, low priorities.	Tabulation - track no. active sites each year according to priorities	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.3-1 – City of Citrus Heights SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Inspections (Public and Private Projects)											
Conduct routine inspections of active construction sites according to priority schedule	8.a.vi, 8e		Update/revise inspection checklist as needed	Inspections; Confirmation – include updated checklist in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain tracking system of inspection data	8.a.v., 8e		Document number of sites subject to inspection and number of inspections completed	Tabulation – record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Enforcement (Public and Private Projects)											
Utilize enforcement procedures specified in ordinances	8.a.vii		Evaluate and revise enforcement procedures as needed in conjunction with other ordinance revisions discussed above	Confirmation - report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	
Notify Regional Water Board about CGP non-filers and when 3 or more violations of local stormwater ordinance at a site.	8.a.vii, 8e		Track referrals made to Regional Water Board for non-filers and chronic violations	Tabulation – track number of referrals and follow-up actions	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain tracking system of enforcement data	8.a.v	✓	Decrease in number of chronic violations, repeat offenders and/or non-filer referrals	Tabulation – track decrease in enforcement as indicator of changed behavior	⇔	⇔	⇔	⇔	⇔ ②	⇔	Conduct EA in 12/13 before ROWD
Interdepartmental Coordination											
Develop interdepartmental agreements/ protocols as needed to ensure compliance	8f		Submit completed agreements/protocols if developed.	Confirmation - describe/include agreements in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.3-1 – City of Citrus Heights SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Education and Training (Internal and External)											
Conduct annual refresher training for City staff involved in construction	8.a.viii		Target 100% City and contractor staff receive annual refresher training.	Confirmation/ Tabulation	♦	♦	♦	♦	♦	♦	
Distribute pre-wet season notifications to active construction projects	8.a.viii		Send out a wet season procedure letter to active construction sites. Wet season is defined as October 1 to April 30.	Tabulation – track number of letters sent out each year	⇔	⇔	⇔	⇔	⇔	⇔	
Distribute educational literature to construction community	8.a.viii		Continue to distribute educational brochures during inspections and at training events	Tabulation – track numbers of brochures distributed each year	⇔	⇔	⇔	⇔	⇔	⇔	
Sponsor training events for the construction community	8.a.viii		Conduct at least one workshop/year (target is pre-wet season)	Tabulation – track training activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
Assess effectivnees of training	8.a.ix	✓	Increased awareness of construction community as a result of training	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.5-1 – City of Citrus Heights SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge Element, Section 5.6		⇔	⇔	⇔	⇔	⇔	⇔	
New Development and Construction Requirements for Municipal Capital Improvements Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction (Section 5.3) and New Development (Section 5.8) Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.		The City of Citrus Heights does not own or operate any such facility. If new facilities meeting these criteria are brought on-line in the future, Municipal SWPPPs shall be prepared and implemented in accordance with this requirement.	NA	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.5-1 – City of Citrus Heights SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Integrated Pest Management Program											
Implement pesticides storage, usage, and disposal procedures as described in the Partnership's Pesticide Plan	10.a.iv. , 10.b.iii.		Restrict pesticide and herbicide used by City staff and contractors	Confirmation - Track IPM and pest control activities	⇔	⇔	⇔	⇔	⇔	⇔	
Implement integrated pest management (IPM) as described in the Pesticide Plan	10.a.iv. , 10.b.iii.		Decrease amount of pesticides and herbicides used by City staff and contractors	Confirmation - Track IPM and pest control activities	⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain System Maintenance											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State. County of Sacramento performs this activity on behalf of the City of Citrus Heights and will document the amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Clean prioritized catch basins and sumps			County of Sacramento performs this task on behalf of the City of Citrus Heights. County of Sacrametno will document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Visually monitor permittee owned open channels and perform maintenance as needed based upon sediment and trash accumulation			County of Sacramento and contracted staff will document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.5-1 – City of Citrus Heights SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Detention Basin Maintenance											
Implement Detention Basin Operation and Maintenance Program	10.b.vii.		The City of Citrus Heights currently has no detention basins.	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain Inlet Marking Program											
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi		Document number of storm drain inlets labeled by volunteers and County of Sacramento Crews	Confirmation - Document Stenciling Program	⇔	⇔	⇔	⇔	⇔	⇔	
			County of Sacramento will replace illegible storm drain markers with new markers as needed	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
Operation and Maintenance of Transportation Facilities											
Street Sweeping for Curbed Streets											
Conduct street sweeping activities	10.a.vii. , 10.b.v.	✓	Decrease amount of sediment discharged to Waters of the State.	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Maintenance for Roads and Roadside Vegetation											
Implement BMPs during road maintenance and construction activities to prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.	10.a.vii. , 10.b.v.		Decrease amount of sediment discharged to Waters of the State.	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.5-1 – City of Citrus Heights SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Maintenance of City-Owned Parking Lots											
Maintain City-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.viii., 10.b.vi.		Document acres maintained and type of maintenance annually	Tabulation - Track number/acres of facilities and activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
Waste Management Services											
Continue to provide weekly curbside pickup of residential solid and green waste, recyclables and waste oil			Document quantities properly disposed of.	Quantification - Track quantities of waste removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Fire Emergency and Non-Emergency Operations/Response											
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant source of pollutants to waters of the State.	10.a.ix. , 10.b.ix.		Sacramento Metro Fire District (special district; outside of City's jurisdictional control) is fire agency for Citrus Heights.	NA							
Employee Training											
Conduct training to targeted employees to increase awareness of BMPs/pollution prevention practices	10.a.x. , 10.b.x		Conduct annual refresher training	Tabulation - Track number of employees trained and training activities	♦	♦	♦	♦	♦	♦	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.5-1 – City of Citrus Heights SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Assess effectiveness of employee training	10.a.xi, 10.b.xi	✓	Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.6-1 – City of Citrus Heights SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Adopt stormwater ordinance revisions as recommended by the County	11.a.i		Revised stormwater ordinance (if recommended) - also see Section 5.2	Confirmation - report revisions in AR			♦				One year following Regional Board approval of SQIP
Reporting of Illicit Discharges and Connections											
Continue to utilize Partnership public hotline (808-4H20) for reporting of illicit discharges and connections, and route callers to the County for assistance on City-related issues or complaints	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - The County will track number of complaints received through 808-4H20 and CUBS Nuisance Abatement	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County, City and Sacramento Local Conservation Corps crews will continue to report illicit discharges and connections within the City to the County for response	11.a.ii		Decrease in number of reports of illicit discharges and connections reported by County crews	Tabulation - The County will track number of reports from County crews received through 874-4SWQ and other mechanisms	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13 before ROWD
Screening for Illicit Connections											
The County, City and Sacramento Local Conservation Corps crews will continue to conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii		Decrease in number of illicit connections detected by field screening activities since last permit term	Tabulation - The County will include number of illicit connections detected via field screening activities in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13 before ROWD

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.6-1 – City of Citrus Heights SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Investigations of Illicit Discharges and Connections											
The County will continue to conduct investigations of illicit discharges (hazardous and non-hazardous)	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report; hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - The County will include number of investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
		✓	Decrease in number of illicit discharges investigated since last permit term	Tabulation					②		EA due 12/13 before ROWD
The County will continue to conduct investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - The County will include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in Ar yearly
		✓	Decrease in number of illicit connections investigated since last permit term	Tabulation					②		EA due 12/13 before ROWD
Illicit Discharge and Connection Response, Containment and Cleanup											
The County will develop response, containment and cleanup procedures, revise as needed			Revised response, containment and clean up procedures (if needed)	Confirmation - Report revisions in AR	⇔ ♦	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, update due 09/10
The County will continue to respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Decrease in number of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - The County will track number of illicit discharge responses	⇔	⇔	⇔	⇔	⇔ ②	⇔	Reported in AR yearly, EA due 12/13
The County will continue to respond to and abate illicit connections	11.a.iii ; 11.b.ii	✓	Decrease in number of responses and abatements of illicit connections since last permit term	Tabulation - The County will track number of illicit connections abated	⇔	⇔	⇔	⇔	⇔ ②	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.6-1 – City of Citrus Heights SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Enforcement											
The County will revise enforcement policy as needed			Revised enforcement policy (if needed)	Confirmation - The County will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County will continue to conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in number of enforcement actions since last permit term	Tabulation - The County will track number of enforcement actions conducted	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Data Management											
The County will continue to maintain database to track its investigations, enforcement actions and outreach materials distributed	11.a.v		Completed revisions of CBSPC or its uses (if needed)	Confirmation - The County will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County will continue to map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - The County will submit map and report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Outreach/Training											
The County will continue to distribute educational materials to public, and document/quantify materials distributed			Completed revisions of outreach materials (if needed) and tabulations of number of individuals that received outreach materials	Confirmation/Tabulation - The County will track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Conduct annual training Re: field screening and illicit discharge response for crews	11.b.vi		Track number of employees trained (County and City construction inspectors, etc.)	Tabulation - Track number of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
			Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.6-1 – City of Citrus Heights SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Facillitation of Proper Household Hazardous Waste Disposal											
Continue to provide pickup services for used motor oil, and maintain satellite facilities for universal waste disposal using contract services with private hauling company			See Section 5.5								
The County will continue to maintain operation of the County's household hazardous waste drop-off centers		✓	Increase in the quantities of household hazardous waste collected from public since previous permit term	Tabulation - The County will track amounts of HHW collected at County sites		⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.7-1 – City of Citrus Heights SQIP
Public Outreach Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
The activities described in this table are in addition to regional Public Outreach activities described in Chapter 2 (Section 2.6).											
Public Outreach											
Educate and inform City managers and elected officials through presentations and other means; invite to public community events	12.a.iii, b.iii		Document/quantify impressions made in annual report	Tabulation-track no. of people educated each year		⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
Update and continue to maintain stormwater web page on City's web site to educate and inform general public; advertise public reporting hotline; and provide links for resources.	12.a.iii, b.iii		Submit updated web page link with annual report.	Confirmation		♦ ⇔	⇔	⇔	⇔	⇔	Update web site during 09-10 FY
Periodically publish articles regarding stormwater pollution prevention in City "Connections" newsletter or other appropriate local media.	12.a.iii, b.iii		Describe articles and provide copies with annual rpeort	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
Continue to sponsor annual Urban Creeks Council Creek Week events to address clean up local creeks in Citrus Heights.	12.a.i and iii, b.i and iii		Quantify waste/debris collected during cleanup events (partial measure of amount of materials prevented from polluting local creeks)	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
	12.a.vi, 12.b.vi	✓	Document increases in number of volunteers engaged in the cleanup activities from year to year	Tabulation - track increased numbers as measure of changed behavior		②	②	②	②	②	Report in AR (Oct 1 ea yr)
Sponsr and staff stormwater booth at local community events (e.g., Harvest Festival, Community Campout)	12.a.i and iii, b.i and iii		Document approximate number of residents and others reached at each event; track quantities of literature distributed	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
Watershed Stewardship											
Attend Arcade Watershed Group Meetings. Sponsor meeting location.	63b, 12.ai&iii., 12.bi&iii.		Document meeting attendance.	Tabulation - track number of meetings attended, outcomes	⇔	⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.8-1 – City of Citrus Heights SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles as needed.	Confirmation – report revisions in AR		⇔	♦				GP update anticipated complete end of 2010
Development of Standards and/or Guidance											
Develop Low Impact Development (LID) design criteria	15.b		Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔ ♦				6 months after approval of HMP.
	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development standards.
Develop HMP Work plan as part of the revised SQIP.	15.c		Partnership will outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔	♦					30-Apr-09
Develop HMP	15.c		Partnership will develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento. Then develop the HMP Decision Tool.	Confirmation - Submit work products to Regional Water Board **1 year** after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan
Develop design criteria for hydromodidfiaction management measures.	15.c, 26		Partnership will include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards
Develop a mitigation fund if needed	19		The City will develop a mitigation fund framework to support regional stormwater projects, if needed.	Confirmation – develop framework when needed and submit to Regional Board.							

⇔ Ongoing activity/task ♦ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.8-1 – City of Citrus Heights SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop a waiver program	20		County will propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible; City will consider application in Citrus Heights when available.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			
Protect groundwater quality	23		Partnership will integrate restrictions regarding the use of infiltration facilities in areas of high groundwater table into design criteria.	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process (see Fig 5.8-1)	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned to comply with stormwater quality development standards	Tabulation - track number of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.8-1 – City of Citrus Heights SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Track priority projects that have been approved to construct treatment control measures.	22		include updated database of priority projects each year in AR	Tabulation	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increase in number of priority projects that incorporated treatment measures.	Tabulation - Report no. projects each year in AR as measure of changed behavior		③	③	③	③	③	
Stormwater Maintenance Agreement											
Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control	13.b, 13.e, 18		Require maintenance agreements for on-site stormwater quality treatment control measures (recorded witih deed)	Tabulation and Confirmation – track number of executed maintenance agreements and report in AR.	⇔	⇔	⇔	⇔	⇔	⇔	
Require property owners to annually re-certify maintenance of treatment measures	13.b, 13.e, 18		Document number of re-certification letters distributed to property owners and follow-up action (e.g., fines/liens as needed)	Confirmation - report data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach and Training											
Conduct outreach to the development community about the latest stormwater quality policies and requirements.	24		Continue outreach about the Planning and New Development Program Element	Tabulation - track number/type training events, number materials distributed, etc. in AR	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Maintained/increased awareness of development community training attendees	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 5.8-1 – City of Citrus Heights SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track number of employees trained and report outcome in the Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Maintained/increased awareness of targeted City staff as a result of training	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Chapter 6

City of Elk Grove Stormwater Quality Improvement Plan

6.1 Introduction

The City of Elk Grove Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to protect waterways and ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Elk Grove is a permittee. The required certfication for the SQIP is presented in the beginning of this document.

Background

The City of Elk Grove (City) was incorporated on July 1, 2000. The new City was officially named as a Permittee to the Stormwater Permit when the permit was reissued in December 2002. Prior to the City being incorporated, the area within the City limits was covered under the County of Sacramento's stormwater permit. The activities outlined in this chapter are intended to ensure that the City complies with all requirements of the Stormwater Permit.

The City of Elk Grove is a member of The Sacramento Stormwater Quality Partnership (Partnership). The Partnership is a collaboration of all the agencies subject to the Sacramento areawide stormwater permit. The Partnership's main charge is to oversee compliance with the stormwater permit, and it works to protect and improve water quality in local waterways for the benefit of the community and the environment.

The storm drain system within the City of Elk Grove, which includes storm drain inlets, pipes, channels, detentions basins, and roadside ditches, primarily discharges to local creeks which discharge to the Sacramento River. All the rivers ultimately drain to the Sacramento-San Joaquin Delta and from there to the San Francisco Bay and the Pacific Ocean.

The City-specific activities described and referenced in this chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other Permittees as described in Chapter 2.

The original stormwater permit was issued in 1990 (first permit term) and has been renewed three time since then: in 1996, 2002, and most recently in 2008 (2008-2013 permit term).

City Characteristics

Elk Grove is located in the southern part of the Sacramento metropolitan area, to the west of the Cosumnes River, east of freeway I-5 and south of Calvine Road, Figure 6-1. This area is approximately 27,000 acres and serves a population of over 139,000. Tremendous growth occurred in the past few years, particularly with residential and commercial land uses. Most of the land within the City is urban or destined for urban land use in the future.

There are nine major natural creek or open channels that convey runoff within the City including Deer Creek, Elk Grove Creek, the Grant Line Channel, Laguna Creek, the Laguna West Channel, the Shed A Channel, the Shed B Channel, the Shed C Channel and Strawberry Creek. Four of the creeks convey runoff that originates outside of the City limits including Deer Creek, Elk Grove Creek, Laguna Creek and Strawberry Creek. All of the City watersheds ultimately drain into the Stone Lakes National Wildlife Refuge area of Sacramento County with the exception of Deer Creek and Grant Line Channel watersheds, which drain to Deer Creek and ultimately into the Cosumnes River.

The City owns and maintains four stormwater pump stations to discharge runoff from four different watersheds in the City. Three of the four pump stations are located west of Franklin Boulevard to serve the Laguna West, Lakeside and Laguna Stonelakes watersheds. The runoff pumped from these three stations eventually reaches the Stone Lakes National Wildlife Refuge. The fourth station is located at the southern most point of the City and serves the Grant Line Channel watershed. The pump station discharges accumulated runoff from the detention basin south of Emerald Gold Golf Course and pumps it across the UPRR into an outlet channel that continues east for approximately 1,500 feet before joining Deer Creek.

During the rainy season, the City expects to see creeks and channels convey storm drain runoff, however, City personnel have seen and noted smaller flows during the dry periods of the year known as dry weather flows which are normally associated with releases from industrial, commercial or residential activities (i.e. landscape irrigation). With the exception of Laguna Creek and certain portions of Elk Grove Creek, most of the streams and channels located in Elk Grove were considered perennial but lately new residential development in the City has placed structures near channel and creeks facilities. In the rural areas, large lots are being developed with expansive landscaping. Over watering of landscaping in residential and rural lots is the main cause of the smaller flows. Since these flows are not large enough to effectively travel the length of the creek and channel and discharge into a basin, they begin to settle in the small depressions along the conveyance route. This causes a variety of issues including algae blooms, water quality degradation and becomes a breeding site for mosquitoes. For such reasons, the City has labeled these nuisance flows. The City discourages over watering of lawns and has contacted over watering occupants to promote wise irrigation practices.

SQIP Contents

This SQIP describes activities that the City of Elk Grove will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Board on October 1st of each year.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

Section 6.2: Program Management — A description of how the City of Elk Grove's Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies.

Section 6.3: Construction Program Element —Activities designed to control the runoff of sediment and other pollutants from construction sites.

Section 6.4: Commercial/Industrial Program Element — Activities and control programs designed to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated with industry.

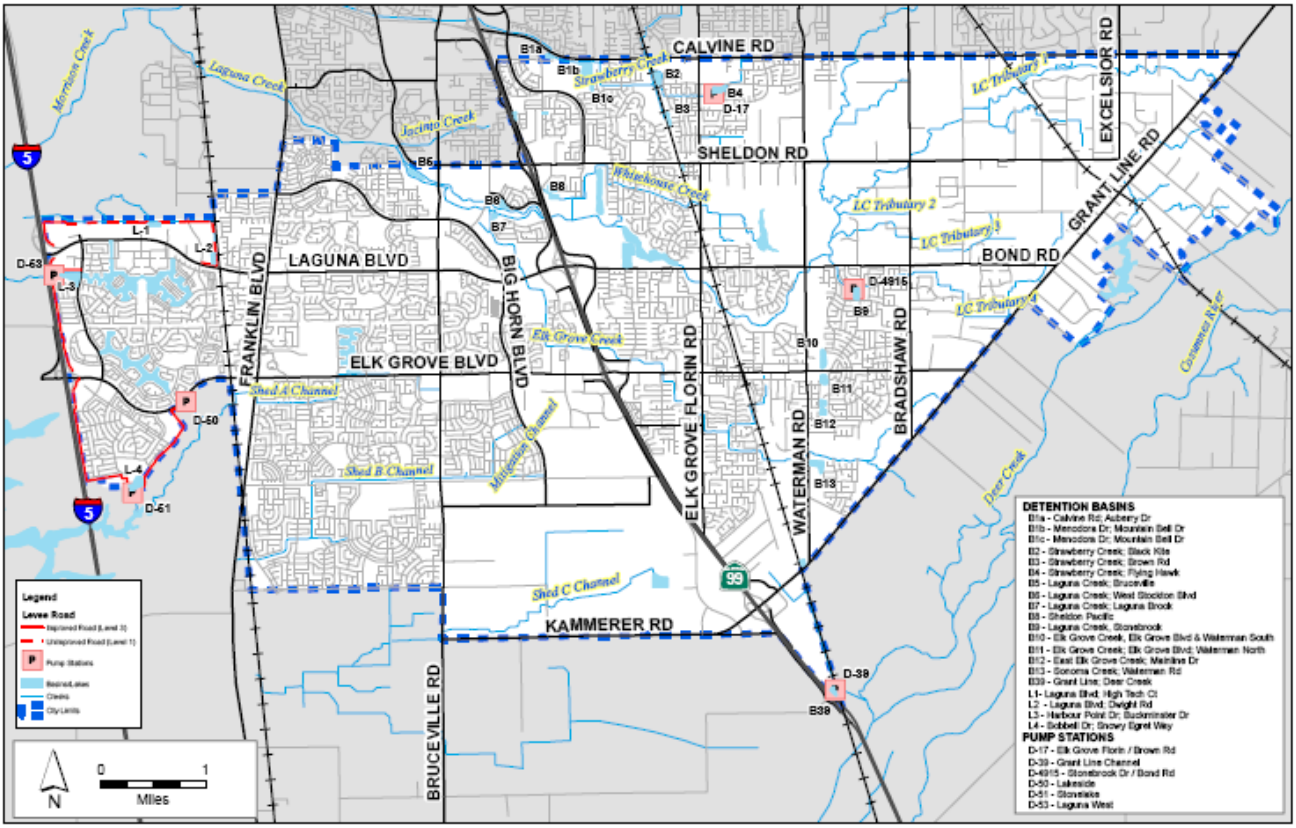
Section 6.5: Municipal Operations Program Element —Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

Section 6.6: Illicit Discharge Program Element —Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

Section 6.7: Public Outreach Program Element —Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

Section 6.8: New Development Program Element —Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

Figure 6.1 City of Elk Grove



6.2 Program Management and Related Activities

Organization and Staffing of the Elk Grove Program

The City of Elk Grove is governed by a five-member City Council which has also appointed a five-member Planning Commission. It has retained a City Manager, Assistant City Manager, and City Attorney, as well as a Public Works Director, Planning Director, and Building Official. Within Development Services, there is a designated staff for management of Stormwater Drainage Program. Its responsibilities include management of a stormwater drainage program and compliance with the NPDES Permit. Figure 6.2 illustrates the City of Elk Grove's organizational chart.

Table 6.1 outlines the various departments and groups within the City that play a role in compliance with the Stormwater Permit.

Figure 6.2 City of Elk Grove Organizational Chart

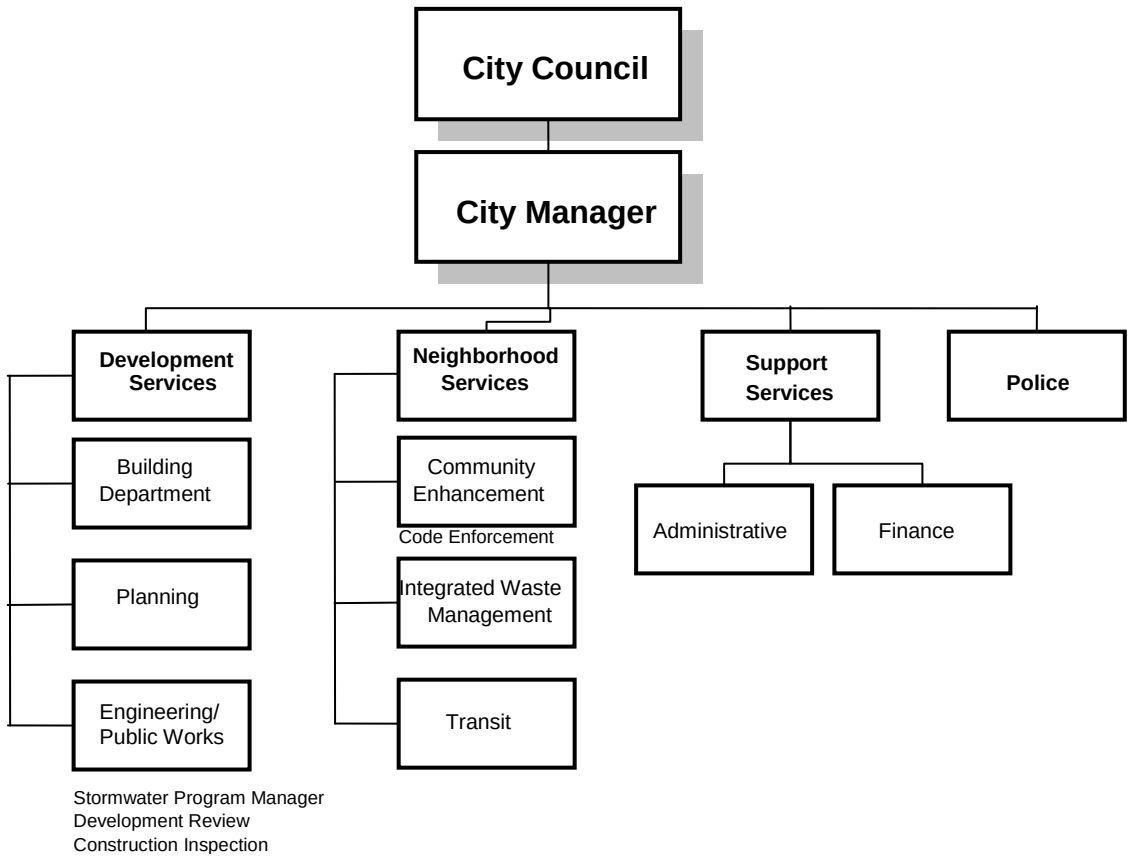


Table 6.1 (below) indicates roles and responsibilities of various City of Elk Grove departments for implementation of activities designed to comply with the Stormwater Permit.

Table 6.1

City of Elk Grove NPDES Stormwater Permit Program Responsibilities

Group/Department/Entity	Responsibilities for Compliance with City NPDES Stormwater Permit
Program Management (Section 6.2)	
Public Works Director	Oversees City-wide compliance with Stormwater Permit and authorizes City staff to enforce Stormwater Ordinance.
Water Resources	Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Board and prepares/submits compliance reports. Coordinates participation in joint permittee activities including the Stormwater Quality Partnership. Also conducts many program activities. Processes payments to the City of Sacramento /County of Sacramento for joint permittee activities including consultant services according to the cost-share MOU.
City Attorney	Conducts legal reviews, prepares legal certifications, and oversees revisions to ordinances, codes and other standards.
Construction (Section 6.3)	
Development Support	Issues grading permits and conducts initial review of erosion and sediment control plans and SWPPPs
Water Resources	Provides technical assistance on erosion and sediment controls to other sections of Public Works.
Capital Projects	Design new public facilities and provide oversight during construction activities, including approval of change orders and SWPPP amendments. Oversee public works contracts, including contractor compliance with City ordinances and the State General Construction Permit compliance.
Construction Inspection	Conducts pre-construction review of erosion and sediment control plans and SWPPPs
Construction Inspection	Provides inspection services during the site work phase of construction of City facilities and public improvements. Inspection responsibilities include oversight of contractor erosion and sediment control and State General Construction Permit compliance.
Building Department	Provides inspection services during the building phase of construction of private developer facilities. Inspection responsibilities include oversight of contractor erosion and sediment control, construction site housekeeping practices, and State General Construction Permit compliance.
Capital Improvements /Public Works/ Development Services	Follows City requirements for inclusion of stormwater quality treatment controls on design projects, as applicable.
Traffic Engineering/Public Works/Development Services	Provides planning, design, construction, and ongoing maintenance for all street and highway improvements located in the City, including lighting, landscaping and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required. Projects one or more acres would require coverage under State Construction General Permit.
Commercial/Industrial (Section 6.4)	
Water Resources	Coordinates with County Environmental Health for plan review, permitting and conducting inspection of food-related facilities in the City. In all reviews, and inspections, drainage issues are considered that may affect stormwater quality.
Water Resources	Develops and maintains an inventory of businesses addressed by the Commercial/Industrial Element of the Stormwater Permit and coordinates with the County's Environmental Management Department (EMD) to conduct the required facility stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted.
Water Resources Construction Inspection	Maintains an inventory of businesses with on-site stormwater treatment facilities. Fort those businesses/sites with on-site stormwater treatment facilities not inspected by County EMD, conducts periodic facility stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted.

Municipal Operations (Section 6.5)	
Maintenance Operations	Oversees maintenance of stormwater drainage system, including stormwater quality treatment facilities owned and/or operated by the City. Responsible for ensuring that system is maintained in a manner which protects water quality.
Integrated Waste Management	Provides solid waste management services for residents and businesses in the City. Programs and conducts activities promoting waste prevention, recycling, and composting, helping to keep these trash, debris, and hazardous materials out of the storm drainage system and local creeks and rivers.
Maintenance Operations	Provides ongoing maintenance for all street and highway improvements located in the City, including lighting, landscaping and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.
Maintenance Operations / Police Department / Transit	Updates and executes the Corporation Yard SWPPP. Performs maintenance, repair, fueling, washing and storage of vehicles and equipment in accordance with the requirements of the Corporation Yard SWPPP.
Facilities	Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities follow proper stormwater quality practices.
Construction Inspection	Develops and conducts training for City staff on proper maintenance practices to protect stormwater quality.
Maintenance Operations	Acts as liaison with the Cosumnes Community Services District (CCSD) which operates parks and maintains landscaping within the City and the Elk Grove Unified School District to coordinate activities that protect creeks and channels and prevents non-stormwater discharges into the storm sewer system.
Maintenance Operations	Acts as liaison with the Sacramento Area Sewer District (SASD) which operates the sanitary sewer collections systems and Sacramento Regional Sanitation District (SRCSD) which operates wastewater conveyance pipelines within the City limits.
Illicit Discharges (Section 6.6)	
Maintenance Operations	Operates a hotline phone number to facilitate public reporting of illicit discharge problems.
Construction Inspection	Conducts investigations as needed to confirm/eliminate illicit discharges, including enforcement and follow-up inspections to resolve problems, as warranted.
Maintenance Operations	Conducts ongoing field screening activities. Responds to non-hazardous and hazardous spills on public property or in the right-of-way. Removes and cleans up non-hazardous materials. Obtains assistance form CCSD Fire Department and /or County EMD as necessary for cleanup and proper disposal of hazardous materials. Refers hazardous materials spills on private property to Sacramento County EMD for action.
Water Resources	Operates the education-oriented volunteer storm drain inlet stencil program.
Public Outreach (Section 6.7)	
Water Resources	Coordinates with the County to implement a county wide media campaign as required by the Stormwater Permit. This includes the purchase, production, and distribution brochures developed by the Sacramento Stormwater Program. Plans and conducts local outreach activities including participation in community activities.
Construction Inspection	Develops and conducts outreach activities on proper construction practices protecting stormwater quality. Solicits participation of local developers, construction contractors. Invites participation by Stormwater Partnership members and internal City staff. Participates in local outreach activities including community activities.
Integrated Waste Management	Programs and conducts outreach activities promoting waste prevention, recycling, and composting. Conducts local outreach activities including publishing regular newsletters and participation in community activities.

New Development (Section 6.8)	
Planning Department	Conducts Environmental review to implement provisions of the California Environmental Quality Act (CEQA) as they apply to the City, including consideration of water quality impacts, to ensure that stormwater quality controls are incorporated as required.
Planning Department	Processes applications for private developments. Implements City Zoning Code and performs comprehensive planning for a variety of specific geographic areas within the City.
Development Support	Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including use of post construction source and treatment controls and compliance with Regional Water Quality Control Board 401 Certification requirements, if applicable. Reviews Post Construction Storm Water Quality Control Plans (PCSWQCP) for compliance with design manual requirements and allocation of land for construction.
Construction Inspection	Provides inspection services during the site work phase of the construction of public improvements and private on-site stormwater quality source and treatment controls.
Capital Projects	Follows City requirements for inclusion of stormwater quality source and treatment controls, as applicable.

Legal Authority

Certification by Legal Counsel

The Stormwater Permit requires the City Attorney to certify that adequate legal authority exists to implement and enforce the stormwater program. This certified statement is provided as Appendix 6A.

City Code

When the City of Elk Grove incorporated in July 2000, it adopted Ordinance No. 2000-1 "An Urgency Ordinance of the City Council of the City Providing for Sacramento County Ordinances to Remain in Effect After Incorporation". By passing this ordinance, the City in effect adopted two important County ordinances which provide legal authority for the stormwater program:

- Chapter 15.12: Stormwater Management and Discharge Control Ordinance, also known as "The Stormwater Ordinance" Prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. Provides legal authority to Elk Grove for inspections and enforcement related to control of illegal and industrial discharges to the City storm drainage system and local receiving waters.
- Chapter 16.44: Land Grading and Erosion Control Ordinance Requires projects in Elk Grove disturbing 350 cubic yards or more of soil or one or more acres of land to prepare an erosion and sediment control plan specifying best management practices (BMPs) for erosion and sediment control. Provides legal authority to Elk Grove for inspections and enforcement needed to ensure compliance with the ordinance.

Chapter 15.12 and Chapter 16.44 are attached as Appendix 6B. The entire City of Elk Grove Municipal Code can be found by visiting the following website:

http://www.elkgrovecity.org/documents/agendas/attachments/municipal-code/mc_entirecode.pdf#search='municipal%20code'

A number of other code sections also provide Elk Grove with additional legal authority related to stormwater pollution control and water quality/watercourse protection. Those include:

- Title 1- General Provisions (various sections related to authority to issues violations and assess penalties, right to appeal)
- Title 15 - Water and Sewer (Storm Drainage Fee)
- Title 16 - Buildings and Construction (Nuisance Code)
- Title 20 - Environmental Protection (Environmental Impact Reports and Mitigation)
- Title 22 – Land Development (Design and Improvement Standards)

General Plan

The City of Elk Grove adopted its own General Plan in November of 2003. The City's General Plan ensures the protection and enhancement of groundwater and surface water by requiring new developments to comply with the water quality elements within the plan. Some of the adopted General Plan policies that best apply to the Stormwater Management Program are listed by Element as follows and are attached as Appendix 6C, to view the full version of the General Plan please visit: http://www.egplanning.org/gp_zoning/general_plan/

Conservation Air Quality

CAQ-7: Encourage development clustering where clustering would facilitate on-site protection of woodlands, grasslands, wetlands, stream corridors, scenic areas, or other appropriate natural features as open space.

CAQ-8: Trees which function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat should be retained to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels and other uses and structures.

CAQ-12: The City shall seek to ensure that the quality of groundwater and surface water is protected to the extent possible.

CAQ-13: Implement the City's NPEDS permit through the review and approval of development projects and other activities regulated by the permit.

CAQ-14: The City shall seek to minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and us on-site infiltration of runoff in areas with appropriate soils where the infiltration of storm water would not pose a potential threat to groundwater quality.

CAQ-15: The City shall encourage water supply service providers and County Sanitation District 1 to design water supply and recycled water supply facilities in a manner that avoids and/or minimizes significant environmental effects. The City shall specifically encourage the Sacramento County Water Agency to design well facilities and operation to minimize surface flow effects to the Cosumnes River.

CAQ-16: Future land uses that are anticipated to utilize hazards materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double containment, levees, to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.

CAQ-17: The City recognizes the value of naturally vegetate stream corridors, commensurate with flood control and public acceptance, to assist in removal of pollutants, provide native and endangered species habitat and provide community amenities.

CAQ-18: Post-development peak storm water runoff discharge rates and velocities shall be designed to prevent or reduce downstream erosion, and to protect stream habitat.

CAQ-19: Encourage the retention of natural stream corridors and the creation of natural stream channels where improvements to drainage capacity are required.

CAQ-21: Development adjacent to a natural stream(s) shall provide a "stream buffer zone" along the stream.

CAQ-22: Stream crossings shall be minimized and be aesthetically compatible with the natural appearance of the stream channel. The use of bridges and other stream crossings with natural (unpaved) bottoms shall be encouraged to minimize impacts to natural habitat.

Parks Trails and Open Space

PTO-15: To the extent possible, lands protected in accordance with this policy should be in proximity to Elk Grove, to facilitate use of these areas by Elk Grove residents, assist in mitigation of habitat loss within the city, and provide an open space resource close to the urbanized areas of Elk Grove.

PTO-18: To the extent possible, retain natural drainage courses in all cases where preservation of natural drainage is physically feasible and consistent with the need to provide flood protection.

Public Facilities

PF-6: The City shall seek to protect the quality and quantity of groundwater resources, including those which serve households and business which rely on private walks.

PF-12: To reduce the potential for health problems and groundwater contamination resulting from the use of septic systems, the City shall take the following actions:

- The City shall prepare and implement a public information campaign aimed at homeowners in area with septic systems on the proper design, use, and care of septic systems
- The City shall consider adopting Plumbing Code revisions to allow the use of updated technologies which offer an alternative to septic systems for the treatment of sewage on individual sites.

Standard Specifications and Improvement Standards

The City has developed Improvement Standards and Standard Construction Specifications which are applicable to all projects citywide, private or public. These standards are periodically reviewed and updated to reflect evolving industry standards and regulations. To view the City's Improvement Standards, Standard Construction Specifications and Standard Drawings please visit the following websites:

http://www.egpublicworks.org/improvement-standards-10-11.asp
http://www.egpublicworks.org/standard-construction-specifications-10-11.asp
http://www.egpublicworks.org/standard-drawings-10-11.asp

Guidance for design, construction and maintenance of post-construction stormwater quality control measures is provided in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*. Through the Sacramento Stormwater Quality Partnership, the City contributed to the production of this document in May 2007.

Agreements and Memoranda of Understanding

Legal authority for administering and implementing the Sacramento Stormwater Program jointly with the other Permittees is provided by a memorandum of understanding (MOU). The MOU describes administrative roles and responsibilities for management of the Program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore subject to change during the term of the Stormwater Permit. A copy of the Permittee MOU is presented in Appendix 2A.

An agreement is executed with the County's Environmental Management Department (EMD) for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit. The City Stormwater Ordinance has been modified to allow full execution of the provisions of this agreement. On August 18, 2004 the City adopted the modified Ordinance to accommodate the agreement with the County EMD. Please find a copy of the Ordinance attached to this document, Appendix 6D.

Enforcement Process

The enforcement process, which is addressed in detail in the City Ordinance No. 22-2003 (Article 5 Section 15.12.400-15.12.480) attached as Appendix 6B, begins with "Notice of Corrections" which is for minor/low threat violations and eventually escalates to "Criminal Penalties", which is issued to blatant violators. The following is a summary of the City's enforcement process related to Stormwater Compliance:

- Notice of Correction – This level of enforcement is for minor site violations and is issued by inspectors after visiting each site. Violations are identified and a time frame for rectification is established. The Notice is in written form and is delivered to the Construction Superintendent or representative or the Stormwater Pollution Prevention Manager responsible for overseeing the SWPPP program.
- Notice of Non-Compliance – This level of enforcement is issued when a Notice of Correction has not been addressed or site conditions require immediate attention (i.e. illicit connection, prohibited discharge, maintenance of a threatened prohibited discharge, failure to implement BMPs in accordance with Section 15.12.200(b) within the City Ordinance. The Notice is in written form and is delivered to the Construction Superintendent or representative or the Stormwater Pollution Prevention Manager responsible for overseeing the SWPPP program.
- Manager to Manager Phone Call/Site Visit- Since 2006, The City of Elk Grove has added this step in its enforcement action. The manager of construction services will discuss the non-compliance situation with the highest ranking official of the offender and give them 24-48 hours to comply or they face a cease and desist order. This methodology has proven to be highly effective.
- Cease and Desist Orders – This method of enforcement is issued when any activity causes any prohibited discharge to the City stormwater conveyance system and/or may lead to a violation of Receiving Water Limitations. This Order prompts the owner or occupant to take immediate action on resolving a stormwater violation as precedent over all other construction related activities. This Order allows for the Administrator to exercise immediate enforcement.

- Administrative Civil Penalties – This method of enforcement is issued for a continuing violation that does not immediately affect health and safety. The penalty could impose up to $5,000 for each violation. Prior to being issued a Civil Penalty, the violator is granted a reasonable time to correct/remedy the violation as determined by the Administrator. Enforcement of the administrative civil penalty is administered by written order issued via a hearing officer following notice and opportunity for hearing.
- Criminal Penalties – This method of enforcement is exercised on any person who negligently or knowingly violates any stormwater provision within the Ordinance, knowingly conceals or continues violations that includes failure to comply with previous enforcement actions, or fails to implement BMPs in accordance with the Ordinance. Upon conviction, this enforcement level entails potential monetary fines and/or imprisonment.

Funding

The City funds its stormwater program in two ways: 1) funds are allocated for joint activities, previously described in Chapter 2, and 2) funds are allocated for City-specific activities described in this chapter.

The costs for implementing joint activities are generally shared between the Permittees according to the cost-sharing MOU (noted above and in Chapter 2 of this Plan). Under this agreement, the City contributes 8.25% of the Joint Program funding, primarily through Stormwater Utility revenues described below.

Funding for City-specific activities is provided by a combination of funds:

Stormwater Utility

Stormwater Utility (SWU) revenues support the administration and management of the stormwater program. The Stormwater Utility also covers the cost to operate and maintain the City's storm drainage system, which includes maintenance of pipes, channels and associated structures, creeks, and regional stormwater quality facilities. Every owner of an improved parcel of land in the City limits is charged a storm water maintenance fee. This fee is billed bimonthly on the City's utility bill and is used to cover the maintenance costs of the City's storm water system.

The SWU revenue comes not only from the monthly utility billing collections but also from a portion of the twice-yearly property tax collection. Prior to the creation of the SWU in 1995, there were portions of the County (and areas now in the City) that were part of the Metropolitan Storm Drainage Maintenance District. Formed in 1964, this district was the only mechanism for providing storm drain maintenance at the time. For property within this district a portion of the property tax was dedicated to funding storm drain maintenance. While this district has since been closed, the old district boundary is still used to identify areas where a portion of property taxes collected by the County are dedicated to the storm drain maintenance.

Stormwater Utility revenues are used to fund City-specific stormwater activities as well as the joint Program activities described in Chapter 2. The City's contribution to the Joint Program is 8.25% based on population, as described in the permittee memorandum of understanding (Appendix 2A).

Development Fees

These fees provide funding for city planners, engineers and plan checkers working on development review and permitting. They are the primary source of funding for SWPPP Inspectors that provide enforcement of water quality violations by developers, contractors, and City's residents. Planners

are responsible for ensuring compliance with California Environmental Quality Act (CEQA) and implementing city stormwater quality protection policies.

User-based Industrial/business Fees

Fees are charged directly to businesses for industrial inspectors provided by the County's Environmental Management Division. These inspectors routinely conduct inspections of industries and food establishments in compliance with the Stormwater Permit, health and safety and hazardous materials laws.

Other Funding

Some costs for stormwater-related activities in the City are borne directly by the regulated community. For example, design, installation and long-term maintenance of permanent on-site privately owned stormwater quality facilities are the responsibility of the property owner through maintenance agreements.

Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City Departments each summer to prepare the Annual Report.

The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files, including all documentation necessary to demonstrate compliance with the permit. As required by the permit standard conditions, the City will retain copies of all records and reports from the date of generation for at least five years. Since the City assumed the responsibilities for the Stormwater Drainage Program effective July 2003, past records are retained by the County. In addition to retaining paper copies of all documentation, The City will also be putting all records and reports on the City's internal network.

Training for City Staff

The City provides training for the City SWPPP Inspector staff, planning, maintenance, drainage engineering, construction and development staff. All affected City staff and contractors are regularly informed and updated concerning the Stormwater Permit and its impacts on their positions and responsibilities.

The City provides targeted employee training in compliance with the Stormwater Permit. City staff receiving targeted training are those identified with storm water quality responsibilities in Table 6.1. Annual training in the following subject matter of the Stormwater Permit sections is conducted at a minimum to cover requirements of the Stormwater Permit:

- Construction (Permit Provision 8) – Targeted employees includes Program Management staff and Construction staff including those responsible for permit approval, SWPPP and erosion control plan review, construction inspection and SWPPP inspection.
- Municipal Operations (Permit Provision 10) to promote a clear understanding of the potential for maintenance activities to pollute storm water, and identify and select appropriate BMPs. – Targeted employees includes the Municipal Operations staff including those responsible for road and street maintenance, facility maintenance, maintenance yard, park maintenance, design, construction and maintenance contract oversight, storm drain system maintenance, vehicle and equipment maintenance, pesticide application and material and waste management.
- Illicit Discharges (Permit Provision 11) – Targeted employees include Water Resources staff, and Municipal Operations staff. Construction, Municipal and Development Planning courses will include training on identification, investigation, termination, cleanup, and reporting of illicit connections and discharges.
- Development Planning (Permit Provision 25) – Targeted employees include the Planning Department responsible for review and approval of new development and redevelopment. The training will include review of the Development Standards Plan.

Training courses will generally cover the following topics:

- General storm water quality awareness objectives: where storm water goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

The City prepares and schedules this Training Program annually. Updates to the Training Plan will be presented each year in the Annual Report and/or Annual Work Plan. Training progress will also be documented in the Annual Report.

Coordination with Other Agencies and Programs

Sacramento Stormwater Quality Partnership

The City participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the City program, such as the Brake Pad Partnership and the development of statewide BMP manuals.
- Overall program evaluation and assessment.
- Proposed modifications to the Stormwater Quality Improvement Plans and/or Stormwater Permit.

Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure city-wide compliance with the Stormwater Permit:

- Sacramento County Regional Sanitation District —A portion of the funds from the City's Stormwater Utility paid through the cost sharing activities of the permittees to the SCRSD to help fund continued Sacramento and American River monitoring in compliance with the Stormwater Permit. This is part of the Coordinated Monitoring Program (CMP) which is the program coordinating the river monitoring staffed by SRCSD.
- Cosumnes Community Services District– Even though the CCSD is covered separately under their own permit, the City coordinates with them to ensure compliance with NPDES Permit requirements for special events and other related activities.
- Caltrans — The City coordinates with Caltrans upcoming freeway interchange projects to ensure that stormwater controls are implemented.
- Elk Grove Unified School District – The Elk Grove Unified School District is now separately covered under their own NPDES permit but the City coordinates with them to ensure compliance with NPDES Permit requirements for special events and other related activities.
- SMUD/PG&E and other local utilities own private facilities in the public right –of-way, and have maintenance easements or get encroachment permits to repair/replace facilities as needed.

Other Stormwater Programs

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA). Also selected members of the City's staff are members of CASQA.

Activities for the 2008-2013 Stormwater Permit Term

The main goal of the Program Management Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

Legal Authority

Update Codes and Standards As Needed
The City will amend its Stormwater Ordinance if necessary to reflect changes in the program. The City will also adopt needed changes to the Standard Construction Specifications and the Improvement Standards. This will be done if needed within one year of the Regional Water Board's adoption of the 2009 SQIP.

The City will continue to require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is possible that conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

Update Agreements As Needed

The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Elk Grove's current cost share (8.25%) may change, as well as roles and responsibilities.

Report of Waste Discharge (ROWD)

As required by the stormwater permit, the City will work with the other permittees to prepare a ROWD for submittal to the Regional Water Board, at least 180 days prior to expiration of the current permit (submittal date March 15, 2013). The ROWD will include a revised SQIP.

Fiscal Analysis

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1).

Recordkeeping and Reporting

SQIP

Following the submittal of this SQIP on April 30, 2009, the City will revise the SQIP based on comments provided by the Regional Water Board or comments received during the 30-day public review process conducted by the Regional Water Board.

Annual Report and Annual Work Plan

As required by the Stormwater Permit, the City will submit an Annual Report by October 1st of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format consistent with the other permittees and approved by the Regional Board. By May 1st of each year, Elk Grove will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City of Sacramento and County of Sacramento will take the lead in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 2 for additional information about joint activities.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

Training for City Staff

Training is an important aspect of Elk Grove's Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. Details of regular training are listed above. For example, each year, City construction inspectors will be required to attend one of the pre-wet season training workshops conducted by the Partnership.

Intra and Interagency Coordination

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program. The City will continue to coordinate internally to ensure that all required City staff, management, and City Council Members are aware of Stormwater Permit requirements and related efforts. City staff will attend regular permittee coordination meetings (held approximately monthly).

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies.

The City will continue to coordinate with other outside agencies during the 2008-2013 permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others.

Effectiveness Assessment

The City will work with the other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2, Section 2.3. This section describes assessment activities relevant to the Program Management Element, including proposed methods for evaluating effectiveness during the 2008-2013 permit term. This approach is based on guidance provide by CASQA in its *Effectiveness Assessment Guidance* document (2007). In addition, the City will evaluate the effectiveness of its own program management activities related to permit compliance, as described in Table 6.2-1. This assessment will be done annually during preparation of the annual report, and recommendations for program improvements or modifications will be made based on the results.

For this program management element, most activities have Level 1 effectiveness outcomes; this requires annual documentation that activities have been conducted as required by the stormwater permit. Level of effort (e.g., number of meetings attended) and resources expended (staff hours or costs) may also be tracked (also outcome level 1). The exception to this is training.

The City will contribute resources (per the permittee cost-share MOU) to the long term effectiveness assessment required by the stormwater permit (due with ROWD on March 15, 2003).

6.3 Construction Element

The main goal of the Construction Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by reducing sediment discharge and construction related pollutants to the City storm drain system to the maximum extent practicable.

Construction Element Strategy

The Stormwater Permit (Provision 8) requires a number of tasks related to regulation, enforcement and inspection of construction sites in Elk Grove to reduce the discharge of construction-related sediment and pollutants to the maximum extent practicable. The requirements apply to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of 350 cubic yards or more and/or one acre or more. However, smaller sites also must comply with the City's Stormwater Ordinance and smaller site operators are educated and informed about ways to prevent erosion and pollution problems.

Overview of City Inspection Activities

Construction is virtually a year-round activity and is occurring in many areas of the City. The City employs a team of about 12 inspectors (including 5 Construction Services Inspectors, 5 Building Inspectors and 2 SWPPP Inspectors) to ensure that construction sites are in compliance with the City requirements Progressive enforcement action is taken when local requirements are not adhered to or sediments and other pollutants are allowed to reach the storm drainage system or local creeks. The following highlights some of the activities:

- The City's Land Grading and Erosion Control Ordinance requires erosion and sediment controls on all projects disturbing 350 cubic yards or more of soil or one or more acres of land.
- The City's Erosion and Sediment Control Standards and Specifications are applied on all projects in Elk Grove subject to the erosion control ordinance. These standards are updated as needed.
- City construction inspectors conduct inspections of all site improvements that will eventually be owned by the City (e.g., roads, curb and gutter, pipes and channels, public buildings and facilities) to ensure compliance with applicable erosion and sediment control requirements. City inspectors do not inspect construction of special district, state or federal projects or buildings, except insofar as the site encroaches upon and connects to City-owned facilities (e.g., roads, drainage system).
- City building inspectors conduct inspections of private and public projects during the building construction phase. Stormwater pollution and erosion problems are referred to the SWPPP inspectors for follow-up.
- The City has two SWPPP inspectors dedicated solely to stormwater inspection and compliance issues. All SWPPP issues are referred to them from construction and building inspectors for enforcement action.
- Projects in Elk Grove disturbing one or more acres of land are required to obtain coverage under the State's General Construction Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City verifies that a State-required Notice of Intent (NOI) was filed and checks the Stormwater Pollution Prevention Plan (SWPPP). City inspectors inspect these jobs and look for proper erosion and sediment controls, as they do for any other project in Elk Grove. Non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

Accomplishments to Date

Since becoming a permittee to the Stormwater Permit in 2002, the City of Elk Grove has made several notable accomplishments related to the construction element:

- Adopted the City of Elk Grove Municipal Code, including Chapter 15.12 (Stormwater Management and Discharge Control, including the Urgency Ordinance 26-2004) to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects

Activities for the 2008-2013 Stormwater Permit Term

The main goal of the Construction Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below. Table 6.3-1 summarizes the activities that are proposed for the 2008-2013 permit term. This section describes these activities in greater detail.

Legal Authority

Currently the City's Land Grading and Erosion Control Ordinance (Municipal Code Chapter 16.44) requires a grading permit and erosion and sediment controls on all private projects disturbing 350 cubic yards or more of soil or one or more acres of land. Public projects are subject to the City's Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system. All projects that disrupt or modify the drainage pattern on a site are subject to review and permitting by the Public Works Department.

During the 2008-13 stormwater permit term, the City will revise its Land Grading and Erosion Control Ordinance for consistency with the State's new Construction General Permit.

Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 6.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats might include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, preconstruction meetings, and example documents.

Elk Grove will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish. This material will be presented in the annual reports.

Plan Review and Permitting

The City's Land Grading and Erosion Control Ordinance (Municipal Code Chapter 16.44,) requires a grading permit and erosion and sediment controls on all projects disturbing 350 cubic yards or more of soil or one or more acres of land. All projects regardless of scope are subject to the City's Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system. See Figure 6.8-1 for more information.

Projects are also required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for compliance of items required by the Stormwater Permit.

The City will also continue to check all erosion and sediment control plans for conformance with the City's standards and specifications which describe requirements for BMPs at construction sites to control sediment and pollutant discharge. The City may update the standards and specification during the 2008-2013 permit term following the update of the Land Grading and Erosion Control Ordinance to reflect the State's new Construction General Permit.

Inspection and Enforcement

The City of Elk Grove's Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Water Board as required by the Stormwater Permit.

As with the last permit term, the City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspects according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

All City construction projects will be subject to the same ordinances and standards as private projects. City inspectors will inspect and conduct enforcement for these projects.

The City of Elk Grove lacks jurisdictional control over certain projects that may be constructed in the City by special districts (Elk Grove Unified School District and Cosumnes Community Services District) and other agencies. These projects are subject to the City's Stormwater Ordinance. The City will coordinate with these agencies on a project by project basis to ensure compliance with the Stormwater Ordinance.

Track Active Construction Projects

The City will continue to maintain a database of active construction projects and their priorities will be maintained by the City at all times.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. This chapter describes assessment activities relevant to the Construction Element, including proposed methods for evaluating effectiveness during the 2008-2013 permit term. Table 6.3-1 describes the assessment methods the City will use to evaluate the construction program element activities during the 2008-13 permit term. The desired outcome will be to move toward outcome levels 2 and 3 for some tasks; report if the program element or BMP raised the target audience's awareness and behavior of an issue. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of each key indicator will be provided annually or periodically through the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

6.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below. The main goal is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to eliminate illegal stormwater discharges from commercial and industrial facilities.

Commercial/Industrial Element Strategy

The Stormwater Permit (Provision 9) requires inspection of many industries and educational outreach to others to effectively prohibit unauthorized non-storm water discharges and to reduce pollutants in site runoff to the maximum extent practicable. The Stormwater Permit requires that the City develop and maintain an inventory of businesses addressed by the Commercial/Industrial Element and submit an updated inventory each year in the Annual Report.

The City of Elk Grove contracts with other agencies to conduct selected activities related to this program element within the City. The City has executed an MOU with the County of Sacramento Environmental Management Department (EMD) to conduct triennial inspections of facilities within Elk Grove. The types of facilities that are inspected by EMD are listed in Table 6.4-2 below. An advantage of having EMD inspect these facilities in the City of Elk Grove is that EMD conducts all inspections countywide which ensures consistent and equitable treatment of the regulated community. The work performed by EMD on the City's behalf is described in Chapter 2 (Section 2.7)

The City conducts periodic and complaint-based inspections of other businesses within the city.

Table 6.4-2. Commercial/Industrial Facilities in Elk Grove Subject to EMD Inspections

Commercial/Industrial Category	No. Facilities (July,2008)
• Auto body shops	6
• Auto repair shops	39
• Auto dealers	15
• Equipment rental facilities	3
• Kennels	2
• Nurseries	2
• Retail gasoline outlets (i.e., gas stations)	27
Restaurants	270
Facilities covered by the State's Industrial General Permit	16
Total	**380**

Intra and Interagency Coordination

As previously stated, the City has signed an MOU with EMD to conduct stormwater compliance inspections on its behalf. The City meets with EMD and other permittees to discuss the inspection program and resolve problems encountered by EMD staff. The Regional Commercial/Industrial Program is discussed in greater detail in Chapter 2 (Section 2.7).

The City conducts periodic and complaint-based inspections of other business in the City of Elk Grove.

Accomplishments to Date

Refer to Chapter 2 (Section 2.7) for a description of EMD Regional Commercial/Industrial Program accomplishments to date.

Activities for the 2008-2013 Stormwater Permit Term

The main goal of the Commercial/Industrial Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

Legal Authority

The City's Stormwater Ordinance will continue to provide legal authority to the County EMD for regulating selected commercial businesses and industries in Elk Grove with respect to stormwater pollution. The City's Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-2013 permit term.

Priority Industry Inspections

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the 2008-2013 permit term are identified in the sections below. These are the same businesses that were targeted during the previous permit term. These lists will be refined during the 2008-2013 permit term as needed. See Chapter 2 (Section 2.7) for more details.

Businesses to Be Inspected Once Every Three Years

- Auto Body Shops
- Auto Dealer
- Auto Repair Shops
- Equipment Rental Companies
- Nurseries
- Kennels
- Restaurants
- Retail Gasoline Outlets
- Industries with State Industrial General Permit Coverage

The City contracts with the County's Environmental Management Department (EMD) to conduct the required stormwater inspections, including enforcement and follow-up inspections to resolve problems, as warranted. These services will be paid for through direct billing to the regulated

businesses by the County. Additionally, treatment structures at EMD inspected facilities are included in EMD inspections.

Business to Receive Educational Outreach during Permit Term

- Automotive Washing/Detailing
- Carpet Cleaning
- Commercial Pesticide Application
- Concrete Pouring Contractors
- Concrete Cutting
- General Building Contractors
- Landscape Installation/Maintenance
- Paint Contractors
- Portable Toilet Rental/Maintenance
- Pressure Washing
- Street Sweeping
- Swimming Pool Contractors
- Swimming Pool Maintenance

The City will conduct the required educational outreach to the above-listed businesses and report activities each year in the Annual Report. The City will purchase, produce, and distribute brochures developed by the Sacramento Stormwater Program, such as those for food handling facilities, concrete and paint wastes, and swimming pool discharges. The City will also contribute funding to creation of new educational materials in collaboration with the other permittees.

Treatment structure inspections for other commercial and industrial sites

The city will maintain a regular inspection program for treatment facilities at commercial and industrial sites not covered by County EMD inspections.

Complaint-Based Stormwater Compliance Inspections

County EMD and City staff will collaborate to inspect any site within the City of Elk Grove on a complaint basis. Complaints can be referred by the public, other agencies and departments, the Regional Board, and other sources. City stormwater staff will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

County EMD or City staff will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

The City may consider contributing some funding through the Permittee cost-share MOU to help support the County Business Environmental Resource Center (BERC). BERC is a confidential resource agency serving businesses and industries in the County. BERC hosts workshops and provides guidance materials free of charge to businesses upon request. Refer to Chapter 2 (Section 2.7) for more information.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 2.7-1 in Chapter 2 describes the assessment methods EMD and BERC will use to more specifically evaluate the commercial/industrial program element activities conducted during the 2008-13 permit term. Table 6.4-1 describes the assessment methods used by the City to respond to complaint-based inspections. Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

6.5 Municipal Operations Element

The Stormwater Permit (Provision 10) requires a variety of activities to prevent or reduce pollutant in runoff from all municipal land use areas, facilities and activities. Municipal facilities include buildings, transportation facilities (e.g., roads, roadsides, parking lots and fleet service areas), storm drainage collection and storage systems (e.g., pipes, open channels, stormwater detention basins and roadside ditches). Municipal activities include materials storage and handling, waste storage and disposal, vehicle and equipment washing and maintenance, pipe, channel and basin maintenance, street cleaning, vegetation management and repair/construction. Routine management and operations and maintenance of the storm drain system, streets and public areas must be conducted in a manner that does not inadvertently contribute pollution to local creeks and rivers. Additionally, the City must strive to be a model of pollution prevention for the community.

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

An outline of the municipal operations activities to be conducted by the City in compliance with the Stormwater Permit, including performance measures and a 5-year schedule will be provided in the annual report. Also, the approximate numbers of facilities, miles of storm drainage system, miles of streets, etc will be included in the annual report.

Municipal Operations Element Strategy

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMPs to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

Intra and Interagency Coordination

The City's activities under the Municipal Operations Element do not address federal or state governmental agencies and facilities (e.g., Caltrans), which are out of the City's jurisdictional control. Facilities owned by the Elk Grove Unified School District and Cosumnes Community Services District (Parks, trails and fire facilities) are also outside the City's jurisdictional control, but activities at these facilities are still subject to the City's Stormwater Ordinance. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the City-owned storm drain system or local creeks. The City does not operate water production and distribution facilities. Additionally, the City does not have jurisdiction over the sanitary sewer system and associated facilities operated by the Sacramento Regional County Sanitation District or the Sacramento Area Sewer District within the City limits.

Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not already covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).
The following is an inventory of the City-owned facilities and operations addressed by this element:

Buildings and Parking Lots – The City owns and operates the City Hall complex and the Police Service Center, and a Corporation yard. The corporation yard has transit and maintenance facilities. Selected vehicle maintenance is performed on site at the Corporation yard. The Corporation yard has a SWPPP which is fully implemented. There are no known stormwater issues with this complex.

City parks – The 86 parks located within the City of Elk Grove are operated and maintained (including vegetation and waste management) by the Cosumnes Community Service District (CCSD), a separate agency. The District follows the City's guidelines for stormwater quality.

Storm Drain System

Piped storm drain system – Approximately 450 miles of storm drain pipe and associated drain inlets and manholes are maintained by the City (as reported in the 2007/08 annual report).

Storm drain inlets – As of July 2008 (as reported in the 2007/08 annual report), the City had about 15,350 storm drain inlets. The City has marked its storm drain inlets within its jurisdiction. The City was required by the 2002 Stormwater Permit to mark 95% of storm drain inlets by the end of 2007 which has already been accomplished. As stated in the 2007/2008 Annual Report 100% of existing storm drain inlets have been stenciled.

Channels, creek and Basins – About 65 miles of manmade drainage channels, natural creeks and 22 basins are maintained by City crews (as reported in the 2007/08 annual report). This includes Deer Creek, Elk Grove Creek, the Grant Line Channel, Laguna Creek, the Laguna West Channel, the Shed A Channel, the Shed B Channel, the Shed C Chanel and Strawberry Creek.

The supervising field managers are taught the proper methods for clearing vegetation without exposing the slopes to excessive erosion. All cropped vegetation is removed from the creek and taken to the landfill.

Transportation Facilities

Curbed Streets – About 512 curb miles of curbed streets are cleaned by a vendor under contract with Public Works (as reported in the 2007/08 annual report). The frequency schedule is:

- Priority A streets – Twice a month, year round.
- Priority B streets – Once a month, March through October, Twice a month, November through February
- Priority C streets – 6 times a year, year round

Roads, Roadside Vegetation and Landscaping - The City repairs roads and maintains roadside vegetation. The City and the CCSD maintain landscaping in the City. The City currently maintains approximately 1.2 million square feet of landscaping.

Accomplishments to Date

Since becoming a permittee to the Stormwater Permit in 2002, the City of Elk Grove has made several accomplishments related to the Municipal Operations Element:

- The City has established routines for collecting and compiling data to assess activities and document regulatory compliance. City maintenance crews routinely log the quantity of pipes, channels, basins, storm drain inlets, manholes, and roadways cleaned and quantity of waste removed. This information is presented in the annual reports.
- By utilizing GIS software, the city has compiled the inventory of City-owned facilities. This data will be used in GIS and HTE for asset management purposes. This data is also used by maintenance crews for scheduled maintenance purposes.
- The city has been successful in establishing contracts with a street cleaning contractor in addition to various maintenance contractors to ensure that routine maintenance is conducted on all storm drain infrastructure in addition to transportation facilities and City owned buildings.
- The Public Works Department in collaboration with the GIS Department has successfully completed the updating of the city's storm drain facility maps. The storm drain facility maps are used by various agency departments in addition to outside agencies (i.e. SMUD, PG&E, etc.).

Activities for the 2008-2013 Stormwater Permit Term

The main goal of the Municipal Operations Element for the 2008-2013 permit term is to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below. Table 6.5-1 summarizes the activities proposed for the 2008-2013 permit term.

Facility Management

Maintenance of Buildings

The main potential for stormwater pollution at administrative building sites is the parking lot runoff. See the parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants.

The operations and maintenance of the Corporation yard is regulated in accordance with the requirements of the Corporation yard SWPPP.

Inspection and Maintenance of City-Owned Parking Lots

Parking lots exposed to rainfall will be inspected and maintained at least annually at a minimum prior to the wet season. Maintenance activities will include trash/debris removal, sweeping and removal of oil stains involving collection and proper disposal of the waste water.

New Development and Construction Requirements for Municipal CIP Projects

Development and construction of City projects will be subject to the same requirements which apply to private construction and development projects as described in Section 6.3 and 6.8.

Operation and Maintenance of City Parks

The CCSD will continue to maintain the 86 parks located within the city limits. The City of Elk Grove has no jurisdictional control over the CCSD, but will coordinate with the district during the 2008-2013 permit term to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the CCSD's operations.

Integrated Pest Management

The City and its contractors will implement IPM procedures as detailed in the Pesticide Plan developed by the Partnership and approved by the Regional Water Board. The City has no jurisdiction over pest control or other maintenance activities conducted at parks in the City which are specifically maintained by CCSD.

The City will promote and distribute the River Friendly Landscaping Guidelines and associated Homeowner's Guide to residents and landscape contractors. Much of the outreach material is distributed to the general public during various outreach efforts that the City is involved with.

Storm Drain System Maintenance

Maintenance of the Piped Storm Drain System

The City will continue its utilization of a maintenance contractor to provide these services using proper maintenance procedures. If this changes during the 2008-2013 permit term it will be noted in the appropriate annual work plan and/or annual report.

Maintenance of Creeks and Channels

The city will continue to use the current methods it is employing to clean and remove vegetation along creeks and channels. The City will continue its utilization of a maintenance contractor to provide these services using proper maintenance procedures. If this changes during the 2008-2013 permit term it will be noted in the appropriate annual work plan and/or annual report.

Storm Drain Inlet Marking

City maintenance crews will continue to check the condition of existing storm drain markers and stencils and replace those that are damaged or missing. City Engineers and inspectors will also continue to verify that storm drain inlets installed in new developments include a permanent "No Dumping! Flows to Creek" message as illustrated in the City's Standard Drawing SQ-10.1

Operation and Maintenance of Transportation Facilities

Prioritized Street Sweeping for Curbed Streets

The City will continue to contract with a vendor for street sweeping on curbed streets, to follow the prioritized schedule as previously described in this section.

Maintenance of Roads, Roadside Vegetation and Landscaping

The City will continue its utilization of a maintenance contractor to provide these services using proper maintenance procedures. If this changes during the 2008-2013 permit term it will be noted in the appropriate annual work plan and/or annual report.

Inspection and Maintenance of City-Owned Parking Lots

Parking lots exposed to rainfall will be inspected and maintained annually at a minimum prior to the wet season. Maintenance activities will include trash/debris removal, sweeping and removal of oil stains involving collection and proper disposal of the waste water.

Waste Management Services

The City will continue to contract with a waste collection contractor for residential solid and green waste and general recycling collection and hauling services in the city. Waste oil and limited household hazardous materials may also be collected curbside.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 6.5-1 describes the assessment methods that the City will use to more specifically evaluate the municipal operations program element activities which it conducts. The goal that the City desires to attain is to move toward outcome Levels 2 and 3 for some tasks (raising awareness and behavior, of city employees and contractors). The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of each key indicator will be provided annually or periodically through the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

6.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges.

The storm drain system consists of a network drain inlets, manholes and pipes, as well as streets, sidewalks, gutters and roadside ditches, which discharges to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

Illicit Discharge Element Strategy

The City's strategy for eliminating illicit discharges to the storm drain system and local waterways includes:

- Maintaining adequate legal authority to prohibit illicit discharges. This is accomplished through the City Stormwater Ordinance. City staff is authorized to enforce the ordinance within the City limits.
- Conducting ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers.
- Providing convenient means for residents to dispose of solid and household hazardous wastes.
- Educating City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Providing a hotline for public reporting of problems and responding in a timely manner. The City supports a stormwater hotline 687-3005 for this purpose.

Intra and Interagency Coordination

City maintenance crews conduct ongoing field screening for illicit discharges and connections as part of their routine maintenance practices. When an illicit discharge is encountered depending on the severity of the spill (i.e. hazardous material), the County of Sacramento's HazMat crew may be dispatched for clean-up.

The Public Works Department communicates with field crews as to the necessary steps to be taken during an illicit discharge report. If progressive enforcement action against the discharger does not eliminate the problem, the City may coordinate with the City's legal counsel.

The City also coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

Accomplishments to Date

Since becoming a permittee to the Stormwater Permit in 2002, the City of Elk Grove has made several accomplishments related to the Illicit Discharge Element:

- The City adopted the Stormwater Ordinance (City of Elk Grove Municipal Code Chapter 15.12, Articles 2-3) in, which makes most discharges to the storm drain system illegal and in 2004 the City revised the ordinance to strengthen its legal authority.
- 100% of storm drain inlets in the City have been stenciled with the "No Dumping — Drains to Creek" message.
- As required by the City's Improvement Standards, permanent "No Dumping! Flows to Creek" stamps were applied to all new concrete storm drain inlets installed as part of development projects.
- On an on-going basis, maintenance crews field screen the storm drain system, including storm drain outfalls along creeks and channels to look for illegal connections.
- In 2006, the Partnership set up a new hotline, 808-4H20, which allows callers to select Elk Grove and be routed to City Hall to report incidents of illegal dumping and illicit discharges. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site. The City also supports a stormwater hotline 687-3005 for this purpose.
- The City also utilizes the Community Enhancement Department to enforce illicit discharges and illegal connections.

Activities for the 2008-2013 Stormwater Permit Term

The main goal of the Illicit Discharge Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below. Table 6.6-1 summarizes the activities proposed for the 2008-2013 permit term.

Update Stormwater Ordinance and Improve Enforcement Authority as Needed

The City will periodically evaluate the Stormwater Ordinance and amend as needed to enhance legal authority. The City will also continue to use the Stormwater Ordinance and Community Enhancement Department to enforce illicit discharges.

Reporting of Illicit Discharges

The City will continue to operate a stormwater hotline 687-3005, to facilitate public reporting of problems in the City.

Ongoing Field Screening to Detect Illicit Discharges and Connections

Activities to prevent and reduce illicit discharges to the piped storm drain system and creeks within the City of Elk Grove will continue.

City crews responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City will continue to be trained on how to identify, clean up and/or refer and report observed incidents of illicit discharges.

City crews will also respond to complaints from the public and referrals from County EMD inspectors, the Regional Board and others. Problems are addressed on an individual basis depending on the nature of the discharge.

Solid Waste and Household Hazardous Waste Programs

The City of Elk Grove's Integrated Waste Management section will continue to conduct solid waste management and recycling and household hazardous waste collection for residents of Elk Grove.

Illicit Discharge Response, Containment and Clean-Up

The City will continue to respond, contain and clean-up illicit discharges in the City of Elk Grove. If necessary, the City will contact the County of Sacramento's HazMat team for clean-up of hazardous material spills.

Data Management

The City will continue to track data for illicit discharges within the City. The City will also update an illicit discharge map that will show the locations of illicit discharges.

Education and Outreach

To educate the public, and to minimize illegal discharges of waste into the storm drain system, Elk Grove will continue to promote marking of storm drain inlets with "No Dumping" messages, using volunteer groups as available or City maintenance crews.

The City will continue to operate the 687-3005 hotline to facilitate public reporting of problems in the City. Also, City crews will distribute door hangers and other educational materials in neighborhoods where they observe illicit discharge problems.

In addition "No Dumping" signage may be installed along creeks and channels based on recommendations by maintenance crews and the Public Works Department.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 6.6-1 describes the methods that the City will employ to evaluate the illicit discharge program element activities which it conducts. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of city employees and contractors) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of each key indicator will be provided annually or periodically through the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

6.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

The City coordinates with the Partnership to implement a wide range of activities to increase the knowledge of the community regarding the City' storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences

Public Outreach Element Strategy

The City conducts most of the public outreach activities for Elk Grove residents. Elk Grove also contributes to regional public outreach (discussed in Chapter 2.6) through the permittee cost-share MOU.

Elk Grove Community Characteristics

As of 2008, there were approximately 136,000 residents in the City. The Elk Grove Unified School District operates 35 schools within the City limits, including 6 High Schools, 6 middle schools and 23 elementary schools, with a combined total student population of about 41,000. About 10,000 students are enrolled in grades 3-6 (this has traditionally been a target age range for stormwater pollution prevention messages).

There are numerous community organizations, homeowner associations and environmental groups represented in the City. Activities such as the Western Festival and Harvest Festival help to build a stronger sense of community.

In terms of watershed stewardship and water quality protection, the Cosumnes Community Services District (CCSD) Parks and Recreation Department continues to sponsor programs, events and activities that promote community involvement in creeks:

- Creek Week – In conjunction with Earth day the City helps sponsor a large scale clean up of creeks located in Elk Grove.

Prior to incorporation of Elk Grove, the CCSD also spearheaded the protection of parts of Laguna Creek and Elk Grove Creek, with establishment of wide natural buffers, trails and interpretive signage. Residents can enjoy these natural resources in the Fallbrook, Camden, and Laguna Springs residential areas.

The Laguna Creek Watershed Council (LCWC) is a diverse group of watershed residents, community group leaders, and local government agency representatives established in the fall of 2002. The LCWC's mission is to protect the health of Laguna Creek and its tributary streams by educating residents, promoting active community participation, and fostering partnerships and projects that achieve long-term, balanced solutions with mutual benefits to all stakeholders. The City supports the LCWC and maintains an active role in the LCWC by sending a representative to each of the meetings to voice the City's concerns.

The Sacramento Bee is the major newspaper serving the region, with a special "Elk Grove Neighbors" section circulated twice a week. The Laguna Citizen and Elk Grove Citizen are locally-produced papers circulated twice a week to subscribers. The City also publishes its own news letter monthly. Other media includes T.V and radio stations that serve the greater Sacramento area.

Intra and Interagency Coordination

The City of Elk Grove coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings. See Chapter 2, Section 2.6 for more information.

Accomplishments to Date

Several major community events are held in the City each year. The City continues to sponsor a stormwater booth at many of these activities. The City plans to continue this practice for the 2008-2013 stormwater permit term. In addition Chapter 2, Section 2.6 describes major accomplishments related to public outreach by the Partnership since 1990. The following are some of the events that City of Elk Grove staff is involved with:

- Elk Grove Annual Creek Cleanup Day – conducted by the Cosumnes Community Services District in conjunction with Creek Week.
- Elk Grove Western Festival – Spring
- Elk Grove Harvest Festival – Fall
- "Walk on the Wildside" – Spring
- City staff visits classes on an individual basis as requested by instructors.

Additionally, City staff will meet with managers periodically throughout the year to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. The City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

Activities for the 2008-2013 Stormwater Permit Term

Partnership Activities

See Chapter 2, Section 2.6 for detailed information about activities that will be conducted by the Partnership related to regional public outreach.

City-Specific Activities

The main goal of the Public Outreach Element for the 2008-2013 permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below. Table 6.7-1 summarizes the activities proposed for the 2008-2013 permit term.

Continue to promote volunteer stenciling of storm drain inlets as an educational activity. Supply all necessary materials and supplies to community groups upon request.

Continue to sponsor and staff a stormwater booth at the following types of community events:

Creek Week Cleanup-April

Western Festival-May

Elk Grove Harvest Festival – October

Walk on the Wildside - May

Meet with City management periodically throughout the Stormwater Permit term to keep them informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

- Including articles regarding stormwater pollution prevention in the City's community newsletter
- Maintaining updated stormwater quality protection information on the city website and continue to distribute partnership outreach material and update the City's stormwater brochure.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 6.7-1 describes the assessment methods the City will use to more specifically evaluate its City-specific public outreach program element activities during the 2008-13 permit term. Assessments of regional public outreach activities will be conducted by the Partnership as described in Chapter 2, Section 2.6. In general, the goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of each key indicator will be provided annually or periodically through the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

6.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

New Development Element Strategy

Specific development and redevelopment within the City of Elk Grove will be mitigated with a combination of tactics:

- Limit sources of pollution.
- Incorporate stormwater quality requirements as early as possible into the development review process.
- Reduction of run-off / low impact development techniques.
- On-site treatment of runoff before entering the storm drainage system.
- Area treatment of run-off prior to entering creeks and channels.
- Conduct ongoing outreach to the development community through monthly development seminars.

To apply these tactics, they must be well integrated into the steps of the development process:

Planning: General and specific plans need to incorporate low impact development and water quality mitigation measures on a holistic basis; primary goals would be to reduce changes to run-off by using low impact development techniques and to look at area-wide treatment which can be better controlled and maintained in the long term.

CEQA: The CEQA process is a primary opportunity to reduce development impacts and view mitigation measures on an area-wide basis. Good CEQA work can set up projects for easier navigation through the federal Section 404 permitting process

Design Standards: The City of Elk Grove requires full implementation of requirements for source and treatment controls and application of design standards using the "*Stormwater Quality Design Manual for Sacramento and South Placer Regions"*. The Post Construction Storm Water Quality Control Plan (PCSWQCP) is reviewed early during the entitlement process and again, in detail, during the plan check process.

Construction: Inspection is a key to insuring correct construction of the designed source and treatment controls so that they function properly.

Maintenance: Ensuring adequate maintenance of the post construction source and treatment controls in perpetuity is essential to ensuring continued effectiveness in the protection of stormwater quality. This is accomplished by passing oversight of the controls into sustainment activities under the Commercial/Industrial or Municipal Operations element after construction.

Intra and Interagency Coordination

The City has established a process for reviewing, conditioning, and permitting projects, as illustrated in Figure 6.8-1. Upon submitting a complete planning project application to the City Planning Department, a planner is assigned to the project. The project is then routed to numerous departments and agencies including Public Works. It is the responsibility of each department and agency to review the project against all applicable standards and submit comments and/or conditions to the Planning Division within designated timeframe, usually 2-3 weeks from the project route date.

Planning is then responsible for ensuring that comments are passed onto the developer and that all required conditions of approval are incorporated into the consolidated conditions of approval. Conditions are placed on the project to meet all new development standards of the City and those requirements of the Regional Water Quality Control Board that may be applied through the Section 404 permitting process. To review the Planning Application Form which includes the submittal requirement checklist, please visit: http://www.egplanning.org/misc/app_forms/2009/development-services-planning-application-form.pdf

The City also coordinates with other permittees regarding regional activities such as the new Design Manual and Hydromodification and Low Impact Development (LID) standards.

Development Standards

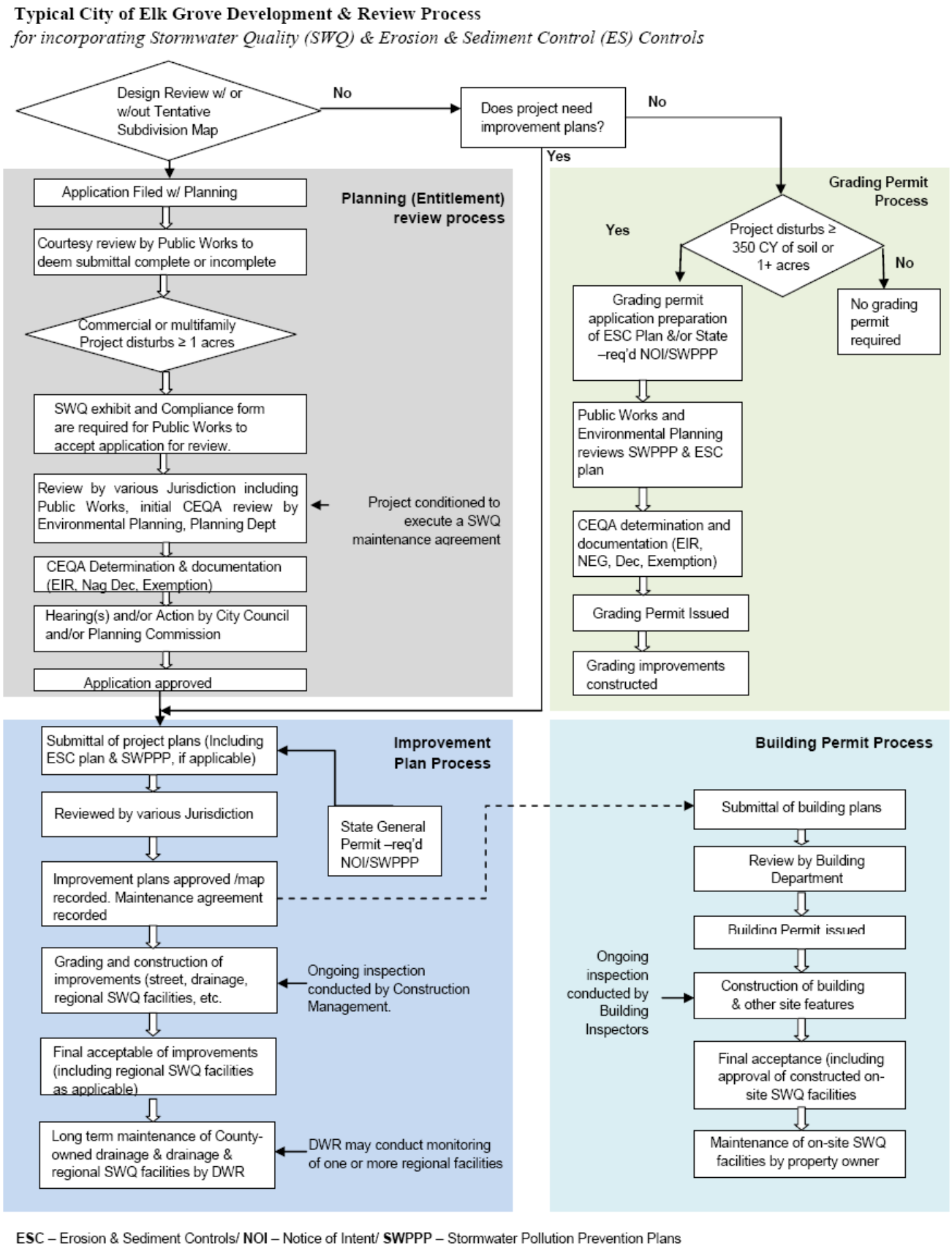
In May of 2007 the Stormwater Quality Design Manual developed by the Joint Permittees for the Sacramento Region was completed and published. The City of Elk Grove's Improvement Standards require that all new development meet the requirements specified in this design manual. Conditions are placed on proposed projects to direct developers and engineers to Volume 2 of the City/County of Sacramento Drainage Manual (Hydrology Standards) for design of detention basins.

For new development requirements and design of source and treatment controls developers and engineers are directed to the "*Stormwater Quality Design Manual for the Sacramento and South Placer Regions."*

Accomplishments to Date

The City has taken several steps to ensure that new development and redevelopment projects mitigate for their stormwater impacts. The City uses several methods to accomplish this goal, including using its development standards, the "*Stormwater Quality Design Manual for the Sacramento and South Placer Regions."*, and the permit review process. As shown in Figure 6.8-1, the City has a well established Development Review Process. Historically the focus of the New Development Element has been on mitigating stormwater quality impacts. The new permit contains requirements that address impacts to runoff volume (hydromodification impacts). The City currently does not allow post-project flows from developments to exceed pre-project runoff.

Figure 6.8-1



ESC – Erosion & Sediment Controls/ **NOI** – Notice of Intent/ **SWPPP** – Stormwater Pollution Prevention Plans

Activities for the 2008-2013 Stormwater Permit Term

The stormwater permit requires that the permittees regulate new development and redevelopment projects so that they incorporate measures to mitigate associated stormwater quality impacts. In addition, the new permit also requires a plan for mitigating the hydromodification impacts associated with new development. When development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and other harm.

The permit now requires that the permittees must develop a plan to mitigate hydromodification impacts associated with new development where the runoff flows to creeks and storm drains where it could cause erosion or other harm. This will result in new requirements for some development projects.

In addition, the stormwater permit requires the permittees to require all priority new development and redevelopment projects to incorporate low impact development (LID) measures. The developed criteria will be incorporated into the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions.*

Table 6.8-1 summarizes the activities that will be conducted by the City during the 2008-13 permit term to comply with the stormwater permit, along with the five-year implementation schedule. This section describes those activities in more detail.

Update Environmental Review Documents as Needed

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

Update Ordinances, Codes, Plans and Policies As Needed

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

Ensure Compliance with Development Standards and the Design Manual

Development and redevelopment projects in Elk Grove will be conditioned for mitigation of receiving water impacts from urban runoff. The City will evaluate and amend its stormwater quality development standards to comply with new requirements during the 2008-2013 permit term. Staff will continue to ensure that development and redevelopment proposals comply with City's standards.

Working with the Partnership, the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions."* will be updated to include additional criteria for low impact development (LID) and hydromodification mitigation following the amendment of the development ordinances and standards. Hydromodification criteria is discussed in the next section. The City of Elk Grove will contribute funding through the permittee cost-share agreement for the update of the design manual. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures; see Chapter 2, Section 2.4 for more details.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*.

City planning staff will promote the use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts. Such measures are expected to become mandatory for projects in certain areas when the permittees' hydromodification management approach is defined to comply with the 2008 Stormwater Permit. There are a few projects in the City that have already incorporated LID measures into their site plans.

Hydromodification Management Plan (HMP)

The City will work with other permittees to meet the requirements of the stormwater permit with regards to hydromodification management.

To comply with the stormwater permit requirements, the permittees are submitting a Hydromodification Management Plan (HMP) work plan as part of this SQIP (see Appendix 2B). One year after the Regional Water Board approves the work plan, the permittees will submit the HMP document.

Waiver Program

The stormwater permit allows the permittees to develop a waiver program/mitigation fund alternative for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The City will participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

Contribute to Regional Special Studies

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 2). Some of these studies are continued from the last permit term. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures.

Maintenance of Stormwater Quality Control Measures

The City will continue to evaluate the best method of educating owners of private treatment-control facilities about maintenance responsibilities. The City will continue to ensure long-term maintenance of treatment control measures on private development by requiring maintenance agreements to be executed before the final approval of the project. In addition the City stormwater staff will require property owners to certify that the treatment devices on their property are routinely maintained.

Through the annual refresher training and other opportunities, the City will train its construction inspectors to check for proper installation/operation of stormwater control measures before final acceptance of the project.

Outreach to Educate the Development Community

City staff will continue to work collaboratively with permittees to share information with the development community and promote consistency across municipal boundaries. The City will continue to provide technical guidance and design support to help the development community working in Elk Grove to comply with stormwater quality requirements. The City holds Development Seminar meetings where they share information and convey new requirements to the Development Community.

Employee Training

Each year the stormwater quality staff will continue to train individuals in the Planning, Development Review and Environmental Review departments regarding stormwater quality requirements. These employees will receive annual training related to hydromodification, LID and other evolving development standards, including how such standards will impact development in Elk Grove.

Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. This section specifically describes assessment activities related to the New Development Element, including proposed methods for evaluating effectiveness during the 2008–13 permit term.

Table 6.8-1 presents planned activities for the 2008-13 permit term. Each performance standard associated with an activity has an anticipated effectiveness outcome level of between one and six, as described in Chapter 2. An outcome level of one is assumed for each performance standard, unless otherwise indicated.

Table 6.2-1 – City of Elk Grove SQIP
Program Management Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)											
Modify SQIP to reflect the requirements of Stormwater Permit	2		Revised SQIP submitted to Regional Water Board on April 30, 2009.	Confirmation- submit SQIP to Regional Water Board	♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c		Proposed SQIP modifications, submitted to Regional Water Board as part of Annual Report.	Confirmation- submit SQIP and AR to Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	As needed
Annual Work Plan											
Prepare and submit Annual Workplan	3.a		Annual Workplan submitted	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year
Memorandum of Understanding (MOU)											
Review and revise existing permittee Memorandum of Understanding	3.e		MOU submitted to Regional Water Board		♦						Submit with SQIP on 4/30/2009
Legal Authority											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.2-1 – City of Elk Grove SQIP
Program Management Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Establish and maintain legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance as needed.	Confirmation-include revised ordinance in AR			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel to Regional Water Board	6		Submit statement of legal authority from chief legal counsel (City Attorney) to Regional Water Board	Confirmation-include statement in SQIP	♦				♦		Submit with SQIP on 4/30/2009
Fiscal Analysis											
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report		♦	♦	♦	♦	♦	♦	Submit with Annual Report- October 1 each year
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board. This is a Partnership activity; see Chapter 2, Section 2.2.	Confirmation- ROWD submitted to Regional Water Board by specified date					♦		ROWD due 3/15/2013
Coordination											
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.2-1 – City of Elk Grove SQIP
Program Management Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Training											
Continue to implement training program as necessary	various		Track training events and number of people participating	Confirmation – describe training accomplishments in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct surveys of training participants to assess effectiveness	various		Increased participation in training and understanding of stormwater requirements	Tabulation – Track number of employees trained	⇔	⇔	⇔	⇔ ②	⇔	⇔	
Program Effectiveness											
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October)	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	Submit with Annual Report
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters			Submit information in final AR for permit term (October 1, 2013)	Confirmation- submit ROWD and final AR to Regional Water Board						♦	Submit in final AR 10/1/2013
Long Term Effectiveness Assessment (LTEA)											
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP								Submit with SQIP 4/30/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board	Confirmation - LTEA submitted to Regional Water Board by specified date					♦		Submit with ROWD 3/15/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.3-1 – City of Elk Grove SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority										
Revise Stormwater Ordinance if needed	8.a.i	The City will adopt revisions as needed	Confirmation - report revisions in AR	⇔	⇔♦	⇔	⇔	⇔	⇔	1 year following RB approval of SQIP
Revise Land Grading and Erosion Control Ordinance	8.a.i	The City will adopt revisions to the Ordinance after the State Construction General Permit is issued	Confirmation - report revisions in AR	⇔	⇔♦	⇔	⇔	⇔	⇔	1 year following RB approval of SQIP
Plan Review and Permitting										
Review Grading and Improvement Plans; verify compliance with ordinances and appropriate BMPs included	8.a.ii, 8.c.i-iv	Document percentage of sites incorporating erosion and sediment controls (target is 100% of projects subject to requirements should include appropriate ESC BMPs in plans)	Tabulation - track changes in quantities from year to year in AR	⇔	⇔	⇔③	⇔③	⇔③	⇔③	October 1 each year
Track Grading Permits for projects that require coverage under the State C.G.P.	8.a.ii, 8.c.v	Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed; check for 6 SWPPP items (see list in stormwater permit 8cva)	Confirmation - report list and revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year
Verify that other applicable regulatory permits have been obtained prior to issuing grading permits, if applicable	8d	Document other permits on permit application paperwork.	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Standards & Specifications/BMPs for Controlling Sediment and Pollutants										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.3-1 – City of Elk Grove SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop/amend standards and specifications to require BMPs for construction sites	8.a.iii, 8.c.i-iv	Adopt revisions after State Construction General Permit is issued	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year
Pollution Control at City-Owned Construction Projects and Other Projects Not Subject to City's Permitting Process										
Obtain coverage under the State's CGP for applicable City projects	10a.ii, 8c	Document number of municipal projects covered by CGP each year	Confirmation – report in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year
Include provisions in contract specs to ensure compliance with stormwater ordinance and CGP on City construction projects	10a.ii, 8c	Document completed revisions to better address compliance.	Confirmation – report in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year
Coordinate with utilities, special districts (e.g., schools, RT, parks) and others to ensure compliance with Stormwater Ordinance		Document coordination activities	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Inventory, Prioritize and Track Active Construction Sites										
Inventory and track active construction sites	8.a.iv	Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Tabulation - track no. active sites each year. Report in AR.	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year
Prioritize sites for inspection based on threat to water quality and other factors	8b, 8e	Document prioritization method/schedule and sites with high, moderate, low priorities.	Tabulation - track number of active sites each year according to priorities	⇔	⇔	⇔	⇔	⇔	⇔	
Inspections (Public and Private Projects)										

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.3-1 – City of Elk Grove SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct routine inspections of active construction sites according to priority schedule	8.a.vi, 8e	Update/revise inspection checklist as needed	Conformation – identify that checklist was updated	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain tracking system of inspection data	8.a.v., 8e	Document number of sites subject to inspection and number of inspections completed	Tabulation – track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	
Enforcement (Public and Private Projects)										
Revise Enforcement Policy as Needed	8.a.vii	Evaluate and revise enforcement policy as needed	Conformation - track number of revised/new materials; number materials distributed in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	October 1 each year
Maintain tracking system of enforcement data	8.a.v	Decrease in number of enforcement actions	Tabulation – measure decrease in enforcement as measure of changed behavior	⇔	⇔	⇔	⇔ ③	⇔	⇔	
Notify Regional Water Board about CGP non-filers and when 3 or more violations of local stormwater ordinance at a site.	8.a.vii, 8e	Track referrals made to Regional Water Board for non-filers and chronic violations	Tabulation – track number of referrals and follow-up actions	⇔	⇔	⇔	⇔	⇔	⇔	
Track repeat offenders and problem areas	8.a.v	Decrease in number of chronic violations, repeat offenders and/or non-filer referrals	Tabulation - track changes in quantities from year to year in AR	⇔	⇔	⇔	⇔ ③	⇔	⇔	October 1 each year
Interdepartmental Coordination										
Develop interdepartmental agreements/ protocols as needed to ensure compliance	8f	Submit completed agreements/protocols if developed.	Confirmation - describe/include agreements in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1 each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.3-1 – City of Elk Grove SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Education and Training (Internal and External)										
Conduct annual refresher training for City staff involved in construction	8.a.viii	Target 100% City and contractor staff receive annual refresher training.	Confirmation/ Tabulation	⇔	⇔	⇔	⇔	⇔	⇔	
Produce educational literature for construction community	8.a.viii	Send out a wet season procedure letter to active construction sites. Wet season is defined as October 1 to April 30.	Tabulation – track number of letters sent	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct training for the construction community	8.a.viii	Conduct at least one workshop/year (target is pre-wet season)	Tabulation – track training activities performed.	⇔	⇔	⇔	⇔	⇔	⇔	
	8.a.viii	Increased awareness of construction community as a result of training	Tabulation – measure raised awareness based on surveys or available research data	⇔	⇔	⇔	⇔ ②	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.4-1 – City of Elk Grove SQIP
Commercial/Industrial Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise stormwater ordinance as needed	9.a.i		Revise stormwater ordinance (if needed)	Confirmation - report revisions in AR	⇔	⇔	♦ ⇔	⇔	⇔	⇔	1 year following RB approval of SQIP
Complaint-Based Stormwater Compliance Program – City Stormwater Section											
Update enforcement policy as needed	9.a.iii-viii		Updated enforcement policy (if needed)	Confirmation - report revisions in AR	⇔	⇔	♦ ⇔	⇔	⇔	⇔	1 year following RB approval of SQIP
Investigate business-related complaints	9.a.iii-viii		Document/quantify business-related complaints investigated in addition to inspections conducted by EMD.	Tabulation – track number of complaints investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii		Decrease in enforcement actions from one permit cycle to the next.	Tabulation – track number of enforcement actions issued	⇔	⇔	⇔	⇔	②	⇔	
Conduct workshops, upon request, for the regulated community in coordination with EMD.	9.a.iii-viii		Document/quantify workshops requested and conducted in collaboration with EMD.	Tabulation - track number workshops held, number people reached in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1,
Database - track inspections, enforcement and outreach materials distributed, businesses by category	9.a.iii-viii		Data will be provided by EMD.	Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCP or Educational Outreach					②		
Refer potential Industrial General Permit non-filers to the Regional Water Board	9.a.iii-viii		Document/quantify potential non-filers referred to Regional Water Board	Tabulation – Track number of non-filers referred	⇔	⇔	⇔	⇔	⇔	⇔	
Track NOIs filed for potential non-filers referred to the Regional Water Board	9.a.iii-viii		Increase in percentage of non-filers referred to Regional Water Board filing NOIs	Tabulation – Track percentage of non-filers referred that gained coverage					②		

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.4-1 – City of Elk Grove SQIP
Commercial/Industrial Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document/quantify Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Provide enforcement support to Regional Water Board related to, including providing staff for joint inspections when available and appropriate	9.a.iii-viii		Document/quantify support efforts	Tabulation – Track number of cases where support was provided to the Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach											
Develop industry and pollutant-specific educational materials	9.b.iii		Quantify industry and pollutant-specific educational materials developed in collaboration with EMD.	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Track industry and pollutant-specific materials distributed	9.b.iii		Document/quantify industry and pollutant-specific materials distributed in collaboration with EMD.	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.5-1 – City of Elk Grove SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response										
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.	Refer to Illicit Discharge Element		⇔	⇔	⇔	⇔	⇔	⇔	
New Development and Construction Requirements for Municipal Capital Improvements Projects										
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i	Refer to Construction and New Development Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management										
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.	Continue to implement Municipal SWPPPs at facilities not covered under the State General Industrial Permit.	Confirmation / Tabulation- Track number of Municipal SWPPPs	⇔	⇔	⇔	⇔	⇔	⇔	
Evaluate SWPPP implementation and effectiveness at municipal facilities		Document evaluations performed	Inspection and Tabulation - Track number of evaluations performed, identify BMPs implemented and activities modified as a result of evaluations.	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. The ability to assess effectiveness of identified performance standards may be limited pending availability of baseline data

Table 6.5-1 – City of Elk Grove SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Integrated Pest Management Program										
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv. , 10.b.iii.			⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain System Maintenance										
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Clean prioritized basins		Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	October 1, each year
Visually monitor permittee owned open channels and perform the necessary maintenance.		Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Drain Inlet Stenciling Program										
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi	Document number of storm drain inlets labeled by City Crews	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Street Sweeping Program										
Conduct street sweeping activities	10.a.vii. , 10.b.v.			⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. The ability to assess effectiveness of identified performance standards may be limited pending availability of baseline data

Table 6.5-1 – City of Elk Grove SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Clean prioritized streets according to prioritization requirements established in 2002-2007 Permit Term		Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	October 1, each year
Prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and sawcutting slurry from discharging to the storm drain system.		Implement BMPs during road maintenance and construction activities	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Parking Lot Maintenance										
Maintain Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.viii., 10.b.vi.	Evaluate Parking lot maintenance programs and adjust as needed	Confirmation / Inpection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Non-Emergency Fire Fighting Flows										
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant source of pollutants to waters of the State. The response plan and BMPs shall be updated and submitted with the Annual Reports.	10.a.ix. , 10.b.ix.	Implement BMPs for non-emergency flows	Confirmation - Document that BMPs are implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Employee Training										

⇔ Ongoing activity/task ◆ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. The ability to assess effectiveness of identified performance standards may be limited pending availability of baseline data

Table 6.5-1 – City of Elk Grove SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Provide regular internal training on applicable components of the SQIP	10.a.x. , 10.b.x	Increase awareness of available BMPs and pollution prevention practices	Tabulation / Survey - Track number of employees trained and monitor changes in awareness	⇔ ❸	⇔ ❸	⇔ ❸	⇔ ❸	⇔ ❸	⇔ ❸	
Detention Basin Maintenance										
Implement Detention Basin Operation and Maintenance Program	10.b.vii.	Evaluate program to ensure that adequate BMPs are implemented	Confirmation / Tabulation- Track number of activities modified	⇔	⇔	⇔	⇔	⇔	⇔	
Emergency Procedures										
BMPs shall be implemented during emergency responses to minimize pollutants discharged to the storm drain system as long as it does not compromise public health and safety.	10.b.viii.	Increase awareness of BMP implementation during emergency responses	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Municipal Operations Element Effectiveness Assessment (Key Indicators)										
Conduct and assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.	10.a.xi.			⇔	⇔	⇔	⇔	⇔	⇔	October 1,

⇔ Ongoing activity/task ◆ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. The ability to assess effectiveness of identified performance standards may be limited pending availability of baseline data

Table 6.6-1 – City of Elk Grove SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Adopt stormwater ordinance revisions as recommended	11.a.i		Revised stormwater ordinance (if recommended) - also see Section 6.2	Confirmation - report revisions in AR	⇔	◆⇔	⇔	⇔	⇔	⇔	Revisions reported as needed, update due 9/10
Reporting of Illicit Discharges and Connections											
Continue to operate a public hotline (687-3005) for reporting of illicit discharges and connections, and route callers to the appropriate department.	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - The City will track number of complaints received through 687-3005 and Contact Management Software	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
The City maintenance crews will continue to report illicit discharges and connections within the City	11.a.ii	✓	Decrease in number of reports of illicit discharges and connections reported by City crews	Tabulation - The City will continue to track reports from crews	⇔	⇔	⇔	⇔	⇔ ③	⇔	October 1, each year, EA due 12/13
Screening for Illicit Connections											
The City maintenance crews will continue to report illicit discharges and connections within the City	11.a.ii ; 11.b.ii	✓	Decrease in number of illicit connections detected by field screening activities since last permit term	Tabulation - The City will include number of illicit connections detected via field screening activities in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	October 1, each year, EA due 12/13
Investigations of Illicit Discharges and Connections											
The City will continue to conduct investigations of illicit discharges (hazardous and non-hazardous)	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report; hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - The City will include number of investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
		✓	Decrease in number of illicit discharges investigated since last permit term	Tabulation					③		EA due 12/13
The City will continue to conduct investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - The City will include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.6-1 – City of Elk Grove SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
		✓	Decrease in number of illicit connections investigated since last permit term	Tabulation					③		EA due 12/13
Illicit Discharge and Connection Response, Containment and Cleanup											
The City will develop response, containment and cleanup procedures, revise as needed			Revised response, containment and clean up procedures (if needed)	Confirmation - Report revisions in AR	⇔	⇔◆	⇔	⇔	⇔	⇔	October 1, each year, update due 09/10
The City will continue to respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Decrease in number of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - The City will track number of illicit discharge responses	⇔	⇔	⇔	⇔	⇔③	⇔	October 1, each year, EA due 12/13
The City will continue to respond to and abate illicit connections	11.a.iii ; 11.b.ii	✓	Decrease in number of responses and abatements of illicit connections since last permit term	Tabulation - The City will track number of illicit connections abated	⇔	⇔	⇔	⇔	⇔③	⇔	October 1, each year, EA due 12/13
Enforcement											
The City will revise enforcement policy as needed			Revised enforcement policy (if needed)	Confirmation - The City will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
The City will continue to conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in number of enforcement actions since last permit term	Tabulation - The City will track number of enforcement actions conducted	⇔	⇔	⇔	⇔	⇔③	⇔	October 1, each year, EA due 12/13
Data Management											
The City will continue to maintain database to track its investigations, enforcement actions and outreach materials distributed	11.a.v		Completed revisions of database or its uses (if needed)	Confirmation - The City will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
The City will continue to map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - The City will submit map and report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Outreach/Training											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.6-1 – City of Elk Grove SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
The City will continue to distribute educational materials to public, and document/quantify materials distributed	11.b.vi		Completed revisions of outreach materials (if needed) and tabulations of number of individuals that received outreach materials	Confirmation/Tabulation - The City will track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Conduct annual training Re: field screening and illicit discharge response for crews	11.b.vi		Track number of employees trained (City engineers and City construction inspectors, etc.)	Tabulation - Track number of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
			Increase in awareness among employees regarding illicit discharges and connections since previous permit term	Survey - Quiz employees annually to assess changes in awareness	⇔	⇔	⇔	⇔	⇔ ③	⇔	EA due 12/13
Facilitation of Proper Household Hazardous Waste Disposal											
Continue to provide pickup services for used motor oil, and maintain satellite facilities for universal waste disposal using contract services with private hauling company			Increase in the quantities of household hazardous waste collected from public since previous permit term	Tabulation - Track amounts of HHW collected in City by hauling contractor; provide information to City for inclusion in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	October 1, each year, EA due 12/13
The City will continue to maintain operation of the City's household hazardous waste drop-off centers		✓	Increase in the quantities of household hazardous waste collected from public since previous permit term	Tabulation - The City will track amounts of HHW collected at City sites	⇔	⇔	⇔	⇔	⇔ ③	⇔	October 1, each year, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.7-1 – City of Elk Grove SQIP
Public Outreach Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
The activities described in this table are in addition to regional Public Outreach activities described in Chapter 2 (Section 2.6).											
Public Outreach											
Educate and inform City managers and elected officials through presentations and other means; invite to public community events	12.a.iii, b.iii		Document/quantify impressions made in annual report	Tabulation-track no. of people educated each year		⇔	⇔	⇔	⇔	⇔	October 1, each year
Update and continue to maintain stormwater web page on City's web site to educate and inform general public, advertise public reporting hotline, and provide links for resources.	12.a.iii, b.iii		Submit completed web page link with annual report.	Confirmation		♦ ⇔	⇔	⇔	⇔	⇔	Update web site during 09-10 FY and provide link with AR.
Periodically publish articles regarding stormwater pollution prevention in City newsletter or other appropriate local media.	12.a.iii, b.iii		Describe articles and provide copies with annual report	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Continue to sponsor annual Creek Week events hosted by CCSD.	12.a.i and iii, b.i and iii		Quantify waste/debris collected during cleanup events (partial measure of amount of materials prevented from polluting local creeks)	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	October 1, each year
			Document number of volunteers engaged in the cleanup activities	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	October 1, each year
Continue to promote volunteer stenciling of storm drain inlets.	12.a.i and iii, b.i and iii		Track activities along with work done by City crews during routine maintenance								
Continue to coordinate with school district to deliver stormwater message to schoolchildren	12.a.iv		Track number of students who attend classroom presentations in addition to materials distributed.	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	October 1, each year
Sponsor and staff stormwater booth at local community events (e.g., Western Festival, Harvest Festival, Walk on the Wildside)	12.a.i and iii, b.i and iii		Document approximate number of residents and others reached at each event; track quantities of literature distributed	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	October 1, each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.8-1 – City of Elk Grove SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles as needed.	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1,
Condition priority development projects through CEQA to include stormwater quality control measures as applicable.	13.b-d, 13.g, 21		Update list of priority development project conditioned.	Tabulation - track number of projects conditioned and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Conduct an assessment as described in the SQIP to determine the effectiveness of the program and identify any necessary modifications	13.i	✓	Track the incorporation of stormwater quality measures from the planning phase until completion of project.	Tabulation - compare # of projects that submitted Pre-Application forms to # of projects that implemented the stormwater quality measures correctly.	⇔	⇔	⇔	⇔	⇔	⇔ ③	
Development of Standards and/or Guidance											
Develop Low Impact Development (LID) design criteria	15.b		Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔ ♦				6 months after approval of HMP.
Technical Guidance and Information for Developers	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development standards.

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.8-1 – City of Elk Grove SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop HMP Work plan as part of the revised SQIP.	15.c		Partnership will outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔	♦					April 30, 2009, with this SQIP.
Develop HMP	15.c		Partnership will develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento. Then develop the HMP Decision Tool.	Confirmation - Submit work products to Regional Water Board **1 year** after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan
Develop design criteria for hydromodification management measures.	15.c, 26		Partnership will include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards
Develop a mitigation fund if needed	19		The City will develop a mitigation fund framework to support regional stormwater projects, if needed.	Confirmation – develop framework when needed and submit to Regional Board.							
Develop a waiver program	20		The City will participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.8-1 – City of Elk Grove SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Protect groundwater quality	23		Partnership will integrate restrictions regarding the use of infiltration facilities in areas of high groundwater table into design criteria.	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned.	Tabulation - track number of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	October 1,
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track number of projects conditioned and report in Annual Report.				♦ ⇔	⇔	⇔	
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track number of projects conditioned and report in Annual Report.				♦ ⇔	⇔	⇔	
Develop a database to track priority projects that have been issued a permit to construct treatment control measures.	22		Update database of priority projects	Tabulation - track number of projects that completed the construction of treatment control measures and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.8-1 – City of Elk Grove SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct an assessment as described in the SQIP to determine the effectiveness of the program and identify any necessary modifications	13.i	✓	Increase in number of priority projects that incorporated treatment measures.	Tabulation - Compare # of acreage treated to total acreage developed and report in Annual Report.			③	③	③	③	
Stormwater Maintenance Agreement											
Verify maintenance of treatment measures	13.b, 13.e, 18		Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures.	Tabulation and Confirmation – track number of executed maintenance agreements and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
Require property owners to self-certify the maintenance of the treatment measures on their sites annually			Track number of self certification requests.	Tabulation – track number of responses to self-certification requests.							
	13.i	✓	Increase awareness of proper maintenance procedures.	Tabulation - track response time to demonstrate proper maintenance.	⇔	⇔③	⇔③	⇔③	⇔③	⇔③	
	13.i	✓	Reduction of sediment from stormwater runoff treated in manufactured devices.	Quantification - track depth of sediment removed from manufactured devices.	⇔	⇔	⇔	⇔	⇔	⇔④	
Outreach and Training											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 6.8-1 – City of Elk Grove SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct outreach to the development community about the latest stormwater quality policies and requirements.	24		Continue outreach about the Planning and New Development Program Element	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
	13.i	✓	Increased awareness of stormwater quality requirements and criteria.	Tabulation – Estimate raised awareness based on surveys or available research data.	⇔	⇔	⇔	⇔ ②	⇔	⇔	
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to required staff.	Tabulation – track number of employees trained and report outcome in the Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	October 1, each year
	13.i	✓	Increase awareness of targeted employees about stormwater quality requirements.	Tabulation – Estimate raised awareness based on surveys or available research data	⇔	⇔	⇔	⇔ ②	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Chapter 7

City of Folsom Stormwater Quality Improvement Plan

7.1 Introduction

The Folsom Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Folsom is a permittee. The city-specific activities described in this chapter are conducted in addition to the regional activities implemented jointly with the other permittees as described in Chapter 2. The required certfication for the SQIP is presented at the front of the entire SQIP document.

Background

Folsom became a permittee to the Stormwater Permit when it was first issued in 1990 and has been an active partner in the Sacramento Stormwater Quality Partnership (Partnership) since that time. The Stormwater Permit is issued to Folsom and six other co-permittees (Sacramento County and the cities of Citrus Heights, Elk Grove, Galt, Rancho Cordova and Sacramento) by the Central Valley Regional Water Quality Control Board (Regional Water Board). The Stormwater Permit has been renewed three times: in 1996, 2002, and most recently in 2008 (2008-13 permit term).

Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

City of Folsom Characteristics

The City of Folsom (population about 72,000) is a full service City with a council-manager form of government. Major City-provided services include Public Works, Redevelopment and Housing, Community Development, Police, Fire, Parks and Recreation, and Utilities, as illustrated on Figure 7.1-1. The Stormwater Program is administered by the Public Works Department.

Folsom, rich in California gold rush history, was founded in 1856 and incorporated in 1946. Folsom lies 22 miles northeast of Sacramento along the Highway 50 corridor (see Figure 7.1-2). Folsom straddles the wooded and historic banks of the American River. Folsom Lake and Lake Natoma are at Folsom's border, offering many recreational activities.

Folsom is primarily a residential community with an abundance of parks and open space and diverse commercial and retail establishments which offer a vibrant economic center. The City is also home to several major regional employers such as Intel, Kikkoman Foods, Mercy Hospital, and Kaiser-Permanente.

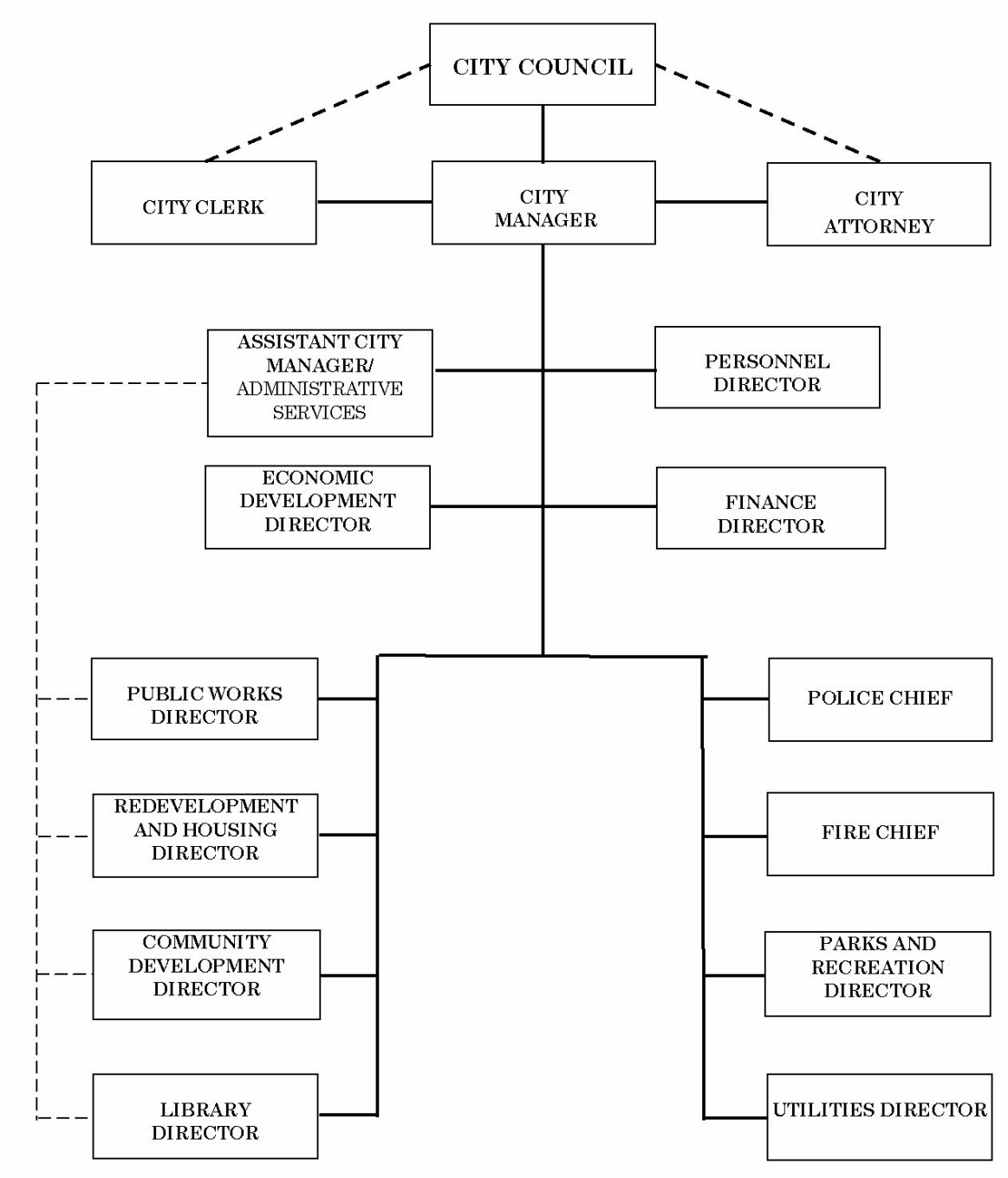
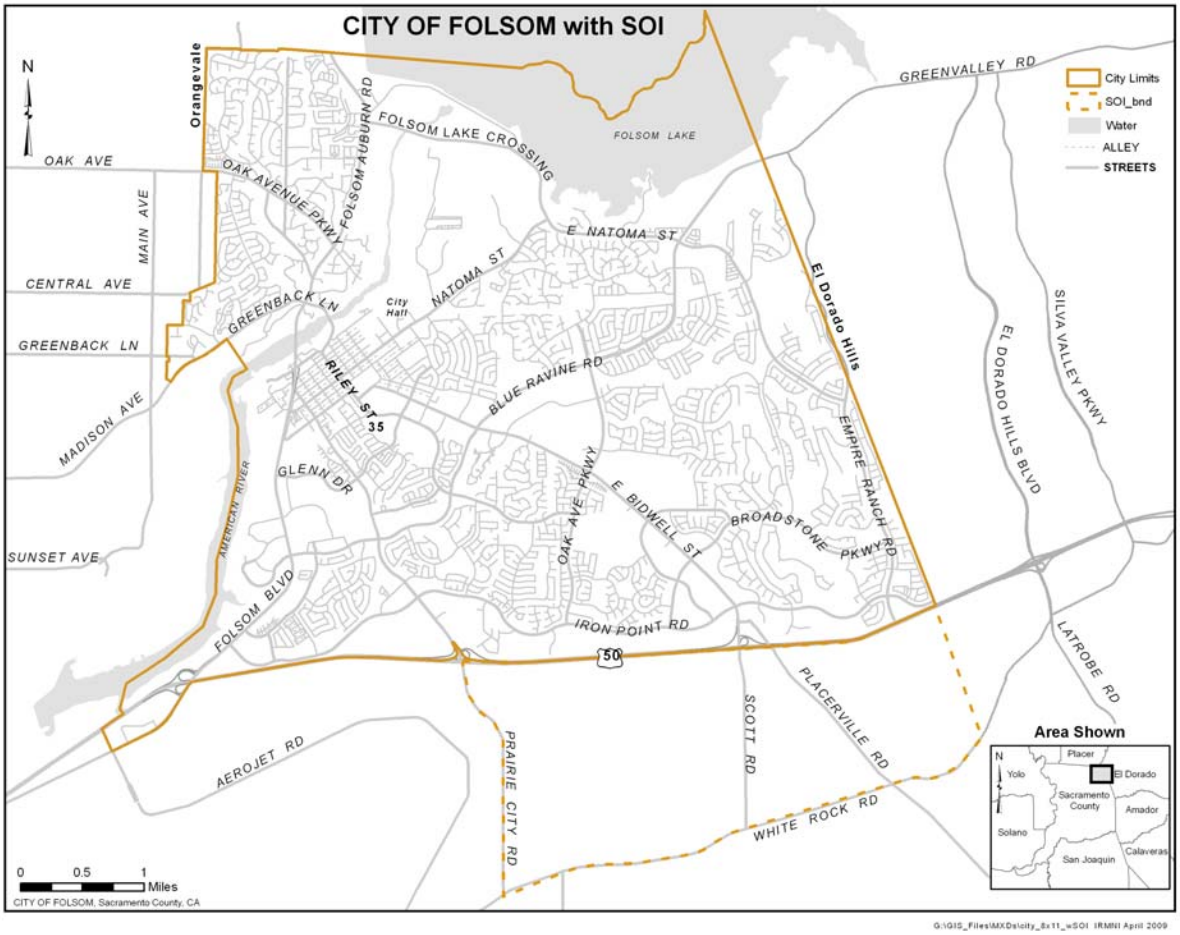


Figure 7.1-1. City of Folsom Organization Chart

Figure 7.1-2 City Map



Folsom State Prison is located in Folsom, but the City has no jurisdiction over the prison operation. The prison discharges stormwater runoff directly to the American River and wastewater is directed to the City's sanitary sewer collection system which directs wastewater to the Sacramento Area Sewer District (SASD) system and from there to the regional wastewater treatment plant in Elk Grove.

In addition to the American River, there are a number of waterways that traverse Folsom, including Hinkle, Alder, Willow and Humbug Creeks. The Willow and Humbug Creek corridor is a natural 11-mile urban parkway with connected recreational trails traversing the City. Folsom takes pride in its waterways and strives to integrate them into the community lifestyle that is uniquely Folsom. The City's stormwater web page (http://creeks.folsom.ca.us) includes a copy of the City's creek awareness brochure with an artist's graphic illustration of Folsom's creeks.

The City of Folsom Sphere of Influence, located south of U.S. Highway 50 (see Figure 7.1-2), was approved by the Sacramento Local Area Formation Commission (LAFCo) in 2001. The Sphere of Influence area is about 5.6 square miles (3,600 acres) in size. The City is proceeding with the environmental review process that is required for formal annexation. After annexation of the SOI (anticipated in 2010) the City will grow to approximately 15,470 acres in size and the population is expected to grow by about 26,500 following build out in that area.

Overview of Folsom's SQIP

This SQIP describes activities that Folsom will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Water Board on October 1 each year.

Following this introduction, there are sections to describe activities related to seven major program elements, presented below in the order in which they appear in the Stormwater Permit:

Section 7.2: Program Management — An overview of Folsom's Stormwater Management Program, including how the program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies.

Section 7.3: Construction Program Element —Activities designed to control the runoff of sediment and other pollutants from construction sites.

Section 7.4: Commercial/Industrial Program Element — Activities and control programs designed to reduce pollutants in stormwater discharges from priority industrial and commercial facilities and effectively eliminate non-stormwater discharges associated with these facilities.

Section 7.5: Municipal Operations Program Element — Activities designed to control stormwater pollution resulting from operation of City facilities and utilities and to set an example of model pollution prevention for the public.

Section 7.6: Illicit Discharge and Detection Program Element — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters by the general public and facilities not addressed in Section 7.4.

Section 7.7: Public Outreach Program Element — Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

Section 7.8: New Development Program Element — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

7.2 Program Management

This section of the SQIP describes the organization, legal authority and funding arrangements for the City's program, as well as program management activities for the 2008-13 permit term to ensure continued compliance with the stormwater permit. The City's Stormwater Program Manager conducts the activities and prepares the compliance deliverables described in this plan, coordinates with internal and external groups, ensures that adequate funding and legal authority is in place, and confirms that annual employee training is conducted.

Program Organization and Staffing

The City of Folsom Stormwater Management Program resides within the Department of Public Works, and the Director of Public Works is responsible for overseeing the program and certifying all compliance deliverables. The City has designated staff in the following departments to conduct the management, engineering, planning and maintenance activities required by the Stormwater Permit:

- Department of Public Works (PW)
- Department of Utilities (UT)
- Department of Community Development (CD)
- Department of Parks and Recreation (PR)
- Department of Finance (F)
- City Attorney's Office

Table 7.2-1 summarizes the roles and responsibilities of the various City Departments for implementation of the stormwater program and also includes estimated allocation of resources for the 2009-10 fiscal year. Staff resources are shown in full time equivalent (FTE) increments. FTE staff estimates for staff in other departments related to Stormwater Permit compliance tasks are not shown on this table because these costs are not currently tracked in a separate charge/project number.

Due to the many departments involved, the City formed an intradepartmental Stormwater Committee, with at least one representative from each affected department, to ensure program success and dissemination of information. The Committee meets periodically throughout the year to discuss current issues and ensure all required activities are being performed in compliance with the Stormwater Permit and this SQIP.

Legal Authority

Legal authority for Folsom's Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations.
- The General Plan contains water quality protection policies.
- City improvement standards and other City adopted documents specify standards and specifications as needed.
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City Attorney's legal certification of adequate legal authority for controlling urban runoff pollution and implementing the activities described in this SQIP is presented in Appendix 7A.

Table 7.2–1. City of Folsom Responsibilities for Compliance with Stormwater Permit

Department/Group	Responsibilities for Compliance with NPDES Stormwater Permit	FTE[1]
Public Works		
Administration/ Engineering	Administers and manages Folsom's Stormwater Management Program. Provides liaison with the Regional Water Board and coordinates regional activities with permittees and County EMD. Oversees training for targeted City employees. Conditions City projects to ensure compliance with stormwater management program. Conducts stormwater inspections (construction, illicit discharge, some commercial sites) to ensure compliance with Stormwater Ordinance.	2
Street Maintenance	Provides staff to clean storm drains, sweep streets and perform streambed maintenance each year. Provides on going maintenance of storm drainage facilities. Monitors for illegal connections and illicit discharges and is responsible for the storm drain stenciling program.	*
Utilities		
Engineering	Ensures that Utility projects and maintenance practices are incompliance with stormwater quality requirements.	*
Sewer Maintenance	Field and video inspections for illegal connections and illicit discharges, responds to spill clean ups.	*
HazMat	Responsible for the household hazardous waste collection program. Administers solid waste recycling program. Assists in enforcement and response to illicit discharges.	*
Water Conservation	Provides a variety of water efficiency services for residents and businesses to reduce water use, including more efficient irrigation practices to reduce runoff.	
Community Development		
Support Staff, Engineering and Planning	Conditions development and improvement plans, implements California Environmental Quality Act requirements and General Plan amendments, and reviews improvement plans for stormwater management program compliance.	*
Code Enforcement	Responsible for enforcement of City Code violations including Stormwater Management and Discharge Control Ordinance.	*
Building Inspection	Performs inspections and monitors for compliance of private development construction projects from the meter to the building.	*
Construction Inspection	Performs inspections and monitors for compliance of private development and major public works construction projects within the public right of way.	*
Parks and Recreation		
Planning & Maintenance	Development of park plans and trails projects consistent with stormwater management program. Optimize application of fertilizers, herbicides, and pesticides to prevent runoff.	*
Zoo Division	Maintain public education displays at zoo.	*
Fire		
	Development/rehab of fire station projects consistent with stormwater management program. Ensures that permit provisions related to emergency and non-emergency fire fighting flows are addressed. Responsible for response to hazardous and after hour illicit discharges.	*
Finance		
	Provides budget support and assists with the Stormwater Program Funding Project.	*
City Attorney's Office		
	Answers legal questions posed by Stormwater Program, interprets regulations, prepares and reviews agreements, possible future changes to SW Ordinance, etc.	*

[1] FTE: Full Time Equivalent, based on 2080 hours per year. Capital/operating costs are not included.

*Time spent by staff in other departments on Stormwater Permit compliance tasks is not currently tracked in a separate charge/project number.

City Codes

The City of Folsom Municipal Code and adopted ordinances form the basis for the legal authority for Folsom's Stormwater Management Program. The Folsom Municipal Code can be accessed at:

http://www.folsom.ca.us/government/default.asp

The predominant municipal code provision is in Title 8 - Health, Sanitation and Welfare, Chapter 8.7 - Stormwater Management and Discharge Control (also know as the "Stormwater Ordinance"). It prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., flows from emergency fire-fighting activities) pursuant to NPDES federal regulations. The Stormwater Ordinance provides legal authority to Folsom and Sacramento County for inspections and enforcement related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and local creeks. In addition, the ordinance provides legal authority to Sacramento County (Environmental Management Department) +to conduct stormwater compliance inspections and enforcement at many types of industrial and commercial facilities in Folsom..

A number of other code sections also provide Folsom with additional legal authority. Those include:

- Title 1 General Provision - Chapter 1.08 Enforcement of Folsom Municipal Code and other Applicable Laws, Chapter 1.09 Administrative Violations and Administrative Enforcement Procedures, Chapter 1.10 Additional Remedies.
- Title 9 Public Peace, Morals and Safety – Chapter 9.34 Hazardous Materials Disclosures.
- Title 12 Street and Sidewalks – Chapter 12.20 Use of City Property (encroachment requirements and watercourse protection).
- Title 13 Water and Sewer – Chapter 13.16 Septic Tanks, Cesspools and Privies – Definition, Chapter 13.20 Septic Tanks, Cesspools and Privies – Regulations.
- Title 14 Building and Construction – Chapter 14.29 Grading (drainage plans, erosion control and flood prevention), Chapter 14.33 Hillside Development Standards.

General Plan

The City of Folsom adopted its General Plan in 1988 and has had a number of subsequent amendments. A copy of the current General Plan can be found in Appendix 7B.

The General Plan is the long-term policy guide for the physical, economic, and environmental growth of the City. It is composed of goals, policies, and implementation programs, all based on an assessment of current and future needs and available resources. The General Plan contains the provisions that lay the framework for protection of water quality and implementation of the Stormwater Management Program. The adopted General Plan policies that apply to the Stormwater Management Program are listed by Element as follows:

Land Use Element

Policy 1.9 — "Development proposed along streams shall be in conformance with a comprehensive development and management plan to be prepared for stream waterbeds prior to project approval."

Policy 2.2 — "The City will prepare area or specific plans as appropriate to further refine the standards and regulations for development."

Open Space and Conservation Element

Policy 25.1 — "The surface and groundwater quality of Folsom shall not be degraded from City Standards."

Policy 28.2 — "The quality and quantity of surface water runoff from a property shall not exceed existing flows or existing quality or shall comply with City standards for off-site drainage. The City shall implement a surface-runoff water quality monitoring program to insure compliance with City standards."

Safety Element

Policy 29.3 — "The City shall develop standards for building within the 100 year floodway to assure that the water flows above stream and downstream from a property will not be altered from existing levels."

Public Facilities Element

Policy 40.2 — "The City shall require the preparation of a facilities plan for an identified area…"

Policy 40.3 — "An area facilities plan shall include, but not be limited to the following:

1) A statement of the plan's consistency with the Folsom General Plan and the City's Urban Development Policy.

2) Identification of the nature and extent of facilities necessary to serve the area and a schedule of estimated time within which facilities must be constructed…"

In addition to Folsom's General Plan policy requirements which address protection of water quality, the City may require Area, Specific or Facilities Plans for each new development that directly address drainage and water quality issues. These documents discuss the NPDES permitting requirements and the City of Folsom's Stormwater Management Program. Each development must identify how it intends to be in compliance and describe mitigation measures it will take if it cannot comply. Typical drainage plans minimize the total amount of additional surface runoff and limit the flows released to existing pre-development levels. Other mitigation measures usually include stormwater quality control measures such as detention basins, channel protection, and maintenance plans. Temporary construction best management practices (BMPs) such as erosion and sediment controls, are also required.

Standards

Folsom's *Design and Procedures Manual* and *Improvement Standards and Standard Construction Specifications* (including Standard Construction Drawings) are applicable to all projects citywide, private or public. See Section 7.8 for more details.

The City uses the County's erosion and sediment control standards and specifications; see Section 7.3 for more information.

Guidance for design, construction and maintenance of post-construction stormwater quality control measures is provided in the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*. The City of Folsom was an active participant in the interagency steering committee that produced this document in May 2007. In addition, the City requires a standard maintenance agreement to ensure long term maintenance of post-construction stormwater quality treatment facilities. See Section 7.8 for additional details.

Funding

Revenue for administrating Folsom's stormwater program are derived from many different City sources. Since the City does not have a separate stormwater utility fee like some of the other permittees, it must rely on a combination of General Fund revenue, special revenue and miscellaneous fees. General Fund revenue derives primarily from property and sales taxes. Special revenue and miscellaneous fees include development impact fees, park development fees, and other capital project revenue. Other possible sources of funding include sewer, water and solid waste utility funds.

Portions of these revenues pay for staff positions responsible for conducting activities in compliance with the Stormwater Permit.

During the 2008-13 permit term, the City will continue working towards establishment of a dedicated funding source for stormwater services, including NPDES permit compliance and operation and maintenance of the storm drain system. The challenges in this endeavor are the Proposition 218 restrictions[1] and the need for property owner approval of any new stormwater management-related fee. Over the last few years, other cities in California have tried to set up such a fund and failed due to lack of public support. The City completed an initial funding feasibility study, further studies and a strategy for implementation are still needed. The City is waiting for the state of the economy and its own budget situation to improve to move forward.

Implementation Priorities

Folsom's SQIP sets out the basic goals and activities for the program, with the ultimate goal being protection of water quality and compliance with the stormwater permit by implementing a program to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP). For the most part, what constitutes "MEP" is defined by the activities (e.g., "performance standards") established by the stormwater permit.

In areas of the permit where the level of effort is not prescribed, the definition of MEP can vary slightly from year to year based on various factors, some of which (e.g., natural disasters, extreme flood events) are outside the City's control. Program priorities are also influenced by the amount of time and resources needed to respond to the public, environmental groups, and regulatory agencies on various issues of concern. These response activities are impossible to predict, but become a top priority for the City.

The City evaluates priorities each year as part of its budgeting process. Prioritized activities are proposed in the Work Plan for the coming fiscal year, which is submitted to the Regional Water Board on May 1 each year. Priorities and associated activities are then finalized before the start of the fiscal year on July 1.

In the Annual Report (due October 1 each year), the City reports on its ability to meet its goals and stated priorities for the reporting fiscal year.

Training for City Staff

The City provides training for the City stormwater construction inspector, as well as planning, maintenance, engineering, construction and development staff from the various departments listed on Table 7.2-1. All affected City staff and contractors are regularly informed and updated concerning the Stormwater Permit and its impacts on their positions and responsibilities. City specifications require contractors to provide their own training.

The following compliance areas are covered in annual refresher training:

Construction Element

Main Objective: To promote proper use of erosion and sediment control and other construction-related pollution prevention for private and City-owned construction projects.

[1] The general intent of Proposition 218 – passed by the voters of California in 1996 - is to ensure that all taxes and most charges on property owners (including fees for stormwater pollution control services) are subject to voter approval. http://www.lao.ca.gov/1996/120196_prop_218/understanding_prop218_1296.html

Targeted employees: Public Works and Community Development staff responsible for permit approval, stormwater pollution prevention plan (SWPPP) and erosion control plan review, and construction and stormwater compliance inspections.

Municipal Operations and Illicit Discharge Elements

Main Objective: To promote a clear understanding of the potential for maintenance activities (including vehicle wash water) to pollute storm water, and identify and select appropriate BMPs. Courses will include training on identification, investigation, termination, cleanup, and reporting of illicit connections and discharges.

Targeted employees: Public Works (Streets and Drainage), Utilities (Sewer/Water), Parks, Fire and Police Department staff responsible for road and street maintenance, facility maintenance, maintenance yard, park maintenance, design, construction and maintenance contract oversight, storm drain system maintenance, vehicle and equipment maintenance, pesticide application and material and waste management.

New Development Element

Main Objective: To educate and inform about the various departments' roles in implementing the City's development standards applicable to stormwater quality control measures to prevent pollution, reduce runoff and treat runoff. The standards apply to both private and City-owned development projects.

Targeted employees: Public Works, Community Development, Parks and Fire Department staff responsible for design/redevelopment of City-owned facilities, and review and approval of private new development and redevelopment projects.

Training courses will generally cover the following topics:

- General stormwater/urban runoff quality awareness objectives: where runoff goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- Information about enforcement and penalties appropriate to the audience.
- How to report/refer observed problems in the field.
- Public outreach materials that can be distributed by City crews to the public, and how to refer the public to stormwater program staff for answers.

Training accomplishments will be documented in the Annual Reports.

Recordkeeping and Reporting

The City's stormwater program staff maintains NPDES Stormwater Permit compliance files in the Public Works Department, including all documentation necessary to demonstrate compliance with the permit. As required, the City retains copies of all records and reports from the date of generation for at least five years.

The City prepares and submits the following documents to the Regional Water Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the SQIP, if needed.

Records and data are collected from all responsible City departments and groups each summer to prepare the Annual Report. Other groups (e.g., County EMD) will assist in compiling and describing information for the activities it conducts on the City's behalf.

Coordination with Other Agencies and Programs

Sacramento Stormwater Quality Partnership

As described in Chapter 2, Section 2.2, the City is a party to the Partnership's memorandum of understanding (MOU) which describes cost sharing arrangements for support of regional program activities which benefit all permittees. In addition, Folsom participates in regular (approximately bimonthly) Steering Committee coordination meetings to discuss topics such as:

- Implementation of regional program activities (described in Chapter 2 of this plan), such as monitoring, target pollutant reduction and regional public outreach.
- Status of consultant contracts and work products.
- Funding of mutually beneficial activities conducted by others, such as the Brake Pad Partnership and the development of CASQA statewide BMP handbooks.
- Overall program evaluation and effectiveness assessment.
- Proposed modifications to the SQIPs and/or Stormwater Permit.
- Regulatory changes/evolution and potential impacts to the Partnership and individual permittees.

Outside Agencies

The City coordinates with various local and regional agencies (over which it lacks jurisdictional control) in order to ensure City-wide compliance with the Stormwater Permit:

- Sacramento Regional County Sanitation District (SRCSD) - owns and operates the interceptor collection system and wastewater treatment plant, to which the City's sanitary sewage is delivered
- Regional Transit - owns and operates the Light Rail spur in Folsom and one of the park and ride lots
- Folsom Cordova Unified School District - owns and operates various schools in the City (see list in Section 7.7) and will construct new schools in the future
- El Dorado and Placer County - neighboring counties which are not permittees to the Sacramento municipal stormwater permit
- US Bureau of Reclamation (USBR) - owns the American River Parkway and lower portion of Alder Creek
- California State Parks - contracted by USBR to manage open space and park lands
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric and other local utilities - own private utilities in the public right of way and have maintenance easements to repair/replace facilities as needed
- Caltrans - owns and maintains several Hwy 50 interchanges and will work with City in the future to construct new interchanges to service the SOI area

Other Stormwater Programs in the State

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This City is a member of the California Association of Stormwater Quality Agencies (CASQA) and attends annual conferences and general meetings whenever possible.

Activities for 2008-13 Permit Term

Table 7.2-2 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with various provisions of the Stormwater Permit, as indicated on the table.

This section describes the planned activities in more detail.

Legal Authority

Update Codes and Standards As Needed

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program within one year of the Regional Water Board's approval of the SQIP, as required by the Stormwater Permit. The City will also adopt needed changes to the Standard Construction Specifications and the Design and Procedures Manual, as well as the *Stormwater Quality Design Manual for Sacramento and South Placer Regions* (see Section 7.8 for more details).

Incorporate Water Quality Principles into General Plan Update

The City anticipates updating its General Plan starting with a visioning process during the 2008-13 permit term. Water quality and watershed protection principles will be incorporated as appropriate (see Section 7.8).

Update Agreements As Needed

The City will sign the updated Sacramento Stormwater Quality Partnership MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Refer to Chapter 2, Section 2.2 for more information and a reference to the appendix.

Funding

Annual Planning and Reporting

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. This analysis will consist of detailing program costs, percentage expenditures by program, anticipated staff time, resource type, and funding and any associated restrictions on the use of the funds.

Fiscal information will be reported in the Annual Work Plans (May 1) and Annual Reports (October 1).

Stormwater Fee

The City will continue working towards securing new sources of dedicated funding for its Stormwater Management Program. As mentioned earlier, the City is waiting for the state of the economy and its own budget situation to improve before moving forward.

Training

Training is an extremely important aspect of Folsom's Stormwater Program and annual refresher training for all affected City staff will continue as in previous years for targeted employees. Details about the training were presented previously in this section. Sections 7.3-7.8 describe training activities planned for the individual program elements. Each year, training accomplishments will be described in the October 1 Annual Reports.

Reporting

Compliance Reporting

As required by the Stormwater Permit, the City will submit an Annual Report by October 1st of each year detailing the activities accomplished during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format consistent with the other permittees.

By May 1st of each year, Folsom will submit an Annual Work Plan that details the activities proposed for the following fiscal year.

The City and County of Sacramento will take the lead on behalf of the Partnership in submitting Regional Program Work Plans and Annual Reports to describe regional program activities such as monitoring conducted jointly by all the permittees. Refer to Chapter 2 for additional information.

The City and County of Sacramento will also take the lead in preparing the Report of Waste Discharge (ROWD) for submittal to the Regional Water Board in March 2013. The City will participate in that process and will prepare an updated SQIP for submittal with the ROWD, as required by the Stormwater Permit.

Internal Reporting

The City's Stormwater Program Manager will keep Folsom elected officials and managers apprised of Stormwater Program activities and issues through written memos and submittals, and presentations as needed.

Coordination

The City of Folsom will continue to work closely with the other permittees and agencies involved or affected by the various stormwater activities. This will include attendance at Steering Committee meetings held approximately monthly (see Chapter 2, Section 2.2). The City will also continue to participate with other permittees on various committees that have been formed to address specific activities, such as target pollutants and monitoring (see Chapter 2).

Coordination efforts with other agencies (previously listed in this section) will continue during the current Stormwater Permit term, as needed when multi-jurisdictional issues arise, such as on development projects.

Internal city coordination will also be conducted to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. Periodic meetings will be held with the Intradepartmental Stormwater Committee to share information and guide the decision-making process.

Effectiveness Assessment

The City will work with the other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2, Section 2.3. This approach is based on guidance provide by CASQA in its *Effectiveness Assessment Guidance* document (2007). In addition, the City will evaluate the effectiveness of its own program management activities related to permit compliance, as described in Table 7.2-2. This assessment will be done each summer during preparation of the annual report, and recommendations for program improvements or modifications will be made based on the results.

For this program management element, most activities have Level 1 effectiveness outcomes; this requires annual documentation that activities have been conducted as required by the stormwater permit. Level of effort (e.g., number of meetings attended) and resources expended (staff hours or costs) may also be tracked (also outcome level 1). The exception to this is training. During the 2008-2013 permit term, the City (or the County, on the City's behalf) will use quizzes, surveys and/or follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of increasing awareness (outcome level 2).

The City will contribute resources (per the permittee cost-share MOU) to the long term effectiveness assessment required by the stormwater permit (due with ROWD in March 2013).

7.3 Construction Program Element

The mission of the Construction Program Element is to prevent erosion and reduce pollutants in stormwater runoff from construction activities in Folsom.

Folsom places a high emphasis on reducing pollution of stormwater runoff due to construction activities, as a means of protecting the community's valuable creek and river resources. Some areas undergoing development in the city are on slopes and hillsides, and are therefore very susceptible to erosion during rain storms. Controlling erosion reduces the potential for discharge of sediment and other construction-related pollutants to the City's storm drain system and local creeks, to the maximum extent practicable.

Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy for controlling pollution from construction sites relies on three basic components: plan review and permitting, inspection and enforcement and outreach and education.

The program applies to private as well as public construction projects, including those required to obtain coverage under the State's NPDES Construction Stormwater General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Grading and Stormwater Ordinances (discussed in Section 7.2).

Intra and Interagency Coordination

Most interdepartmental coordination (between Public Works and Community Development) related to stormwater quality controls for construction projects is done on an informal basis through written correspondence and regular meetings related to specific projects. The City has a full time Stormwater Pollution Prevention Inspector that works directly for the City's Stormwater Program Manager, this arrangement is very effective and reduces the need for much intradepartmental coordination in terms of inspection.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same erosion and sediment control standard construction specifications as the County.

The City assists the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking State-required Stormwater Pollution Prevention Plans (SWPPPs,) and referring site operators who have not complied with the State regulations.

Accomplishments to Date

Folsom has made several notable accomplishments related to the construction element:

- Assigned a dedicated inspector solely for stormwater inspection and compliance issues. Other city construction and building inspectors refer stormwater issues to him for follow-up inspections and enforcement action as needed.
- The City's Stormwater inspector became a Certified Erosion, Sediment and Storm Water Inspector™ in 2008.

- Created a database to track all active construction sites and associated inspections and enforcement actions.
- Adopted Sacramento County's standard drawings for erosion and sediment control to promote areawide consistencyy, and informed local Folsom development/construction community during project-specific reviews.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the State's Construction General Permit as a condition of obtaining grading permits for applicable projects.

Activities for the 2008-13 Permit Term

Table 7.3-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 8 of the Stormwater Permit.

This section describes the planned activities in more detail.

Legal Authority

The Folsom Municipal Code contains three ordinances that relate to stormwater enforcement, as discussed in Section 7.2: Stormwater Management and Discharge Control, Grading, and Hillside Development ordinances. These ordinances provide the legal authority to enforce standards and conditions and ensure that unauthorized non-stormwater discharges are prevented to the maximum extent practicable.

Following adoption of the new State NPDES Construction General Permit (anticipated 2009), the City will work with the County and other permittees to evaluate any necessary changes to this element and related codes and standards, to promote consistency. The City will also consider revisions to its legal authority whenever the County of Sacramento revises its legal authority, since the City's stormwater ordinance was modeled after the County's.

Plan Review and Permitting

The City's Grading Ordinance (FMC 14.29) requires a grading permit and erosion and sediment controls on all private projects, disturbing 5,000 square feet or more or exceeds 50 cubic yards or more of fill. All private and public projects are subject to the City's Stormwater Ordinance (FMC 8.70), which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Engineers and planners in the City's Community Development Department receive, review and approve all grading permit and building permit applications. The planning staff check that all environmental permits are obtained from agencies such as Department of Fish and Game (1600 series permit), US Army Corps of Engineers (404 permit) and the Regional Water Board (401 Certification). Plans are routed to the Public Works Department for verification that erosion and sediment controls are specified in the plans.

Private and public projects in Folsom disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a grading permit, the City will verify that a State-required NOI was filed and will check the SWPPP for six items required by Provision 8.b.v.a of the Stormwater Permit. The City will track grading permits using an electronic database. This is a continuation of activities conducted during the 2002-07 permit term.

Inspections and Enforcement

The Community Development Department Inspectors are responsible for day-to-day enforcement at project sites and the Public Works Department stormwater inspector is responsible for enforcing the City's erosion and sediment control requirements and the Stormwater Ordinance. The two groups of inspectors work together, referring issues to each other and conferring as needed until resolution is reached. Projects are inspected to ensure compliance with local ordinances, verify that sites adequately address erosion, sediment, and pollution control, and ascertain that SWPPPs and monitoring plans are on-site and updated for applicable projects. The City stormwater inspector will give verbal warnings and issue notices of non-compliance. If response is not effective, the inspector will refer cases to the Code Enforcement Division, which is charged with enforcing city codes. Code Enforcement will issue non-compliance letters, initiate fines and refer cases to the City Attorney's office if needed. Violations of the City's ordinances are considered Level E violations and could include a fine up to $10,000.

As with the previous 2002-07 permit term, the City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspect according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks. Finally, a database of active construction projects, their priorities and inspection and enforcement activities will be maintained by the City at all times.

Notifications to the Regional Water Board

If the City inspectors observe chronic (e.g., three or more) violations of the City's stormwater ordinance at a given construction site, they will notify the City's Stormwater Program Manager who will in turn notify the Regional Water Board, in compliance with the stormwater permit.

As required by the Stormwater Permit, if a contractor on a project disturbing one acre or more cannot demonstrate that the developer/owner has submitted an NOI or received a Waste Discharge Identification (WDID) number from the state, staff will notify the Regional Water Board within five business days of discovery. Non-filer referrals shall include the project location, developer, estimated project size and records of communication with the developer regarding filing requirements.

Pollution Control at City-Owned Construction Projects and Other Projects by Special Districts and Others out of the City's Jurisdiction

All City-owned construction projects will be subject to the same standards, State General Permit filing requirements and inspection frequencies as private development projects. In cases where a City project is not subject to the State General Permit, but there is a potential for stormwater pollution, a Stormwater Pollution Control Plan will be prepared and implemented.

Internal communication and training is critical to verify compliance at all city construction jobs. Interdepartmental meetings, committees and other communication forums will help ensure that standards and best available practices are followed.

The City lacks jurisdictional control over projects that may be constructed in Folsom by utilities, special districts (e.g., schools, RT, State Parks) and other agencies, and such projects are not subject to the City's plan review and permitting process. However, the projects will be subject to the City's Stormwater Ordinance. The City will coordinate with these agencies on a project basis to ensure compliance with the Stormwater Ordinance and to ensure coverage as required by the State's Construction General Permit.

Education and Training for City Personnel and the Construction Community

The City will continue to provide education and guidance to both City staff (see Section 7.2) and the local construction and development community, covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. The City will support Partnership training events (such as pre wet season forums) for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection. Folsom will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.3-1 describes the assessment methods the City will use to more specifically evaluate the construction program element activities during the 2008-13 permit term. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

7.4 Commercial/Industrial Program Element

The mission of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Folsom.

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Folsom.

Commercial/Industrial Element Strategy

Folsom contracts with others to most effectively perform some of the activities required for this program element. The City has a MOU with Sacramento County EMD to conduct triennial inspections as required by the stormwater permit of over 300 commercial/industrial facilities in Folsom (see Table 7.4-1). The MOU authorizes trained and qualified EMD inspectors to conduct inspections and issue enforcement actions, using the legal authority provided by the City's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened. The work performed by EMD on the City and other permittees' behalf is described in Chapter 2 (Section 2.7).

Folsom and other permittees contract with the Business Environmental Resource Center (BERC) to conduct outreach to targeted local businesses in each of their jurisdictions. This work, which is described in Chapter 2 (Section 2.7), includes maintaining and updating a database of businesses receiving the outreach materials each year.

The City itself conducts complaint-based inspections of all other businesses within the city; those activities are described in this section.

Table 7.4-1. Commercial/Industrial Facilities in Folsom Subject to EMD Inspections

Commercial/Industrial Category	No. in Folsom (2008)
Auto body shops	3
Auto repair shops	13
Auto dealers	12
Equipment rental facilities	0
Kennels	3
Nurseries	0
Retail gasoline outlets (i.e., gas stations)	15
Restaurants	249
Facilities covered by the State's Industrial General Permit	6

Total	**301**

Intra and Interagency Coordination

The City participates in periodic (approximately biannual) meetings with EMD and the other permittees to discuss the permit-required inspection program, resolve problems and identify improvements as needed. The City also takes referrals from EMD for problems observed at businesses not included on their inspection program; the City investigates these cases as described later in this section. EMD coordinates with all permittees, BERC and various business groups and trade associations during the course of implementing the program.

The City coordinates with BERC and EMD to develop policies and outreach material that is regionally applicable. The City coordinates with EMD on inspections that require further investigation, provides support for progressive enforcement and for follow up and enforcement for facilities referred by EMD that are not within EMD's MOU to inspect and enforce.

Accomplishments To Date

The County EMD program was the recipient of two awards for outstanding program implementation: the CASQA 2007 Excellence Award and the U.S. EPA 2008 Industrial Stormwater Program Excellence Award. Other accomplishments are noted in Chapter 2 (Section 2.7).

Activities for the 2008-13 Permit Term

Table 7.4-2 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 9 of the Stormwater Permit. This section describes the planned activities in more detail. Some activities are conducted by the County EMD and BERC on the City's behalf. Refer to Chapter 2 (Section 2.7) for additional details about those regional activities.

Legal Authority and Enforcement Policy

The City's Stormwater Ordinance will continue to provide legal authority to the County EMD for regulating commercial businesses and industries in Folsom with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-13 permit term.

EMD has developed a progressive enforcement policy to apply to its work; see Chapter 2, Section 2.7. The enforcement policies for the City related to inspections of businesses not addressed by EMD are covered in the Folsom Municipal Code, Title I, Chapter 1.08.

Priority Industry Identification for Compliance Inspections

The nine categories of industrial and commercial businesses subject to stormwater compliance inspections for the 2008-13 permit term were specified by the Regional Water Board in the stormwater permit. These are the same business categories that were targeted during the 2002-07 permit term, although ownership and status has likely changed for some of the facilities.

Triennial Industrial Stormwater Compliance Inspections

Refer to Chapter 2 (Section 2.7) for EMD's continued activities related to inspections, enforcement, database management and reporting, and education/training. EMD refers significant violations of the Folsom stormwater ordinance and potential general permit non-filers to the Regional Water Board as required by the stormwater permit.

Complaint-Based Stormwater Compliance Inspections

The City Public Works Department stormwater inspector will inspect other businesses not addressed by EMD's program described above within the City of Folsom on a complaint basis. Complaints can be referred by the public, other City agencies and departments, the Regional Water Board, and other sources. The inspectors will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

The City will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

Educational Outreach for Businesses

The businesses to receive targeted outreach were initially identified during the 2002-07 permit term and have since been refined as listed below. Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses
- Swimming pool contractors
- Swimming pool maintenance businesses

Refer to Chapter 2 (Section 2.7) for a description of activities that will be conducted by BERC (under contract to the Partnership) to outreach to these businesses during the 2008-13 permit term.

Training for Industrial Inspection Staff

Refer to Chapter 2 for a description of training provided to EMD industrial inspection staff. The City's stormwater inspector and Hazmat personnel will continue to receive annual refresher training as described in Section 7.2.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.4-2 describes the assessment methods the City will use to more specifically evaluate the commercial/industrial program element activities it conducts during the 2008-13 permit term. Chapter 2 (Section 2.7) describes the assessment activities to be conducted on the City's behalf by EMD or BERC. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

7.5 Municipal Operations Program Element

> The mission of the Municipal Operations Element is to reduce stormwater pollution resulting from the construction, operation and maintenance of City-owned facilities in a manner that sets an example of model pollution prevention for the Folsom community.

The Municipal Operations Element specifies activities for controlling stormwater pollution which may occur during operation of city-owned facilities in Folsom. These include public buildings, parks and open space, the City corporation yard, transportation facilities, storm drains and drainage ways, the sewer collection system and pump stations, and the water distribution system and water treatment plant. The City is not responsible for facilities and operations managed by special districts (e.g., school district) and federal and state facility operators (e.g., Bureau of Reclamation, Folsom State Prison).

Municipal Operations Element Strategy

The City's strategy for controlling stormwater pollution from City facilities and operations involves maintaining a good inventory of the operations, training affected employees, and ensuring good communication/coordination between City departments and with contractors to provide technical assistance, evaluate program effectiveness, and resolve issues in a collaborative way.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

Inventory of Folsom's Facilities and Operations

The following is an inventory of the City-owned facilities and operations addressed by this element:

Buildings and Yards

Buildings – The City owns and operates City Hall, the Folsom Library, Folsom Police Department, four fire stations, a Senior Arts and Cultural Center, Folsom Community Center, Folsom Rotary Club House, and the R.G. Smith Club House. Various City departments manage these facilities. Building and parking lot maintenance is conducted by city personnel and contractors.

Corporation and Maintenance Yards – The City's main corporation yard is used by the Departments of Public Works and Utilities. It includes various buildings (offices, storage buildings and maintenance shops), a wash rack, and is covered by an NPDES Industrial Stormwater General Permit enforced by the Regional Water Board. The City Parks Department also owns and operates two maintenance yards (Kemp and Rodeo Park). A stormwater pollution prevention plan has been prepared to address stormwater pollution prevention at the Kemp facility, but one is not required for Rodeo Park because there is no potential for pollutants to enter the storm drain system at this location.

Parks and Recreational Facilities and Open Space

City parks and recreational facilities – The City Parks and Recreation Department operates and maintains 38 parks in Folsom (including vegetation and waste management). The City also owns and manages several recreational facilities with outdoor spaces, including the Folsom Sports Complex, Aquatic Center, Folsom Zoo and Dan Russell Arena.

Trails and Open Space – The City of Folsom has an extensive system of Class I Bike / Pedestrian trails. There are approximately 32 miles developed and available to enjoy. The trails are primarily along Humbug Creek and Willow Creek. Collectively this part of the trail system is referred to as the Humbug-Willow Creek Trail (HBWC). There are several other significant trails within the system including the Folsom Rail Trail (along Folsom Boulevard), the Folsom Lake Trail (to connect to El Dorado Hills and Lake Natoma), and the Oak Parkway Trail. There is approximately 4,200 acres of open space in Folsom which includes, federal and state property as well as parks. Approximately 1,100 acres of this open space is managed by the City of Folsom.

Parking Lots

City-owned parking lots – The City owns several parking lots amongst the various departments and City facilities (i.e., parks and recreation facilities, fire, police, light rail park and ride lots, City Hall, and three public parking lots, one of which is the City's new Historic District parking structure). Most parking lot maintenance is conducted by the department which manages the facility. In some cases the Public Works Department provides parking lot sweeping for other department's facilities.

Storm Drain System

The City's Public Works Department plans, constructs, operates and maintains the various components of the City storm drain system:

Piped storm drain system – In fall 2006 there were 178 miles of piped storm drain in the city. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. Storm drain pipe and associated drain inlets and manholes in the city are maintained by the City's Public Works Department.

Storm drain inlets – There are about 5276 storm drain inlets and 3652 manholes within the city's public property and ROW. Due to new development, there are new facilities being added all the time. The Annual Reports will provide an updated inventory each year. All private and public storm drain inlets in the city are required to be marked with "No Dumping-Drains to Creek" messages. City maintenance crews check the City-owned drain inlets during routine maintenance activities and replace any found to be damaged or missing. New storm drain inlets installed in the city as part of development projects are required to have a permanent "No Dumping" message; this is verified by the city inspectors during construction.

Channels and creeks – Almost 23 miles of manmade drainage channels and natural creeks are maintained by the City. This includes portions of Willow, Humbug, Alder and Hinkle Creeks, and various unnamed tributaries.

Detention basins –There are about 61 water quality and/or flood control detention basins located throughout the city. Additional basins and other types of stormwater quality control measures are expected in the future, due to new development. The Annual Reports will provide an updated inventory each year. The basins are operated by either a private property owner, homeowners' association or the City.

Sanitary Sewer Collection System

The City's Department of Utilities is responsible for managing and maintaining the City's sanitary sewer (wastewater) collection system, which ultimately discharges into the Sacramento Regional County Sanitation District interceptor sewer system. Wastewater is then carried to the Sacramento Regional Wastewater Treatment Plant in Elk Grove for treatment.

The Utilities Department's Waste Water Division inspects, cleans, repairs and maintains the 267 miles of pipeline and 9 lift stations in the City of Folsom. The City's sanitary sewer collection system is covered by an individual NPDES Permit.

Water Supply System

The City's Department of Utilities manages the City's water supply system. The City's Water Division inspects, repairs and maintains 250 miles of pipelines, 10 water storage reservoirs, 20 pressure reducing valve stations, and its own Water Treatment Plant.

Transportation Facilities

Streets, Signals, Signs and Streetlights – The City's Public Works Department plans, constructs and operates the City's road system. There are about 260 miles of streets in the City, including over 420 curb miles of curbed streets. The City coordinates with Caltrans on new construction or improvements to Highway 50 interchanges, and with Regional Transit on Light Rail extension and improvement projects. The City also owns and operates 4 major bridges: Folsom Lake Crossing, Rainbow Bridge, Orangevale Bridge and Lake Natoma Crossing.

Roads and Roadside Vegetation - About 67 miles of roadside vegetation is maintained by the City Public Works Department and approximately another 40 acres of right-of-way landscape is also maintained by the City Public Works Department. Also, in the City of Folsom, there are 23 Landscaping and Lighting (L&L) Districts. In these Districts, the City maintains and services the public improvements; such improvements generally consist of landscape corridors and median islands as well as streetlights. In some instances, L&L Districts maintain walls, fences, open space areas, and/or other public improvements such as art work.

Intra and Interagency Coordination

Internally, Public Works coordinates with the Community Development, Utilities and Parks Departments and Lighting and Landscaping District on specific projects, through the city's stormwater quality committee and annual training workshops.

Externally, the City coordinates with the other permittees, stormwater programs, and local, state, and federal agencies to share information, strategies, and recommended practices related to operation and maintenance of City-owned facilities.

The City will coordinate with special districts (e.g., school district, Sacramento-Yolo Mosquito & Vector Control District) and federal and state facility operators (e.g., Bureau of Reclamation, Folsom State Parks) on a project-specific basis to make sure that measures are in place to protect the City's storm drain system. The City is not responsible for such facilities and operations.

Accomplishments to Date

Folsom has made several notable accomplishments related to the Municipal Operations Element:

- Established a GIS-based asset management system which provides for effective and efficient operation of the City's transportation, storm drain, sanitary sewer and water distribution systems.
- Completed the inventory of detention basins, developed maintenance guidelines, and completed 2008 pilot project on two basins to test and refine the procedures, including investigating disposal methods for sediment and vegetative debris.
- Contributed to the development of the *River Friendly Landscaping Guidelines* (2007) and associated *Homeowners' Guide (2008)*. This program won the 2008 Environmental Leadership award from the Sacramento Environmental Commission. Based on the success of *River Friendly*, in 2008 the City took a leadership role in developing and implementing the *Green Gardener* education and training program for agency staff and private landscape contractors.
- Completed inspection of all drain inlets on public property for proper "no dumping" markers.

Activities for the 2008-13 Permit Term

Table 7.5-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 10 of the Stormwater Permit.

This section describes the planned activities in more detail.

Illicit Discharge Response

The City stormwater inspector and/or maintenance crews will be dispatched quickly to respond to all incidents where an illicit discharge threatens to enter or enters the storm drain system. In cases involving hazardous materials, the Folsom Fire Department will get involved. See Section 7.6 for a description of these activities.

Stormwater Pollution Control for Construction and Development of City-Owned Projects

The City will comply with the Construction Program Element requirements during Municipal Capital Improvement Projects, and will obtain coverage under the General Construction Permit when applicable. See Section 7.3 for more details.

The City will continue to implement New Development Standards at applicable Municipal projects, including construction of source control and treatment control measures as required. See Section 7.8 for more details.

Facility Management

Maintenance of Buildings

The buildings that are owned by the City are operated and maintained by the various departments in which they reside. The operations and maintenance of the Corporation yard is regulated in accordance with the requirements of its Industrial General Permit and SWPPP. The Public Works Department is the lead for this permit and will update the SWPPP as needed. The City owns and operates two materials storage yards. Only one of them, the Kemp Facility, was determined to have the potential to discharge to the storm drain system therefore that site has a SWPPP. The other site is not connected to/in proximity of the storm drain system or a waterway therefore does not have a SWPPP however training of proper BMP's is provided annually.

Operation and Maintenance of City Parks and Public Facilities

The City's Parks and Recreation Department will continue to manage the 38 parks and public facilities within the city limits and any new parks built as the city develops. The Public Works Department will continue to provide training to park maintenance staff and supervisors during the 2008-13 permit term to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the Park Department's operations.

For special events that can be reasonably expected to generate substantial quantities of trash and litter, the City has provisions, as part of the special use permit issued for the event, requiring the proper management of trash and litter and/or the City will provide the clean up services after very large events.

Integrated Pest Management (IPM)

The City will implement IPM procedures as described in the Pesticide Plan developed by the Partnership and approved by the Regional Water Board. Pest control operations conducted or contracted by the City relate to parks, trails and open spaces, lighting and landscaping districts and City-owned buildings. The City will continue to employ several licensed pesticide applicators to oversee and ensure training for

Parks maintenance staff responsible for applying pesticides at City-owned park and recreational facilities in accordance with the Parks Department's written IPM procedures. Chemicals for park pesticide operations will be stored according to regulations at the Kemp Maintenance Facility. The City will continue to contract with various licensed pesticide applicators for pest control in public landscaped areas managed by the L&L District and at other City buildings and facilities. Early in the 2008-13 permit term, the City will complete a review of procedures used by the L&L District staff and contractors and other City departments (other than Parks) and make recommendations for incorporating IPM protocols into purchasing and contracting activities.

The City's Arborist will continue to oversee tree species selection and location for City-owned and private development projects to encourage native species, minimize the need for water, pesticides and fertilizers, and ensure longer term survival. In addition, the City Water Conservation Coordinator will continue performing audits of residential, commercial and City-owned irrigation systems to increase water use efficiency and prevent runoff which could carry pesticides to the storm drain system and local creeks.

The City will continue to promote and distribute the award-winning *River Friendly Landscaping Guidelines* and associated *Homeowners' Guide* to residents and landscape contractors during work in the City. The City will also continue its leadership role in implementing the Green Gardener education and training program for agency staff and private landscape contractors.

Storm Drain System Maintenance

The City's Public Works Street Maintenance Division will continue to systematically inspect and clean the storm drain system and associated drainage and treatment systems, including creek and channel maintenance. The intent is to remove accumulated debris (and associated pollutants), prevent flooding and eliminate nuisance problems (e.g., odor, vectors). Sediment and vegetative debris collected during these operations will be managed and disposed of in accordance with regulatory requirements. The City's Stormwater Program Manager and Maintenance Supervisors will continue to evaluate the storm drain operation and maintenance activities to ensure that proper BMPs are implemented during maintenance activities, storm drain inlet markers are replaced when illegible, and that adequate record keeping capturing overall maintenance activities and quantities of waste removed is performed. The annual refresher training will include activities and facilitated group discussion intended to evaluate the effectiveness of these activities and identify and resolve issues.

The City Public Works Street Maintenance Division will inspect and maintain most City-owned basins; some basins are managed by a City L & L district or the City's Parks and Recreation department. The City will continue to utilize and update its GBA asset management database to track inventory, inspection and maintenance activities. Maintenance practices will be reviewed and updated as necessary. Several of the detention basins within the City are privately owned by an HOA or other entity. The City will provide support to these private entities to ensure proper maintenance practices are in place. Maintenance agreements will be required for all newly planned and constructed basins.

Storm Drain Inlet Marking

City maintenance crews will continue to check the legibility of existing storm drain stencils and markings during routine maintenance activities and replace any that are noted as damaged or missing as soon as practicable. The city planners, engineers and field inspectors will continue to verify that new storm drain inlets installed in new developments include a permanent "No Dumping" message.

Operation and Maintenance of Transportation Facilities

Prioritized Street Sweeping for Curbed Streets

The City Public Works Department will continue to sweep about 420 curb miles of curbed streets using two vacuum and one mechanical sweeper. The City will follow this prioritized schedule:

- Priority A: Arterials – Quarterly, year round, weather permitting.
- Priority B: Collectors – Quarterly, year round, weather permitting.
- Priority C: Residential – As needed.

City staff will annually quantify the total amount of pollutants removed from street sweeping activities. Annual training will be performed to ensure that BMPs are implemented during street cleaning and roadway maintenance operations. Training of maintenance activities will also ensure that BMPs are implemented to prevent street sweeper rinse out water, concrete chute rinse water, and saw cut slurry from entering the storm drain system.

Implement BMPs for Road Maintenance Activities

The City's Public Works Department will continue to repair and improve roads to safely accommodate vehicle traffic, pedestrians and bicyclists. Annual training will be performed to ensure that BMPs are implemented during sidewalk and roadway maintenance operations. Training of maintenance activities will also ensure that BMPs are implemented to prevent concrete chute rinse water and saw cut slurry from entering the storm drain system.

The annual refresher training will include activities and facilitated group discussion intended to evaluate the effectiveness of these activities and identify and resolve issues.

Inspection and Maintenance of City-Owned Parking Lots

Parking lots exposed to rainfall will be inspected and maintained at least annually prior to the wet season by the responsible City department (in most cases the department occupying the adjacent building/facility). Maintenance activities will include trash/debris removal, sweeping and removal of oil stains involving collection and proper disposal of the waste water.

Roads and Roadside Vegetation

The City Public Works Department will continue to operate and maintain almost 70 miles of roads and associated roadside vegetation and will also continue to maintain approximately 40 acres of landscaping in the public right-of-way. The City's L&L District Manager and her staff will continue to maintain landscaping in 23 L&L Districts. Such improvements in these districts generally consist of landscape corridors and median islands as well as streetlights. In some instances, L&L Districts include maintenance of walls, fences, open space areas, and/or other public improvements such as art work. All landscaping practices will be conducted following the River Friendly Landscaping and Green Gardener principles to the extent possible, in order to minimize water, pesticide and fertilizer use, curb greenhouse gas emissions, and reduce green waste sent to the landfill. All City green waste is sent to Sacramento County's green waste processing facility. IPM protocols will be incorporated as recommended by the review completed early in the 2008-13 permit term (see previous IPM discussion).

Stormwater Pollution Control During Fire Emergency and Non Emergency Operations

The City's Stormwater Program Manager will continue to work with targeted departments (including Fire) to ensure that during emergency responses to repair essential public services and infrastructures, that stormwater BMPs are implemented to the extent that measures do not compromise public health and safety and also that during training and maintenance activities BMP's are implemented to prevent stormwater pollution from entering the storm drain system.

The City will develop a response plan for pollution prevention during emergency procedures and a list of BMP guidelines for non-emergency maintenance and training activities.

Operation of the Sanitary Sewer Collection and Water Distribution Systems

The City has an individual NPDES Permit for capacity, monitoring, operation and maintenance of its sanitary sewer collection system. This permit requires quarterly reports documenting maintenance, capital projects and public education efforts as well as maintenance of emergency procedures and documentation and reporting of overflows. The City's Stormwater Program Manager and Utilities Supervisors will continue to evaluate the operation and maintenance activities to ensure that proper BMPs are implemented; the annual refresher training will address this as well.

Waste Collection

The City's waste collection operations include weekly pick up of garbage, recyclables and green waste, a door to door household hazardous waste pick up program and a program that picks up bulk items, as requested, triennially. This convenient program helps to keep the wastes out of storm drains and local creeks.

Maintenance of Fleet Vehicles

All fleet vehicles will continue to be washed and maintained at the Corporation Yard, which is covered under the State's Industrial General Permit. The wash rack is plumbed to the sanitary sewer system and the crews using the rack are trained in proper procedures via the annual refresher training.

City Employee Training

The City's Stormwater Program Manager will continue to provide technical assistance to facility operators and maintenance crews as requested and needed to promote proper implementation of BMPs in routine City operations and to response to illicit discharge incidents, public complaints or Regional Water Board referrals. Annual refresher training will continue for affected employees in Parks, Utilities and Public Works Departments related to stormwater pollution prevention and the requirements of the permit, as discussed in Section 7.2.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.5-1 describes the assessment methods the City will use to more specifically evaluate the municipal operations program element activities during the 2008-13 permit term. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the County employees) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

7.6 Illicit Discharge and Detection Program Element

The mission of the Illicit Discharge and Detection Program Element is to effectively eliminate all illegal non-stormwater discharges to Folsom's storm drain system and receiving waters.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not; even sediment can harm the creeks. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted. This section addresses the activities that the City of Folsom conducts to ensure that non-stormwater (illicit discharges) are prohibited, as well as reported, investigated and eliminated as soon as possible.

The storm drain system in Folsom consists of a network of drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, and many detention/water quality basins which discharge to local creeks and rivers. Urban runoff from driveways, parking lots, roof drains and other surfaces typically discharge directly into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Illicit Discharge Element Strategy

The City works toward eliminating illicit discharges to its storm drain system and receiving waters through its legal authority, response and investigation, proactive household hazardous waste program and educational activities, as discussed below.

Maintain adequate legal authority to prohibit illicit discharges. The City of Folsom Stormwater Management and Discharge Control Ordinance (FMC 8.70) prohibits the discharge of non-stormwater into Folsom's storm drain system and local receiving waters. An exception is provided for certain discharges (e.g., springs, water line flushing, landscape irrigation, residential car washing and street wash water), which are allowed by the stormwater permit (Discharge Prohibition B2) unless such discharges are identified as a source of pollutants to receiving waters. Designated city staff and County EMD are authorized to enforce the ordinance within the city limits.

Response and investigations. The City has conducted a system-wide field screening for illicit discharges and continues to screen for illicit discharges and connections as a part of routine maintenance of the storm drain system. Enforcement action is taken against dischargers. A public reporting hotline is provided to make it easy for residents to report problems. The City responds to all reports quickly and conducts investigations, working collaboratively between City departments as needed, and conducting enforcement until the discharge is eliminated.

Proactive HHW collection program. The City implements a unique HHW program, whereby residents may call for a pickup from their residential driveway. This deters illegal dumping of hazardous and universal wastes into storm drains and local creeks.

Educational activities. The City has created incident response procedures and educates its staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.

Intra and Interagency Coordination

The City Public Works Department Stormwater Pollution Prevention Inspector is the primary point of contact for illicit discharge referrals and response. The City Public Works Department inspector and Stormwater Program Manager coordinate with the Utilities Department's Solid Waste, Sewer and Hazardous Materials Divisions to conduct the activities described in this section. Public Works crews conduct ongoing field screening for illicit discharges and connections as part of their work and in turn, coordinate with the Utilities Department to clean up and dispose of any polluted or hazardous wastewater. If progressive enforcement action against the discharger does not eliminate the problem, the City will then coordinate with City Code Enforcement.

The City coordinates with the other permittees in the Partnership to share information, but for the most part, activities are conducted on a permittee-specific basis.

Accomplishments to Date

The following highlights some major accomplishments related to this program element:

- In 2006, a new hotline, 808-4H20, began allowing callers to select Folsom and be routed to the City for assistance on City-related issues or complaints. The hotline is administered by the City of Sacramento on behalf of the permittees and is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Completed field screening for illicit connections for all open channels, underground pipes in priority areas and all underground pipes with a diameter of 36 inches or greater.
- The City has established and annually updates an illicit discharges map to identify "hot spot" problem areas requiring additional or more frequent investigations. The map is included in each annual report.
- The City Public Works Department developed a database which tracks and documents illicit discharge referrals, inspection and enforcement action activity.
- The City Public Works Department developed a door hanger to be used and distributed by City staff, such as Maintenance Workers, Inspectors and others who are often in the field. The door hanger was designed to be used as educational outreach when potential stormwater pollution issues are observed. A copy of the doorhanger can be found on the City's stormwater web page: http://creeks.folsom.ca.us

Activities for the 2008-13 Permit Term

Table 7.6-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 11 of the Stormwater Permit.

This section describes the planned activities in more detail.

Legal Authority

The City of Folsom Stormwater Management and Discharge Control Ordinance (FMC 8.70) prohibits the discharge of non-stormwater into Folsom's storm drain system and local receiving waters. An exception is provided for certain discharges, which are allowed by the stormwater permit (Discharge Prohibition B2) unless such discharges are identified as a source of pollutants to receiving waters.

The stormwater ordinance will be updated within one year of Regional Water Board approval of the SQIP if needed to ensure adequate coverage and authority.

Reporting of Illicit Discharges

The City will continue to work with the Partnership to sponsor and advertise the stormwater hotline number (808-4H20). The City's stormwater inspector, maintenance crews and/or Fire Department (depending on the type of spilled material) will be dispatched as soon as possible to investigate all reports received via the hotline, permittee/other agency referrals or Regional Water Board referrals. A flowchart describing the City's stormwater incident response procedures was developed collaboratively by the City's Stormwater Committee. The City recently reorganized certain departments, divisions and activities. The flow chart will be updated to reflect these changes and will be discussed during employee annual refresher trainings. The update will be submitted with an annual report.

Ongoing Field Screening for Illicit Discharges and Connections

As part of the normal drainage system maintenance procedures, crews will routinely inspect all areas of the drainage system for evidence of illicit connections and illegal discharges. When discharges are found, crews will investigate and conduct follow-up activities as needed to identify the source and eliminate any verified non-authorized, non-stormwater discharge. The City's doorhanger will be distributed in neighborhoods by City crews, in cases where their appears to be a potential stormwater pollution issue or discharger cannot be identified. A copy of the doorhanger can be found on the City's stormwater web page: http://creeks.folsom.ca.us

Investigation of Illicit Discharges and Connections

Upon discovery of an illicit connection, the City will initiate an investigation within 21 days to determine the source, nature and volume of discharge, and potential responsible party. Upon confirmation of the illicit connection, the City will take enforcement action to terminate the connection as soon as possible, but not longer than 180 days after confirmation.

The Hazardous Material Division will continue its program to collect household hazardous waste from City customers. These efforts help to eliminate or reduce dumping of pollutants into the City storm drain system.

Illicit Discharge Response, Containment and Cleanup

The City on-call maintenance crew and the City Fire Department will continue to provide 24-hour spill response services. All staff involved in spill response are thoroughly trained according to State regulations and a spill response plan is maintained and followed that includes procedures and reporting requirements. When a report is issued, response personnel work to identify, contain and dispose of any waste as quickly and safely as possible. The Code Enforcement Division will follow up with any fines and case referrals as necessary.

For illicit discharges that are known or suspected to contain hazardous substances, the City will respond within one (1) business day to abate, contain, and cleanup any illicit discharge.

Overflows, spills and infiltration of the sanitary sewer system (including the response and elimination procedures employed) are covered under the City's NPDES Permit for the operation of the sanitary sewer collection system.

Enforcement

The City's stormwater inspector and designated other City staff are authorized to enforce the stormwater ordinance as needed to ensure that problems are quickly eliminated. All investigated violations are referred to the Code Enforcement Division to ensure proper documentation for progressive enforcement, including the possibility of recovering cleanup costs. In some instances, cases are referred to the City Attorney's Office.

Data Management

The City will continue to track data and update the illicit discharge map that shows the location of illicit discharges for identifying potential needs for further investigation or possibly outreach material. Each year, this information, along with any investigations underway or completed, will be reported in the Annual Report.

Waste Collection Programs

See section 7.5 Municipal Operations Program Element for a description of the City's Waste and Household Hazardous Waste Collection programs and activities which help to keep pollutants out of the storm drains and local creeks.

Education and Outreach

As with many other control programs, education is the key to successful implementation. The maintenance crews are the eyes and ears of the City and are responsible for responding to a majority of the illegal discharge calls. These crews will be trained annually (as part of their routine refresher training) about steps to take when an illicit discharge is discovered or reported, including containment and cleanup, if appropriate, or referral to another department or agency for cleanup (e.g., Fire Department), and interacting with the public in the vicinity of the discharge (including using the doorhanger and other outreach material as needed).

Employee and Contractor Training

All storm drain maintenance crews will continue to receive annual refresher training related to illegal discharge and illicit connection detection and elimination. Hazardous Materials Division personnel and the Sewer Division personnel will be trained to properly respond to, contain and dispose of waste from unintentional spills or intentional dumping of waste. Refer to Section 7.2 for more information about Folsom's annual refresher training for all employees affected by the stormwater permit.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.6-1 describes the assessment methods the City will use to more specifically evaluate the illicit discharges program element activities during the 2008-13 permit term. For a period of time, the City expects and increase in reports, inspections, etc as public outreach efforts are stepped up via the new doorhanger, etc. At some point in the future it's expected to show a decrease as a indicator of effectiveness of outreach efforts that change awareness/behaviors. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

7.7 Public Outreach Program Element

The mission of the Public Outreach Program Element is to raise awareness, encourage behavioral change and foster community stewardship to promote stormwater pollution prevention in Folsom.

Public education is an important element of the City of Folsom's stormwater program. Through this element, the City informs the general public and targeted audiences about pollution prevention, encourages behavioral change, and fosters community stewardship to protect the creeks and watersheds within the city. In compliance with the stormwater permit, the ultimate goal is to reduce pollutants discharged in urban runoff to the storm drain system and local waterways to the maximum extent practicable.

Public Outreach Strategy

The City contributes to the multi-faceted regional public outreach efforts described in Chapter 2 (section 2.6) according to the Sacramento Stormwater Quality Partnership's cost-share agreement. The Partnership's regional activities are typically administered and managed by Sacramento County and the City of Sacramento, the two largest permittees. Joint funding for projects with a regional benefit provides an economy of scale which is important in times of diminishing resources, particularly given the fact that regional outreach (e.g., media campaign) is typically very expensive. Regional collaboration ensures that consistent messages can be conveyed to a wider audience, touching residents, schools and businesses across the county. Folsom is in the same radio and television markets as the other permittees and is in the distribution area for the *Sacramento Bee* newspaper. In addition, with combined reosurces, the permittees can hire experts to conduct surveys and analyze effectiveness data which can be used to refine the program over time.

In addition to contributing funds, the City provides in kind services to support regional outreach. For example, Folsom provides staff for the Partnership's stormwater booth at various public events each year, such as the Salmon Festival held at the nearby Nimbus Hatchery on the American River. The City also distributes educational materials produced by the Partnership to the local population.

Finally, the City independently provides local, targeted outreach to Folsom residents, schools, community groups and businesses, and involves the public in meaningful community stewardship projects, as described in this section. The key target audiences in Folsom include:

- Residential households (about 20,000)
- Schools: 11 elementary, 2 middle, 2 high schools and 1 community college)
- Businesses and industrial facilities (see Section 7.4 for profile; almost 300 businesses are inspected by the County EMD every 3 years on behalf of the City and there are many more retail/commercial businesses)
- Community groups such as the Boy/Girl/Cub Scouts
- Environmental and recreational advocates such as the Friends of the Folsom Parkway
- Development community (developers, contractors, engineers and design professionals)
- Local elected officials, City managers and employees

Demographics for the City are as follows (2005 Data):

Population 67,906

Median age 34.3

Percentage High School Graduate or Higher 91.9%

Percentage Batchelor's Degree or Higher 44.5%

Median Household Income $78,317

Mean Family Income $112,121

Racial Diversity: White 80.5%, Black 2.5%, American Indian/Alaskan 0.1%, Asian 8.6%, Native Hawaiian/Islander 0.1%, Other 5%, Two or more races 3.2%

Intra and Interagency Coordination

Folsom coordinates with the other permittees on regional public outreach issues primarily through the Steering Committee meetings. This includes review of work products, consultant scopes of work and other items. In about January of each year, Folsom requests and reviews the projected regional outreach budget from the County and City of Sacramento so that adequate funds may be set aside in the new fiscal year budget to cover Folsom's contribution according to the cost-share agreement.

Internally, the work is managed by the City's Stormwater Program Manager in the Public Works Department, who coordinates efforts with the Parks and Utilities Departments as well as the City Manager's Office.

Accomplishments To Date

Chapter 2 (section 2.6) describes major accomplishments related to regional public outreach by the Partnership and the County of Sacramento since 1990. In addition, the following describes several key accomplishments made by the City itself:

- Established a stormwater quality page on the City's web site to better address the stormwater pollution prevention program and provide links to the Partnership web site and periodically included informative articles about the stormwater program in the monthly City newsletter, which reaches approximately 20,000 households.
- Created a creek awareness brochure with fold-out creeks map for public distribution and a doorhanger for distribution by City crews to homes and businesses in areas where stormwater pollution concerns are discovered.
- Worked with the Friends of the Folsom Parkway and local scouts' troops to establish and support the Folsom Creek Watchers Program. This program is a grass-roots effort which began during the April 2008 Creek Cleanup on Alder Creek, when a local Cub Scouts troop approached the City about conducting cleanup and educational activities year-round along Folsom's creeks. During 2008-09, three major segments of Humbug Creek were adopted by several troops and cleanups and associated educational events with expert guest speakers were conducted throughout the year. These efforts reached about 165 scouts and their parents and resulted in over 500 pounds of trash and debris removed. The Creek Watchers made a presentation to the Folsom City Council in April 2009 and secured grant funds to expand the program in 2009-10. Additional details will be provided in the City's October 2009 Annual Report.
- Sponsored and staffed several annual outreach events in Folsom for many years, notably the April Folsom Creek Cleanup Day (combined with City Trails Day event) and the public works celebration in Rodeo Park, which includes an interactive stormwater education booth. Each year, these events reach a combined audience of about 600 people.

- Secured grant funding to conduct the Alder Creek Watershed Management Program, a 3-year, $400K effort which entails engaging a diverse group of stakeholders in the process to conduct a watershed assessment and prepare a management plan for the 11-square mile watershed. Over half of this watershed is slated for future development in the next ten years, and the grant program will help ensure protection of the creek and watershed resources as development proceeds.
- Developed a Wholesome Folsom, Less Toxic Pesticide Campaign which is grant funded and provides free education and products to residents to encourage use of IPM practices.
- Continued the door to door Household Hazardous Waste Pickup Program and provided educational presentations to middle school and high school students regarding this program and less toxic alternatives.
- Developed BMP Guidelines for carwash fundraisers. City staff continued to work with various groups and businesses in the community to educate and inform them about the potential pollution problems associated with car wash fundraisers. Organizations are required to notify and comply with the City's BMP guidelines for car wash fundraisers.
- Included articles in the City of Folsom Newsletter on topics such as proper household hazardous waste disposal, creek awareness and pollution prevention, river friendly landscaping and getting ready for the wet season. These articles were included in the COF Newsletter approximately 2 to 3 times a year and reach approximately 22,000 households.
- Continued implementation of the Park & Recreation Department's Pet Waste Program. Folsom has 30 pet waste bag dispensers and disposal containers installed in several City parks and residential areas.

Activities for the 2008-13 Permit Term

Partnership Activities

See Chapter 2, Section 2.6 for detailed information about activities that will be conducted by the Partnership related to regional public outreach. Residents, businesses and students attending Folsom schools are addressed through those efforts.

City-Specific Activities

Table 7.7-1 at the end of this chapter summarizes the City-specific activities that will be conducted for the this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with portions of Provision 12 of the Stormwater Permit.

This section describes the planned activities in more detail.

Public Participation

Folsom encourages the public to actively participate in all the outreach events and activities it sponsors, via the City web site, City newsletters, Utility bill inserts and other means. See the discussion on public outreach implementation, below, for more information.

Public Reporting Outline

The City will continue to support and promote the Partnership's 24-hour 808-4H20 hotline number for public reporting, as described in Section 7.6. This phone number transfers Folsom callers to the City's Public Works Department for follow-up investigation.

Public Outreach Implementation

Distribution of Educational Materials to Various Audiences

The City will continue to distribute its own creek awareness brochure, as well as educational materials produced by the Partnership, to target audiences in the city as generally described in the Regional Public Outreach section of this SQIP (Chapter 2, section 2.6).

Outreach to General Public

The City will outreach to the general public in multiple ways; most of these are a continuation of activities conducted for many years by the City:

- Provide information via the City website to address activities specified by the Stormwater Permit: auto repair, maintenance and washing; home and garden product use and water conservation; disposal of household hazardous waste, pet waste and green waste; and any additional pollutant source identified as significant.
- Prepare stormwater-related outreach articles for the public and city employees in the City's newsletter and will look for similar opportunities for articles in the local community newspaper: *The Folsom Telegraph*.
- Attend and promote stormwater pollution prevention at annual community events including Public Works Day (May) and the Urban Creek Council's Creek Clean Up Day (April).
- Explore and secure opportunities to partner with other departments (e.g., Utilities, Parks) to cost-effectively combine messages and advertise events; for example via utility bill inserts, the Parks Department's activity schedule and through the City's household hazardous waste collection and water conservation audit/outreach programs.
- Maintain the stormwater education display at the Folsom Zoo to educate zoo patrons about stormwater pollution and the need for prevention.
- Folsom has completed the stenciling and placard program for existing storm drain inlets using volunteer groups in addition to City crews. The City will continue to identify, and place signs along key waterways with a history of dumping problems, to discourage illegal dumping. The signs will be maintained throughout the permit term.

Outreach to Community Groups

The City will continue to sponsor and provide in kind services to the Folsom Creek Watchers Program, which is expected to evolve into the Folsom Adopt-a-Creek/Trail (ACT) program in 2009-10. Support may also include continued payment for outside experts to speak at events and educate the scouts and their parents. Additional details about this evolving program will be provided in the annual report.

Outreach to City employees, managers and elected officials

Folsom will maintain its CASQA membership in order to keep the City's stormwater program manager and other managers apprised of stormwater-related issues and regulations and enable cost-effective information and resource sharing. The City will send key managers to conferences and workshops as needed and will provide annual refresher stormwater training for all affected City employees, as described in Section 7.2.

Additionally, City staff will meet with managers periodically throughout the year to keep them informed about the Program. Updates will be provided to the City Manager, and/or presentations will be made to the City Council or Planning Commission upon request. The City leaders will also be invited to participate in community events (e.g., Creek Week Clean up) to demonstrate support for the stormwater pollution prevention effort.

Public School Education

The City will continue to support education for school children, their teachers and parents, through the following activities:

- Support watershed assemblies performed by SYRCL, vernal pool/stream educational programs for 4-6th graders through the SPLASH program, as described in Chapter 2 (section 2.6).
- Conduct classroom presentations about household hazardous waste, stormwater pollution prevention and water conservation each spring to Folsom Middle School and Folsom High School students.
- Sponsor an interactive stormwater educational booth at the Public Works Week event in Rodeo Park each May.

Business Outreach

Development Community

As discussed in Section 7.3, the City will educate and engage contractors, engineers and design professionals through workshops conducted jointly with the other permittees, as well as the City's entitlement process, pre-application and pre-construction meetings, and on-site training provided in the field by the City's designated stormwater inspector.

Commercial and Industrial Community

The City will continue to work with the permittees to ensure outreach is provided to businesses in Folsom through the County EMD inspection and BERC's outreach programs, as described in Section 7.4. The City will work with commercial car washes and other businesses interested in sponsoring *River Friendly* car wash fundraisers at their facilities; this may include investigating the facility to determine its appropriateness in preventing illicit discharges to the storm drain system. In addition, the City's stormwater inspector will distribute industry-specific brochures and BMP guidance materials to businesses in Folsom during illicit discharge investigations and enforcement.

Watershed Stewardship

The City will continue its involvement and support of watershed stewardship projects and activities.

In late 2006 the City received a CALFED/State Department of Water Resources Grant (Proposition 50) to conduct the Alder Creek Watershed project. This project entails using an interest-based stakeholder-driven approach to conduct a watershed assessment and prepare a watershed management plan for the 11-square mile Alder Creek Watershed in Sacramento County. The vision is a protected, healthy creek and riparian corridor with recreational, educational and interpretive opportunities for existing and future community residents and local schools. The project budget is approximately $400,000. Originally the project was scheduled for completion in June 2009 however due to suspension of State funding the completion date is uncertain. The City is unable to move forward on the project with out State funding, therefore is hoping it becomes available again very soon. The project is currently approximately 60% complete.

A smaller project example was the City's assistance to the Sacramento County Conservation Corps to prepare a small REI grant proposal to clean up stretch of Alder Creek near Broadstone Racquet club. The City would have provided in-kind services as match; however, the project unfortunately was not funded.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.7-1 describes the assessment methods the City will use to more specifically evaluate the public outreach program element activities during the 2008-13 permit term. Assessments of regional public outreach activities will be conducted by the Partnership as described in Chapter 2, Section 2.6. In general, the goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

7.8 New Development Program Element

The mission of the New Development Program Element is to mitigate urban runoff impacts associated with new development and significant redevelopment projects in the City of Folsom.

This section of the Folsom SQIP addresses actions that Folsom will take to mitigate potentially harmful environmental impacts of development in Folsom.

Urbanization and land development can harm local creeks and rivers in several ways:

- Replacing natural ground with impervious surfaces (such as roofs and pavement) increases the volume and peak flow rate of stormwater runoff. Those changes to hydrology can lead to stream bank erosion, flooding, and habitat impairment.
- Adding impervious surfaces such as parking lots, streets, and roofs increase the temperature of the water discharged to creeks, potentially harming aquatic life.
- Converting land uses from rural to urban increases pollutant load from activities such as automobile and landscape maintenance.

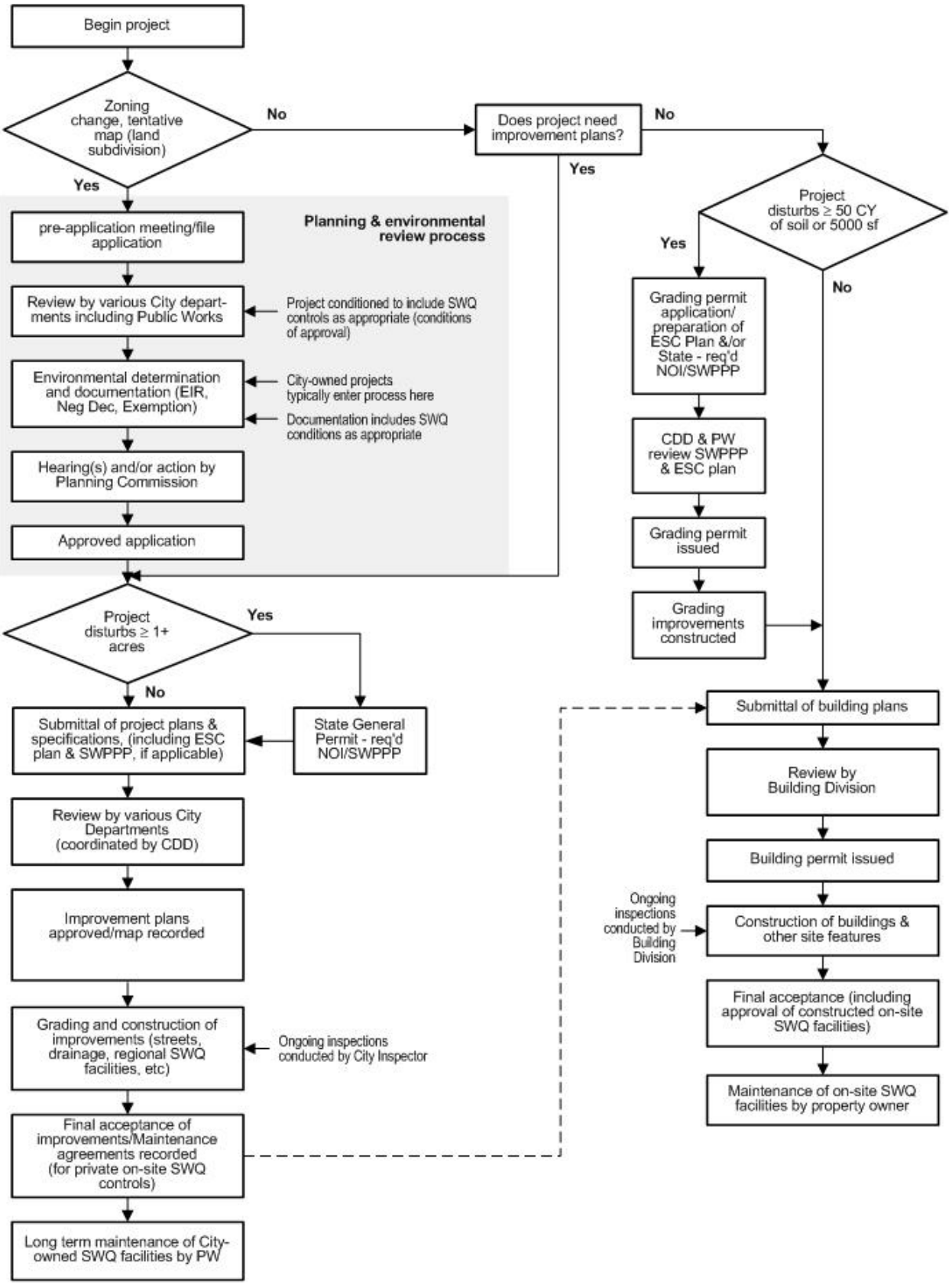
The stormwater permit requires Folsom and the other permittees to ensure that new development and significant redevelopment projects mitigate these impacts. Since 1990, the focus of the New Development Element has been on mitigating stormwater quality impacts. However, the 2008 stormwater permit contains new requirements to also address impacts to runoff volume and rate (hydromodification impacts) where those impacts could cause creek erosion and degrade creek habitat. This section describes actions to address these new requirements for the 2008-13 permit term.

New Development Element Strategy

The City's stormwater ordinance (FMC 8.70) provides the authority necessary for the City to require stormwater quality and hydromodification management control measures as conditions of approval for new and redevelopment projects. With this as a foundation, the City seeks to mitigate the potential harmful stormwater impacts from development and redevelopment with the following approach:

- Integrate stormwater quality considerations and requirements as early as possible into the planning, initial site design, and environmental review processes of both public and private projects. Figure 7.8-1 presents the City's review process for development projects.
- Provide technical guidance (such as the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*), training opportunities and conduct ongoing outreach to the development community. Much of this work is done in concert with the other permittees, as described more fully in the County's SQIP (Chapter 4).
- Require site design features that help control pollution at its source, stormwater quality treatment control measures (preferably aboveground, vegetated) that cleanse runoff before it reaches creeks and rivers, and runoff reduction measures (low impact development, LID) to reduce the volume of runoff from developed projects. Runoff reduction measures are currently encouraged, but will become mandatory during the 2008-13 permit term.

Figure 7.8-1 – Folsom Development Review Process, see next page



CDD — Community Development Dept.; PW — Public Works Dept.; SWQ — stormwater quality; NOI — Notice of Intent; SWPPP — Stormwater Pollution Prevention Plan; ESC — Erosion and Sediment Control

The City of Folsom has been rapidly developing since the mid 1990s. In the last fifteen years or so, the City's population has grown 55% primarily due to the build out of areas such as Broadstone, the Parkway and Empire Ranch. The City's population is expected to grow by about 26,500 following annexation and build out in the City's Sphere of Influence (3600 acres planned for annexation south of Hwy 50). Alder Creek meanders through this agricultural grazing area and the City is working with stakeholders on a grant-funded project to prepare a watershed management plan for the area that will protect the creek's natural resources as development proceeds.

Intra and Interagency Coordination

The City's Public Works and Community Development Departments work together to provide drainage and stormwater review services for development applications in Folsom.

The City was an active participant in the permittee process to prepare the *Stormwater Quality Design Manual* in 2006-07 and will continue this role during the 2008-13 permit period related to development of new requirements for hydromodification management.

The City is leading the effort to prepare a watershed management plan for the Alder Creek Watershed in coordination with various stakeholders, including landowners and developers in the SOI, Gencorp (which owns the Easton Development property on the western end of the watershed), Sacramento County, the Bureau of Reclamation, State Parks, environmental groups and affected businesses such as the Folsom Auto Mall.

Accomplishments To Date

- Updated the stormwater ordinance (FMC 8.70) in 2004 to strengthen authority for requiring development-related control measures.
- Updated the City's CEQA initial study checklist and mitigation measure language to better address water quality protection and stormwater pollution prevention.
- Created a stormwater feature form for completion and submittal by new development project applicants, to document and track the type of stormwater features to be included on the project.
- Contributed to regional projects with other permittees to prepare the December 2003 Development Standards Plan (DSP). Within one year of approval of the DSP by the Regional Water Board, adopted development standards in May of 2006 and began applying them to new and redevelopment projects in the City of Folsom.
- Partnered with the County and the Cities of Sacramento, Rancho Cordova, Citrus Heights, Elk Grove, Galt, and Roseville to create the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, finalized in May 2007. This two-year development process entailed outreach with the development community and meetings with a newly formed stormwater committee of the local Building Industry Association.
- Within one year of approval of the DSP by the Regional Water Board, adopted development standards in May of 2006 and began applying them to new and redevelopment projects in the City of Folsom.
- Executed maintenance agreements with property owners to ensure long-term maintenance of stormwater quality facilities (since 2006).

Activities for the 2008-13 Permit Term

The stormwater permit requires that the permittees continue to regulate new development and redevelopment projects so that they incorporate measures to mitigate stormwater quality impacts. The 2008 stormwater permit includes new provisions to require a plan for mitigating the hydromodification impacts associated with new development in the permit area. (As described in more detail in Chapter 3, Section 3.8, when development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and degrade habitat.) In addition, the 2008 stormwater permit includes a new provision specifying that the permittees require all priority new development and redevelopment projects to incorporate low impact development (LID) measures. Both new hydromodification and enhanced LID criteria will be incorporated into the updated *Stormwater Quality Design Manual for the Sacramento and South Placer Regions* by the Partnership.

Table 7.8-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provisions 13-26 of the Stormwater Permit. This section describes the planned activities in more detail.

Development-Related Ordinances, Policies, Codes, Standards and Technical Guidance

Ordinances/Municipal Code

The City's stormwater ordinance (FMC 8.70) provides adequate authority to establish new requirements for development projects; no revisions to the ordinance are warranted.

Policies

The update of the City's General Plan is not currently scheduled, but will likely occur during the 2008-13 permit term. Water quality and watershed protection principles will be integrated into the General Plan during the update process as required by the stormwater permit. The City will also periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with annual reports as available.

Standards, Codes and Technical Guidance

The City will evaluate and amend its stormwater quality development standards to comply with new permit requirements during the 2008–13 permit term. The City will also complete its update of the City's Design and Procedures Manual and Standard Construction Specifications during 2009-10; these documents will make reference to the *Stormwater Quality Design Manual* as appropriate. The City's standards are being updated to reflect evolving industry standards and regulations; copies of the updated documents wlll be submitted (or web links provided) in a future annual report when available.

The City will work with the Partnership to revise the *Stormwater Quality Design Manual* to include additional criteria for low impact development (LID) and hydromodification mitigation following the amendment of the development ordinances and standards. The hydromodification criteria are discussed in the next section. The City will contribute funding through the permittee cost-share agreement for the update of the design manual, and will provide staff to participate in steering committee meetings, review work products and attend meetings with/presentations to the development community. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures; see Chapter 2 (Section 2.4) for more details.

Stormwater quality requirements need to be coordinated with other City and other agency codes and standards (such as those related to tree preservation/landscaping, water conservation, sanitary sewer and solid waste) in order to avoid conflict and overlap. The City stormwater manager will work with other local agencies through the Design Manual steering committee, and with Community Development and other affected city departments as needed, to evaluate and amend policies and codes as needed for consistency.

Hydromodification Management Plan (HMP)

The City will work with other permittees to meet the requirements of the stormwater permit with regards to hydromodification management (see the prior section on permit requirements). As a first step, the permittees will determine where the requirements would apply in the permit area based on which waterways have the potential for erosion and habitat degradation. It is likely that these new requirements will be applicable to the Folsom Sphere of Influence area.

For those areas where it is determined that hydromodification management measures apply, it is expected that representative analysis will be conducted as needed to assess the degree of susceptibility to erosion and degradation. Based on the outcome of those studies, approaches and tools will be recommended for future development and redevelopment projects to retain/detain flows at the specified erosion susceptibility level. Once the requirements are in place, the City will amend development standards as discussed previously, update the *Stormwater Quality Design Manual* and begin conditioning projects to comply.

To comply with the permit requirements, the permittees are submitting a Hydromodifcation Management Plan (HMP) work plan as part of this SQIP; see Chapter 3, Section 3.8 for more details (the work plan is included as an appendix to this SQIP). One year after the Regional Water Board approves the work plan, the permittees will submit the HMP document.

Waiver Program/Mitigation Fund

The City will work with other permittees to develop a waiver program/mitigation fund alternative for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The owners of projects that qualify for a waiver would pay into an in-lieu fund; the applicable local permitting agency would use the fund to conduct other stormwater quality control programs elsewhere in the affected watershed.

It is anticipated that the waiver program will be used where stormwater requirements conflict with other City objectives, particularly those reflected in “Smart Growth Projects”. There is an inherent conflict between achieving the “Smart Growth” densification objectives and using space on these dense projects for above-ground stormwater conveyance, runoff reduction measures and stormwater quality treatment features. The City will continue to work with other organizations, such as the Sacramento Area Council of Governments (SACOG) to identify and resolve issues between stormwater requirements and Smart Growth objectives. The County is taking the first step to develop initial parameters for their potential waiver program. The City will review the results of the County’s work and consider application to future development projects in Folsom.

Permitting and Plan Review (Entitlement) Process

Development and redevelopment projects in Folsom will continue to be conditioned for mitigation of stormwater impacts as shown on Figure 7.8-1 (Development Review Process). Community Development planning staff will continue to coordinate with Public Works engineers to ensure that development and redevelopment proposals comply with the adopted development standards. City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City planning staff will promote the voluntary use of runoff reduction, or LID, control measures on priority development projects as a means of mitigating downstream habitat and erosion impacts. Such measures will become mandatory for projects during the 2008-13 permit term.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

Maintenance of Stormwater Quality Control Measures

The City will continue to ensure long-term maintenance of treatment control measures on private development by requiring maintenance agreements to be executed before the final approval of the project. A copy of the City's maintenance agreement can be found in Appendix 7C. Through the annual refresher training and other opportunities, the City will train its stormwater inspector and other construction inspectors to check for proper installation/operation of stormwater control measures before final acceptance of the project. For publicly-owned treatment facilities the City will continue to update its asset management GBA database to track inventory and inspection and maintenance activities. Generally the department who operates the facility is responsible for onsite maintenance otherwise the City Public Works Streets Division conducts the maintenance.

Outreach to Educate the Development Community

The Sacramento area development community includes developers, property owners, engineers, landscape architects, architects, environmental specialists, and others who plan and design projects in the public and/or private sectors. The City's effectiveness in reducing stormwater pollution from development in Folsom depends on the level of knowledge and understanding this community has regarding mitigation methods and stormwater requirements. The City therefore will continue to work collaboratively with the other permittees to share information with the development community and promote consistency across municipal boundaries. The City will continue to provide technical guidance and design support to help the development community comply with stormwater quality requirements.

The City will work with the other permittees to inform and engage the development community during the process to amend the development standards and update the *Stormwater Quality Design Manual*. This may include training/informational workshops and meetings with interested parties such as the BIA's stormwater committee. Throughout the 2008-13 permit term, the County, on behalf of the permittees, will continue to post information related to development standards and guidance on the Partnership web site: *www.sacramentostormwater.org*, and will update that website as needed.

Employee Training

The City's stormwater manager and consultants provide annual refresher training with its various agencies and departments to make sure that staff consistently applies new development policies to private developments as well as to the design of City buildings and facilities and improvements in the public right of way.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 7.8-1 describes the assessment methods the City will use to more specifically evaluate the new development program element activities during the 2008-13 permit term. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of agency staff and the private development/design community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

In addition to what is shown on Table 7.8-1, the City will continue to work with other permittees to fund several studies of the effectiveness of local stormwater control measures; see Chapter 2, Section 2.4 for more details.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

Table 7.2-2 – City of Folsom SQIP
Program Management Element Work Plan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)											
Modify SQIP to reflect the requirements of Stormwater Permit	2		Revised SQIP submitted to Regional Water Board	Confirmation	♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c, 3.d		Revised SQIP (as needed) submitted to Regional Water Board	Confirmation		⇔	⇔	⇔	⇔	⇔	As needed
Legal Authority											
Establish and maintain legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance, as necessary	Confirmation-include revised ordinance in AR			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel to Regional Water Board	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	Confirmation-include statement in 2009 SQIP	♦				♦		Submit with SQIP 4/30/09 and ROWD 3/2013
Funding											
Secure resources necessary to meet Stormwater Permit requirements	7		Secure sufficient budget to conduct all activities, fiscal summary submitted to Regional Water Board with Annual Work Plan	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	Submit with Work Plan, May 1 each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.2-2 – City of Folsom SQIP
Program Management Element Work Plan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Training											
Continue to implement and make improvements to training program as necessary			Track training events and number of people participating	Confirmation – describe training accomplishments in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct surveys of training participants to assess effectiveness			See individual program elements, Sections 7.3-7.8								
Reporting											
Annual Work Plan											
Submit Annual Workplan	3a.		Prepare and submit workplan to Regional Water Board.	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.2-2 – City of Folsom SQIP
Program Management Element Work Plan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board	Confirmation- ROWD submitted to Regional Water Board by specified date					♦		ROWD due 3/2013
Coordination											
Coordinate on program element basis with other City departments and outside agencies	1.b		Track coordination and intra-agency agreements		⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Tabulation – Track number of meetings and groups with which the City collaborated during the year	⇔	⇔	⇔	⇔	⇔	⇔	
Review and revise permittee MOU as necessary	3e.		Revised permittee MOU submitted with SQIP; revised as necessary thereafter	Confirmation- include revised MOU in SQIP/AR	♦						Submit with SQIP 4/30/2009
Program Effectiveness											
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters	29		Submit information with ROWD (see Chapter 2, Section 2.3 for more details)	Confirmation- submit ROWD and final AR to Regional Water Board					♦		Submit with ROWD 3/2013
			Submit information in final AR for permit term							♦	Submit with Final AR 10/1/2013
Annually: Measure and report program element and activity effectiveness	29		Submit effectiveness Assessment results with AR each year	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	Oct 1 each year

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.2-2 – City of Folsom SQIP
Program Management Element Work Plan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Long Term Effectiveness Assessment (LTEA)											
Describe proposed LTEA for programmatic and environmental goals	29.d		Submit LTEA to Regional Water Board (see Chapter 2, Section 2.3 for more details)	Confirmation - LTEA submitted to Regional Water Board by specified date					♦		Submit with ROWD 3/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.3-1 – City of Folsom SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise Stormwater Ordinance	8.a.i		Adopt revisions as needed	Confirmation - report revisions in AR			♦				1 year following SQIP approval
Revise Grading and Hillside Development Ordinance	8.a.i		Adopt revisions after Construction General Permit is adopted	Confirmation - report revisions in AR		♦					after CGP adoption
Plan Review and Permitting											
Review Improvement Plans and issue grading permits consistent with City requirements	8.a.ii, 8.a.ii, 8.c.v	✓	Track number of Grading permits issued; document no. of plans which incorporated ESC controls	Tabulation - no. plans incorporating ESC properly is measure of changed behavior of contractors/engineers	⇔	⇔ ③	⇔ ③	⇔ ③	⇔ ③	⇔ ③	
Verify that environmental permits have been obtained from agencies such as DFG (1600), U.S. Army Corps (404), and Regional Water Board (401 Cert)	8.d		Verify prior to issuance of grading permit all applicable development projects obtain required permits from other agencies.	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Track Grading Permits that require coverage under the State C.G.P.	8.a.ii, 8.c.v.a		Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed.	Tabulation - report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Standards and Specifications/BMPs for Controlling Sediment and Pollutants											
Implement standards and specifications to require BMPs for construction sites	8.a.iii, 8.c.i-iv		Evaluate, and if needed, adopt revisions to standards after Construction General Permit is issued	Confirmation – report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	after CGP adoption

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.3-1 – City of Folsom SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Inspections and Enforcement											
Track active construction sites and conduct routine inspections according to prioritized threat to water quality	8.a.iii - vi, 8.e		Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Confirmation - track number of sites and inspections, report in AR's	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement actions for sites in violation of City and/or Regional Water Board requirements	8.a.vii		Track and document number and types of corrective and enforcement actions	Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Notifications to the Regional Water Board											
Refer projects to RWQCB that are disturbing 1 acre or more and can not verify NOI or WDID	8.a.vii		Report non-filers to RWQCB within five business days.	Confirmation - document referrals made to RWQCB	⇔	⇔	⇔	⇔	⇔	⇔	
Track and report repeat offenders (3 or more violations) to Regional Water Board	8.a.vii	✓	Decrease in number of repeat offenders/chronic violations to Regional Water Board	Confirmation - track referrals; record in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	Conduct EA in 12/13 before ROWD

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.3-1 – City of Folsom SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Pollution Control at City Construction Projects and Other Projects by Special Districts and Others out of the City's Jurisdiction											
Obtain coverage under the State General Construction Permit for all applicable City Construction Projects	8.c.v.a, 10.a.ii			Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Include provisions in contract specifications to ensure stormwater pollution prevention for all applicable City construction projects	8.c, 10.a.ii		Review existing contract language, update and revise as needed, discuss requirements in annual refresher training.	Confirmation - report updates in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct inspection and enforcement at all applicable City construction projects	8.a.iii - vi, 8.e, 10.a.ii		Track and document projects and types of corrective and enforcement actions	Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Develop interdepartmental agreement to address stormwater requirements on Capital Improvement Projects	8.f, 10.a.ii		Review existing practices and if needed, develop interdepartmental agreement	Confirmation - report revisions in AR		♦					
Coordinate with utilities, special districts (e.g., schools, RT, parks) and others to ensure compliance with Stormwater Ordinance			Document coordination activities	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.3-1 – City of Folsom SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Education and Training											
Provide regular internal and external training on applicable components of the SQIP	8.a.viii		Conduct training annually to targeted City employees	Tabulation - Track training activities performed	♦	♦	♦	♦	♦	♦	
Produce literature for construction community	8.a.viii		Send out a wet season procedure letter to inventory of active construction sites. Wet season is defined as October 1 to April 30.	Confirmation – document number of construction sites outreached	⇔	⇔	⇔	⇔	⇔	⇔	
Provide regular internal and external training on applicable components of the SQIP	8.a.viii		Conduct at least one workshop/year	Tabulation – track training activities performed.	⇔	⇔	⇔	⇔	⇔	⇔	
Sponsor training events (e.g., pre wet season forums) for the construction community	8.a.viii, ix	✓	Increased awareness of construction community as a result of training	Surveys-measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.4-2 – City of Folsom SQIP
Commercial/Industrial Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise stormwater ordinance as needed	9.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR			♦				1 year following SQIP approval
Complaint-Based Stormwater Compliance Inspections											
Update enforcement policy as needed	9.a.iii-viii		Updated enforcement policy (if needed)	Confirmation - report revisions in AR		♦					
Investigate business-related complaints	9.a.iii-viii		Document/quantify business-related complaints received and investigated	Tabulation – track number of complaints investigated each year	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii		Increase in incidents addressed from one permit cycle to the next	Tabulation – track number of enforcement actions issued	⇔	⇔	⇔	⇔	❸	⇔	Conduct EA in 12/13 before ROWD
CBSCP database - track inspections, enforcement and outreach materials distributed, businesses by category	9.a.iii-viii		Use data adjust and improve program	Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCP or Educational Outreach					❸		Conduct EA in 12/13 before ROWD
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document/quantify Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Refer significant violations and/or non-filers to the Regional Water Board. Coordinate inspections and enforcement with Regional Water Board.	9.a.iii-viii		Document/quantify no. referrals and no. cases where support was provided to the Regional Water Board	Tabulation – Report quantities in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Educational Outreach											
Track industry and pollutant-specific materials distributed by stormwater inspector in Folsom	9.b.iii		Document/quantify industry and pollutant-specific materials distributed	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.5-1 – City of Folsom SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge (Section 7.6) Element		⇔	⇔	⇔	⇔	⇔	⇔	
Stormwater Pollution Control for Construction and Development of City-Owned Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction (Section 7.3) and New Development (Section 7.8) Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.		Continue to ensure compliance with municipal SWPPP at Kemp Facility (Parks); update SWPPP as needed; discuss at annual training	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.5-1 – City of Folsom SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Integrated Pest Management											
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv. , 10.b.iii.		Decrease amount of pesticides and herbicides used by City staff and contractors	Confirmation - Track IPM activities	⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain System Maintenance											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State.	Quantification - Track quantities of sediment removed annually as measure of pollution abated	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Maintain detention basins to maintain performance, remove debris and prevent flooding	10.a.v, 10.b.vii		Continue maintenance of City owned water quality/detention basins as needed based on crews' observations/other	Track activities; report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
			Review, update and improve existing detention basin maintenance guidelines and practices for City-owned basins. Consider assigning priorities and adding inlet/outlet inspection to zones	Confirmation - Provide copy of guidelines, verification of maintenance and any updates with the Annual Reports.		♦					
			Provide support in the development of maintenance practices for new and existing water-quality detention basins that are managed by Home Owner Associations (HOAs), or other private entity, as needed	Confirmation - Track and report in Annual Reports	⇔	⇔	⇔	⇔	⇔	⇔	
			Require Maintenance Agreements for all newly planned and constructed water quality/detention basins owned by others.	Confirmation - Track and report in Annual Reports	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.5-1 – City of Folsom SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Storm Drain Inlet Marking											
Ensure that storm drain inlets are properly marked to discourage illicit discharges; Replace illegible markers with new markers as needed	10.a.vi		Document number of storm drain inlets labeled/replaced by City Crews and number marked by private development	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
Operation and Maintenance of Transportation Facilities											
Street Sweeping for Curbed Streets											
Continue to implement street sweeping program	10.a.vii. , 10.b.v.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually as measure of pollution abated	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
BMP's for Roads Maintenance Activities											
Prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.	10.a.vii. , 10.b.v.		Implement BMPs during road maintenance and construction activities	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Maintenance of City-Owned Parking Loat											
Maintain City-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.vii. , 10.b.v.		Document number of parking lots maintained and type of maintenance performed	Tabulation - Track number of facilities and activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
Roadside Vegetation Maintenance											
Continue to maintain roadside vegetation, public ROW landscaping and L&L's using proper BMP's to prevent stormwater pollution			Implement River Friendly Landscaping and Green Gardner Principles into maintenance practices	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.5-1 – City of Folsom SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Fire Emergency and Non-Emergency Response and Operations											
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment.	10.a.ix. , 10.b.ix.		Review existing practices for non-emergency training and maintenance activities, report written guidelines for BMP implementation to minimize the impacts of non emergency firefighting flows to the environment.	Confirmation - Provide copy of BMP guidelines, verification of training and any updates with the Annual Reports.		⇔ ♦					
			Review existing emergency response practices and develop a response plan for emergency fire fighting discharges into the MS4.	Confirmation - Provide copy of response plan, verification of training and any updates with the Annual Reports.		⇔ ♦					
Employee Training											
Provide regular internal training on applicable components of the SQIP	10.a.x. , 10.b.x		Conduct training annually to targeted City employees	Tabulation - Track training activities performed	♦	♦	♦	♦	♦	♦	
	10.a.xi.	✓	Maintained/Increased awareness of available BMPs and pollution prevention practices, as measured by quizzes during training	Surveys - Measure raised awareness based on quizzes		②	②	②	②	②	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.6-1 – City of Folsom SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Review and if necessary revise existing Stormwater Ordinance	11.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR			♦				1 year following SQIP approval
Reporting of Illicit Discharges											
Continue to utilize Partnership public hotline (808-4H20) for reporting of illicit discharges and connections, and route callers to the City for assistance on City-related issues or complaints	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - The City will track number of complaints received	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Ongoing Field Screening for Illicit Discharges and Connections											
Continue to conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii	✓	Decrease in number of illicit connections detected by field screening activities since last permit term	Tabulation - Report number of illicit connections detected via field screening activities in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Investigations of Illicit Discharges and Connections											
Investigate illicit discharges	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report, hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - Include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
	11.a.vi, 11.b.vii	✓	Increase in number of illicit discharges investigated since last permit term	Tabulation - increase in invest. is measure of increased awareness of City staff					③		EA due 12/13

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.6-1 – City of Folsom SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - Include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in Are yearly
Illicit Discharge Response, Containment and Cleanup											
Investigation/Inspection and Follow-up procedures	11.b.iii		Review and update intradepartmental illicit discharge response procedures/flow chart as needed	Confirmation - provide updates in AR	⇔◆	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, update due 09/10
Respond to, contain and clean up illicit discharges & conncections	11.a.iv ; 11.b.ii, 11.b.iii	✓	Increase in number of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - track number of illicit discharge responses	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Enforcement											
Conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in level of progressive enforcement needed. number of enforcement actions since last permit term	Track number and type of enforcement actions	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.6-1 – City of Folsom SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Data Management											
Continue to maintain database to track investigations, enforcement actions and outreach materials distributed	11.a.v		Regularly update database and revise or update its uses (if needed)	Confirmation - Submit data and report updates in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - Submit map and report revisions in AR	♦	♦	♦	♦	♦	♦	Reported in AR yearly
Outreach/Training											
Continue to distribute educational materials to public, and document/quantify materials distributed			Completed revisions of outreach materials (if needed) and tabulations of number of individuals that received outreach materials	Confirmation/Tabulation - Track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Provide training to storm drain system maintenance crews and illicit discharge response crews annually	11.b.vi		Track number of City employees trained	Tabulation - Track number of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
			Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	EA due 12/13
Facilitation of Proper Household Hazardous Waste Disposal											
Maintain operation of the City's household hazardous waste pickup program		✓	Increase in the quantities of household hazardous waste collected from public since previous permit term	T	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.7-1 – City of Folsom SQIP
Public Outreach Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
This table describes City-specific activities only. Refer to Chapter 2 (Section 2.6) for additional activities conducted on regional basis by the Partnership.											
Public Outreach Implementation											
Outreach to General Public	12.a.i, iii; 12b.i,iii										
Maintain Folsom stormwater web site; update as needed			Submit updated web page link with annual reports	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Publish stormwater-related articles in City newsletter and newspaper; include City stormwater contact number/web site			Increase in public awareness as determined by public inquiries following publication	Tabulation - track numbers of callers; types of information provided	⇔	⇔	⇔	⇔	⇔	⇔	
Promote stormwater pollution prevention at annual Folsom community events			Document activities and no. people reached	Tabulation- report no. people reached each year	⇔	⇔	⇔	⇔	⇔	⇔	
Partner with other city departments to combine messages and co-sponsor events			to be determined based on activity; see annual reports	to be determined							
Maintain stormwater display at Folsom Zoo.			Educate about 1000 zoo visitors annually (primarily children, students, parents)	Tabulation- report no. visitors each year	⇔	⇔	⇔	⇔	⇔	⇔	
Identify new potential sites for "no dumping" signage along creeks and other areas prone to illegal dumping			Place signs at all new problem areas identified by City maintenance crews	Tabulation - track locations/numbers of signs; Inspections - observe decrease in dumping	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach to Community Groups	12.a.i, iii; 12b.i,iii										
Sponsor and support the Adopt-a-Creek/Trail (ACT; formerly Folsom Creek Watchers) program to engage local scout troops and the Friends of Folsom Parkway volunteers			Document activities and no. people reached	Tabulation- # events, # participants, weight of trash removed, $ amount of grants received	⇔	⇔	⇔	⇔	⇔	⇔	
		✓	Support adoption of 25% of Folsom creeks/trail system over the course of the permit	Tabulation- # miles adopted					❸		Coduct EA in 12/13 before ROWD

⇔ Ongoing activity/task ◆ Deliverable or key milestone ❷ Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.7-1 – City of Folsom SQIP
Public Outreach Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Outreach to City Employees, Managers and Elected Officials	12.a.i, iii; 12b.i,iii										
Maintain CASQA Membership			Maintain CASQA Membership	Confirmation of activity completed each year	⇔	⇔	⇔	⇔	⇔	⇔	
Provide presentations and informational memos to City Manager's Office, City Council and Planning Commission as needed			Educate City management and elected/appointed officials whenever necessary.	Confirmation of activity completed each year	⇔	⇔	⇔	⇔	⇔	⇔	
Public School Education											
Encourage Folsom schools to participate in the SYRCL school assembly and SPLASH educational programs	12.a.iv., 12.b.iv.		See Chapter 2, Section 2.6 for details	Tabulation-track # students participating in programs each year	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct classroom presentations for Folsom HS & Folsom MS classes.			Increased awareness of stormwater/watershed issues with students and teachers	Tabulation-track # students participating each year.	⇔	⇔	⇔	⇔	⇔	⇔ ②	
Sponsor interactive stormwater booth at City of Folsom Public Works Day event			Increased awareness of stormwater/watershed issues with students and teachers	Tabulation-track # students reached each year	⇔	⇔	⇔	⇔	⇔	⇔ ②	
Business Outreach											
Development Community and Commercial/Industrial Community	12.a.v., 12.b.v.		Refer to Sections 7.3, 7.4 and 7.8								
Watershed Stewardship											
Continue to administer and manage the Alder Creek Watershed Grant Project			Completed watershed management plan submitted to State DWR and available for stakeholders and development community	Confirmation	⇔	⇔ ◆					Project completion in 09/10 FY
Pursue addiitonal Alder Creek Watershed grant and funding opportunties as they arise			Completed grant applications, etc.	Tabulatin - track additional funding secured	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.8-1 – City of Folsom SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles.	Confirmation – report revisions in AR		⇔	⇔	⇔	⇔	⇔	Date for GP update is uncertain
Development of Standards and/or Guidance											
Develop Low Impact Development (LID) design criteria	15.b		Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔ ♦				6 months after approval of HMP.
	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development
Develop HMP Work plan as part of the revised SQIP.	15.c		Outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔	♦					30-Apr-09
Develop HMP	15.c		Develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento.	Confirmation - Submit work products to Regional Water Board **1 year** after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan
Develop design criteria for hydromodidfiaction management measures.	15.c, 26		Include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards.
Develop a mitigation fund if needed	19		Develop a mitigation fund framework to support regional stormwater projects.	Confirmation – develop framework when needed and submit to regional Board.							

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.8-1 – City of Folsom SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop a waiver program	20		Propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			
Protect groundwater quality	23		Apply restrictions to the use of structural treatment measures which are designed to function infiltration devices in areas of high ground water table.	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned.	Tabulation - track number of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.8-1 – City of Folsom SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop a database to track priority projects that have been issued a permit to construct treatment control measures.	22		Update database of priority projects	Tabulation - track number of projects that completed the construction of treatment control measures and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increase in number of projects that incorporated stormwater quality measures.	Tabulation - Compare # of acreage treated and preserved, to total acreage of project and report in Annual Report.			②	②	②	②	
Stormwater Maintenance Agreement											
Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures.	13.b, 13.e, 18		Require maintenance agreements for on-site stormwater quality control measures (recorded with deed)	Tabulation and Confirmation – track number of executed maintenance agreements and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach and Training											
Conduct outreach to the development community about the latest stormwater quality policies and	24		Continue outreach to development community, incl. BIA meetings, workshops, etc.	Tabulation - track activities; no. people reached	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Maintained/increased awareness of stormwater quality requirements and criteria with development community	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 7.8-1 – City of Folsom SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track number of employees trained and report outcome in the Annual Report.	♦	♦	♦	♦	♦	♦	
	13.i	✓	Increase awareness of targeted employees about stormwater quality requirements.	Tabulation – Estimate raised awareness based on surveys or available research data		②	②	②	②	②	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Chapter 8

City of Galt Stormwater Quality Improvement Plan

8.1 Introduction

Introduction and Background

The Galt (City) Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater Management Program, including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (Stormwater Permit), of which Galt is a permittee. The required certfication for the SQIP is presented in Appendix J.

SACRAMENTO STORMWATER QUALITY PARTNERSHIP

Galt is the smallest city of the permittees that comprise the Sacramento Stormwater Quality Partnership (formerly known as the Sacramento Stormwater Management Program) The Stormwater Permit is issued to the City of Galt and six other co-permittees (Sacramento County and the Cities of Elk Grove, Folsom, Citrus Heights, Rancho Cordova and Sacramento). Galt voluntarily joined Sacramento Stormwater Management Program on June 22, 1990, although Galt would have been considered a Phase II NPDES community. Galt differs from the other permittees in that the City is non-contiguous with other agencies and is influenced by agricultural run-off.

This chapter describes the City of Galt's Stormwater Management Program. The permittee-specific activities described in this chapter are conducted in addition to those implemented jointly with the other permittees as described in Chapter 2.

The original Stormwater Permit was issued in 1990 (first permit term) and has been renewed three times: in 1996, 2002 and most recently in 2008 (fourth permit term).



This SQIP, originally published in July 2003, has been updated for the fourth term of the Stormwater Permit (2008-2013). Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

The City-specific activities described and referenced in this chapter are conducted in addition to monitoring, special studies, target pollutant reduction and regional public outreach activities that are implemented jointly with the other Permittees as described in Chapter 2. The City contracts with the County of Sacramento (County) for many of its stormwater services.

City of Galt Characteristics

The City of Galt is a small city located on State Route 99 in southern Sacramento County approximately 26 miles south of the City of Sacramento and approximately 10 miles north of the City of Lodi. Extensive agricultural lands used mainly for dairy and feed crop purposes surround Galt. Within the City boundaries, the greatest use of land is for residential purposes housing a current population of approximately 24,000 with an expected build out population of 30,000 within the current city limits. In April 2009, the City estimated that there were 468 acres of undeveloped land within the City limits for single family and multifamily residential development, and 288 acres of undeveloped land for Commercial and Industrial land uses. In April 2009 the City of Galt adopted a new 2030 General Plan with a projected build out population of 51,291 and a proposed expansion of its current sphere of influence north of Twin Cities Road. Approximately eight percent (8%) of the total land area encompassed by the 2030 General Plan is proposed to be Light Industrial to accommodate a growing number of industrial users and improve the City's jobs-housing balance. Commercial, Office Professional and Mixed Use land use designations together constitute just over eleven percent (11%) of the total land area. These land uses are intended to provide essential goods and services for the city's residential population as well as the agricultural community surrounding Galt.

Overview of Watersheds

The City of Galt is located within the tributary watersheds of Dry Creek, Deadman Gulch, and Hen Creek. Dry Creek, a tributary of the Mokelumne River, flows along the southern boundary of Galt and forms the boundary between Sacramento County and San Joaquin County. Deadman Gulch, a relatively small local tributary of the Cosumnes River, runs east to west thru the center of the northern portion of Galt. Hen Creek, a relatively small local tributary of Deadman Gulch, runs east to west thru the City and then northwest. Hen Creek drains a majority of the residential development that is approximately 20 years old along the west side of the City between Elm/Orr Rd and New Hope Rd. The majority of the runoff from the southwest section of the City is regulated by the Greer detention basin near West A St/Harvey Rd and Fumasi Ave. Each of the three creeks flows during the winter rainy season. Generally Dry Creek has minimal flows and both Deadman Gulch and Hen Creek are completely dry during the summer months. Both the Cosumnes River and the Mokelumne eventually flow to the Sacramento River approximately 20 miles west of the City boundaries.

Overview of Galt's SQIP

This SQIP describes activities that Galt will conduct in compliance with the Stormwater Permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Board on October 1st of each year during the permit term.

Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

Section 8.2: Program Management — A description of how Galt's Stormwater Management Program is organized, legal authority, priorities and funding, and coordination both within the City and externally with other programs and agencies. See Table 8.2 - 1.

Section 8.3: Construction Program Element — Activities designed to control the runoff of sediment and other pollutants from construction sites. See Table 8.3 - 1.

Section 8.4: Commercial/Industrial Program Element — Activities and control programs designed to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated with industry.

See Table 8.3 – 1.

Section 8.5: Municipal Operations Program Element — Activities designed to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public. See Table 8.5 – 1.

Section 8.6: Illicit Discharge and Detection Program Element — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters. See Table 8.6 – 1.

Section 8.7: Public Outreach Program Element — Activities designed to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers. See Table 8.7 -1.

Section 8.8: New Development Program Element — Activities designed to reduce pollutants in urban runoff discharges from newly developing and redeveloping areas for the life of the project, after construction is complete.

See Table 8.8- 1.

8.2 Program Management and Related Activities

Organization and Staffing of the Galt Stormwater Program

The City of Galt is a Council-Manager form of government. The Stormwater program is part of the Department of Public Works under the direction of the Director of Public Works, as shown in Figure 8-2. The City has assigned an Associate Civil Engineer to manage the Stormwater Program and participate in permittee meetings and other joint Program activities as needed. Assistance is provided by a Senior Civil Engineer, Engineering Assistant, and a Construction Inspector. Additionally, building inspection and administration staffing is provided by other City departments.
The approximate staffing breakdown is shown in Table 8-1.

Table 8-1 - Staffing for the Galt Stormwater Program

Staff	**FTE***
Director of Public Works	0.05
City Engineer	0.05
Senior Civil Engineer (PW)	0.15
Associate Civil Engineer (PW)	0.40
Engineering Assistant (PW)	0.15
Construction Inspector (PW)	0.15
Engineering Staff (PW)	0.10
Street Division (PW)	1.15
Street Superintendent (PW)	0.05
Street Field Supervisor(PW)	0.05
Code Enforcement (CD)	0.05
Planning and Building Department (CD)	0.05
Total	**2.40**

*Full time equivalent
(PW) = Public Works
(CD) = Community Development

Figure 8-2
City of Galt Organizational Chart

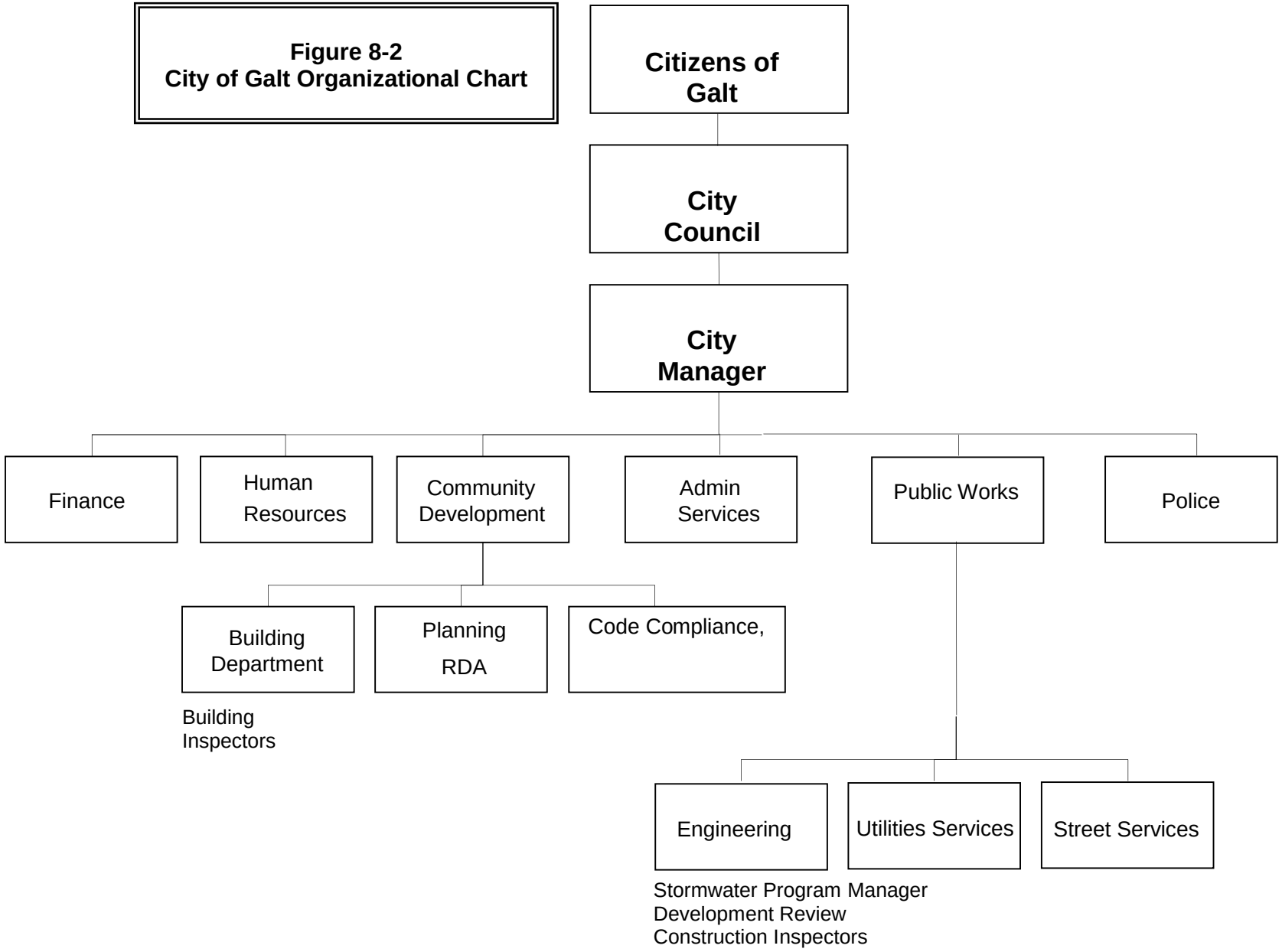


Table 8–2 indicates roles and responsibilities of various city departments for implementation of activities designed to comply with the Stormwater Permit.

Table 8–2

Responsibilities for Compliance with NPDES Stormwater Permit in Galt

Program Element	Department/Group	Major Responsibilities
Program Management (Section 8.2)	Public Works	Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Board and prepares/submits compliance reports.
	Admin Services	Conducts legal reviews, prepares legal certifications and oversees revisions to ordinances, codes and other standards.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Assists with preparation of Permit compliance deliverables
Construction (Section 8.3)	Public Works	Issues development permits (grading, improvement plans, and encroachment permits) and checks for NOI/SWPPP for all sites subject to State General Construction Permit.
	Public Works	Provides inspection services for public infrastructure, public buildings and private development. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit.
Commercial/Industrial (Section 8.4)	County Environmental Management Dept (under contract to City)	Conducts inspections of all Permit-required industries in Galt once every 3 years, and conducts outreach, database management and reporting. Also see Chapter 4, Section 4.4 for more details.
	County Environmental Health Division (under contract to City)	Conducts plan review, issues permits for and inspects food-related facilities in Galt. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.

Table 8–2. Responsibilities for Compliance with NPDES Stormwater Permit in Galt (cont'd)

Program Element	Department/Group	Major Responsibilities
	County Environmental Management Dept (under contract to City)	Conducts plan review, issues permits for and inspects facilities that handle or store hazardous materials in Galt. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.
Municipal Operations (Section 8.5)	Public Works	Oversees maintenance of stormwater drainage system to ensure that system is maintained in manner that minimizes water quality impacts.
	Public Works/Parks and Recreation Dept	Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities do not add to stormwater pollution
	City of Galt Parks and Recreation Dept	Constructs and maintains City parks and recreational facilities in a manner which complies with applicable water quality laws.
	California Waste Recovery Systems	Provides solid waste services to the City under contract.
Illicit Discharges (Section 8.6)	County Environmental Management Dept Cosumnes Community Service District- Fire Dept	Responds to hazardous materials spills in the City that may impact stormwater quality and receiving waters, including cleanup and proper disposal.
	County Environmental Management Dept Cosumnes Community Service District- Fire Dept	May respond to non-hazardous spills, including cleanup and proper disposal.
Public Outreach (Section 8.7)	Public Works	Provides public outreach to individual property owners and developers and handles calls from the public routed to the City. Provides volunteers to work in Partnership booths at some regional public events. Also contributes funds to the Sacramento Urban Creeks Council to support annual Creek Week activities.
	County Dept. of Water Resources/Stormwater	Conducts most of the public outreach required by the Stormwater Permit, including a regional media campaign that addresses Galt residents and businesses.

Table 8–2. City of Galt Responsibilities (cont'd)

Program Element	Department/Group	Major Responsibilities
New Development (Section 8.8)	Community Development/Planning & Public Works	Processes applications for private developments. Conducts CEQA reviews. Implements General Plan and Zoning code. Routes plans to Engineering/Public Works to ensure that stormwater quality controls are incorporated as required.
	Public Works	Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including establishing requirements for stormwater quality control measures.
	Public Works	Ensures that stormwater quality control measures are incorporated into design/construction of public projects, as applicable.
Monitoring, Special Studies and Target Pollutant	Public Works	Reviews and certifies reports and compliance submittals; approves consultant contract decisions; processes payments to the City/County of Sacramento for consultant services according to the cost-share MOU. Represents Galt in permittee work group meetings to discuss these joint Program activities; reviews draft reports and compliance submittals; administers consultant contracts for the technical studies

Legal Authority

Legal authority for Galt Stormwater Management Program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations.
- The City uses the County Standard Construction Specifications and Improvement Standards which describe requirements for new development projects.
- The City utilizes adopted Partnerships' manuals, such as "Stormwater Quality Design Manual for Sacramento and South Placer Regions" which describe requirements for new development projects.
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

The City's certification of legal authority for implementation of the program is included in Appendix J.

City Code

The Galt Municipal Code Chapter 16 is the primary basis for the legal authority for the City's Stormwater Management Program. The code constitutes a codification of the general and permanent ordinances of the city.

The predominant municipal code provision is in Chapter 16 - Stormwater Protection was adopted by the City in June 18, 2002 (Ordinance No. 2002-05) and amended in October 2002, October 2003, August 2004 and July 2006. It prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., flows from emergency fire-fighting activities) pursuant to NPDES federal regulations. The Stormwater Ordnance provides legal authority to Galt and the County for inspections, enforcement actions, and cost recovery fees related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and local creeks.

General Plan

The City of Galt just adopted the General Plan update on April 2009. The General Plan is the long-term policy guide for the physical, economic, and environmental growth of the City. It is composed of goals, policies, and implementation programs, all based on an assessment of current and future needs and available resources. The General Plan update contains the provisions that lay the framework for protection of water quality and implementation of the Stormwater Management Program.

Memorandums of Understanding

Legal authority for administering and implementing the Sacramento Stormwater Quality Partnership jointly with the other permittees is provided by a memorandum of understanding (MOU). The MOU describes administrative roles and responsibilities for management of the program and performance of joint activities, as well as cost-share arrangements. Costs for joint activities are based on population of each permittee and are therefore subject to change during the term of the Stormwater Permit. Galt's cost share percentage is 1.5%.

A MOU was executed between the City and the County Environmental Management Department (EMD) in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened.

Agreements with other agencies will be executed as needed.

Funding

Funding for Galt's stormwater program comes primarily from Stormwater Utility fees, development impact fees, Measure A funds, and gas tax funds. Each year, the City works with the County to develop an annual work plan to describe revenues that will be reimbursed to the City for drainage and stormwater services it provides. The actual and projected revenues and program expenditures are detailed each year in the City's Annual Work Plans and Annual Reports, submitted to the Regional Board.

Stormwater Utility revenues are used to fund City-specific stormwater activities as well as the joint Program activities described in Chapter 2. The City's contribution to the Joint Program is 1.5% based on population, as described in the permittee memorandum of understanding.

In addition to revenues derived from Stormwater Utility fees, Galt collects development impact fees from developers to fund some stormwater-related activities. This would include items such as plan checking for drainage and stormwater-related features, erosion and sediment control inspections during construction, and inspecting installation of stormwater quality facilities by the developer.

The City is also using some Measure A and gas tax funds to rehabilitate and maintain streets and associated drainage structures, including drain inlets, culverts, and roadside drainage ditches.

Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Board each year, in compliance with the Stormwater Permit:

- Annual Work Plan (May 1st) – describes proposed activities and budget for coming fiscal year (July 1st – June 30th).
- Annual Report (October 1st) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the Stormwater Permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City departments and groups each summer to prepare the Annual Report. The County will assist in compiling and describing information for the activities it conducts on the City's behalf.

The City's stormwater program staff will maintain NPDES Stormwater Permit compliance files at Public Works, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

Training for City Staff

All affected City staff receive annual refresher training as required by the Stormwater Permit. Staff will be informed and educated about the Stormwater Permit and its impacts on their positions and responsibilities. Training will cover the following types of topics:

- General storm water quality awareness objectives: where storm water goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

Training for City staff is done through courses offered by Caltrans, Sacramento County, and other agencies. The City will train the inspectors and engineers once a year in the Fall, prior to the wet weather season.

Coordination with Other Agencies and Programs

SACRAMENTO STORMWATER QUALITY PARTNERSHIP

Sacramento Stormwater Quality Partnership

The City participates in regular (approximately monthly) permittee coordination meetings to discuss topics such as:

- Implementation of joint activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Sacramento Program, such as the Brake Pad Partnership and the development of statewide BMP manuals.
- Overall program evaluation and assessment.
- Proposed modifications to the Stormwater Quality Improvement Plans and/or Stormwater Permit.

Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure City-wide compliance with the Stormwater Permit:

- Cosumnes Community Services District – Fire Dept
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric, AT&T, Comcast and other local utilities.
- Caltrans- owns and maintains several Hwy 99 interchanges/ ramps as well as CA 104, which forms the City's north border east of Hwy 99.

Other Stormwater Programs

The City supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in the California Association of Stormwater Quality Agencies (CASQA).

Effectiveness Assessment

The City's general approach to assessing the effectiveness of its stormwater program is described in Chapter 2. The approach is based on direction provide by CASQA in its Effectiveness Assessment Guidance document.

This section describes assessment activities specific to the program management element, including an evaluation of work done during this permit term and proposed assessment methods for evaluating this permit term activities.

Assessment Methods for Current Permit Activities

Table 8-3 at the end of this chapter proposes assessment methods that the City will use to evaluate the program during this permit term. The City will evaluate its efforts on two levels, using the CASQA-based approach described in Chapter 2:

1) Individual activities and programs, and

2) Program element - *For example, how effective are the combined efforts in the construction element at reducing erosion problems on local construction sites?*

This assessment will be done each summer during preparation of the Annual Report, and recommendations for program improvements or modifications will be made based on these assessments.

Evaluation of the overall Program will be done by the permittees as a group, as described in Chapter 2.

Activities for the Current Stormwater Permit Term

The main goal of the Program Management Element for this permit term will be to continue to ensure that all the requirements of the Stormwater Permit are met, by conducting the various administrative and coordination activities described below.

Legal Authority

Update Codes and Standards As Needed

See Appendix 8B. The City will amend its Stormwater Ordinance (See Appendix 8C) if necessary to reflect changes in the program. The City will also adopt any changes made by the County to the Standard Construction Specifications and the Improvement Standards. It is anticipated that the County will make stormwater quality-related changes to these documents during the fourth permit term.

The City will require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

Incorporate Water Quality Principles into General Plan Update

Please see attached Appendix 8D applicable sections relating to Stormwater Quality from the City of Galt General Plan Policies Document and Environmental Impact Report)

Update Agreements As Needed

The City will work with the other permittees to update the MOU that outlines joint responsibilities, cost sharing based on Sacramento Area Council of Governments (SACOG) population data, decision making, and information management and reporting. Galt' current cost share (1.5 %) is not expected to change, but roles and responsibilities may.

Fiscal Analysis

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for Stormwater Permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1st), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1st).

Recordkeeping and Reporting

As required by the Stormwater Permit, the City will submit an Annual Report by October 1st of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format consistent with the other permittees and approved by the Regional Board. By May 1st of each year, Galt will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Joint Program Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 2 for additional information about joint activities.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

Training for City Staff

Training is an important aspect of Galt's Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. For example, each year, City construction inspectors will be encouraged to attend one of the pre-wet season training workshops conducted by the Partnership.

Intra and Interagency Coordination

The City will coordinate internally to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. If needed, the City will develop agreements to define roles and responsibilities between the various City departments responsible for compliance with the Stormwater Permit. This was not necessary during the last permit term.

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Galt will attend regular permittee coordination meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate with other outside agencies during the fourth permit term, as needed when multi-jurisdictional issues arise. These agencies may include Caltrans, San Joaquin County, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others.

8.3 Construction Element

The goal of the Construction Element is to reduce the discharge of sediment and construction-related pollutants to the City's storm drain system and local creeks to the maximum extent practicable.

With the economic downturn, Galt has relatively little new construction underway or planned for the near future. New development areas in the General Plan update will have to specific plans done, which is typically a two to five year entitlement process. Construction activity within the City is usually characterized by disturbance of small size sites, typically 1-5 acres in size. Disturbance of 20-acres or more in construction activity would be on the large end

Construction Element Strategy

The City has established ordinances that provide the authority necessary for the city inspectors to address threatened and actual discharges of pollutants from construction operations. With this as a foundation, the City's strategy includes outreach and education, plan review and permitting, inspection and enforcement. The program applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must comply with the City's Stormwater Protection Ordinance (discussed in Chapter 8.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems. As discussed previously, since it is nearly built-out, the City's work in this area is expected to focus on redevelopment activities and continuation of efforts aimed at disturbance of small size sites during the fourth permit term.

Intra and Interagency Coordination

The two city departments most directly involved in construction activities are Public Works and Community Development. Most interdepartmental coordination is done on an informal basis through written correspondence and meetings related to specific projects.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same standard construction specifications and improvement standards as the County.

The City assists the Regional Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, verifying NOI filings, spot checking SWPPPs, and referring site operators who have not complied with the State regulations.

Accomplishments to Date

Since becoming a permittee to the Stormwater Permit, Galt has made several notable accomplishments related to the construction element:

- Adopted the Galt Municipal Code, including Chapter 16 (Storm Water) to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining development permits (grading, improvement plans, and encroachment permits) for applicable projects

Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for this permit term for the Construction Element. For the most part, activities showed compliance with the Stormwater Permit at Outcome Level 1. These results were used to help identify program improvements and appropriate actions for the fourth term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

Activities for the Current Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices. City staff training was covered previously in Section 8.2.

The City will support Partnership training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats might include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, preconstruction meetings, and example documents.

Galt will continue to contribute funding (through the cost-share MOU) for the development and production of outreach materials such as brochures for concrete and painting, printed in English and Spanish.

Plan Review and Permitting

The City's Stormwater Protection Ordinance (Municipal Code Chapter 16.30) requires a grading permit and erosion and sediment controls on all private projects excavating or filling 50 cubic yards or more of soil or disturbing one or more acres of land. Public projects are subject to the City's Stormwater Protection Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system.

Private and public projects in Galt disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit, in addition to satisfying all applicable local permitting requirements. Prior to issuing a development permit, the City will verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the Stormwater Permit

Inspection and Enforcement

Galt Public Works Department inspectors will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances. This includes checking sediment and erosion control measures and verifying that a site has obtained coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Board as required by the Stormwater Permit.

As with the last permit term, the City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspects according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s). A log of active construction projects and their priorities will be maintained by the City at all times.

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks.

8.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Galt.

Commercial/Industrial Element Strategy

The City of Galt contracts with other agencies to conduct activities related to this program element within the city. The City has executed a MOU with County EMD to conduct triennial inspections of facilities within Galt that were identified in the Stormwater Permit. Partnering with EMD has a few advantages:

- EMD has traditionally conducted environmental compliance inspections in the county, with trained staff, structure, policies and procedures in place. Only modest training and enhancement was required to accommodate stormwater compliance inspections, and use of the existing resource helps minimize inconvenience to the regulated businesses.
- EMD has established a Fee Ordinance which allows them to recover costs for their activities without impacting the City's limited funding sources, such as the County Stormwater Utility.
- Having a single entity (EMD) conduct all the inspections countywide ensures consistent and equitable treatment of the regulated community.

The City contracts with the County to conduct complaint-based inspections of all other businesses within the city. The City also relies on the County to conduct targeted outreach to targeted local businesses.

Intra and Interagency Coordination

A MOU was executed between the City and the County Environmental Management Department (EMD) in 2004, for provision of industrial and commercial inspection and enforcement services required by the Stormwater Permit within the city limits. This MOU authorizes the EMD to conduct inspections and issue enforcement actions, using the legal authority provided by the County's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened.

The City or its County representative participates in periodic (approximately biannual) meetings with EMD to discuss the program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees and business groups such as Business Environmental Resource Center (BERC) to implement the inspection program. See Chapter 4.4 for additional details.

Accomplishments To Date

Refer to Chapter 4.4 for a complete list of accomplishments during the first 17 years of the program.

Effectiveness Assessment

Table 4.4-1 in Chapter 4.4 presents the results of the effectiveness assessment conducted for this permit term for the Commercial/Industrial Element. For the most part, activities showed compliance with the Stormwater Permit at Outcome Level 1. These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 4.4-1 also proposes assessment methods that the County will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated business community).

Activities for the Current Permit Term

The following information briefly describes the activities conducted by County EMD and County DWR on the City's behalf. Refer to Chapter 4.4 for additional details.

Legal Authority

The City's Stormwater Protection Ordinance will continue to provide legal authority to the County for regulating commercial businesses and industries in Galt with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the fourth permit term.

Priority Industry Identification

The industries and commercial businesses subject to stormwater compliance inspections and targeted outreach for the fourth permit term are identified in the sections below. These are the same businesses that were targeted during the third permit term. These lists will be refined during the fourth permit term as needed.

Triennial Industrial Stormwater Compliance Inspections

EMD will continue to conduct triennial inspections at priority industrial facilities. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. The following priority industrial facilities in the Galt 95632 zip code area (includes facilities in the unincorporated County area) will be inspected by EMD; the numbers given in parentheses are the number of facilities within the city zip code area in that category for the 2006/07 fiscal year:

- Facilities with coverage under the State's Industrial General Permit (7)
- Auto body shops (3)
- Auto repair shops (9)
- Auto dealers (1)
- Equipment rental facilities (0)
- Kennels (0)
- Nurseries (3)
- Retail gasoline outlets (i.e., gas stations) (6)
- Restaurants (47)

This list and the associated definitions of industrial categories in Appendix F will be evaluated and revised as needed by the end of the fourth permit term.

EMD inspectors will distribute educational materials to the operators of these facilities during inspections. They will also refer suspected Industrial General Permit non-filers to the Regional Board.

EMD will continue to follow their enforcement policy that emphasizes compliance of facilities with the County Stormwater Ordinance through progressive enforcement actions. Fines will be assessed as necessary for repeat violations that remain unresolved.

EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Galt Annual Reports.

Complaint-Based Stormwater Compliance Inspections

City staff will inspect other businesses not addressed by EMD's program described above within the City of Galt on a complaint basis. Complaints can be referred by the public, other County agencies and departments, the Regional Board, and other sources. City stormwater staff will refer to EMD any complaints related to businesses included in the triennial inspection program. All other complaints will be investigated, and associated progressive enforcement will be conducted to ensure that the stormwater pollution problem(s) are eliminated.

County EMD will distribute educational materials during these inspections and will keep a database for annual reporting purposes.

Educational Outreach

During the fourth permit term, County stormwater staff will continue to conduct outreach to the targeted businesses within the city, on behalf of Galt. Outreach will be conducted with the following priority business operations.

- Automotive washing and detailing businesses
- Carpet cleaning businesses
- Commercial pesticide applicators
- Concrete contractors
- Concrete cutting contractors and businesses
- General building contractors
- Landscape installation contractors and maintenance businesses
- Painting contractors
- Portable toilet rental businesses
- Pressure washing businesses
- Street sweeping businesses
- Swimming pool contractors
- Swimming pool maintenance businesses

Businesses in these priority categories are considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses are mobile operations without a single base of operation, so they are difficult to track.

The County will conduct targeted outreach to the listed business types at least twice during the five-year term of the Stormwater Permit. BERC will continue to manage the business outreach database and coordinate direct mailing of educational materials on behalf of the permittees. Educational materials will also be distributed via City and County public counters, through trade associations and industry suppliers, and at workshops and other events.

The City and County of Sacramento will continue to implement the Clean Water Business Partners (CWBP) Program, and will expand the program as appropriate and necessary to target other businesses.

8.5 Municipal Operations Element

The primary goal of the Municipal Operations Element is to control stormwater pollution resulting from the operation and maintenance of City-owned facilities and areas, including buildings, yards, parks and open space, parking lots, landscape medians, roadways and utilities such as water, sewer and storm drain systems. Routine management and operations and maintenance of theses facilities and areas must be conducted in a manner that does not inadvertently contribute pollution to local creeks and rivers. Another goal is to set an example of model pollution prevention for the public.

Inventory of City Operations and Related Stormwater Activities

The Municipal Operations Element addresses operation of City-owned facilities within the NPDES Permit area (urbanized areas), not already covered by the State NPDES General Permit for Stormwater Discharges Associated with Industrial Activity (Industrial General Permit).

The following is an inventory of the City-owned facilities and operations addressed by this element:

Buildings – The City owns and operates the City Hall complex, Park and Recreation Building, Municipal Services Center and the Police Service Center. There are no known stormwater issues with these complexes.

City parks – 15 parks within the City are operated and maintained (including vegetation and waste management) by the City's Parks and Recreation Department.

Storm Drain System

Piped storm drain system – Approximately 72 miles of storm drain pipe and associated drain inlets and manholes are maintained by the Street Division under the City's Public Works Department.

Storm drain inlets – The City has approximately 1450 storm drain inlets within its jurisdiction. The City was required by the 2002 Stormwater Permit to mark 95% of storm drain inlets by the end of 2007. This was accomplished through the City Staff and Boy Scout volunteers. In the fourth permit term, the remaining 5% of the inlets will be marked and City crews will replace any illegible markings observed during routine storm drain maintenance activities.

Channels and creeks – Manmade drainage channels and natural creeks are maintained by City crews.

Transportation Facilities

Curbed Streets – Streets are cleaned by City staff in the Street Division in the Public Works Department. The frequency schedule is:

- Arterials – Once a week, year round
- Collectors – twice a month, year round
- Residential – twice a month, year round

Roads and Roadside Vegetation – Public Works Department repairs roads and maintains roadside vegetation.

City-owned parking lots – The City Parks and Recreation Department maintains the City owned parking lots on an as needed basis.

The City corporation yard is under the Industrial general permit and inspected by EMD. Monitoring reports are submitted twice a year to Regional Water Quality Control Board.

The City's activities under the Municipal Operations Element do not address facilities operated by federal or state governmental agencies (e.g., Caltrans) and special districts (e.g., Galt Elementary and High School Districts) which are out of the County and City jurisdictional control. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the City-owned storm drain system or local creeks.

Municipal Operations Element Strategy

In order to minimize potential adverse environmental effects associated with constructing, operating, and maintaining city facilities, the City has adopted these strategies for the Municipal Operations Element:

- Provide training and technical assistance to target employees and facilities.
- Evaluate activities, facilities, employee training and any available Municipal SWPPPs to improve procedures and BMP's to address stormwater quality concerns; and
- Conduct record keeping and documentation of processes to allow for continuous assessment evaluations in order to achieve improvements with Stormwater Permit compliance.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the Stormwater Permit in order to reduce stormwater pollution to the maximum extent practicable.

Intra and Interagency Coordination

The City coordinates with the other permittees, stormwater programs, and local, state, and federal agencies to share information, strategies, and recommended practices related to operation and maintenance of County facilities.

The City does not have legal jurisdiction over certain entities and special districts within the City's permit boundaries such fire and school districts as well as state and federal agencies. Because in many cases these entities discharge runoff to the City's storm drain system, the City expects and enforces compliance with local codes, regulations, and ordinances as in the case of any private business or entity. The City coordinates with these districts as needed, to protect the City's storm drain system and local creeks and rivers.

Accomplishments To Date

Since becoming a permittee to the Stormwater Permit, Galt has made several notable accomplishments related to the Municipal Operations Element:

- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., staff routinely log the quantity of pipes, channels, basins, sumps, drop inlets, manholes, and roadways cleaned. This information is tallied and presented in Annual Reports). Compiled the inventory of City-owned facilities and operations. The inventory helps with tracking activities and the City updates the inventory each year for the Annual Report.

Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for this permit term for the Municipal Operations Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

Activities for Fourth Stormwater Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

Maintenance of Buildings

The main potential for stormwater pollution at City owned buildings are parking lot runoff. See the parking lot maintenance activities described later in this section, which are designed to minimize discharge of pollutants.

Operation and Maintenance of City Parks

The Parks and Recreation Department will continue to manage the 15 parks within the city limits.

Maintenance of the Piped Storm Drain System

The Street Division within Public Works Department will continue to service and maintain the Storm Drain System.

Maintenance of Creeks and Channels

The Street Division within Public Works Department will continue to service and provide maintenance to the local creeks and channels. Hand methods are used for this cleaning and vegetation is retained on slopes to prevent erosion.

Inspection and Maintenance of City-Owned Parking Lots

The City owned parking lots exposed to rainfall will be maintained by Parks and Recreation Department. Service will be provided on an as-needed base.

Prioritized Street Sweeping for Curbed Streets

The Street Division within Public Works will continue to provide street sweeping on curbed streets, to follow the prioritized schedule described at the beginning of this Chapter.

Maintenance of Roads and Roadside Vegetation

The Street Division within Public Works will continue to provide maintenance to roadside vegetation.

8.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illicit non-stormwater discharges.

The storm drain system consists of a network drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharges to local creeks and rivers. Please see Figure 8-6 for map and legend for city storm drain outfalls to local creeks (i.e. waters of the State) Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, and aesthetics are all examples of benefits that can be impacted.

Illicit Discharge Element Strategy

The City's strategy for eliminating illicit discharges to the storm drain system and local waterways is the same as the County's. It includes:

- Maintaining adequate legal authority to prohibit illicit discharges. This is accomplished through the City Stormwater Protection Ordinance. City and County staff are authorized to enforce the ordinance within the City limits.
- Conducting ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers.
- Providing convenient means for residents to dispose of solid and household hazardous wastes.
- Educating City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.
- Providing a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose.

Intra and Interagency Coordination

The Street Division within Public Works provides maintenance of the storm drain system in Galt. City crews conduct ongoing field screening for illicit discharges and connections as part of this work.

The City Public Works Department coordinates with field crews to make sure that they have the education and training needed to detect and report illicit discharges to the creeks in the city.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

Galt contracts with the California Waste Recovery System to conduct solid waste management and recycling and household hazardous waste collection for residents of Galt.

Accomplishments To Date

The following highlights major accomplishments of the Illicit Discharge Element since 1990:

- In 2002 the City adopted Stormwater Ordinance within the Galt Municipal Code, Chapter 16, which makes most discharges to the storm drain system illegal (some exceptions are noted).
- 95% of storm drain inlets in the City were stenciled with the "No Dumping — Drains to Creek" message, primarily using volunteers.
- As required by the County's Improvement Standards (used by the City), permanent "No Dumping" stamps were applied to all new concrete storm drain inlets.
- In 2006, a new hotline was set up to supplement the County's 875-RAIN hotline. This new hotline, 808-4H20, allows callers to select Galt and be routed to Public Works for assistance. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Open channels, priority piped outfalls and outfalls larger than 36 inches were all inspected in a phased program over a two-year period. No illicit discharges or connections were discovered during these investigations.
- The City created and annually updated an illicit discharges map. The goal of the mapping work is to identify "hot spot" problem areas requiring additional or more frequent investigations. To date, no such areas have been identified.

Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for this permit term for the Illicit Discharge Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 2). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The key challenge for the fourth permit term will be to investigate ways to compile, analyze and report data to demonstrate changes in awareness and behavior (Outcome Levels 2 and 3) as a result of the inspection, enforcement and outreach efforts. This evaluation will take place near the end of the fourth permit term to coincide with the Report of Waste Discharge application for the fifth permit term.

Activities for the Current Stormwater Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

Update Stormwater Ordinance and Improve Enforcement Authority as Needed

The City will periodically evaluate the Stormwater Ordinance and amend as needed to enhance legal authority.

Ongoing Field Screening to Detect Illicit Discharges and Connections

Activities to prevent and reduce illicit discharges to the piped storm drain system and creeks within the City of Galt will continue as a coordinated activity by Galt

City crews responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges.

City crews will also respond to complaints from the public and referrals from County industrial inspectors, the Regional Board and others. Problems are addressed on an individual basis depending on the nature of the discharge.

Solid Waste and Household Hazardous Waste Programs

Galt will continue to contract with the California Waste Recovery System to conduct solid waste management and recycling and household hazardous waste collection for residents of Galt.

Education and Outreach

To educate the public, and to minimize illegal discharges of waste into the storm drain system, Galt will continue to promote marking of storm drain inlets with “No Dumping” messages, using volunteer groups as available or County maintenance crews.

The City will continue to contribute funding to the County’s 808-4H20 hotline to facilitate public reporting of problems in the City.

Figure 8-6

City of Galt Major Storm Drain Outfall Map

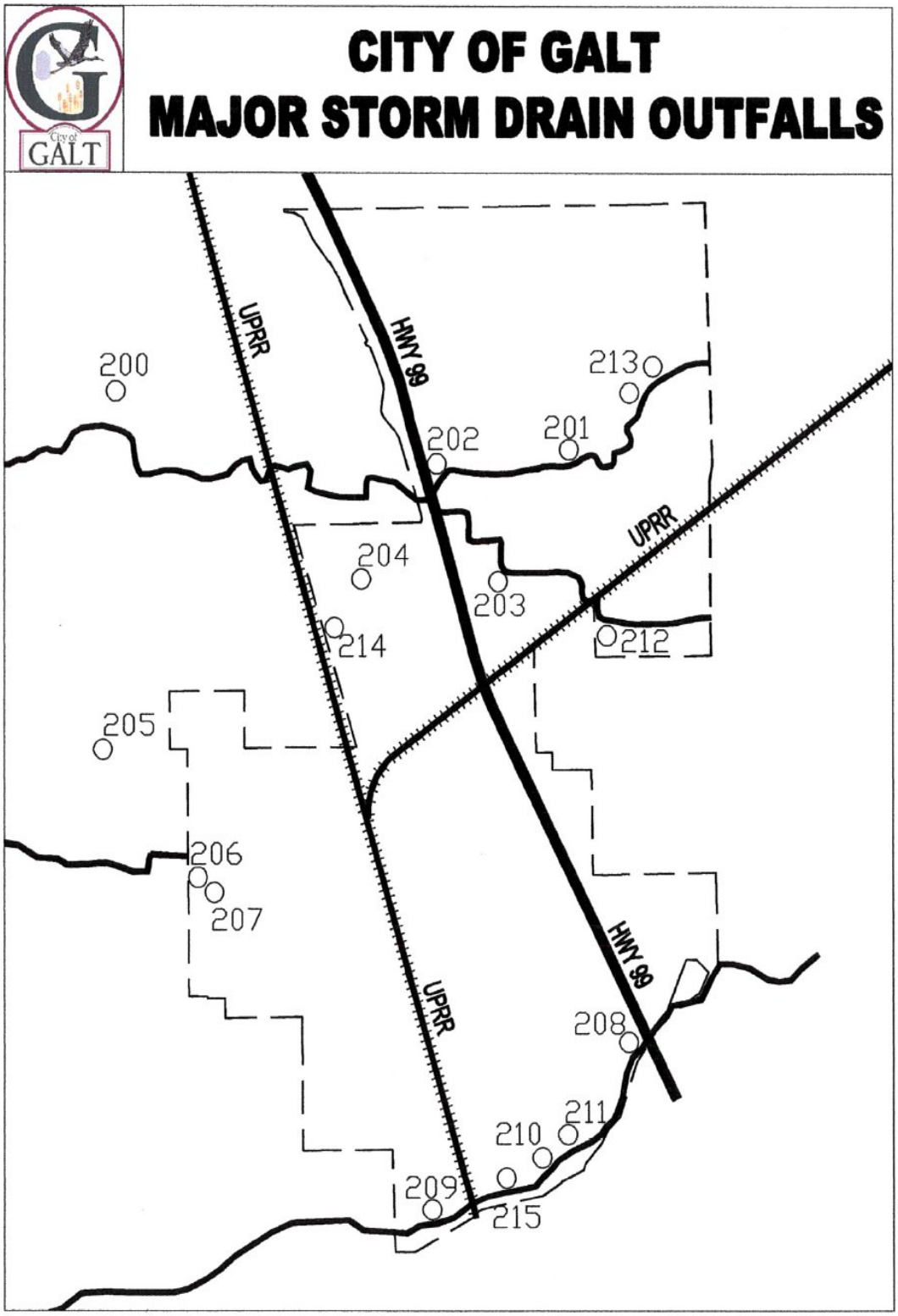


Figure 8-6, cont.

City of Galt Major Storm Drain Outfall Map Legend

City of Galt
Major Storm Drain Outfalls

200	54" @ Spring Street to Laguna Creek
201	2 – 72" @ Carillion Blvd to Dead Man's Gulch (North Tributary)
202	60" @ Winn Drive to Dead Man's Gulch (North Tributary)
203	48" @ Lyonia Drive to Dead Man's Gulch (North Tributary)
204	48" @ Industrial Drive to ditch tributary
205	48" @ Orr Road / Elm Drive to Hen Creek
206	2 – 48" @ A Street to Hen Creek
207	Greer Pump Station to Hen Creek
208	48" @ Fairway Drive to Dry Creek
209	84" @ First Street to Dry Creek
210	60" @ South Lincoln Way to Dry Creek
211	42" @ Chase Drive to Dry Creek
212	36" @ Trafalgar Circle to Dead Man's Gulch (South Tributary)
213	2 – 72" @ Walnut Avenue to Dead Man's Gulch (North Tributary)
214	2 – 72" @ Pringle Avenue to City Ditch
215	48" @ Wilder Way to Dry Creek

8.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

The City coordinates with the Partnership to implement a wide range of activities to increase the knowledge of the community regarding the City' storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences.

Galt Community Characteristics

There are 22,355 residents in the City of Galt. The Galt Union Joint High School District operates Galt High School with approximately 2000 students. Construction of a new high school is nearly completed with the completion date expected in August 2009. The Galt Joint Union Elementary School District serves approximately 4,292 students K-8 with 5 elementary schools and 2 middle schools.

The Sacramento Bee is the major newspaper serving the region and the City of Galt. In addition, the Galt Herald, a local newspaper, is published once a week on Wednesday. The Lodi News-Sentinel provides daily coverage of the Galt area also. City publishes its own *Galt Connections* community newsletter about four times a year. Other media includes television and radio stations that serve the greater Sacramento area.

Public Outreach Element Strategy

The City contracts with Sacramento County to conduct most of the public outreach activities for Galt residents. For details about the County's public outreach activities, refer to Chapter 4.7. Galt also contributes to regional public outreach (discussed in Chapter 2) through the permittee cost-share MOU.

In addition, the City conducts these types of public outreach activities on its own:

- Educating City Council and department managers about the stormwater program and impacts to the city, and garnering support for Partnership efforts.
- Responding to local resident and business phone calls received by 808-4H20 and forwarded to City Hall.
- Making Partnership outreach publications such as brochures available to the general public and development project applicants at the public counter.
- Working with community groups and neighborhood associations on various efforts. For example, the volunteer storm drain stenciling program.

Intra and Interagency Coordination

The City's Public Works Dept. is responsible for administering the stormwater program and overseeing Stormwater Permit compliance. Public Works coordinates with City Council, the City Manager's office and other departments as needed throughout the year to share information.

Galt coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

Accomplishments To Date

Chapters 3.7 and 4.7 describe major accomplishments related to public outreach by the Partnership and the County of Sacramento since 1990. In addition, the following describes several major accomplishments made by the City:

- The City helped coordinate and host the Partnership stormwater informational booth at various annual community events, such as several "I Love My Park" events.
- The City annually contributed funding to the Urban Creek Council's Creek Week program.
- City staff initiated and coordinated volunteer stenciling of storm drain inlets in the city as an educational activity. Community and civic organizations are encouraged to apply "No Dumping" messages to storm drain inlets using City-supplied materials and instructions.

Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for this permit term for the Public Outreach Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the fourth term.

Table 8-3 also proposes assessment methods that the City will use to evaluate the program during the fourth permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community).

Activities for the Current Stormwater Permit Term

The following information describes in greater detail the activities identified on Table 8-3.

Continue to promote volunteer stenciling of storm drain inlets as an educational activity, until all existing inlets in the community have been stenciled. Supply all necessary materials and supplies to community groups upon request.

Continue to work with the County to sponsor and staff a stormwater booth at the following types of community event:

- I Love My Park events

Continue to annually contribute funding to the Urban Creek Council's Creek Week program.

In 2009, the City of Galt hosted and assisted with a local Creek Week program along Deadman Gulch in the city limits.

Meet with the City manager periodically throughout the Stormwater Permit term to keep him informed about the Program. Presentations will be made to the City Council and/or Planning Commission upon request. City leaders will also be invited to participate in community events to demonstrate support for the stormwater pollution prevention effort.

8.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

> The primary mission of the New Development Program Element is to reduce pollutants in urban runoff discharges to the storm drain system from newly developed and significantly redeveloped sites, including post-construction to the maximum extent practicable (MEP).

New Development Element Strategy

Through the New Development Element, the potential adverse effects of development can be mitigated with a combination of strategies. Such strategies include:

- Implementing a regional Design Manual for stormwater quality controls;
- conducting ongoing outreach and education to the development community and City staff;
- ensuring early site planning to limit sources of pollution and implement development standards;
- requiring the installation of permanent BMP's to treat runoff before it reaches creeks and rivers, and
- insuring that post-construction BMP's are maintained properly.

Intra and Interagency Coordination

The Public Works Department coordinates conditioning of development projects with Community Development Dept. The City also coordinates with the other permittees regarding the new Design Manual and implementation of standards.

Accomplishments To Date

- In the mid 1990s, the City established and began implementing stormwater controls for newly developing projects within the City limits.
- Since 2004, the City has been executing maintenance agreements with property owners to ensure long-term maintenance of stormwater quality facilities.
- The City worked with the other permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness, and conducted other activities. These accomplishments are described in more detail in the County's SQIP, Chapter 4, (Section 4.8).
- The City updated its CEQA initial study checklist and mitigation measure language to better address water quality protection and stormwater pollution prevention.

Effectiveness Assessment

Table 8-3 at the end of this chapter presents the results of the effectiveness assessment conducted for this permit term for the New Development Element. Activities showed compliance with the Stormwater Permit at Outcome Level 1 and raised awareness by municipal staff through training (Outcome Level 3). These results were used to help identify program improvements and appropriate actions for the current permit term. The goal will be to move more toward Outcome Levels 2 and 3 (changing awareness and behavior, respectively, of the agency staff and regulated development community).

Activities for the Current Permit Term

Impacts from development and redevelopment within Galt will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training. These activities and more are described in this section. Most residential development projects in Galt fall below the threshold requiring stormwater quality treatment of runoff, but the City will implement Low Impact Development (LID) strategies to the maximum extent practicable.

Update Environmental Review Documents as Needed

The City will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

Ensure Compliance with Development Standards and the Design Manual

Development and redevelopment projects in Galt will be conditioned for mitigation of receiving water impacts from urban runoff quality and quantity in the same manner as projects are conditioned in Sacramento County.

Community Development planning staff will continue to coordinate with Public Works engineers to ensure that development and redevelopment proposals comply with the regional design standards as adopted by the permittees.

Other significant permit requirements include revision of the City's General Plan when it is next updated. Revised General Plan elements will be submitted to the Regional Board as attachments to Annual Reports when available.

Development and redevelopment within Galt will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, installation of permanent BMP's to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training.

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality BMP's to verify their local pollutant removal effectiveness (see Chapter 2). For example, the operation and effectiveness of a wet water quality detention basin will be studied.

City staff will review initial development applications for conformance with the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings.

City staff will promote the voluntary use of runoff reduction, or LID, control measures on development projects as a means of mitigating downstream habitat and erosion impacts. Such measures are expected to become mandatory for projects in certain areas when the permittees' hydromodification management approach is defined to comply with the 2008 Stormwater Permit.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

Update Codes As Needed

The City planning staff will review and update as needed, various City codes that may conflict with the development standards and Design Manual. Alternatively, changes will be proposed to the Design Manual to achieve better consistency.

Hydromodification Management Program

The City will actively participate in efforts with the other permittees to develop a hydromodification management plan for the permit area, in compliance with the 2008 Stormwater Permit. Additional details about this work will be defined in future amendments to this SQIP.

Waiver Program

The City will actively participate in efforts with the other permittees to develop a waiver program for the permit area, whereby project applicants may pay into an in-lieu fund when it is determined that runoff reduction and/or stormwater quality control measures are infeasible for their site.

Contribute to Regional Special Studies

The City will contribute funds via the Permittee cost-share MOU to conduct special studies of selected stormwater quality control measures to verify their local pollutant removal effectiveness (see Chapter 2). Some of these studies are continued from the last permit term, for example, the study of a wet water quality detention basin. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures.

Training for Planners and Development Engineers

Refer to Section 8.5 for details on Galt's annual refresher training for all employees affected by the stormwater permit.

Table 8.3 Effectiveness Assessment – City of Galt Stormwater Management Program

Element Activity/Task	Performance Standard (Goal)		3rd Permit Term		4th Permit Term	
		OUT-COME LEVEL	Effectiveness Assessment	OUT-COME LEVEL	Baseline Information	Effectiveness Method
Program Management (8.2)						
Update Codes and Standards	Adopt revisions as needed	1	SWO revised 2004 and 2006	1	No modifications necessary yet.	Confirmation - report revisions in AR
Fiscal Analysis	Review Budget	1	Mid-year Budget Review completed May 2007	1	Budget continually being assessed. Mid-term budget adjustments to be completed May 2009.	Confirmation - report revisions in AR
Recordkeeping and Reporting	Annual Report & Annual Work Plan	1	Annual Report submitted by Oct 1, 2006	1	Annual work plan to be submitted May 2009. Annual Report submitted October 2008.	Confirmation - report revisions in AR
Construction (8.3)						

Element Activity/Task	Performance Standard (Goal)		3rd Permit Term		4th Permit Term	
		OUT-COME LEVEL	Effectiveness Assessment	OUT-COME LEVEL	Baseline Information	Effectiveness Method
Outreach	Produce/distribute educational materials (work with Partnership)	1	Comment on material and contribute to the Partnership funding to purchase material. Distribute materials.	1	Same, no change	Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed
Plan Review	Review development plans for consistency w/ NPDES permit	1	Reviewed Erosion and Sediment Control Plans and SWPPP	1	Reviewed Erosion and Sediment Control Plans and SWPPP	Confirmation - report revisions in AR
Inspections & Enforcement	Conduct Inspections. Issue NOVs to non-compliant sites	1	Inspections are occurring as required by permit. Issued 15 NOVs during 2003-07. Assessed $750 in fines during 2003-07	1	Conduct inspections. No NOV issued for current permit term.	Confirmation - report revisions in AR
Commercial/Industrial (8.4)						
See Table 4.4-1						

Element Activity/Task	Performance Standard (Goal)		3rd Permit Term		4th Permit Term	
		OUT-COME LEVEL	Effectiveness Assessment	OUT-COME LEVEL	Baseline Information	Effectiveness Method
Municipal Operations (8.5)						
Maintenance of City facilities and utilities	Develop and improve program as needed	1	All programs ongoing. City acted promptly to requested improvements at City Corp Yard.	1	No change	Confirmation - report program/ordinance revisions in AR
Illicit Discharge (8.6)						
Ongoing field screening of City facilities for illicit discharges & connections	Cease illicit discharge and connections, and if any reported, act promptly.	1	One case of illegal dumping reported within City. No findings of illicit connections to the City's facilities	1	No findings of illicit connections to the City's facilities	Confirmation - report program/ordinance revisions in AR
Solid Waste and Hazardous Waste Programs		1	City sponsors in partnership w/ California Waste Recovery Systems a Galt Clean-up Day. April 20, 2007 was last clean-up day.	1	California Waste Recovery has gone to an appointment based pick-up of materials. They still hold hazardous materials collection days.	Confirmation - report program/ordinance revisions in AR

Element Activity/Task	Performance Standard (Goal)		3rd Permit Term		4th Permit Term	
		OUT-COME LEVEL	Effectiveness Assessment	OUT-COME LEVEL	Baseline Information	Effectiveness Method
Education & Outreach	Educate public	1	Ongoing marking of DI's. Annual reminder in utility flyer.	1	Approx. 95% of the drain inlets in the City have been marked.	Confirmation - report program/ordinance revisions in AR
Public Outreach (8.7)						
Produce/distribute educational materials (work with Partnership)	Document/ Quantify materials	1	Distribute on average 6 pamphlets to local residents each event. Total of approx. 50 since program started.	1	Informational pamphlets are available on the first floor of the Municipal Services Center.	Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed
New Development (8.8)						
Update environmental review documents	As needed	1	Completed prior to July 2003	1	No changes required, yet.	Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed

Element Activity/Task	Performance Standard (Goal)		3rd Permit Term		4th Permit Term	
		OUT-COME LEVEL	Effectiveness Assessment	OUT-COME LEVEL	Baseline Information	Effectiveness Method
Ensure compliance w/ standards and design manual	Condition development appropriately	1	4 stormwater quality treatment devices consistent with Partnership standards have been installed and declarations recorded. Conditioned 8 projects in planning for SWQ treatment or LID	1	Two new proprietary SWQ treatment devices have and/or will be installed. Two vegetated bio-swales have and/or will be installed.	Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed
Update codes	As needed	1	SWQ treatment matrix from Design Manual adopted May 18, 2006. Complete design manual completed by Partnership, and will be adopted by permittees.	1	Design manual completed by Partnership, and adopted by permittees.	Confirmation/ Reporting-Include revised/new materials in AR; report no. materials distributed

Table 8.2-1 City of Galt Work Plan
Program Management Element Activities for FY 2009–2010

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)										
Modify SQIP to reflect the requirements of Stormwater Permit	2		Revised SQIP	♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c		Revised SQIP	⇔	⇔	⇔	⇔	⇔	⇔	As needed
Annual Work Plan										
Prepare and submit Annual Workplan	3.a		Annual Workplan submitted	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report										
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year
Memorandum of Understanding (MOU)										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.2-1 City of Galt Work Plan
Program Management Element Activities for FY 2009–2010

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Review and revise existing permittee memorandum of understanding	3.e		MOU submitted to Regional Water Board	♦						Submit with SQIP 4/30/2009
Legal Authority										
Establish and maintain legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel to Regional Water Board	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	♦				♦		Submit with SQIP 4/30/2009
Fiscal Analysis										
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report	♦	♦	♦	♦	♦	♦	October 1 each year
Report of Waste Discharge										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.2-1 City of Galt Work Plan
Program Management Element Activities for FY 2009–2010

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board					♦		ROWD due 3/15/2013
Coordination										
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements	⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	⇔	⇔	⇔	⇔	⇔	⇔	
Training										
Continue to implement training program as necessary			Track training events and number of people participating	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct surveys of training participants to assess effectiveness			Increased participation in training and understanding of stormwater requirements	⇔	⇔	⇔	⇔	⇔	⇔	
Program Effectiveness										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.2-1 City of Galt Work Plan
Program Management Element Activities for FY 2009–2010

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October)	♦	♦	♦	♦	♦	♦	Submit wih annual reports
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters			Submit information in final AR for permit term (October 1, 2013)						♦	Submit in final AR 10/1/2013
Long Term Effectiveness Assessment (LTEA)										
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP							Submit with SQIP 4/30/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board					♦		Submit with ROWD 3/15/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.3-1 City of Galt SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority										
Revise Stormwater Ordinance	8.a.i	Adopt revisions as needed	Confirmation - report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Revise Grading Ordinance	8.a.i	Adopt revisions after Construction General Permit is issued	Confirmation - report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	
Plan Review and Permitting										
Review Improvement Plans and issue grading permits consistent with City requirements	8.a.ii, 8.a.ii, 8.c.v	Track number of Grading permits issued	Confirmation - report tabulation in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Environmental permits must be obtained from agencies such as DFG, U.S. Army Corps, and the Regional Water Board's 401 Water Quality Certification	8.d	Verify prior to issuance of grading permit all applicable development projects obtain required permits from other agencies.	Confirmation - track verification methods	⇔	⇔	⇔	⇔	⇔	⇔	
Track Grading Permits that require coverage under the State C.G.P.	8.a.ii, 8.c.v.a	Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed.	Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Amend standards and specifications to require BMPs for construction sites	8.a.iii, 8.c.i-iv	Adopt revisions after Construction General Permit is issued	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Inspections and Enforcement										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.3-1 City of Galt SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Track active construction sites and conduct routine inspections	8.a.iii - vi, 8.e	Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Confirmation - track number of sites and inspections, report in AR's	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement actions for sites in violation of City and/or Regional Water Board requirements	8.a.vii	Track and document number and types of corrective and enforcement actions	Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Notifications to the Regional Water Board										
Refer projects to RWQCB that are disturbing 1 acre or more and can not verify NOI or WDID	8.a.vii	Report non-filers to RWQCB within five business days.	Confirmation - document referrals made to RWQCB	⇔	⇔	⇔	⇔	⇔	⇔	
Track and report repeat offenders to Regional Water Board	8.a.vii	Report chronic offenders (3 or more violations) to Regional Water Board	Confirmation - document referrals made to RWQCB	⇔	⇔	⇔	⇔	⇔	⇔	
Pollution Control at City Construction Projects and Other Projects by Special Districts and Others out of the City's Jurisdiction										
Obtain coverage under the State General Construction Permit for all applicable City Construction Projects	8.c.v.a, 10.a.ii		Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Include provisions in contract specifications to ensure stormwater pollution prevention for all applicable City construction projects	8.c, 10.a.ii	Review existing contract language, update and revise as needed, discuss requirements in annual refresher training.	Confirmation - report updates in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.3-1 City of Galt SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
The city's SWPP inspector is to conduct inspection and enforcement at all applicable City construction projects	8.a.iii - vi, 8.e, 10.a.ii	Track and document projects and types of corrective and enforcement actions	Confirmation - track and report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Develop interdepartmental agreement to address stormwater requirements on Capital Improvement Projects	8.f, 10.a.ii	Review existing practices and develop interdepartmental agreement	Confirmation - report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	
Coordinate with utilities, special districts (e.g., schools, RT, parks) and others to ensure compliance with Stormwater Ordinance		Document coordination activities	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Education and Training										
Provide regular internal and external training on applicable components of the SQIP	8.a.viii	Conduct training annually to targeted City employees	Tabulation - Track training activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
Produce literature for construction community	8.a.viii	Send out a wet season procedure letter to inventory of active construction sites. Wet season is defined as October 1 to April 30.	Confirmation – document number of construction sites outreached	⇔	⇔	⇔	⇔	⇔	⇔	
Provide regular internal and external training on applicable components of the SQIP	8.a.viii	Conduct at least one workshop/year	Tabulation – track training activities performed.	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.3-1 City of Galt SQIP
Construction Element Activities for 2008-2013

Activity/Task	Permit Ref	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Provide outreach to the construction community	8.a.viii	Increased awareness of construction community as a result of training	Tabulation – estimate raised awareness based on surveys or available research data	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.4-1 City of Galt SQIP
Commercial/Industrial Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise stormwater ordinance as needed	9.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR	⇔	⇔	♦⇔	⇔	⇔	⇔	
Complaint-Based Stormwater Compliance Inspections											
Update enforcement policy as needed	9.a.iii-viii		Updated enforcement policy (if needed)	Confirmation - report revisions in AR	⇔♦	⇔	⇔	⇔	⇔	⇔	
Investigate business-related complaints	9.a.iii-viii		Document/quantify business-related complaints investigated	Tabulation – track number of complaints investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct enforcement (incl. warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	9.a.iii-viii		Increase in enforcement actions from one permit cycle to the next	Tabulation – track number of enforcement actions issued	⇔	⇔	⇔	⇔	⇔	⇔	
CBSCP database - track inspections, enforcement and outreach materials distributed, businesses by category	9.a.iii-viii		Use data adjust and improve program	Confirmation/Tabulation – evaluate data to identify whether to add or remove new business categories to CISCP or Educational Outreach							
Investigate Regional Water Board referrals within 3 working days of receipt of referral	9.a.iii-viii		Document/quantify Regional Water Board referrals investigated within specified timeframe	Tabulation – Track number of Regional Water Board referrals investigated	⇔	⇔	⇔	⇔	⇔	⇔	
Refer significant violations and/or non-filers to the Regional Water Board. Coordinate inspections and enforcement with Regional Water Board.	9.a.iii-viii		Document/quantify support efforts	Tabulation – Track number of cases where support was provided to the Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	
Educational Outreach											
Track industry and pollutant-specific materials distributed	9.b.iii		Document/quantify industry and pollutant-specific materials distributed	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.5-1 City of Galt SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge Element		⇔	⇔	⇔	⇔	⇔	⇔	
Stormwater Pollution Control for Construction and Development of City-Owned Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction and New Development Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.		Implement Municipal SWPPPs at facilities not covered under the State General Industrial Permit.	Confirmation / Tabulation- Track number of Municipal SWPPPs	⇔	⇔	⇔	⇔	⇔	⇔	
Evaluate SWPPP implementation and effectiveness at municipal facilities		✓	Document evaluations performed	Inspection and Tabulation - Track number of evaluations performed, identify BMPs implemented and activities modified as a result of evaluations.	⇔	⇔	⇔	⇔	⇔	⇔	
Integrated Pest Management											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.5-1 City of Galt SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv. , 10.b.iii.		Decrease amount of pesticides and herbicides used by City staff and contractors	Confirmation - Track IPM activities	⇔	⇔	⇔	⇔	⇔	⇔	
Storm Drain System Maintenance											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain detention basins to remove debris and prevent flooding	10.a.v, 10.b.vii		Continue maintenance of City owned water quality/detention basins.								
			Review, update and improve existing detention basin maintenance guidelines and tracking practices for City owned basins.	Confirmation - Provide copy of guidelines, verification of maintenance and any updates with the Annual Reports.							
			Provide support in the development of maintenance practices for new and existing water-quality detention basins that are managed by Home Owner Associations (HOAs), or other private entity, as needed	Confirmation - Track and report in Annual Reports							
			Require Maintenance Agreements for all newly planned and constructed water quality/detention basins.	Confirmation - Track and report in Annual Reports							
Storm Drain Inlet Marking											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.5-1 City of Galt SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi		Document number of storm drain inlets labeled/replaced by City Crews and number marked by private development	Confirmation - Document Stenciling Program	⇔	⇔	⇔	⇔	⇔	⇔	
			Replace illegible storm drain markers with new markers as needed	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
Operation and Maintenance of Transportation Facilities											
Street Sweeping	10.a.vii. , 10.b.v.										
Continue to implement street sweeping program		✓	Decrease amount of sediment discharged to waters of the State. Document amount of sediment removed	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Implement BMP's for Roads Maintenance Activities											
Prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.			Implement BMPs during road maintenance and construction activities	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Parking Lot Maintenance											
Maintain City-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system			Document number of parking lots maintained and type of maintenance performed	Tabulation - Track number of facilities and activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
			Evaluate Parking lot maintenance programs and adjust as needed	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	
Roadside Vegetation											
Continue to maintain roadside vegetation, public ROW landscaping and L&L's using proper BMP's to prevent stormwater pollution			Implement River Friendly Landscaping and Green Gardner Principles into maintenance practices	Confirmation / Inspection - Identify BMPs implemented	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.5-1 City of Galt SQIP
Municipal Operations Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Fire Emergency and Non-Emergency Response and Operations											
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment.	10.a.ix. , 10.b.ix.		Review existing practices for non-emergency training and maintenance activities, report written guidelines for BMP implementation to minimize the impacts of non emergency firefighting flows to the environment.	Confirmation - Provide copy of BMP guidelines, verification of training and any updates with the Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
			Review existing emergency response practices and develop a response plan for emergency fire fighting discharges into the MS4.	Confirmation - Provide copy of response plan, verification of training and any updates with the Annual Reports.							
Employee Training											
Provide regular internal training on applicable components of the SQIP	10.a.x. , 10.b.x	✓	Conduct training annually to targeted City employees	Tabulation - Track training activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
			Increase awareness of available BMPs and pollution prevention practices	Tabulation / Survey - Track number of employees trained and monitor changes in awareness	⇔	⇔ ♦	⇔	⇔	⇔ ♦	⇔	
Municipal Operations Element Effectiveness Assessment											
Conduct and assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.	10.a.xi.		Submit effectiveness Assessment results in AR each year (October)	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.6-1 City of Galt SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Review and if necessary revise existing Stormwater Ordinance	11.a.i		Revised stormwater ordinance (if needed)	Confirmation - report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Reporting of Illicit Discharges											
Continue to utilize Partnership public hotline (808-4H20) for reporting of illicit discharges and connections, and route callers to the City for assistance on City-related issues or complaints	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - The City will track number of complaints received	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Ongoing Field Screening for Illicit Discharges and Connections											
Continue to conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii	✓	Decrease in number of illicit connections detected by field screening activities since last permit term	Tabulation - Report number of illicit connections detected via field screening activities in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, EA due 12/13
Investigations of Illicit Discharges and Connections											
Investigate illicit discharges	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report, hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - Include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
		✓	Increase in number of illicit discharges investigated since last permit term	Tabulation							EA due 12/13
Investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - Include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in Are yearly
		✓	Decrease in number of illicit connections investigated since last permit term	Tabulation							EA due 12/13
Illicit Discharge Response, Containment and Cleanup											

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.6-1 City of Galt SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Investigation/Inspection and Follow-up procedures	11.b.iii		Review and update intradepartmental illicit discharge response procedures/flow chart as needed	Confirmation - provide updates in AR	⇔♦	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, update due 09/10
Respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Increase in number of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - track number of illicit discharge responses	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, EA due 12/13
Respond to and abate illicit connections	11.a.iii ; 11.b.ii	✓	Increase in number of responses and abatements of illicit connections since last permit term	Tabulation - track number of illicit connection responses	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, EA due 12/13
Enforcement											
Conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in level of progressive enforcement needed. number of enforcement actions since last permit term	Track number and type of enforcement actions	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, EA due 12/13
Data Management											
Continue to maintain database to track investigations, enforcement actions and outreach materials distributed	11.a.v		Regularly update database and revise or update its uses (if needed)	Confirmation - Submit data and report updates in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - Submit map and report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Outreach/Training											
Continue to distribute educational materials to public, and document/quantify materials distributed			Completed revisions of outreach materials (if needed) and tabulations of number of individuals that received outreach materials	Confirmation/Tabulation - Track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Provide City employee training to field screening and illicit discharge response crews annually	11.b.vi		Track number of City employees trained	Tabulation - Track number of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
			Increase in awareness among employees regarding illicit discharges and connections since previous permit term	Survey - Quiz employees to assess changes in awareness							EA due 12/13
Facilitation of Proper Household Hazardous Waste Disposal											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.6-1 City of Galt SQIP
Illicit Discharge Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Maintain operation of the City's household hazardous waste pickup program		✓	Increase in the quantities of household hazardous waste collected from public since previous permit term		⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.7-1 City of Galt SQIP
Public Outreach Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
This table describes City-specific activities only. Refer to Chapter 2 for additional activities conducted on regional basis.											
Public Outreach Implementation											
Outreach to General Public	12.a.i, iii; 12b.i,iii						♦				
Publish stormwater-related articles in City newsletter			Increase in public awareness as determined by public inquiries following publication	Tabulation - track numbers of callers; types of information provided	⇔	⇔	⇔	⇔	⇔	⇔	
Promote stormwater pollution prevention at community events				Tabulation- report no. people reached each year	⇔	⇔	⇔	⇔	⇔	⇔	
Partner with other city departments to combine messages and co-sponsor events			to be determined based on activity; see annual reports	to be determined							
Identify new potential sites for "no dumping" signage along creeks and other areas prone to illegal dumping			Place signs at all new problem areas identified by City maintenance crews	Tabulation - track locations/numbers of signs; Inspections - observe decrease in dumping	⇔	⇔	⇔	⇔	⇔	⇔	
Outreach to City Employees, Managers and Elected Officials	12.a.i, iii; 12b.i,iii										
Provide external and internal training to City employees and managers			Educate 100% affected employees annually.	Tabulation- # employees trained, total # training hours per year	⇔	⇔	⇔	⇔	⇔	⇔	
Provide presentations and informational memos to City Manager's Office, City Council and Planning Commission as needed			Educate City management and elected/appointed officials whenever necessary.	Confirmation of activity completed each year	⇔	⇔	⇔	⇔	⇔	⇔	
Public School Education											
Encourage schools to participate in the SYRCL school assembly and SPLASH educational programs	12.a.iv., 12.b.iv.		Increase awareness of stormwater/watershed issues with students and teachers	Tabulation-track # students participating in program .	⇔	⇔	⇔	⇔	⇔	⇔	
Business Outreach											
Development Community	12.a.v., 12.b.v.										

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.7-1 City of Galt SQIP
Public Outreach Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
TBD					⇔	⇔	⇔	⇔	⇔	⇔	
Commercial/Industrial Community	12.a.v., 12.b.v.										
TBD					⇔	⇔	⇔	⇔	⇔	⇔	
Watershed Stewardship											
TBD											
					⇔	⇔	⇔	⇔	⇔	⇔	
					⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.8-1 City of Galt SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Update stormwater quality language in the General Plan	13.a, 16		Update applicable sections of the General Plan to include stormwater quality protection principles.	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Condition priority development projects through CEQA to include stormwater quality control measures as applicable.	13.b-d, 13.g, 21		Update list of priority development projects conditioned.	Tabulation - track number of projects conditioned and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Track the incorporation of stormwater quality		⇔	⇔	⇔	⇔	⇔	⇔	
Development of Standards and/or Guidance											
Develop Low Impact Development (LID) design criteria	15.b		Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔♦				6 months after approval of HMP.
	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development
Develop HMP Work plan as part of the revised SQIP.	15.c		Outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔♦						30-Apr-09
Develop HMP	15.c		Develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento.	Confirmation - Submit work products to Regional Water Board 1 year after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.8-1 City of Galt SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop design criteria for hydromodidfiaction management measures.	15.c, 26		Include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards.
Develop a mitigation fund if needed	19		Develop a mitigation fund framework to support regional stormwater projects.	Confirmation – develop framework when needed and submit to regional Board.							
Develop a waiver program	20		Propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			
Protect groundwater quality	23		Apply restrictions to the use of structural treatment measures which are designed to function infiltration devices in areas of high ground water table.	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		Track and record number of projects conditioned.	Tabulation - track number of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition projects to comply with LID requirements	15.b		Condition priority development projects to incorporate low impact development strategies.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.8-1 City of Galt SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Condition projects to comply with HMP requirements	15.c		Condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track number of projects conditioned and report in Annual Report.				♦⇔	⇔	⇔	
Develop a database to track priority projects that have been issued a permit to construct treatment control measures.	22		Update database of priority projects	Tabulation - track number of projects that completed the construction of treatment control measures and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increase in number of priority projects that incorporated treatment stormwater quality measures.								
Stormwater Maintenance Agreement											
Verify maintenance of treatment measures	13.b, 13.e, 18		Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures.	Tabulation and Confirmation – track number of executed maintenance agreements and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
				Tabulation – track number of responses to self-certification requests.							
	13.i	✓	Increase awareness of proper maintenance procedures.		⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Reduction of sediment		⇔	⇔	⇔	⇔	⇔	⇔	
Outreach and Training											

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 8.8-1 City of Galt SQIP
New Development Element Activities for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Conduct outreach to the development community about the latest stormwater quality policies and	24		Continue outreach about the Planning and New Development Program Element	Tabulation - track number of revised/new materials; number materials distributed in AR	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increased awareness of stormwater quality requirements and criteria.		⇔	⇔	⇔	⇔	⇔	⇔	
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track number of employees trained and report outcome in the Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increase awareness of targeted employees about stormwater quality requirements.		⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Chapter 9

City of Rancho Cordova Stormwater Quality Improvement Plan

9.1 Introduction

The Rancho Cordova (City) Stormwater Quality Improvement Plan (SQIP) provides information about the City's Stormwater program (stormwater program), including a description of activities conducted to ensure compliance with the Sacramento Areawide NPDES Municipal Stormwater Permit (stormwater permit), of which Rancho Cordova is a permittee. The City's activities described in this chapter are conducted in addition to the regional Partnership activities implemented jointly with the other permitees as described in Chapter 2. The required certfication for the SQIP is presented in the front of this entire document.

Background

Rancho Cordova incorporated on July 1, 2003 and soon thereafter became a permittee to the stormwater permit. Before that, the unincorporated area within the present City limits was covered under the County of Sacramento's stormwater permit.

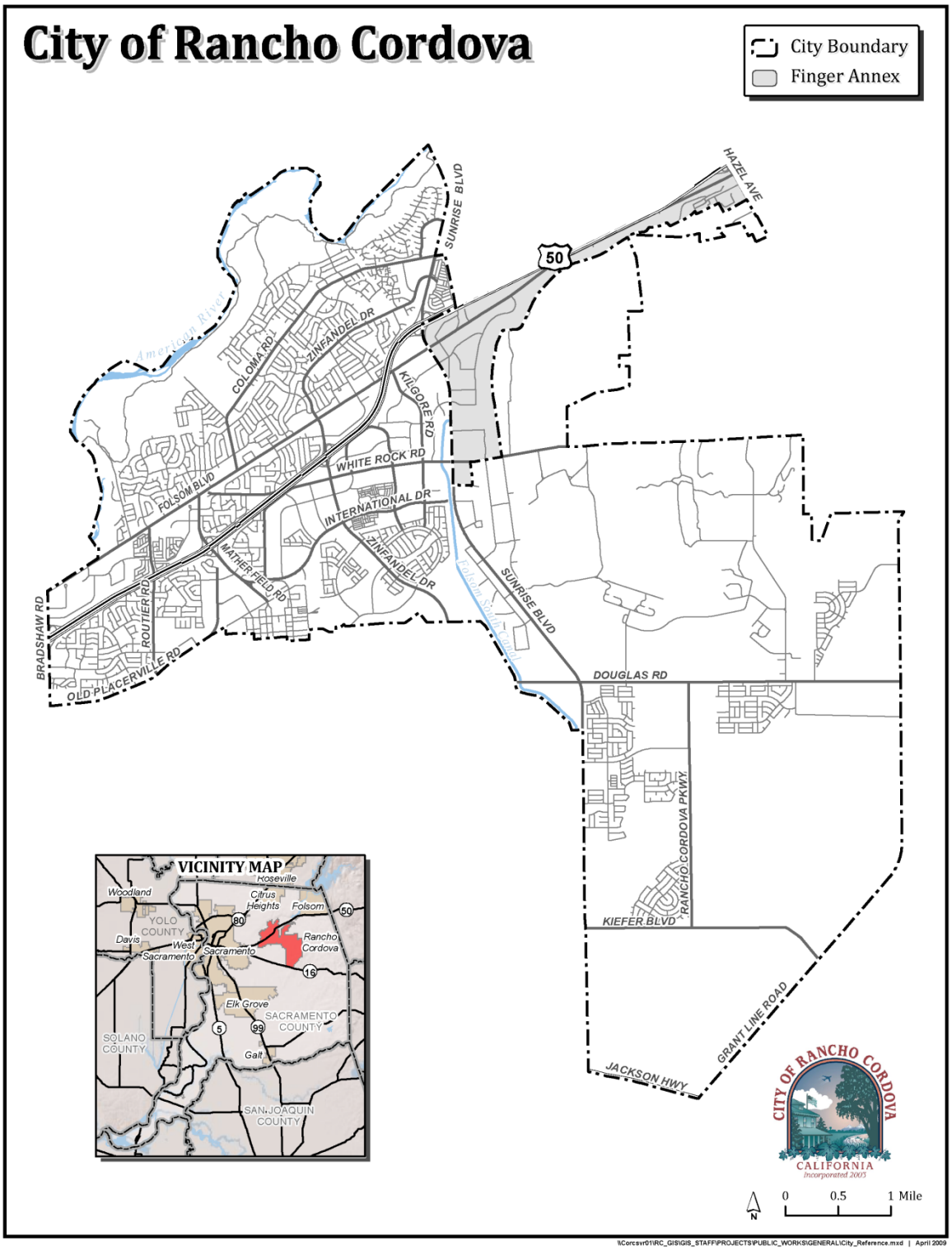
The stormwater permit is issued to Rancho Cordova and six other co-permittees (Sacramento County and the Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento) by the Central Valley Regional Water Quality Control Board (Regional Water Board). Collectively, the group is known as the Sacramento Stormwater Quality Partnership (Partnership). The Stormwater Permit was originally issued in 1990 and has been renewed three times since then: in 1996, 2002, and most recently in 2008 (2008-13 permit term).

Implementation of the activities described in the SQIP is intended to satisfy the provisions of the Stormwater Permit. Those provisions were established to reduce pollutants in stormwater discharges to the maximum extent practicable and comply with receiving water objectives.

City of Rancho Cordova Characteristics

Rancho Cordova is located in Sacramento County, along Highway 50 approximately 12 miles east of downtown Sacramento. The city boundaries are shown in Figure 9.1-1.

Figure 9.1-1
City of Rancho Cordova Map



The City's population was noted as just over 68,975 by the 2008 California Department of Finance, and is projected to grow to 310,568 when the General Plan area is built out in many years.

The City is approximately 33 square miles in size and is comprised of lands designated as residential (53%), commercial (14%), industrial (6%), agriculture (0%), open space (21%), and public (6%), according to the City's 2006 General Plan. Of these lands, more than half is currently in an undeveloped condition. A portion of the north boundary of the city is the American River, so a portion of the city in that area drains into the river. Land within the city also drains to two forks of Morrison Creek as well as Upper Laguna Creek.

Overview of Rancho Cordova's SQIP

This SQIP describes activities that Rancho Cordova will conduct in compliance with the stormwater permit. Modifications to the program may be necessary as the program evolves, and will be proposed in Annual Reports submitted to the Regional Water Board on October 1 each year. Following this introduction, there are seven sections in the chapter, to describe activities related to six major program elements, as follows:

Section 9.2: Program Management — A description of how Rancho Cordova's stormwater program is organized, legal authority, priorities and funding, and coordination both within the City and externally with the County and other programs and agencies.

Section 9.3: Construction Program Element —Activities designed to control the runoff of sediment and other pollutants from construction sites.

Section 9.4: Commercial/Industrial Program Element — Activities and control programs intended to reduce pollutants in discharges and effectively eliminate non-stormwater discharges associated comercial and industrial land uses.

Section 9.5: Municipal Operations Program Element — Activities intended to control stormwater pollution resulting from operation of City facilities and to set an example of model pollution prevention for the public.

Section 9.6: Illicit Discharge and Detection Program Element — Activities designed to effectively eliminate illegal non-stormwater discharges to the storm drainage system and receiving waters.

Section 9.7: Public Outreach Program Element — Activities intended to raise awareness and foster community stewardship to promote pollution prevention in the urban area and protection of local creeks and rivers.

Section 9.8: New Development Program Element — Activities mitigate water quality and quantity impacts from newly developing and redeveloping areas for the life of the project, after construction is complete.

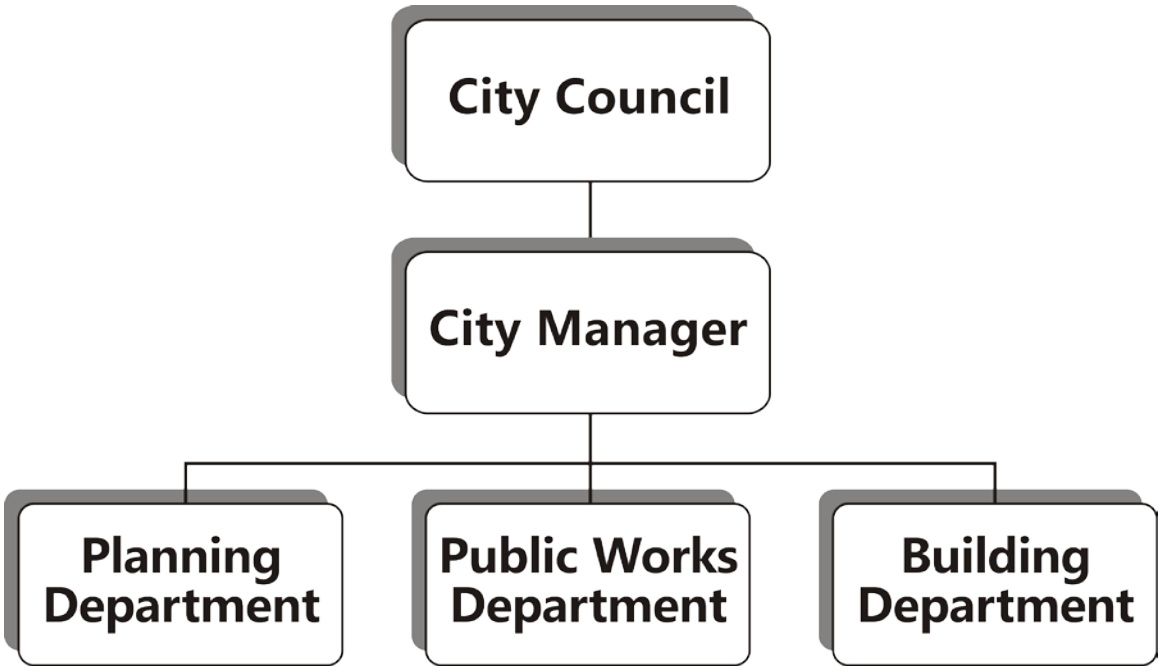
This page intentionally left blank.

9.2 Program Management

Program Organization and Staffing

The City of Rancho Cordova is a Council-City Manager form of government. As shown in Figure 9.2-1, there are three main departments involved in implementation of the City's Stormwater Management Program (stormwater program).

Figure 9.2-1
Rancho Cordova General Organization Related to Stormwater Management



The City of Rancho Cordova Stormwater Management Program resides within the Department of Public Works, and the Public Works Director is responsible for overseeing the program and certifying all compliance deliverables. The City Public Works Department has designated staff to conduct the management, engineering and maintenance activities required by the Stormwater Permit. The City's Planning Department provides planning and environmental review services for development projects, and the Building and Safety Department provides construction permitting and inspection services. Figure 9.2-2 shows the organizational structure of the stormwater program.

Due to the many aspects of the Stormwater Program, one representative from Public Works is responsible to ensure program success and dissemination of information to all affected managers and employees. The representative meets periodically throughout the year with departments and staff throughout the city to discuss current issues and ensure all required activities are being performed in compliance with the Stormwater Permit and this SQIP.

Figure 9.2-2

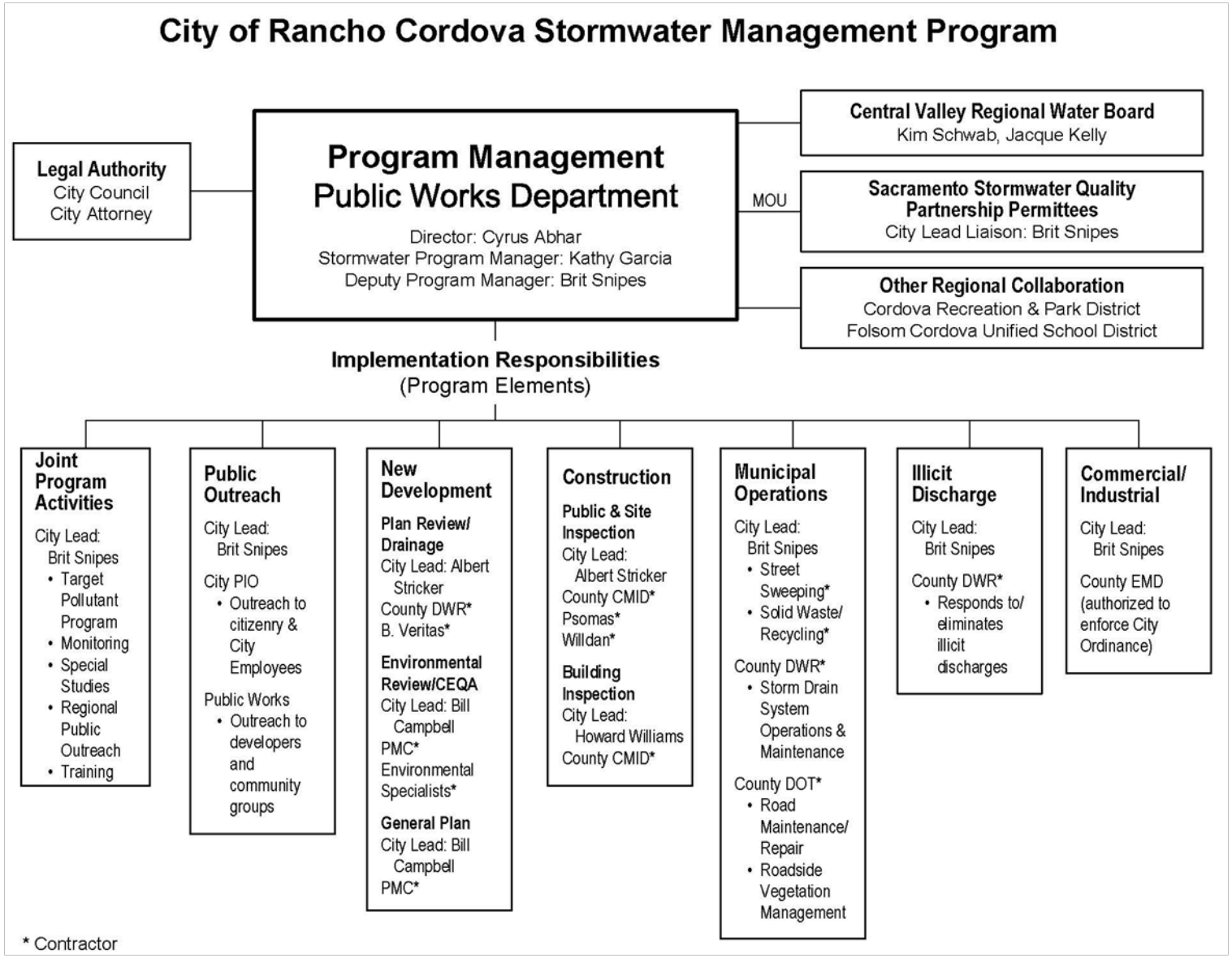

City of Rancho Cordova Stormwater Management Program
Legal Authority
City Council
City Attorney
Program Management
Public Works Department
Director: Cyrus Abhar
Stormwater Program Manager: Kathy Garcia
Deputy Program Manager: Brit Snipes
MOU
Central Valley Regional Water Board
Kim Schwab, Jacque Kelly
Sacramento Stormwater Quality Partnership Permittees
City Lead Liaison: Brit Snipes
Other Regional Collaboration
Cordova Recreation & Park District
Folsom Cordova Unified School District
Implementation Responsibilities
(Program Elements)
Joint Program Activities
City Lead: Brit Snipes
• Target Pollutant Program
• Monitoring
• Special Studies
• Regional Public Outreach
• Training
Public Outreach
City Lead: Brit Snipes
City PIO
• Outreach to citizenry & City Employees
Public Works
• Outreach to developers and community groups
New Development
Plan Review/ Drainage
City Lead: Albert Stricker
County DWR*
B. Veritas*
Environmental Review/CEQA
City Lead: Bill Campbell
PMC*
Environmental Specialists*
General Plan
City Lead: Bill Campbell
PMC*
Construction
Public & Site Inspection
City Lead: Albert Stricker
County CMID*
Psomas*
Willdan*
Building Inspection
City Lead: Howard Williams
County CMID*
Municipal Operations
City Lead: Brit Snipes
• Street Sweeping*
• Solid Waste/ Recycling*
County DWR*
• Storm Drain System Operations & Maintenance
County DOT*
• Road Maintenance/ Repair
• Roadside Vegetation Management
Illicit Discharge
City Lead: Brit Snipes
County DWR*
• Responds to/ eliminates illicit discharges
Commercial/ Industrial
City Lead: Brit Snipes
County EMD (authorized to enforce City Ordinance)
* Contractor

Table 9.2-1 provides the estimated allocation of City staff resources for the 2009-10 fiscal year in full time equivalent (FTE) increments. FTE staff estimates for staff in other departments related to Stormwater Permit compliance tasks are not shown on this table because these costs are not currently tracked in a separate charge/project number. Future changes to this information will be tracked in annual reports.

Table 9.2-1

Staffing for the Rancho Cordova Stormwater Program
(2009-10 fiscal year estimates)

Staff	FTE*
Principal Civil Engineer	0.30
Associate Civil Engineers	0.70
Administrative Assistant	0.30
Construction Inspector	0.30
Maintenance Coordinators	0.20
Building Inspection/permits	0.30
Total	2.1

*Full time equivalent

Figure 9.2-2 and Table 9.2-2 show and describe the division of responsibilities between the City and contractors for the various types of work required to comply with the Stormwater Permit. The City contracts various stormwater quality services to Sacramento County. When the City incorporated in 2003, it entered into an agreement with Sacramento County (Local Agency Formation Commission [LAFCo] Resolution 1243), that requires the County to provide Rancho Cordova the same level of and type of drainage and flood control services as provided in the unincorporated area. The City also contracts with others as shown on Figure 9.2-2 and Table 9.2-2.

Table 9.2-2. Responsibilities for Compliance with NPDES Stormwater Permit in Rancho Cordova

Program Element	Department/Group	Major Responsibilities
Program Management and Training **(Section 9.2)**	Public Works	Administers and manages the City Stormwater Program on behalf of the City. Provides liaison with the Regional Water Board and prepares/submits compliance reports.
	Admin Services	Conducts legal reviews, prepares legal certifications and oversees revisions to ordinances, codes and other standards.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Assists with preparation of Permit compliance deliverables; represents Rancho Cordova at permittee coordination meetings.
Construction **(Section 9.3)**	Public Works	Issues grading permits and checks for NOI/SWPPP for all sites subject to State General Construction Permit.
	Community & Economic Development/Building Division	Provides inspection services for public infrastructure, public buildings and private development. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit.
	Consultant Contracts - City Inspectors	Constructs and inspects all street and highway improvements located in the City, including lighting, landscaping and signals. Inspection services include oversight of contractor compliance with City Stormwater and Grading Ordinances and State Construction General Permit.
Commercial/ Industrial **(Section 9.4)**	County Environmental Management Department (under contract to City)	Conducts inspections of all Permit-required industries in Rancho Cordova once every 3 years, and conducts outreach, database management and reporting. Also see Chapter 2, Section 2.7 for more details.
	County Environmental Health Division (under contract to City)	Conducts plan review, issues permits for and inspects food-related facilities in Rancho Cordova. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.
	County Hazardous Materials Division (under contract to City)	Conducts plan review, issues permits for and inspects facilities that handle or store hazardous materials in Rancho Cordova. Considers drainage issues that may be of concern to stormwater quality in all reviews and inspections.

Program Element	Department/Group	Major Responsibilities
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Conducts complaint-based inspections in Rancho Cordova for businesses not covered by EMD. Works with BERC to conduct business outreach activities required by the Permit. Also see Chapter 2, Section 2.7 for more details.
Municipal Operations (Section 9.5)	County Dept. of Water Resources/Drainage O&M (under contract to City)	Oversees maintenance of stormwater drainage system to ensure that system is maintained in manner that minimizes water quality impacts. Maintains creeks and channels within the City to remove accumulated debris and obstructions in order to make them hydraulically efficient to minimize over-bank flooding, bank erosion, and transport of pollutants.
	Public Works (Through contracts with various private vendors)	Maintains all street and highway improvements located in the City, including lighting, roadside ditches and signals. Responsible for ensuring that stormwater quality and erosion/sediment controls are incorporated where required.
	General Services/Facilities & Public Works	Manages City-owned buildings, parking lots and other facilities. Responsible for ensuring that activities at these facilities do not add to stormwater pollution.
	Cordova Parks and Recreation District	Constructs and maintains parks and recreational facilities within the city in a manner that complies with applicable water quality laws.
	Allied Waste Management	Provides solid waste services to the City under contract.
Illicit Discharges (Section 9.6)	County EMD Hazardous Materials Division (under contract to City) Metro Fire District	Responds to hazardous materials spills in the City that may impact stormwater quality and receiving waters, including cleanup and proper disposal.
	Metro Fire District	Respond to non-hazardous spills, including cleanup and proper disposal.
	County Dept. of Water Resources/Drainage O&M (under contract to City)	Conducts ongoing field screening activities during routine maintenance of the storm drain system in Rancho Cordova. May respond to non hazardous spills, including cleanup and proper disposal.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Conducts follow-up investigations as needed to confirm/eliminate illicit discharges. Responds to calls from the public for situations in Rancho Cordova.

Program Element	Department/Group	Major Responsibilities
	Allied Waste Management	Provides solid waste management services for residents and businesses in the City. Program emphasis is placed on waste prevention, recycling, and composting, which support the stormwater quality program goals.
Public Outreach (Section 9.7)	Public Works	Provides public outreach to individual property owners and developers and handles calls from the public routed to the City. Provides volunteers to work in Partnership booths at some regional public events.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Works with City of Sac to manage/conduct regional public outreach required by the Stormwater Permit, including a regional media campaign that addresses Rancho Cordova residents and businesses. Also see Chapter 2, Section 2.6 for more details.
New Development (Section 9.8)	Economic Development/Planning	Processes applications for private developments. Conducts CEQA reviews. Implements General Plan and Zoning code. Routes plans to Public Works to ensure that stormwater quality controls are incorporated as required.
	Public Works	Conditions development projects to ensure compliance with City drainage and stormwater quality standards, including establishing requirements for stormwater quality control measures.
	Public Works	Ensures that stormwater quality control measures are incorporated into design/construction of public projects, as applicable.
	Public Works (w/consultant contracts)	Provides planning and design for all street and highway improvements located in the City, including addressing stormwater quality requirements, where applicable.
Monitoring, Special Studies and Target Pollutant Reduction (Chapter 2)	Public Works	Reviews and certifies reports and compliance submittals; approves consultant contract decisions; processes payments to the City/County of Sacramento for consultant services according to the cost-share MOU.
	County Dept. of Water Resources/Stormwater Staff (under contract to City)	Represents Rancho Cordova in permittee work group meetings to discuss these joint Program activities; reviews draft reports and compliance submittals; administers consultant contracts for the technical studies.

Legal Authority

Legal authority for Rancho Cordova's stormwater program is provided in several ways:

- The City's Municipal Code provides the basic legal authority to implement the program and enforce the local regulations,
- The General Plan contains water quality protection policies,
- The City uses the Sacramento County Standard Construction Specifications and Improvement Standards which describe requirements for development projects, and
- Agreements with the County and other permittees provide for a means of cost sharing to implement various portions of the program.

Additional detail about each form of legal authority is provided in this section. In addition, the City's legal counsel has certified that adequate legal authority exists to implement and enforce the stormwater program in compliance with the stormwater permit. This certified statement is provided in Appendix 9A.

City Code

When the City incorporated in July 2003, it adopted the County ordinances in effect at the time, including any future amendments until the City otherwise adopts its own unique legal authority. Two County ordinances provide the main legal authority for the City's stormwater program:

- Stormwater Management and Discharge Control Ordinance, also known as "The Stormwater Ordinance" (Chapter 15.12 of County Code) — Prohibits most non-stormwater discharges and lists non-stormwater discharges conditionally allowable (e.g., water from fire-fighting activities) pursuant to NPDES federal regulations. Provides legal authority to the County for inspections and enforcement related to control of illicit (unauthorized non-stormwater) discharges to the City storm drainage system and Morrison/Laguna Creeks.
- Land Grading and Erosion Control Ordinance (Chapter 16.44 of County Code) — Requires projects disturbing 350 cubic yards or more of soil or one or more acres of land to prepare an erosion and sediment control plan specifying best management practices (BMPs) for erosion and sediment control. Provides legal authority for inspections and enforcement needed on local construction sites to ensure compliance with the ordinance.

The full text of the City's Municipal Code can be accessed at:

http://www.codepublishing.com/CA/RanchoCordova/html/RanchoCordovaNT.html

General Plan

Rancho Cordova's General Plan, adopted in June 2006, includes a Natural Resources Element with various goals which result in direct or indirect protection of watershed resources and water quality. The General Plan and other development-related codes and standards can be accessed on the City's web site:

http://www.cityofranchocordova.org/ (see Planning Dept.)

Relevant sections of the City's General Plan are summarized below:

Natural Resources Element

Goal NR.2: Preserve the City's rich and diverse natural wetlands.

Goal NR.3: Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.

Goal NR.4: Encourage the planting and preservation of high-quality trees throughout the City.

Goal NR.5: Protect the quantity and quality of the City's water resources.

Goal NR.8: Promote waste reduction, reuse, recycling, and composting efforts.

Each of the above goals has related policies and actions designed to implement that goal. For example:

Goal NR.3: Preserve and maintain creek corridors and wetland preserves with useable buffer zones throughout the new development areas as feasible.

- *Policy NR.3.1* - Coordinate with property owners and local interest groups, such as the Sacramento Urban Creeks Council, to restore, enhance, and preserve creeks in Rancho Cordova.
- *Policy NR.3.2* - In general, the City will encourage the preservation of existing location, topography, and meandering alignment of creeks. Where necessary, and if consistent with other City policies, the creation and realignment of creek corridors shall be constructed to recreate the character of the natural creek corridor. Channelization and the use of concrete within creek corridors shall not be supported.
- *Action NR.3.2.1* – Develop guidelines for channel creation or modification that will ensure channel meander, naturalized side slope, and varied channel bottom elevation are considered in design.
- *Action NR.3.2.2* – Adopt and implement improvement standards for soft bottom channels.

Intra and Interagency Agreements

Intra-agency agreements between City departments will be executed if needed as the program progresses to ensure cooperation within the City for compliance with the stormwater permit. Such agreements are not warranted at this time.

Legal authority for administering and implementing the Sacramento Stormwater Quality Partnership Program (Partnership Program) jointly with the other permittees will be provided through the Permittee Memorandum of Understanding (MOU). The MOU describes administrative roles and responsibilities for management of the Program and performance of regional activities, as well as cost-share arrangements. Costs for regional Partnership activities are based on population of each permittee and are therefore subject to change during the term of the stormwater permit. Refer to Chapter 2, Section 2.2 for more details on the MOU and Rancho Cordova's percentage share.

An MOU was executed in 2004 between the City and the County Environmental Management Department (EMD) for conducting industrial and commercial inspection and enforcement services required by the stormwater permit. This agreement is discussed in more detail in Chapter 2, Section 2.7.

Agreements with other external agencies will be executed as needed; such agreements are not warranted at this time.

Funding

Funding for Rancho Cordova's stormwater program comes primarily from Stormwater Utility fees collected and administered by the County on behalf of the City. The County will continue to use utility revenues to fund the activities it conducts on the City's behalf and to pay Rancho Cordova's share of the regional Partnership activities described in Chapter 2. The County will continue to reimburse the City for stormwater quality services performed by City staff or outside contractors. Budget details will be provided each year in the annual report.

In addition to revenues derived from Stormwater Utility fees, the County collects fees from developers through development impact fees, some of which are used to fund stormwater-related activities. For example, development impact fees fund plan checking for drainage and stormwater-related features, erosion and sediment control inspections during construction, and are used to reimburse developers for the construction of stormwater infrastructure, including stormwater quality facilities such as detention basins. The County will continue to collect these fees during the 2008-2013 permit term on the City's behalf, for development projects in Rancho Cordova.

Fees are also collected by County EMD from most industries and businesses in the City to fund inspection services. Inspections are conducted to verify compliance with environmental and health laws, including stormwater quality regulations.

Finally, the City uses its developer fees, Road Fund and building permit fees to cover salaries and other administrative activities which are required to ensure compliance with the stormwater permit.

Any changes to these funding arrangements will be described in annual reports.

Recordkeeping and Reporting

The City will prepare and submit the following documents to the Regional Water Board each year, in compliance with the stormwater permit:

- Annual Work Plan (May 1) – describes proposed activities and budget for coming fiscal year (July 1 – June 30).
- Annual Report (October 1) – describes activities conducted during the previous fiscal year, including compliance with performance standards and the stormwater permit. Proposes revisions to the Stormwater Quality Improvement Plan, if needed.

Records and data will be collected from all responsible City departments and groups each summer to prepare the Annual Report. The County will assist in compiling and describing information for the activities it conducts on the City's behalf.

The City's stormwater program staff will maintain stormwater permit compliance files at City Hall, including all documentation necessary to demonstrate compliance with the permit. As required, the City will retain copies of all records and reports from the date of generation for at least five years.

Training for City Staff and Contractors

The City will ensure that all City staff and contractors involved in or affected by stormwater permit compliance activities receive annual refresher training as required by the stormwater permit. County staff working on the City's program are trained as described in Chapter 3, Section 3.2.

Staff will be informed and educated about the stormwater permit and its impacts on their positions and responsibilities. Training will cover the following types of topics:

- General storm water quality awareness objectives: where storm water goes, how it becomes polluted, and how to prevent pollution.
- Background regulatory information appropriate to the audience.
- Information on stormwater quality compliance targeted to the staff's area of specialty, e.g., inspection, planning, engineering.
- How to report/refer observed problems in the field.
- Information about enforcement and penalties appropriate to the audience.

Coordination with Other Agencies and Programs

Sacramento Stormwater Quality Partnership

Regular permittee Steering Committee meetings are held approximately monthly to discuss topics such as:

- Implementation of regional Partnership activities, such as monitoring, target pollutant reduction and some public outreach.
- Status of consultant contracts and work products related to monitoring and development standards.
- Funding of activities conducted by others that benefit the Partnership, such as the development of statewide BMP manuals by the California Stormwater Quality Association (CASQA).
- Overall program evaluation and assessment.
- Proposed modifications to the SQIPs and/or stormwater permit.

The City Engineer, his designee, or the County Stormwater Program Manager will attend these meetings on behalf of Rancho Cordova.

Outside Agencies

The City coordinates with several local and regional agencies (over which it lacks jurisdictional control) in order to ensure city-wide compliance with the stormwater permit:

- Caltrans - owns and maintains several Hwy 50 interchanges impacting the City
- Cordova Parks & Recreation District – owns and operates almost 30 parks, 16 of which are in the city
- Folsom Cordova and Elk Grove Unified School Districts - own and operate various schools in the City (see list in Section 9.7) and will construct new schools in the future.
- Regional Transit - owns and operates the Light Rail line that travels through Rancho Cordova.
- Sacramento Area Sewer District (formerly CSD-1) – owns and operates the sanitary sewer collection system in the City.
- Sacramento Regional County Sanitation District (SRCSD) - owns and operates the interceptor collection system and wastewater treatment plant, to which the City's sanitary sewage is delivered.
- Sacramento Metropolitan Fire District – conducts fire and hazardous materials spill response operations in the city
- Sacramento Municipal Utility District (SMUD), Pacific Gas & Electric and other local utilities - own private utilities in the public right of way and have maintenance easements to repair/replace facilities as needed
- Three local water districts: Golden State Water Agency, Cal American Water Agency and Sacramento County Water Agency (Zone 40) - own and operate drinking water treatment and distribution system for City residents.
- Sacramento County (Regional Parks) - owns the portion of the American River Parkway bordering the northern border of the City.
- US Bureau of Reclamation (USBR) - owns and operates the Folsom South Canal.

Other Stormwater Programs

The city supports coordination and networking with other stormwater programs within California in order to share information and identify opportunities to work together. This effort is facilitated by the City and County of Sacramento, through their active participation in CASQA.

Activities for the 2008-13 Stormwater Permit Term

Table 9.2-3 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with various provisions of the Stormwater Permit, as indicated on the table.

This section describes the planned activities in more detail.

Recordkeeping and Reporting

SQIP

Following the submittal of this April 2009 SQIP, the City will revise the SQIP based on Regional Water Board comments and/or comments received during the 30-day public review process conducted by the Regional Water Board. From then on, proposed modifications to the SQIP will be included in the annual reports, as required by the Stormwater Permit.

Annual Report and Annual Work Plan

As required by the stormwater permit, the City will submit an Annual Report by October 1st of each year detailing the activities accomplished and the quantitative data compiled during the previous fiscal year (July 1 -June 30). The report will be prepared using a standardized reporting format created in coordination with the other permittees.

By May 1st of each year, the City will submit an Annual Work Plan that details the activities proposed for the coming fiscal year.

The City and County of Sacramento will take the lead in submitting Regional Partnership Work Plans and Annual Reports to describe activities such as monitoring conducted jointly by all the permittees in the Partnership. Refer to Chapter 2 for additional information about regional Partnership activities.

Permittee Memorandum of Understanding (MOU)

The MOU has been revised for the new permit term; see Chapter 2, Section 2.2 for more details. If needed based on population growth and other factors, the City will work with the other permittees to update the permittee cost-share MOU during the 2008-13 permit term.

Legal Authority

Update Codes and Standards As Needed

The City will amend its Stormwater Ordinance if necessary to reflect changes in the program and ensure compliance with the 2008 Stormwater Permit. This will be done if needed within one year of the Regional Water Board's adoption of the 2009 SQIP, as required by the Stormwater Permit. The City will also automatically adopt any changes made by the County during the 2008-13 permit term to other applicable ordinances (e.g., Land Grading and Erosion Control) and the Standard Construction Specifications and the Improvement Standards, as discussed elsewhere in this SQIP.

The City will continue to require the local development community to utilize the May 2007 *Stormwater Quality Design Manual for Sacramento and South Placer Regions* and will ensure that City planners and engineers attend training workshops related to implementation of the new manual. It is likely that as the design manual comes into more use, conflicts may arise between the criteria in the manual and the City's codes. In such cases, the City will amend codes as needed or recommend adjustments to the manual.

Incorporate Water Quality Principles into General Plan Update

The City's new General Plan was adopted in 2006 and water quality protection policies were added (see discussion earlier in this section). Major updates are not anticipated during the 2008-13 permit term.

Legal Authority Certifications

The legal authority certification by Rancho Cordova's legal counsel is included in this SQIP as Appendix 9A. Another certification will be prepared for submittal with the Report of Waste Discharge (ROWD) in March 2013, as required by the Stormwater Permit.

Fiscal Analysis

Each year, through the City budgeting process, a fiscal analysis will be performed to ensure resources are available and allocated to carry out the proposed activities necessary for stormwater permit compliance. Projected budgets for each coming fiscal year will be presented in the Annual Work Plans (May 1), and actual expenditures for the previous fiscal year will be reported in the Annual Reports (October 1).

Report of Waste Discharge (ROWD)

As required by the stormwater permit, the City will work with the other permittees to prepare a Report of Waste Discharge for submittal to the Regional Water Board 180 days prior to expiration of the current permit (submittal date March 15, 2013). The ROWD will include a revised SQIP, legal authority certification and long term effectiveness assessment, as required by the Stormwater Permit.

Intra and Interagency Coordination

The City will coordinate internally to ensure all necessary City staff, management and elected officials are aware of Stormwater Permit requirements and related program efforts. If needed, the City will develop agreements to define roles and responsibilities between the various City departments responsible for compliance with the Stormwater Permit. This was not deemed necessary during the last permit term.

As discussed previously, the City will work with the other permittees to update the MOU which defines cost-sharing and agency roles. The City will also work with EMD as needed to update the MOU which defines responsibilities for the industrial inspection program.

Rancho Cordova will attend regular permittee Steering Committee meetings (approximately monthly) or will make arrangements for the County to represent the City at such meetings.

The City will continue to participate with other permittees on various work groups and subcommittees that have been formed to address specific activities, such as monitoring, target pollutants, and special studies. The City may make arrangements for the County to represent the City at these meetings.

The City will continue to coordinate as needed with other outside agencies during the 2008-13 permit term when multi-jurisdictional issues arise. These agencies may include Caltrans, US Army Corps of Engineers, US Fish and Wildlife Service, and the California Department of Fish and Game, among others.

Training for City Staff

Training is an important aspect of Rancho Cordova's Stormwater Program. Each year, all affected personnel and managers will be educated on the requirements of the Stormwater Permit relevant to their daily work. The training may be in the form of in-house meetings and briefings or external training conducted by the Partnership or others. For example, each year, City construction inspectors will be encouraged to attend one of the pre-wet season training workshops conducted by the Partnership.

City elected officials and managers will be kept apprised of Stormwater Program activities and issues through briefings and interoffice memoranda as needed.

Effectiveness Assessment

The City will work with the other permittees to assess the effectiveness of the overall stormwater program as described in Chapter 2, Section 2.3. This approach is based on guidance provide by CASQA in its *Effectiveness Assessment Guidance* document (2007). In addition, the City will evaluate the effectiveness of its own program management activities related to permit compliance, as described in Table 9.2-3. This assessment will be done each summer during preparation of the annual report, and recommendations for program improvements or modifications will be made based on the results.

For this program management element, most activities have Level 1 effectiveness outcomes; this requires annual documentation that activities have been conducted as required by the stormwater permit. Level of effort (e.g., number of meetings attended) and resources expended (staff hours or costs) may also be tracked (also outcome level 1). The exception to this is training. During the 2008-2013 permit term, the City (or the County, on the City's behalf) will use quizzes, surveys and/or follow-up meetings with selected groups to assess the knowledge level of trained staff with a goal of increasing awareness (outcome level 2). These tasks are described in the various program element sections (9.3-9.8) of this chapter.

The City will contribute resources (per the permittee cost-share MOU) to the long term effectiveness assessment required by the stormwater permit (due with ROWD on March 15, 2003).

9.3 Construction Element

The goal of the Construction Element is to reduce the discharge of sediment and construction-related pollutants to the City's storm drain system and local creeks (e.g., Upper Morrison and Upper Laguna) to the maximum extent practicable.

A great deal of new construction has been taking place in Rancho Cordova in recent years, but has slowed in 2009 due to economic conditions. However, building is expected to pick up again at some point during the 2008-13 permit term. It is anticipated that growth will continue mainly in residential and commercial land uses, with construction of associated parks and schools.

Construction Element Strategy

The construction element applies to private as well as public construction projects, including those also requiring coverage under the State's Construction General Permit. For the most part, the focus for inspection and enforcement activities is on land disturbing activities of one acre or more. However, smaller sites must also comply with the City's Stormwater Ordinance (discussed in Chapter 9.2) and smaller site operators are educated and informed about ways to prevent erosion and pollution problems.

The City has adopted the County's Land Grading and Erosion Control Ordinance, which requires a grading permit and erosion and sediment controls on all private projects disturbing 350 cubic yards or more of soil or one or more acres of land. Public projects not subject to the grading ordinance are subject to the City's Stormwater Ordinance, which prohibits the discharge of sediments and other construction-related pollutants to the City storm drainage system. Collectively, these ordinances provide the authority necessary for the city and county inspectors to address threatened and actual discharges of pollutants from construction operations.

With adequate legal authority as a foundation, the City's strategy for controlling discharge of construction-related pollutants includes plan review and permitting, inspection and enforcement and outreach and education. The City contracts with the County and several consulting firms to provide trained staff to implement these activities in Rancho Cordova. The City coordinates with the County and the other permittees to conduct education and outreach for the local construction community.

Intra and Interagency Coordination

The City's Engineering and Building and Safety Divisions within Public Works conduct formal biweekly meetings during the wet season and monthly meetings during the dry season to discuss stormwater issues. Coordination between Public Works and other departments (e.g., Planning) related to stormwater quality controls for construction projects is done on an informal basis through written correspondence and regular meetings related to specific projects. Since the City is small and staff are located in the same building, formal agreements are not necessary.

The City coordinates with the other permittees as much as possible to present a consistent, uniform message to the construction and development communities, since construction work is often multi-jurisdictional. For example, the City utilizes the same standard construction specifications and improvement standards as the County.

City inspectors assist the Regional Water Board in its enforcement of the Construction General Permit by enforcing compliance with comparable local ordinances, checking SWPPPs for the permit-required items during permit application, following up on referrals by the Regional Water Board, and referring site operators who do not have coverage under the Construction General Permit, but appear to need coverage.

Accomplishments to Date

Since becoming a permittee to the stormwater permit in 2003, Rancho Cordova has made several notable accomplishments related to the construction element:

- Adopted the Rancho Cordova Municipal Code, including the adopted County ordinances discussed previously, to provide the City legal authority to eliminate construction-related pollutant discharges into its storm drain system.
- Adopted the County's standards and specifications for construction, including standard erosion and sediment control drawings.
- Developed and implemented procedures to require proof of Notice of Intent (NOI) to comply with the Construction General Permit as a condition of obtaining grading permits for applicable projects.

Activities for the 2008-13 Permit Term

Table 9.3-1 at the end of this chapter summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 8 of the Stormwater Permit.

This section describes the planned activities in more detail.

Legal Authority

During the 2008-13 permit term, the County will revise its Land Grading and Erosion Control Ordinance for consistency with the State's new Construction General Permit.

Plan Review and Permitting

The City's Building and Safety Division will continue to conduct plan review and issue grading permits for construction projects in Rancho Cordova for conformance with applicable County ordinances, codes and standards described previously. Improvement plans will be checked for inclusion of erosion and sediment control (ESC) plan sheet(s) to satisfy the requirements. This ESC plan will be checked in the field by the City inspector during construction. During the planning stage, projects will also be checked to verify that any other applicable environmental permits have been obtained from Dept. of Fish and Game (1600 Streambed Alteration Agreement), US Army Corps of Engineers (404 permit) and Regional Water Board (401 Certification).

In addition to satisfying all applicable local permitting requirements, private and public projects in Rancho Cordova disturbing one or more acres of land are required to obtain coverage under the State's Construction General Permit. Prior to issuing a grading permit, the City will continue to verify that a State-required Notice of Intent (NOI) was filed and will check the Stormwater Pollution Prevention Plan (SWPPP) for six items required by the stormwater permit.

The City uses standards and specifications adopted by the County to describe requirements for BMPs at construction projects to control sediment and other pollutants. All erosion and sediment control plans for projects in Rancho Cordova are checked for conformance with the standards and specifications. The County may update these documents during the 2008-13 permit term following the update of the Land Grading and Erosion Control Ordinance to reflect the State's new Construction General Permit.

Pollution Control at City-Owned Construction Projects and Other Projects Not Subject to City's Permitting Process

All City construction projects will be subject to the same ordinances and standards as private projects. Provisions will be included in design and construction contract specifications to require compliance. City project managers or their consultants will obtain coverage under the State's Construction General Permit as required. City inspectors will inspect and conduct enforcement for these projects as described later in this section.

The City lacks jurisdictional control over projects that may be constructed in Rancho Cordova by utilities, special districts (e.g., schools, RT, parks) and other agencies; therefore, such projects are not subject to the City's plan review and permitting process. However, the projects will be subject to the City's Stormwater Ordinance. The City will coordinate with these agencies on a project basis to ensure compliance with the Stormwater Ordinance and to ensure coverage as required by the State's Construction General Permit.

Track/Inventory Active Construction Projects

The City will continue to maintain a database to track public and private active construction sites and will use this information to schedule/prioritize inspections and develop annual reports.

Inspection and Enforcement

Rancho Cordova will continue to conduct inspections of all construction projects in the City to ensure compliance with the requirements set forth in the City's ordinances and applicable standards and specifications. Inspection services may be contracted out to the County and/or private firms. This work includes checking erosion and sediment control BMPs for compliance with the ESC plan in the improvement plans and verifying that sites have coverage under the State's Construction General Permit if applicable. General Permit non-filers and repeat offenders will be referred to the Regional Water Board.

The City will continue to prioritize sites as either "high" or "moderate" threat to water quality and inspects according to this schedule:

- High priority sites – inspected twice monthly during the wet season (October 1 – April 30) and monthly thereafter.
- Moderate priority sites – inspected monthly throughout the year.

New projects will be assumed to be high priority until successive inspections demonstrate that they can be downgraded to moderate priority. The criteria for making this determination will include factors such as: project size, amount and nature of site activity, sensitive site conditions (e.g., proximity to a creek, steep slopes or erosive soils), and history of prior violations by the contractor(s).

Progressive enforcement action will be taken by the construction inspectors when violations of local ordinances are observed, including discharge of sediments and other construction-related pollutants to the storm drain system or local creeks. Rancho Cordova uses the enforcement procedures described in the stormwater and land grading ordinances.

Outreach and Education

The City will continue to provide education and guidance to both City staff (annually) and the local construction and development community (periodically), covering topics such as: current regulations and changes, local procedures and standards, BMPs, new technology, and inspection and maintenance practices.

The City will support Partnership-sponsored pre-wet season and other training events for the construction community (developers, contractors, engineers, designers) as well as those hosted by local groups such as the Building Industry Association (BIA). This coordinated training helps ensure consistency for the local construction community (which works throughout the Sacramento area, across various municipal lines), promotes stronger ties with professional organizations, and is cost-effective.

Various forms of educational materials will be distributed in different methods, depending on the target audience and message. Typical formats include training workshops, brochures, and guidance documents and standards. Education will also be provided through the entitlement and plan check process, building permit process, preconstruction meetings, and inspection.

Rancho Cordova will continue to contribute funding (through the cost-share MOU) for the development and production of Partnership outreach materials such as brochures for concrete and painting, printed in English and Spanish.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 9.3-1 describes the assessment methods the City will use to more specifically evaluate the construction program element activities during the 2008-13 permit term. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the regulated construction community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

9.4 Commercial/Industrial Element

The goal of the Commercial/Industrial Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate illegal non-stormwater discharges from commercial and industrial facilities and operations in Rancho Cordova.

Commercial/Industrial Element Strategy

Rancho Cordova contracts with others to most effectively perform some of the activities required for this program element.

The City has a MOU with Sacramento County EMD to conduct triennial inspections as required by the stormwater permit of over 300 commercial/industrial facilities in Rancho Cordova (see Table 9.4-1). The majority of these facilities are restaurants; however, Rancho Cordova is fairly industrialized, as shown on Table 9.4-1, compared to other small cities in the Partnership such as nearby Folsom. The EMD MOU authorizes trained and qualified EMD inspectors to conduct inspections and issue enforcement actions, using the legal authority provided by the City's Stormwater Ordinance. EMD also passed a fee ordinance in 2004 which authorizes the agency to recover costs from the industrial and commercial facilities inspected so that the City's other funding sources are not unduly burdened. The work performed by EMD on the City and other permittees' behalf is described in Chapter 2 (Section 2.7).

Table 9.4-1. Commercial/Industrial Facilities in Rancho Cordova Subject to EMD Inspections (2008 data)

Commercial/Industrial Category	No. Facilities (2008)
Auto body shops	16
Auto repair shops	43
Auto dealers	8
Equipment rental facilities	0
Kennels	2
Nurseries	0
Retail gasoline outlets (i.e., gas stations)	18
Restaurants	155
Facilities covered by the State's Industrial General Permit	60
Total	**302**

The City contracts with the County to conduct complaint-based inspections of other businesses within the city. See Chapter 3, Section 3.4 for details. Rancho Cordova and other permittees contract with the Business Environmental Resource Center (BERC) to conduct outreach to targeted local businesses in each of their jurisdictions. This work, which is described in Chapter 2 (Section 2.7), includes maintaining and updating a database of businesses receiving the outreach materials each year.

Intra and Interagency Coordination

The City signed an MOU with EMD to conduct stormwater compliance inspections on its behalf as described previously. The City participates in periodic (approximately biannual) meetings with the other permittees and EMD to discuss the permit-required inspection program, resolve problems and identify improvements as needed. EMD coordinates with the other permittees, BERC and various business groups and trade associations during the course of implementing the program. Additional details about this coordination are contained in Chapter 2, Section 2.7.

The County takes care of all other coordination needed for conducting the activities described in this section on the City's behalf; this work is covered by the City/County agreement for services that was executed when the City incorporated in 2003.

Accomplishments To Date

Refer to Chapter 2, Section 2.7 for a description of accomplishments to date.

Activities for the 2008-13 Permit Term

The following information briefly describes the activities conducted by County EMD, County DWR and BERC on the City's behalf. Refer to Chapter 2 (Section 2.7) and Chapter 3 (Section 3.4) for additional details, including tables that show proposed activities, performance standards, assessment methods and the five-year implementation schedule.

Legal Authority

The County's Stormwater Ordinance will continue to provide legal authority to the EMD and the County for regulating commercial businesses and industries in Rancho Cordova with respect to stormwater pollution. The Stormwater Ordinance and EMD's Fee Ordinance will be amended as needed during the 2008-13 permit term.

Priority Industry Identification

The industries and commercial business categories subject to EMD stormwater compliance inspections were listed in Table 9.4-1. The businesses subject to targeted outreach by BERC are mainly mobile operations without a fixed base of operation. These are the same business categories that were targeted during the 2002-08 permit term. These lists will be refined if needed during the 2008-13 permit term. See Chapter 2, Section 2.7 for more details.

Triennial Industrial Stormwater Compliance Inspections

EMD will continue to conduct triennial inspections at priority industrial facilities in Rancho Cordova (see Table 9.4-1) and conduct associated enforcement and education, on the City's behalf. The first cycle of inspections was completed in June 2007 and the second cycle will be completed in June 2010. EMD will continue to maintain its database and generate monthly violation reports, as well as all the required information for the Rancho Cordova Annual Reports.

Refer to Chapter 2, Section 2.7 for more information.

Complaint-Based Stormwater Compliance Inspections

County DWR stormwater staff will inspect other businesses not addressed by EMD's program described above within the City of Rancho Cordova on a complaint basis. Refer to Chapter 3, Section 3.4 for more information.

Educational Outreach

BERC will conduct outreach to targeted businesses within Rancho Cordova, under contract to the Partnership. Outreach will be conducted with businesses considered potential temporary or intermittent sources of unauthorized non-stormwater discharges and/or stormwater pollution. Most of the businesses (e.g., carpet cleaners, pressure washers) are mobile operations without a single base of operation, so they are difficult to track. Educational materials will also be distributed via City and County public counters, through trade associations and industry suppliers, and at workshops and other events.

Refer to Chapter 2, Section 2.7 for more information.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Chapter 2 (Section 2.7) and Section 3.4 in the County's SQIP describe the assessment methods EMD, the County (on the City's behalf) and BERC will use to more specifically evaluate the commercial/industrial program element activities conducted during the 2008-13 permit term. Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

9.5 Municipal Operations Element

The Municipal Operations Element specifies activities for controlling stormwater pollution which may occur during operation of city-owned facilities in Rancho Cordova, to keep pollutants from entering storm drains and local creeks and rivers. City-owned facilities include public buildings, parking lots, roads, bridges, landscape medians, storm drains and drainage ways. The City has no jurisdictional control over facilities and operations managed by parks and school districts, the sewer district, water purveyors and private utilities.

Typical municipal activities include solid waste hauling and disposal; hazardous and recycling waste collection, storage and disposal; vehicle and equipment washing and maintenance, pipe, channel and basin maintenance and repair/replacement, street cleaning, street overlays and repairs, vegetation management and graffiti abatement. Municipal operations activities will be conducted in a manner that does not inadvertently contribute pollution to local waterways. Another important goal is to set the example of model pollution prevention for the public.

Municipal Operations Element Strategy

The City's strategy for controlling stormwater pollution from City facilities and operations involves maintaining a good inventory of the operations, training affected employees, and ensuring good communication/coordination between City departments and with contractors to provide technical assistance, evaluate program effectiveness, and resolve issues in a collaborative way.

These combined efforts help ensure that City designers, contract administrators, and operations and maintenance staff understand, implement, and demonstrate compliance with the stormwater permit in order to reduce stormwater pollution to the maximum extent practicable.

Inventory of City Operations and Related Stormwater Activities

The following is an inventory of the City-owned facilities and operations addressed by this element:

Buildings– The City owns and operates City Hall, the Killgore Cemetery and building, and associated parking lots. Building and parking lot maintenance is contracted to offsite vendors. The City does not own a fleet storage or corporation yard.

Corporation Yard - The City does not own a corporation yard. County crews conducting maintenance on behalf of the City use the County Bradshaw Corporation Yard, as discussed in Chapter 3, Section 3.5.

Storm Drain System

Piped storm drain system – As of summer 2008 there are over 100 miles of piped storm drains and 5 associated pumps in the city (as reported in the 2007/08 annual report). Due to new development, there are new facilities being added all the time. The annual reports will provide an updated inventory each year. Storm drain pipe and associated drain inlets

and manholes in the city are maintained by the County DWR, as described in Chapter 3, Section 3.5.

Storm drain inlets – As of summer 2008 there were 5020 storm drain inlets and 2552 manholes in the city (as reported in the 2007/08 annual report). Due to new development, there are new facilities being added all the time. The annual reports will provide an updated inventory each year. Older storm drain inlets in the city have been marked with "No Dumping-Drains to Creek" messages. County maintenance crews check the legibility of the markings during routine maintenance activities and replace any that are damaged or missing (see Chapter 3, Section 3.5). New storm drain inlets installed in the city are required to have a permanent "No Dumping" message; this is verified by the City inspectors during construction.

Channels and creeks – 35 miles of manmade drainage channels and natural creeks are maintained by the County on the City's behalf (as reported in the 2007/08 annual report). This includes portions of Morrison and Laguna Creeks, and various unnamed tributaries.

Detention basins – As of summer 2008, there are three water quality/flood control detention basins in the city. The basins are operated and maintained by the County on behalf of the City. According to drainage master plans, as many as 18 additional detention basins could be constructed as the areas develops. More basins, and other types of stormwater quality control measures are expected in the future as well, due to new development. The annual reports will provide an updated inventory each year.

Transportation Facilities

Curbed Streets – Approximately 8880 curb miles of curbed streets are cleaned by a vendor under contract with Public Works (as reported in the 2007/08 annual report).

Roads and Roadside Vegetation - About 190 centerline miles of roads and associated roadside vegetation are maintained in the City by the County Department of Transportation (as reported in the 2007 Draft SQIP).

City-owned parking lots – The City owns about 4.5-acres of parking lots exposed to rainfall at City Hall and the Killgore Cemetery; parking lot maintenance is contracted to offsite vendors. There are no other City-owned parking lots.

Animal services – the City's Animal Services Department uses the County facility in the Bradshaw area.

Finally, the city contracts with County Sheriff for staffing of the City's Police Department. There is one nearby command center near Mather, but no fleet maintenance or washing is performed there.

City parks – 16 parks within the City are operated and maintained (including vegetation and waste management) by the Cordova Parks and Recreation District.

State, Federal and Special District Agency Facilities and Activities

The city's activities under the Municipal Operations Element do not address facilities or operations by federal or state governmental agencies (e.g., Caltrans), private utilities (e.g., SMUD), the sewer and water districts, school districts, and other special districts and agencies listed in Section 9.2. These agencies and activities are outside of the City's jurisdictional control and are not covered by the City's stormwater permit. City stormwater inspectors are authorized to issue enforcement actions to the operators of such facilities if discharges from the facilities contribute pollution to the city-owned storm drain system or local creeks within the city.

Intra and Interagency Coordination

The City coordinates with the other permittees to share information, strategies, and recommended practices related to operation and maintenance of City-owned facilities.

The City coordinates with special districts (listed previously in Section 9.2) on a project basis to make sure that measures are in place to protect the City's storm drain system and local creeks and rivers.

Accomplishments To Date

Since becoming a permittee to the stormwater permit in 2003, Rancho Cordova has made several notable accomplishments related to the Municipal Operations Element:

- Compiled the inventory of City-owned facilities and operations. The inventory helps with tracking activities and the City updates the inventory each year for the annual report.
- Established contracts needed to complete municipal operations activities, including contracts with Sacramento County DWR, a waste hauler, a street cleaning contractor and various maintenance vendors.
- Established routines for collecting and compiling data to assess activities and document regulatory compliance (e.g., County and City staff routinely log the quantity of pipes, channels, basins, storm drain inlets, manholes, and roadways cleaned.) This information is tallied and presented in annual reports.
- Through the Partnership, supported the County's development of the *River Friendly Landscaping Guidelines* (2007) and associated *Homeowners' Guide (2008)*. This program won the 2008 Environmental Leadership award from the Sacramento Environmental Commission.

Activities for 2008-13 Permit Term

Table 9.5-1 at the end of this chapter summarizes the activities that will be conducted for the Construction Element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 10 of the Stormwater Permit.

This section describes the planned activities in more detail. The City contracts with County DWR to conduct some of the activities for this program element. Those activities are summarized very briefly below; see Chapter 3, Section 3.5 for more details about County activities.

Illicit Discharge Response

The County, on behalf of the City, will respond quickly to all incidents where an illicit discharge threatens to enter or enters the storm drain system. See Section 9.6 and Chapter 3, Section 3.6 for a description of these activities.

Stormwater Pollution Control for Construction and Development of City-Owned Projects

Construction and development of City projects (e.g., new facilities, widened roadways) will be subject to the same requirements applying to private construction and development projects, as described in Sections 9.3 and 9.8.

Facility Management

Maintenance of Buildings

The only facilities owned by the City are City Hall and the Killgore Cemetery building, and the only potential for stormwater pollution at those locations is the parking lot runoff. The parking lot maintenance activities described later in this section are designed to minimize discharge of pollutants.

The City's activities do not address leased facilities and associated parking areas.

Integrated Pest Management

The City's contractors (including the County) will implement IPM procedures as described in the Pesticide Plan developed by the Partnership and approved by the Regional Water Board. Pest control operations contracted by the City relate to City-owned buildings (City Hall and Killgore Cemetery; maintained by private maintenance contractors) and vegetated roadside medians in the City (maintained by the County). The City has no jurisdiction over pest control associated with maintenance of parks and open space in the city.

The City intends to follow the County's IPM policy; see Chapter 3, Section 3.5 for more discussion about the County policy.

The City will promote and distribute the award-winning River Friendly Landscaping Guidelines and associated Homeowners' Guide to residents and landscape contractors doing work in the City.

Storm Drain System Maintenance

Maintenance of the Piped Storm Drain System

The City will continue to contract with the County DWR to conduct these services on the City's behalf. The County will employ the same procedures they use for cleaning their own system. Refer to Chapter 3, Section 3.5 for this information.

Maintenance of Creeks and Channels

The City will continue to contract with the County DWR to conduct these services on the City's behalf. The County will employ the same procedures they use for cleaning their own system. Refer to Chapter 3, Section 3.5 for this information.

Maintenance of Detention Basins

The County will continue to operate and maintain detention basins in Rancho Cordova on behalf of the City. The County will employ the same procedures they use for cleaning their own basins. Refer to Chapter 3, Section 3.5 for this information.

Storm Drain Inlet Marking

County maintenance crews will continue to check the legibility of existing storm drain stencils and markings during routine maintenance activities and replace any that are noted as damaged or missing as soon as practicable. The city planners, engineers and field inspectors will continue to verify that new storm drain inlets installed in new developments include a permanent "No Dumping" message.

Operation and Maintenance of Transportation Facilities

Prioritized Street Sweeping for Curbed Streets

The City will continue to contract with a vendor for street sweeping of curbed streets. The City has created four zones for street sweeping All zones are considered Priority "A" and are swept once per month, and more frequently during the leaf drop periods (Nov/Dec). A copy of the street sweeping map is provided as Appendix 9B.

Inspection and Maintenance of City-Owned Parking Lots

The City will continue to contract with a vendor for cleaning of City-owned parking lots associated with City Hall and Killgore Cemetery. Monthly maintenance activities will include trash/debris removal, vacuum sweeping; and pressure washing of oil stains as needed, involving collection and proper disposal of the waste water.

Maintenance of Roads and Roadside Vegetation

The City will continue to contract with the County Department of Transportation to conduct these services on the City's behalf. The County will employ the same procedures they use for maintaining their own roadway system. Refer to Chapter 3, Section 3.5 for this information.

Waste Management Services

The City will continue to contract with a contractor for curbside collection of residential solid and green waste, general recycling and used motor oil in the city. The contractor does not have any storage/staging yards or facilities within the city. They take wastes to a central transfer facility located outside the city limits, and from there the wastes are transported to a Class III landfill.

Rancho Cordova residents will be able to continue to take household hazardous wastes to one of the two regional transfer stations operated by the City and County of Sacramento. The City pays for this service (set fee per vehicle) to make it free and as convenient as possible for residents. See Chapter 3, Section 3.5 and Chapter 4, Section 4.5 for descriptions of the facilities.

Operation and Maintenance of City Parks

The Cordova Recreation and Park District will continue to manage the 16 parks within the city limits and plan, construct and maintain any new parks built as the city develops. The City has no jurisdictional control over this special district, but will coordinate with the district to ensure that pollutants are not discharged to the City's storm drain system or local creeks due to the Park District's operations.

Employee and Contractor Training

Training for County employees conducting work in the city is described in Chapter 3, Section 3.5. City contractors are responsible for training their own personnel to comply with all applicable regulations, including the City's stormwater ordinance.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 9.5-1 describes the assessment methods the City will use to more specifically evaluate the municipal operations program element activities which it conducts. Assessment activities to be conducted by the County on the City's behalf are described in Chapter 3, Section 3.5. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the city and County employees and contractors) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

9.6 Illicit Discharge Element

The goal of the Illicit Discharges Element is to reduce the discharge of stormwater pollutants to the maximum extent practicable and to effectively eliminate prohibited non-stormwater discharges. Any material dumped or discharged into the City's storm drain system eventually makes its way to a local creek and/or river, where it can impair beneficial uses. This is true whether the material is classified as hazardous or not. Water quality, habitat, recreation and aesthetics are all examples of benefits that can be impacted.

The storm drain system consists of a network of drain inlets, manholes and piping, as well as streets, sidewalks, gutters and roadside ditches, which discharge to local creeks and rivers. Stormwater runoff from driveways, parking lots, roof drains and other surfaces typically discharge into this system.

Two kinds of discharges are addressed by this element:

- *Illegal dumping* – Dumping of liquid or solid wastes into the storm drain system. Examples include mobile carpet cleaning companies discharging dirty rinse water into a storm drain manhole, a homeowner dumping used motor oil into a storm drain inlet, or a person dumping garbage or other wastes into drainage channels and creeks.
- *Illicit connection* – A piped connection allowing sanitary sewage to flow into the storm drain system. For example, a washing machine plumbed into the storm drain system rather than the sanitary sewer.

Illicit Discharge Element Strategy

The City of Rancho Cordova contracts with Sacramento County to implement this program element within the city. The County's strategy includes legal authority, field screening, waste collection programs and outreach as follows:

- Maintain adequate legal authority to prohibit illicit discharges. Since Rancho Cordova adopted all County ordinances, prohibitions of illicit discharges such as oils, greases, paints, chemicals, dry cleaning waste, etc. into the storm drain system apply within the city in the same manner as they do in the County. City and County staff are authorized to enforce the ordinance within the city limits.
- Conduct ongoing field screening to detect illicit discharges and connections as a part of routine maintenance and repair of the storm drain system and local creeks, and enforcing against dischargers. The City contracts with County DWR for these services for the piped system, and with California Conservation Corps for the natural creek system.
- Provide convenient means for residents to dispose of solid and household hazardous wastes, to deter illegal dumping.
- Educate City staff, contractors and the public about how to identify and report illicit discharge problems. This effort includes educational materials, signage and training.

- Provide a hotline for public reporting of problems and responding in a timely manner. The City supports the regional stormwater hotline 808-4H20 for this purpose. In addition, the public can report illegal dumping on-line through the City's web site.

Intra and Interagency Coordination

The City coordinates with the County through its contract with DWR for this program element. County crews conduct ongoing field screening for illicit discharges and connections as part of this work. They, in turn, will coordinate with other appropriate County departments to clean up and dispose of any polluted wastewater. If progressive enforcement action against the discharger does not eliminate the problem, the County will then coordinate with legal counsel.

The City coordinates with the other permittees in the Partnership to produce educational materials and messages designed to eliminate illicit discharges.

The City has a contract with a private waste hauler to provide solid waste collection services in the city, including curbside pickup of used motor oil. This helps reduce the amount of pollutants dumped into the storm drains. These activities were previously described in Section 9.5.

Accomplishments To Date

The following briefly describes accomplishments since 1990 related to this element. Refer to the County's SQIP, Chapter 3, Section 3.6, for more information.

- In 2003 the City adopted the County's Stormwater Ordinance, which makes most discharges to the storm drain system illegal (some exceptions are noted).
- 95% of storm drain inlets in the City were stenciled with the "No Dumping — Drains to Creek" message and all new inlets were permanently stamped with this message.
- In 2006, a new hotline, 808-4H20, began allowing callers to select Rancho Cordova and be routed to the County for assistance on City-related issues or complaints. The hotline is now widely advertised on all Partnership educational materials, media spots, and on the web site.
- Starting in 2004, the County created and annually updated an illicit discharges map to identify "hot spot" problem areas in Rancho Cordova requiring additional or more frequent investigations.

Activities for 2008-13 Permit Term

Table 9.6-1 at the end of this chapter summarizes the activities that will be conducted for the this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provision 11 of the Stormwater Permit.

This section describes the planned activities in more detail. The City contracts with County DWR to conduct some of the activities for this program element. Those activities are summarized very briefly below; see Chapter 3, Section 3.6 for more details about County activities.

Legal Authority

As recommended by the County, the City will amend the Stormwater Ordinance as needed to enhance legal authority. The County will enhance its enforcement authority as needed.

Reporting of Illicit Discharges

The City will continue to contribute funding to the Partnership's 808-4H20 hotline to facilitate public reporting of problems in the City.

Ongoing Field Screening to Detect Illicit Discharges and Connections

County maintenance crews will continue to be responsible for inspecting and maintaining the piped storm drain system, creeks and channels, and roads/roadside ditches in the City as part of routine maintenance activities. They will continue to be trained how to identify, clean up and/or refer and report observed incidents of illicit discharges. Follow-up will be conducted for any observed flows suspected of containing pollutants to attempt to trace the flow to its source and eliminate any unauthorized non-stormwater discharges. County crews will also respond to complaints from the public and referrals from County industrial inspectors, the Regional Water Board and others. Problems are addressed on an individual basis depending on the nature of the discharge. See Chapter 3, Section 3.6 for additional details.

Illicit Discharge Response, Containment and Clean-up

The County will continue to conduct response, containment and clean-up activities on behalf of the City as needed to eliminate illicit discharges in Rancho Cordova. See Chapter 3, Section 3.6.

Enforcement

The County will continue to conduct enforcement on behalf of the City as needed to eliminate illicit discharges in Rancho Cordova. See Chapter 3, Section 3.6.

Data Management

The County will continue to track data and update the Rancho Cordova illicit discharge map that shows the location of illicit discharges for identifying potential needs for further investigation or possibly outreach material. See Chapter 3, Section 3.6.

Solid Waste and Household Hazardous Waste Programs

Rancho Cordova will continue to contract with a private waste hauler to provide waste, recycling and green waste collection and disposal services for the city residents, as a means of deterring illegal dumping. This program includes curbside pickup of used motor oil and residents can also take household hazardous waste to one of two regional transfer facilities. See Section 9.5 for more detail. The City will continue to accept certain universal wastes (batteries, cell phones) at City Hall for disposal.

Education and Outreach

To educate the public, and to minimize illegal discharges of waste into the storm drain system, County maintenance crews will continue to maintain "no dumping-drains to creek" messages on all storm drain inlets in Rancho Cordova. Based on public and maintenance crew recommendations and the illicit discharges map, the County will recommend locations for signage at high priority areas and will create and install the signage.

Employee and Contractor Training

Training for County employees conducting work in the city is described in Chapter 3, Section 3.6. City contractors are responsible for training their own personnel to comply with all applicable regulations, including the City's stormwater ordinance.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 9.6-1 describes the assessment methods the City will use to more specifically evaluate the illicit discharge program element activities which it conducts. Assessment activities to be conducted by the County on the City's behalf are described in Chapter 3, Section 3.6. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of the city and County employees and contractors) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

9.7 Public Outreach Element

The goal of the Public Outreach Element is to raise awareness and foster community stewardship to help prevent pollution and protect local creeks and rivers.

Public Outreach Element Strategy

The City coordinates with the Partnership and the County to implement a wide range of activities to increase the knowledge of the community regarding the City' storm drain system, impacts of urban runoff on local creeks and rivers, and potential pollution prevention solutions for the targeted audiences. Refer to Chapter 2, Section 2.6 for this information. In addition, the City conducts a few activities locally as described in this section.

Target Audiences in Rancho Cordova

There are an estimated 68,875 residents in the City of Rancho Cordova. The City is served by two school districts: Folsom-Cordova and Elk Grove Unified. Together, these districts operate 12 elementary, three middle and two high school within the city. For the 2008-09 school year, the combined total student population in the city was estimated to be 8,800, with 3,200 students enrolled in grades 3-6 (this is a target audience for stormwater education).

In 2008 there were six homeowner associations in the city, although that number will grow as the city grows. There are also numerous faith-based, community and business associations represented in Rancho Cordova, including the Chamber of Commerce. The Cordova Community Council, founded in 1959, serves as a citizens' forum for discussing the future of Rancho Cordova. The group operates an informational web site for the public.

The local newspaper is called "The Grapevine" and the Sacramento Bee is the major newspaper serving the region and the City of Rancho Cordova. Other media includes T.V and radio stations that serve the greater Sacramento area.

Intra and Interagency Coordination

Managers in the City's Engineering Department in Public Works are responsible for administering the stormwater program and overseeing stormwater permit compliance. This group coordinates with City Council, the City Manager's office and other departments as needed throughout the year to educate and share information.

Rancho Cordova coordinates with the other cities in the County on regional public outreach issues through the Partnership. Activities such as the regional media campaign are generally discussed, and agreements made, during permittee coordination meetings.

Accomplishments To Date

Chapter 2, Section 2.6, describes major accomplishments related to regional public outreach by the Partnership since 1990. In addition, the following describes a couple of key accomplishments made by the City since incorporation in 2003:

- The City participated in the Upper Laguna Creek Collaborative, a watershed-based planning process involving all the stakeholders in the upper watershed, and the Laguna Creek Watershed Council.
- The City launched the Strong Neighborhoods Initiative in January 2007, to foster City pride, increase property values and encourage residents to enhance their homes, streets and community. One activity conducted through this program is the Spring Neighborhood Cleanup, where City staff and volunteers work with a neighborhood on a beautification project.

Activities for 2008-13 Permit Term

Partnership Activities

See Chapter 2, Section 2.6 for detailed information about activities that will be conducted by the Partnership related to regional public outreach. Residents, businesses and students attending Rancho Cordova schools are addressed through those efforts.

City-Specific Activities

Table 9.7-1 at the end of this chapter summarizes the City-specific activities that will be conducted for the this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with portions of Provision 12 of the Stormwater Permit.

This section describes the planned activities in more detail.

- City Public Works staff will meet with City managers periodically throughout the permit term to keep them informed about the stormwater program. Presentations will be made to the City Council and/or Planning Commission upon request or as needed. City leaders will also be invited to participate in community events (described below and in Chapter 2, Section 2.6) to demonstrate support for the stormwater pollution prevention effort.
- The City will create a stormwater quality page on the City's web site to better address the stormwater pollution prevention program and provide links to the Partnership web site. Tell the public how to report illegal dumping, etc.
- The City will continue to periodically include articles regarding stormwater pollution prevention in the Rancho Cordova "City Views" newsletter. In addition to being posted on the City's web site, it will be distributed via direct mail to every resident.
- Through the Strong Neighborhoods Initiative Program, the City will continue to target neighborhoods bordering creeks for the Spring Neighborhood Cleanup. The City will consider partnering this with Urban Creeks council's annual Creek Week creek cleanup days in April each year.
- The City will work with the County to sponsor and staff a stormwater booth at the annual Fourth of July city celebration.

- The City will continue to support and participate in the Upper Laguna Creek Collaborative. This group is preparing a master plan for protection of the creek in the undeveloped portion of the Laguna Creek Watershed as development proceeds.
- The City will continue to support and participate in the Laguna Creek Watershed Council events and meetings as budget allows.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Table 9.7-1 describes the assessment methods the City will use to more specifically evaluate its City-specific public outreach program element activities during the 2008-13 permit term. Assessments of regional public outreach activities will be conducted by the Partnership as described in Chapter 2, Section 2.6. In general, the goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of dischargers and the public) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

This page intentionally left blank.

9.8 New Development Element

The goal of the New Development Element is to mitigate urban runoff pollution and other water quality impacts associated with new development and redevelopment.

The City of Rancho Cordova is positioned for rapid urban development upon lands generally located south of White Rock Road and east of Sunrise Boulevard. Approved prior to incorporation of the City, the Sunrise Douglas Community Plan, currently under construction proposes up to 22,000 homes at build out. The Rio del Oro, Suncreek, Westborough and The Preserve projects collectively propose an additional 43,000 homes and a variety of supporting and employment generating uses. As currently proposed, these projects would include 6,743 acres of residential uses, 920 acres of employment generating uses, 1,067 acres of public uses and 1,249 acres of habitat reserves.

The residential component of the Villages of Zinfandel project has been constructed and has also increasing the city's population. Development of the non-residential component is expected to continue for the next several years in the commercial and industrial sectors, with projects expected in the Mather Business Park, the Capital Center business park, and along major roads such as Folsom Boulevard and Sunrise Boulevard.

New Development Element Strategy

Development and redevelopment within Rancho Cordova will be mitigated with a combination of strategies such as: early site planning to limit sources of pollution, requiring installation of permanent post-construction stormwater quality facilities to treat runoff before it reaches the drainage system, and ongoing outreach activities through education and training. These activities and more are described in this section.

The City contracts with Sacramento County to provides some of the services described in this section (see Chapter 3, Section 3.8), and the City's Planning Department provides planning and environmental review services.

Intra and Interagency Coordination

The City contracts with the County for drainage and stormwater review services. The City also coordinates with the other permittees regarding regional activities such as the new Design Manual and hydromodification and low impact development (LID) standards, described more later in this section.

Accomplishments To Date

County Activities Prior to Incorporation

The area now served by the City of Rancho Cordova was covered by the Sacramento stormwater permit from 1990 until the City incorporated in 2003. Prior to incorporation, the County conducted planning and established and implemented stormwater controls for new development in this unincorporated area. Starting in the mid 1990s, the County began conditioning future projects via the master drainage planning process and development approvals to include water quality detention basins and other stormwater facilities.

Accomplishments Since 2003

- Upon incorporation, the City established a planning department to handle processing of development applications and environmental review. The City established a work plan agreement with the County to provide drainage and stormwater review services.
- In June 2006, the City adopted its first General Plan. The Plan includes a Natural Resources Element which features various goals, policies and actions intended to protect creek and water quality resources. The General Plan is discussed in more detail in Section 9.2.The City updated its CEQA initial study checklist and mitigation measure language to better address waters quality protection and stormwater pollution prevention.
- On the City's behalf, the County worked with the other permittees in the Partnership to create the new *Stormwater Quality Design Manual for the Sacramento and South Placer Regions*, continued to conduct special studies of BMP effectiveness, and conducted other activities. These accomplishments are described in more detail in Chapter 3, Section 3.8.
- Since about 2004, the County has been requiring and establishing maintenance covenants with property owners in Rancho Cordova to ensure long-term maintenance of new stormwater quality facilities.

Activities for 2008-13 Stormwater Permit Term

The stormwater permit requires that the permittees regulate new development and redevelopment projects so that they incorporate measures to mitigate associated stormwater quality impacts. In addition, the new permit requires a plan for mitigating the hydromodification impacts associated with new development in the permit area. When development occurs, it increases the volume and rate of runoff and therefore stream flow; these hydromodification impacts, in turn, can cause creek erosion and degrade habitat.

In addition, the stormwater permit requires the permittees to require all priority new development and redevelopment projects to incorporate low impact development (LID) measures. The developed criteria will be incorporated into the *Stormwater Quality Design Manual for the Sacramento and South Placer Regions.*

Table 9.8-1 at the end of this chapter summarizes the activities that will be conducted for this program element during the 2008-13 permit term, along with associated performance standards, effectiveness assessment methods and a five-year implementation schedule. The table was developed to demonstrate compliance with Provisions 13-26 of the Stormwater Permit.

This section summarizes the planned activities. The City contracts with County DWR and the Partnership to conduct many of the activities for this program element; therefore, see Chapter 3, Section 3.8 for more details.

Development-Related Ordinances, Plans, Policies and Procedures

Ordinances/Municipal Code

The City and County's stormwater ordinances provide adequate authority to establish new requirements for development projects; no revisions to the ordinance are warranted.

Plans, Policies and Procedures

The City's 2006 General Plan, described in Section 9.2, contains all the necessary policies to protect water quality in the City. The City Planning staff and Planning Commission will continue to ensure that these policies are applied to new and redevelopment projects approved in the city. Updates to the General Plan are not anticipated during the 2008-13 permit term.

The City planners will periodically evaluate and revise as needed, the CEQA initial study checklist and mitigation measure language used by City planners to condition development projects. Revised checklists and mitigation language will be submitted with Annual Reports.

Development Standards and Technical Guidance

Standards, Codes and Technical Guidance

Development projects in Rancho Cordova are conditioned by the County to comply with County stormwater quality and drainage development standards. The County will evaluate and amend its stormwater quality development standards to comply with new permit requirements during the 2008–13 permit term**.** The *Stormwater Quality Design Manual* will be updated to include additional criteria for low impact development (LID) and hydromodification mitigation following the amendment of the development ordinances and standards. The hydromodification criteria are discussed in the next section. Rancho Cordova will contribute funding through the permittee cost-share agreement for the update of the design manual. The City will also continue to contribute to the Partnership's efforts to update the protocol for acceptance of proprietary control measures; see Chapter 2, Section 2.4 for more details.

Stormwater quality requirements need to be coordinated with the City's zoning and building codes (such as those related to tree preservation/landscaping, water conservation, sanitary sewer and solid waste) in order to avoid conflict and overlap. The City's planners will evaluate and amend policies and codes as needed for consistency with the amended development standards and updated design manual.

Hydromodification Management Plan (HMP)

The City will work with other permittees to meet the requirements of the stormwater permit with regards to hydromodification management. It is likely that these new requirements will be applicable to developing areas in Rancho Cordova. Additional details about proposed work are provided in the County's SQIP, Chapter 3, Section 3.8.

To comply with the stormwater permit requirements, the permittees are submitting a Hydromodifcation Management Plan (HMP) work plan as part of this SQIP (see Chapter 3, Section 3.8). One year after the Regional Water Board approves the work plan, the permittees will submit the HMP document.

Waiver Program/Mitigation Fund

The stormwater permit allows the permittees to develop a waiver program/mitigation fund alternative for development projects where it is demonstrated that installing stormwater quality control measures is not feasible. The County is taking the first step to develop initial parameters for their potential waiver program. The City will review the results of the County's work and consider application to future development projects in Rancho Cordova.

Permitting and Plan Review (Entitlement) Process

Development and redevelopment projects in Rancho Cordova will be conditioned for mitigation of receiving water impacts from urban runoff quality and quantity in the same manner as projects are conditioned in Sacramento County. Figure 9.8-1 is a development review process flowchart which depicts the process followed on projects in Rancho Cordova. The City will continue to route project plans to the County DWR drainage development section for review and approval of drainage and stormwater quality-related features. This process will ensure that development and redevelopment proposals comply with County standards as adopted by the City of Rancho Cordova.

City planning staff will review projects for compliance with other City codes and standards. Compliance with the development standards and the design manual will be a standing discussion item on the agenda for all pre-application meetings conducted by the City.

The City will make sure that the same development standards applied to private development projects are adhered to for public projects.

Maintenance of Stormwater Quality Control Measures

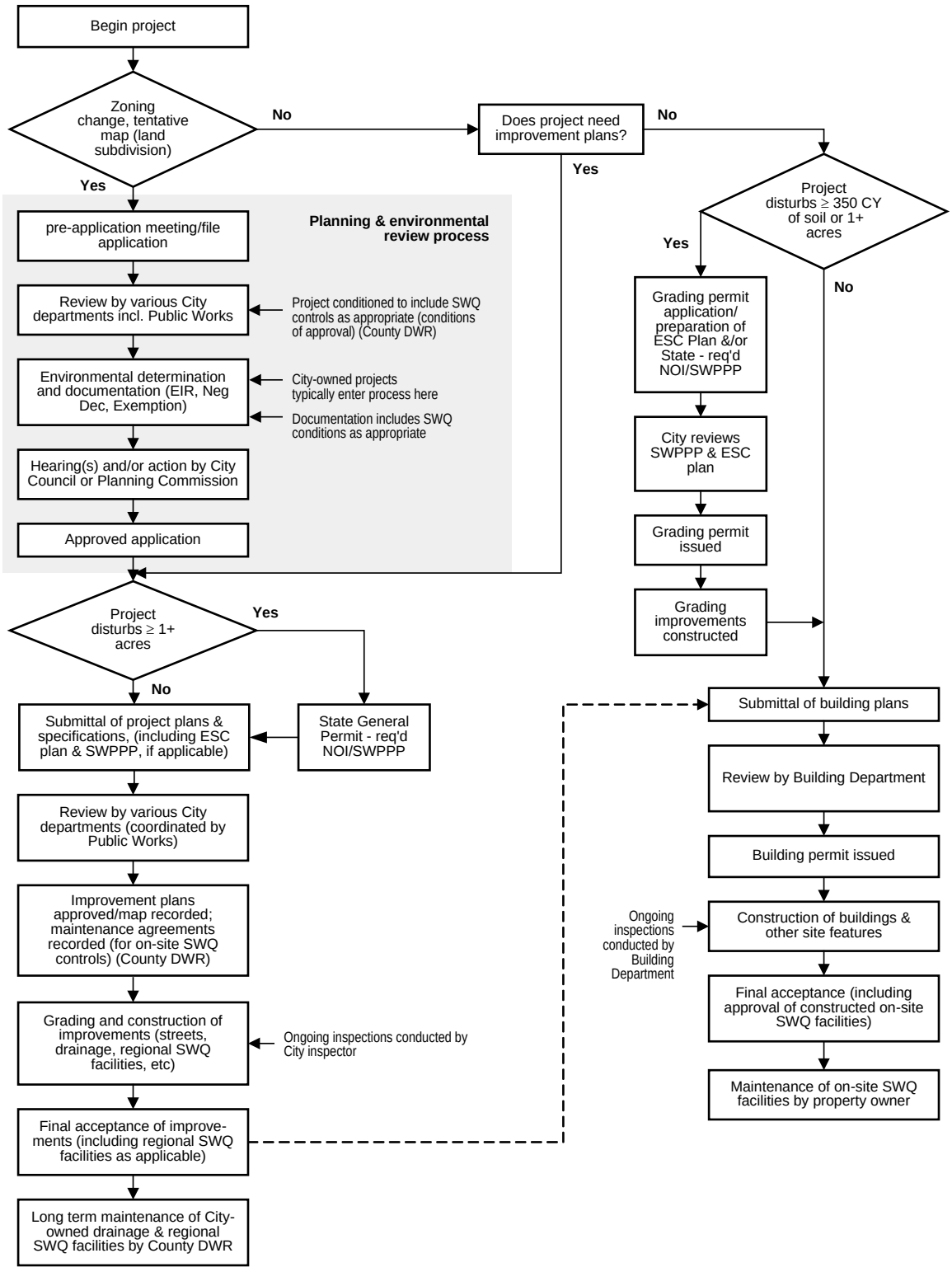
The County, on behalf of the City, will continue to ensure long-term maintenance of treatment control measures on private development by requiring maintenance agreements to be executed before the final approval of the project.

Through the annual refresher training and other opportunities, the City will train its construction inspectors to check for proper installation/operation of stormwater control measures before final acceptance of the project.

Outreach to Educate the Development Community

The City planners and engineers will continue to work collaboratively with the County and other permittees to share information with the development community and promote consistency across municipal boundaries. The City and County will continue to provide technical guidance and design support to help the development community working in Rancho Cordova to comply with stormwater quality requirements. Refer to Chapter 3, Section 3.8 for more information on work that will be conducted by the County on the City's behalf related to outreach.

Figure 9.8-1
City of Rancho Cordova Development Review Process



DWR — County Department of Water Resources; ESC — Erosion and Sediment Control; NOI — Notice of Intent; SWPPP — Stormwater Pollution Prevention Plan; SWQ — stormwater quality

Employee Training

The County drainage engineers involved in Rancho Cordova's new development activities will receive annual refresher training as described in Chapter 3, Section 3.8. In addition, the City's planners and engineers will receive annual training related to hydromodification, LID and other evolving development standards, including how such standards will impact development in Rancho Cordova.

Effectiveness Assessment

The general approach to assessing the effectiveness of the stormwater program and individual program elements is described in Chapter 2. Chapter 3, Section 3.8 describes the assessment methods the County plans to use to evaluate its new development activities, and Table 9.8-1 describes the assessment methods the City will use for its planning activities. The goal will be to move toward outcome levels 2 and 3 (changing awareness and behavior, respectively, of agency staff and the private development/design community) for some tasks. The remaining tasks will continue to be evaluated at outcome level 1 (documenting and confirming permit compliance).

Key indicators have been selected for various tasks to demonstrate progression towards overall stormwater program goals for this particular element. A summary of the status of key indicators will be used to assess overall program effectiveness in the annual reports.

In addition to what is shown on Table 9.8-1, the City will continue to work with other permittees to fund several studies of the effectiveness of local stormwater control measures; see Chapter 2, Section 2.4 for more details.

Effectiveness assessment results will be presented in the annual reports and may be used to recommend modifications to the SQIP.

Table 9.2-3 – City of Rancho Cordova SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Stormwater Quality Improvement Plan (SQIP)											
Modify 2007 draft SQIP to reflect the requirements of Stormwater Permit and Public Review Process	2		Revised SQIP submitted to Regional Water Board by April 30, 2009.	Confirmation- submit SQIP to Regional Water Board	♦						4/30/2009
Revise SQIP as needed to reflect permit revisions, respond to Regional Water Board requests, etc.	3.c, 3d		Proposed SQIP modifications (as needed) submitted to Regional Water Board as part of Annual Report	Confirmation- submit AR to Regional Water Board	⇔	⇔	⇔	⇔	⇔	⇔	As needed; Oct 1 each year
Annual Work Plan											
Prepare and submit Annual Workplan	3.a		Annual Workplan submitted to Regional Water Board	Confirmation- submit work plan to Regional Water Board	♦	♦	♦	♦	♦	♦	May 1 each year
Annual Report											
Describe completed activities and budget expended for previous fiscal year in AR	3.b		AR submitted to Regional Water Board	Confirmation - submit AR to Regional Water Board	♦	♦	♦	♦	♦	♦	October 1 each year
Memorandum of Understanding (MOU)											
Review and revise existing permittee memorandum of understanding	3.e		MOU submitted to Regional Water Board		♦						Submit with SQIP 4/30/2009

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.2-3 – City of Rancho Cordova SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Evaluate, and amend if needed, legal authority to control pollutant discharges	4, 5		Updated Stormwater Ordinance as needed *(note, necessary updates to other codes and standards are discussed in other sections of this SQIP)*	Confirmation-include revised ordinance in AR			♦				1 year following RB approval of SQIP
Submit statement of legal authority from chief legal counsel with revised SQIPs	6		Submit statement of legal authority from chief legal counsel to Regional Water Board	Confirmation-include statement in SQIP	♦				♦		Submit with SQIP 4/30/2009 and ROWD/SQIP 3/15/13
Fiscal Analysis											
Secure resources necessary to meet Stormwater Permit requirements	7		Fiscal summary submitted to Regional Water Board as part of Annual Report		♦	♦	♦	♦	♦	♦	October 1 each year
Report of Waste Discharge											
File a report of waste discharge (ROWD) 180 days before permit expiration	33		Submit ROWD to Regional Water Board. This is a Partnership activity; see Chapter 2, Section 2.2.	Confirmation- ROWD submitted to Regional Water Board by specified date					♦		ROWD due 3/15/2013

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.2-3 – City of Rancho Cordova SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Coordination											
Coordinate on program element basis with other County groups and outside agencies	1.b		Track coordination and intra-agency agreements	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Coordinate as necessary with outside groups and agencies outside of jurisdictional control	1.c		Track coordination efforts	Confirmation- track coordination in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Training											
Continue to implement training program as necessary	various		Track training events and number of people participating	Confirmation – describe training accomplishments in AR; Surveys - see program element sections 9.3-9.8	⇔	⇔	⇔	⇔	⇔	⇔	
Program Effectiveness											
Annually: Measure and report program element and activity effectiveness	29.c		Submit effectiveness Assessment results with AR each year (October 1)	Confirmation- include effectiveness assessment results in AR	♦	♦	♦	♦	♦	♦	Submit wih annual reports, October 1 each year
Once a permit term: Estimate pollutant loads and evaluate water quality trends in receiving waters			Submit information in final AR for permit term (October 1, 2013). This is a Partnership activity; see Chapter 2, Section 2.3.	Confirmation- submit ROWD and final AR to Regional Water Board						♦	Submit in final AR 10/1/2013

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.2-3 – City of Rancho Cordova SQIP
Program Management Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indic	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Long Term Effectiveness Assessment (LTEA)											
Describe proposed LTEA for programmatic and environmental goals	29.a		Submit LTEA Plan to Regional Water Board with SQIP. This is a Partnership activity; see Chapter 2, Section 2.3.		♦						Submit with SQIP 4/30/2009
Perform LTEA on program tasks for permit term	29.d		Submit LTEA results to Regional Water Board. This is a Partnership activity; see Chapter 2, Section 2.3.	Confirmation - LTEA submitted to Regional Water Board by specified date					♦		Submit with ROWD 3/15/2013

NA: Not Applicable; AR: Annual Report; ROWD: Report of Waste Discharge

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.3-1 – City of Rancho Cordova SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Revise Stormwater Ordinance if needed	8.a.i		The City has adopted the County's ordinances. County will adopt revisions as needed	Confirmation - report revisions in AR			♦				1 year following SQIP approval
Revise Land Grading and Erosion Control Ordinance	8.a.i		County will adopt revisions to LGECO after State Construction General Permit is issued	Confirmation - report revisions in AR		♦					After CGP adoption
Plan Review and Permitting											
Review Grading and Improvement Plans; verify compliance with ordinances and appropriate BMPs included	8.a.ii, 8.c.i-iv	✓	Document percentage of sites incorporating erosion and sediment controls (target is 100% of projects subject to requirements should include appropriate ESC BMPs in plans)	Tabulation - Report data in AR	⇔	⇔ 3	⇔ 3	⇔ 3	⇔ 3	⇔ 3	
Track Grading Permits for projects that require coverage under the State C.G.P.	8.a.ii, 8.c.v		Document number of sites greater than or equal to one acre that submitted proof of an NOI and that a SWPPP has been developed; check for 6 SWPPP items (see list in stormwater permit 8cv)	Tabulation - Report data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Verify that other applicable regulatory permits have been obtained prior to issuing grading permits	8d		Verify/document compliance with other permits on permit application paperwork.	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Standards & Specifications/BMPs for Controlling Sediment and Pollutants											
Implement standards and specifications to require BMPs for construction sites	8.a.iii, 8.c.i-iv		The City uses the County's standards and specs. The County will determine if revisions are needed to reflect State's new Construction General Permit	Confirmation – report revisions in AR	⇔	⇔ ♦	⇔	⇔	⇔	⇔	After CGP adopton

⇔ Ongoing activity/task ♦ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.3-1 – City of Rancho Cordova SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Pollution Control at City-Owned Construction Projects and Other Projects Not Subject to City's Permitting Process											
Obtain coverage under the State's CGP for applicable City projects	10a.ii, 8c		Document number of municipal projects covered by CGP each year	Confirmation – report in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Include provisions in contract specs to ensure compliance with stormwater ordinance and CGP on City construction projects	10a.ii, 8c		Revised standard contract specifications/provisions to ensure compliance	Confirmation		⇔	⇔	⇔	⇔	⇔	
Coordinate with utilities, special districts (e.g., schools, RT, parks) and others to ensure compliance with Stormwater Oridnance			Document meetings and coordination activities	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	
Inventory, Prioritize and Track Active Construction Sites											
Inventory and track active construction sites	8.a.iv		Document number and location of public and private sites subject to Construction General Permit as well as local erosion and sediment controls.	Tabulation - track no. active sites each year	⇔	⇔	⇔	⇔	⇔	⇔	
Prioritize sites for inspection based on threat to water quality and other factors	8b, 8e		Document prioritization method/schedule and sites with high, moderate, low priorities.	Tabulation - track no. active sites each year according to priorities	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.3-1 – City of Rancho Cordova SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Inspections (Public and Private Projects)											
Conduct routine inspections of active construction sites according to priority schedule	8.a.vi, 8e		Update/revise inspection checklist as needed	Inspections; Confirmation – include updated checklist in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain tracking system of inspection data	8.a.v., 8e		Document number of sites subject to inspection and number of inspections completed	Tabulation – record data in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Enforcement (Public and Private Projects)											
Utiliize enforcement procedures specified in ordinances	8.a.vii		Evaluate and revise enforcement procedures as needed in conjunction with other ordinance reviews/revisions discussed above	Confirmation	⇔	⇔ ♦	⇔	⇔	⇔	⇔	
Notify Regional Water Board about CGP non-filers and when 3 or more violations of local stormwater ordinance at a site.	8.a.vii, 8e		Track referrals made to Regional Water Board for non-filers and chronic violations	Tabulation – track number of referrals and follow-up actions	⇔	⇔	⇔	⇔	⇔	⇔	
Maintain tracking system of enforcement data; track repeat offenders	8.a.v	✓	Decrease in number of chronic violations, repeat offenders and/or non-filer referrals	Tabulation – measure decrease in enforcement as mesure of changed behavior	⇔	⇔	⇔	⇔	⇔ ③	⇔	Conduct EA in 12/13 before ROWD is submitted
Interdepartmental Coordination											
Develop interdepartmental agreements/ protocols as needed to ensure compliance	8f		Submit completed agreements/protocols if developed.	Confirmation - describe/include agreements in AR	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.3-1 – City of Rancho Cordova SQIP
Construction Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Education and Training (Internal and External)											
Conduct annual refresher training for City and contractor staff involved in construction	8.a.viii		Target 100% City and contractor staff receive annual refresher training.	Confimration/ Tabulation	⇔	⇔	⇔	⇔	⇔	⇔	
Distribute pre wet season notifications to active construction projects	8.a.viii		Send out a wet season procedure letter to active construction sites. Wet season is defined as October 1 to April 30.	Tabulation – track number of letters sent	⇔	⇔	⇔	⇔	⇔	⇔	
Distribute educational literature to construction community	8.a.viii		Continue to distribute educational brochures during inspections and at training events	Tabulation – track number/type of materials distributed	⇔	⇔	⇔	⇔	⇔	⇔	
Conduct training for the construction community	8.a.viii		Conduct at least one workshop/year (target is pre-wet season)	Tabulation – track training activities performed.	⇔	⇔	⇔	⇔	⇔	⇔	
Assess effectiveness of training	8.a.ix	✓	Increased awareness of construction community as a result of training	Surveys – meaure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.5-1 – City of Rancho Cordova SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Illicit Discharge Response											
Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system	10.a.i.		Refer to Illicit Discharge Element, Section 9.6		⇔	⇔	⇔	⇔	⇔	⇔	
New Development and Construction Requirements for Municipal Capital Improvements Projects											
Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements	10.a.ii., 10.b.i		Refer to Construction (Section 9.3) and New Development (Section 9.8) Elements		⇔	⇔	⇔	⇔	⇔	⇔	
Facility Management											
Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system.	10.a.iii. , 10.b.ii.		The City of Rancho Cordova does not own or operate any such facility. If new faciliites meeting these criteria are brought on-line in the future, BMPs will be implemented in accordance with this requirement	NA	⇔	⇔	⇔	⇔	⇔	⇔	
Integrated Pest Management Program											
Implement integrated pest management (IPM) and pesticides storage, usage, and disposal procedures as described in the Pesticide Plan	10.a.iv. , 10.b.iii.		Decrease amount of pesticides and herbicides used by City staff and contractors	Confirmation - Track IPM activities	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.5-1 – City of Rancho Cordova SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Storm Drain System Maintenance											
Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins) to remove debris accumulation and prevent flooding	10.a.v. , 10.b.iv.	✓	Decrease amount of sediment discharged to waters of the State. Sacramento County performs this activity on behalf of the City of Rancho Cordova. County will document amount of sediment removed. See Chapter 3, Section 3.5 for County procedures.	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Clean prioritized catch basins and sumps			County will document maintenance actvities and amount of sediment/debris removed.	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Visually monitor permittee owned open channels and perform maintenance as needed based upon sediment and trash accumulation			County will document maintenance actvities and amount of sediment/debris removed.	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Detention Basin Maintenance											
Implement Detention Basin Operation and Maintenance Program	10.b.vii.		County will document maintenance actvities and amount of sediment/debris removed. See Chapter 3, Section 3.5 for County procedures.	Confirmation / Tabulation- Track number of activities performed	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.5-1 – City of Rancho Cordova SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Storm Drain Inlet Marking Program											
Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system	10.a.vi		County will document number of storm drain inlets labeled or re-labeled by County crews	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
			County will replace illegible markers as needed	Tabulation - Track number of inlets marked each year	⇔	⇔	⇔	⇔	⇔	⇔	
Operation and Maintenance of Transportation Facilities											
Street Sweeping for Curbed Streets											
Conduct street sweeping activities as described in Section 9.5 and Appendix 9B	10.a.vii. , 10.b.v.	✓	Decrease amount of sediment discharged to Waters of the State.	Quantification - Track quantities of sediment removed annually	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	⇔ 4	
Maintenance for Roads and Roadside Vegetation											
Implement BMPs during road maintenance and construction activities to prevent road maintenance materials, street sweeper rinse out water, concrete chute rinse water, and saw cutting slurry from discharging to the storm drain system.	10.a.vii. , 10.b.v.		Decrease amount of sediment discharged to Waters of the State.	Quantification - Track quantities of sediment removed annually	⇔	⇔	⇔	⇔	⇔	⇔	
Maintenance of City-Owned Parking Lots											
Maintain City-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system	10.a.viii., 10.b.vi.		Document acres maintained and type of maintenance annually	Tabulation - Track number/acres of facilities and activities performed	⇔	⇔	⇔	⇔	⇔	⇔	
Waste Management Services											
Continue to provide weekly curbside pickup of residential solid and green waste, recyclables and waste oil.			Document quantities properly disposed of.	Quantification - Track quantities of waste removed annually	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ◆ Deliverable or key milestone (2) Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.5-1 – City of Rancho Cordova SQIP
Municipal Operations Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Fire Emergency and Non-Emergency Operations/Response											
Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impacts of fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant source of pollutants to waters of the State. The response plan and BMPs shall be updated and submitted with the Annual Reports.	10.a.ix. , 10.b.ix.		Sacramento Metro Fire District (special district; outside of City's jurisdictional control) is the fire agency for the City of Rancho Cordova.	NA							
Employee Training											
Provide training to targeted employees to increase awareness of BMPs/pollution prevention practices	10.a.x. , 10.b.x		Conduct training annually to targeted County agencies	Tabulation - Track number of employees trained and training activities	♦	♦	♦	♦	♦	♦	
Assess effectiveness of employee training	10.a.xi, 10.b.xi	✓	Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.6-1 – City of Rancho Cordova SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Legal Authority											
Adopt stormwater ordinance revisions as recommended by the County	11.a.i		The City has adopted the County's stormwater ordinance. Revised stormwater ordinance (if recommended)	Confirmation - report revisions in AR			♦				1 year after approval of SQIP by RB
Reporting of Illicit Discharges and Connections											
Continue to utilize Partnership public hotline (808-4H20) for reporting of illicit discharges and connections, and route callers to the County for assistance on City-related issues or complaints	11.a.ii ; 11.b.v		Revisions of hotline or its uses (if needed)	Confirmation/Tabulation - The County will track number of complaints received through 808-4H20 and CUBS Nuisance Abatement	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County will continue to maintain a hotline for County crews to report illicit discharges and connections within the City	11.a.ii		Decrease in number of reports of illicit discharges and connections reported by County crews	Tabulation - The County will track number of reports from County crews received through 874-4SWQ and other mechanisms	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13 before ROWD
Screening for Illicit Connections											
The County will continue to conduct ongoing field screening for illicit connections through routine maintenance activities being conducted by field crews	11.a.ii ; 11.b.ii		Decrease in number of illicit connections detected by field screening activities since last permit term	Tabulation - The County will include number of illicit connections detected via field screening activities in AR	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13 before ROWD

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.6-1 – City of Rancho Cordova SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Investigations of Illicit Discharges and Connections											
The County will continue to conduct investigations of illicit discharges (hazardous and non-hazardous)	11.a.iv ; 11.b.iii		Non-hazardous illicit discharges investigated within 5 days of discovery or report; hazardous illicit discharges investigated within 1 day of discovery or report	Confirmation - The County will include number of investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
		✓	Decrease in number of illicit discharges investigated since last permit term	Tabulation					②		EA due 12/13 before ROWD
The County will continue to conduct investigations of illicit connections	11.a.iii ; 11.b.ii		Illicit connections investigated within 21 days of discovery or report	Confirmation - The County will include number of illicit connection investigations conducted in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in Ar yearly
		✓	Decrease in number of illicit connections investigated since last permit term	Tabulation					②		EA due 12/13 before ROWD
Illicit Discharge and Connection Response, Containment and Cleanup											
The County will develop response, containment and cleanup procedures, revise as needed			Revised response, containment and clean up procedures (if needed)	Confirmation - Report revisions in AR	⇔ ◆	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly, update due 09/10
The County will continue to respond to, contain and clean up illicit discharges	11.a.iv ; 11.b.iii	✓	Decrease in number of responses, containment and cleanup of illicit discharges since last permit term	Tabulation - The County will track number of illicit discharge responses	⇔	⇔	⇔	⇔	⇔ ②	⇔	Reported in AR yearly, EA due 12/13
The County will continue to respond to and abate illicit connections	11.a.iii ; 11.b.ii	✓	Decrease in number of responses and abatements of illicit connections since last permit term	Tabulation - The County will track number of illicit connections abated	⇔	⇔	⇔	⇔	⇔ ②	⇔	Reported in AR yearly, EA due 12/13

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.6-1 – City of Rancho Cordova SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Enforcement											
The County will revise enforcement policy as needed			Revised enforcement policy (if needed)	Confirmation - The County will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County will continue to conduct enforcement (e.g., warnings, NOVs, Cease and Desist Orders, ACPs, and Cost Recoveries)	11.b.iv	✓	Decrease in number of enforcement actions since last permit term	Tabulation - The County will track number of enforcement actions conducted	⇔	⇔	⇔	⇔	⇔ ③	⇔	Reported in AR yearly, EA due 12/13
Data Management											
The County will continue to maintain database to track its investigations, enforcement actions and outreach materials distributed	11.a.v		Completed revisions /updates to database (if needed)	Confirmation - The County will report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
The County will continue to map the locations of confirmed illicit discharges and connections to help identify areas of targeted outreach			Completed revisions of map or its uses (if needed)	Confirmation - The County will submit map and report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Outreach/Training											
The County will continue to distribute educational materials to public, and document/quantify materials distributed			Completed revisions of outreach materials (if needed) and tabulations of number of individuals that received outreach materials	Confirmation/Tabulation - The County will track number of brochures distributed	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
Conduct annual training Re: field screening and illicit discharge response for crews	11.b.vi		Track number of employees trained (County and City construction inspectors, etc.)	Tabulation - Track number of workshops held, number of people reached	⇔	⇔	⇔	⇔	⇔	⇔	Reported in AR yearly
			Maintained/Increased employee awareness as measured by quizzes during annual training	Surveys – measure raised awareness based on quizzes at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.6-1 – City of Rancho Cordova SQIP
Illicit Discharge Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Facillitation of Proper Household Hazardous Waste Disposal											
Continue to provide pickup services for used motor oil with solid waste vendor, and maintain satellite facilities for universal waste disposal			See Section 9.5								
The County will continue to maintain operation of the County's household hazardous waste drop-off centers		✓	Increase in the quantities of household hazardous waste collected from public since previous permit term	Tabulation - The County will track amounts of HHW collected at County sites	⇔	⇔	⇔	⇔	⇔ 3	⇔	Reported in AR yearly, EA due 12/13 before ROWD

⇔ Ongoing activity/task ◆ Deliverable or key milestone 2 Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.7-1 – City of Rancho Cordova SQIP
Public Outreach Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
The activities described in this table are in addition to regional Public Outreach activities described in Chapter 2 (Section 2.6).											
Public Outreach											
Educate and inform City managers and elected officials through presentations and other means; invite to public community events	12.a.iii, b.iii		Document/quantify impressions made in annual report	Tabulation-track no. of people educated each year	⇔	⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
Create and maintain stormwater web page on City's web site to educate and inform general public, advertise public reporting hotline, and provide links for resources.	12.a.iii, b.iii		Submit completed web page link with annual report.	Confirmation		♦	⇔	⇔	⇔	⇔	Create web site during 09-10 FY
Periodically publish articles regarding stormwater pollution prevention in City Views newsletter or other appropriate local media.	12.a.iii, b.iii		Describe articles and provide copies with annual rpeort	Confirmation	⇔	⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
Continue to target neighborhoods for Spring Neighborhood Cleanup and Annual Urban Creeks Council Creek Week events through the Strong Neighborhoods Initative Program.	12.a.i and iii, b.i and iii		Quantify waste/debris collected during cleanup events (partial measure of amount of materials prevented from polluting local creeks)	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)
	12.a.vi, 12.b.vi	✓	Document increases in number of volunteers engaged in the cleanup activities from year to year	Tabulation - track increased no. participants as measure of changed behavior		②	②	②	②	②	Report in AR (Oct 1 ea yr)
Sponsor and staff stormwater booth at local community events (e.g., Fourth of July celebration)	12.a.i and iii, b.i and iii		Document approximate number of residents and others reached at each event; track quantities of literature distributed	Tabulation - provide numbers in annual report		⇔	⇔	⇔	⇔	⇔	Report in AR (Oct 1 ea yr)

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.8-1 –City of Rancho Cordova SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Incorporation of Water Quality Protection Principles into Plans, Policies and Procedures											
Continue to implement General Plan policies and update language if needed (Rancho Cordova GP already addresses WQ protection)	13.a, 16		City will evaluate need for further revisions to General Plan when Natural Resources Element is next updated.	Confirmation – report revisions in AR	⇔	⇔	⇔	⇔	⇔	⇔	
Development Standards and Technical Guidance											
Develop Low Impact Development (LID) design criteria	15.b		*County development standards and guidance apply to projects in Rancho Cordova.* Amend development standards to require implementation of LID strategies.	Confirmation - report revisions in AR	⇔	⇔	⇔ ♦				6 months after approval of HMP.
	15.b, 26		Include LID criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR	⇔	⇔	⇔	♦			6 months after amending the development standards.
Develop HMP Work plan as part of the revised SQIP.	15.c		Partnership will outline the proposed steps to develop the HMP and possible technical methodologies to design the mitigation measures.	Confirmation - develop HMP work plan and pilot project. Submit work products to Regional Water Board.	⇔	♦					30-Apr-09
Develop HMP	15.c		Partnership will develop an applicability and susceptibility map showing where hydromodification management measures will apply in Sacramento. Then develop the HMP Decision Tool.	Confirmation - Submit work products to Regional Water Board **1 year** after approval of the HMP work plan.		⇔	♦				1 year after approval of the HMP work plan

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.8-1 –City of Rancho Cordova SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Develop design criteria for hydromodidfiaction management measures.	15.c, 26		Partnership will include criteria in the Stormwater Quality Design Manual and revise it as needed.	Confirmation - report revisions in AR			⇔	♦			6 months after amending the development standards
Develop a mitigation fund if needed	19		City will develop/adopt a mitigation fund framework to support regional stormwater projects, if needed.	Confirmation – develop framework when needed and submit to regional Board.							
Develop a waiver program	20		County will propose a waiver program that would require developers with qualified projects to transfer the savings in cost to a stormwater mitigation fund. Waivers shall be granted only when structural treatment control measures are infeasible.	Confirmation - develop a waiver program and describe activities in revised SQIP.	⇔	⇔	⇔	♦			
Protect groundwater quality	23		Partnership will integrate restrictions regarding the use of infiltration facilities in areas of high groundwater table into design criteria/design manual	Confirmation - identify restrictions and incorporate into the design criteria.	⇔	⇔	⇔	⇔	⇔	⇔	
Conditions of Approval and Plan Review											
Condition projects to comply with stormwater quality development standards at various stages of the approval process.	13.b-d, 13.f, 14, 15, 17		This activity is performed by Sacramento County on City's behalf. County will track and record number of projects conditioned in the City.	Tabulation - track number of projects conditioned and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Condition projects to comply with LID requirements	15.b		County will condition priority development projects in the City to incorporate low impact development strategies.	Tabulation – track number of projects conditioned and report in Annual Report.				♦ ⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.8-1 –City of Rancho Cordova SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Condition projects to comply with HMP requirements	15.c		County will condition priority development projects located in susceptible areas to incorporate hydromodification management measures.	Tabulation – track number of projects conditioned and report in Annual Report.				♦ ⇔	⇔	⇔	
Track priority projects that have been approved to construct treatment control measures.	22		County will update database of priority projects in Rancho Cordova.	Tabulation - track number of projects that completed the construction of treatment control measures and report in Annual Reports.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Increase in number of priority projects that incorporated treatment measures.	Tabulation - Compare # of acreage treated to total acreage developed and report in Annual Report.			②	②	②	②	
Stormwater Maintenance Agreement											
Require applicable developments to provide verification of maintenance provisions for post-construction structural and treatment control measures.	13.b, 13.e, 18		Require maintenance agreements for on-site stormwater quality treatment control measures	Tabulation and Confirmation – track number of executed maintenance agreements and report in Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
Require property owners to self-certify the maintenance of the treatment measures on their sites annually	13.b, 13.e, 18		Document number of self-certification request letters sent to property owners, responses and follow-up action needed	Tabulation – track number of responses to self-certification requests.	⇔	⇔	⇔	⇔	⇔	⇔	

⇔ Ongoing activity/task ♦ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

Table 9.8-1 –City of Rancho Cordova SQIP
New Development Element Workplan for 2008-2013

Activity/Task	Permit Ref	Key Indica	Performance Standard (Target)	Assessment Method	Schedule FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	Due Date/ Status/Other
Outreach and Training											
Conduct outreach to the development community about the latest stormwater quality policies and requirements.	24		Continue outreach about the Planning and New Development Program Element	Tabulation - track number/type events, number materials distributed, etc. in AR	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Maintained/increased awareness of development community training attendees	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	
Provide annual training to employees in targeted positions.	13.h, 25		Conduct annual refresher training to affected staff.	Tabulation – track number of employees trained and report outcome in the Annual Report.	⇔	⇔	⇔	⇔	⇔	⇔	
	13.i	✓	Maintained/increased awareness of targeted City staff as a result of training	Surveys – measure raised awareness based on quizzes/surveys at training events		②	②	②	②	②	

⇔ Ongoing activity/task ◆ Deliverable or key milestone ② Effectiveness assessment activity (expected outcome level indicated)

Notes: 1. Performance standards achieve effectiveness outcome level 1 unless otherwise indicated
2. Assessing effectiveness of performance standards may be limited pending availability of baseline data

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0142

NPDES NO. CAS082597

WASTE DISCHARGE REQUIREMENTS

CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, RANCHO CORDOVA, SACRAMENTO, AND COUNTY OF SACRAMENTO
STORM WATER DISCHARGES FROM
MUNICIPAL SEPARATE STORM SEWER SYSTEM
SACRAMENTO COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) finds that:

1. The Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, Sacramento and the County of Sacramento, hereafter jointly referred to as Permittees, submitted a completed Report of Waste Discharge (ROWD) on 1 June 2007, requesting reissuance of waste discharge requirements under the National Pollutant Discharge Elimination System (NPDES) area-wide municipal separate storm sewer system (MS4) permit to discharge storm water runoff from storm drains within their jurisdictions. Included with the ROWD was the Permittees' Stormwater Quality Improvement Plans (SQIPs, a.k.a. Storm Water Management Plan (SWMP)). The SQIP is required as part of the ROWD pursuant to 40 CFR 122.26(d)(2)(iv); therefore it is an integral and enforceable component of the MS4 permit. In addition, the California Superior Court ruled, *"Because the Storm water Management Plan is incorporated and is deemed an integral part of the Permits…any changes to the Plan are actually changes to the Permits. Because these are changes to the Permits, the notice and comment requirements must be complied with."* (*San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region,* Consolidated Case No. 500527, California Superior Court, 14 November 2003).

2. The Permittees have chosen the title of Stormwater Quality Improvement Plan (SQIP) to refer to any SWMP requirements or references in this Order.

3. Prior to issuance of this Order, the Permittees were covered under the NPDES area-wide MS4 permit, Order No. R5-2002-0206 (NPDES No. CAS082597), adopted on 6 December 2002. The MS4 permit was originally issued in 1990 and this will be the Permittees fourth permit term.

4. The County and the City of Sacramento (population approximately 1.4 million) are defined as large municipalities (i.e., those with populations greater than 250,000) in the Code of Federal Regulations (40 CFR 122.26(b)(7)). As such, the County and the City of

Appendix 1B

Regulatory Background and Requirements Relevant to the Sacramento Stormwater Quality Partnership

REGULATIONS DIRECTLY RELEVANT TO THE SACRAMENTO STORMWATER MANAGEMENT PROGRAM

The principal regulatory vehicles for protection of water quality in California are the federal Clean Water Act and the State of California Porter-Cologne Water Quality Control Act. Figure C-1 in Appendix C shows regulatory milestones in the 19-year history of the Sacramento Stormwater Management Program.

FEDERAL NPDES PROGRAM

In 1972, the US Congress enacted the Clean Water Act (CWA), a landmark piece of legislation intended to restore the nation's waterways to "fishable and swimmable" conditions. The United States Environmental Protection Agency (USEPA) is the federal agency charged with implementation of the CWA. The CWA includes a "zero discharge" goal, in which discharges of pollutants to waters of the United States from any point source are effectively prohibited, unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which established a framework for regulating municipal, industrial, and construction site stormwater discharges under the NPDES program. Section 402(p) also established the NPDES permit program goals for the municipal stormwater programs, which are to reduce the discharge of pollutants to the "maximum extent practicable" and to eliminate non-stormwater discharges. To meet these requirements the municipality uses "management practices, control techniques and systems, design and engineering methods and such other provisions … appropriate for the control of such pollutants" (CWA Section 402(p)). These measures are commonly referred to as best management practices (BMPs).

On November 16, 1990, USEPA published the Phase I stormwater regulations[1], which established application requirements for stormwater NPDES permits for municipal separate storm sewer systems (MS4s). The Phase I regulations required municipalities with a population greater than 100,000 and selected industries (including construction sites greater than five acres) to obtain a NPDES permit for their stormwater discharges. In 1999, USEPA promulgated the Phase II regulations[2], which established permit application requirements for communities with a population between 50,000 and 100,000, and construction sites that disturb an area from one to five acres in size.

In California, the State Water Resources Control Board (SWRCB) administers the NPDES stormwater permitting program through the nine Regional Water Quality Control Boards (Regional Boards).

---

[1] National Pollutant Discharge Elimination System (NPDES) Permit Application Regulations for Stormwater Discharges; Final Rule, 40 CFR Part 122.26, U.S. Environmental Protection Agency (USEPA), November 16, 1990.

2 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program – Additional Stormwater Discharges; Final Rule. 40 CFR Parts 9, 122, 123 and 124, U.S. Environmental Protection Agency (USEPA), December 9, 1999.

STATE OF CALIFORNIA BASIN PLANS, NPDES PROGRAM

The Porter-Cologne Water Quality Control Act requires the development of water quality management plans for drainage basins within California ("basin plans"). The basin plans serve as the regional policy for protecting water quality within each watershed, defined as the area of land draining to a particular water body. The basin plans include identification of the beneficial uses of each receiving water, establishment of water quality objectives necessary to protect these beneficial uses, and development of an implementation plan to ensure long-term protection of the water body and its beneficial uses. In establishing water quality objectives, the regulatory agencies must consider: (1) past, present, and probable future beneficial uses, (2) environmental characteristics of the watershed, (3) water quality conditions that could reasonably be achieved, (4) economic considerations, (5) the need for developing housing in the area, and (6) the need to develop and use recycled water. The Regional Boards principally implement basin plans through Waste Discharge Requirements (WDRs).

The SWRCB issues statewide permits, including categorical "general permits" for construction sites and industrial facilities, and Phase II municipalities. The nine Regional Boards issue individual permits to specific dischargers within their geographic areas of jurisdiction. Regional Boards may also issue general permits for construction or industrial activities in their regions. Municipalities, including the Sacramento Stormwater Quality Partnership permittees (Partnership), obtain individual NPDES permits from the Regional Boards. It should be noted that even though construction sites and industries are covered under the general permits, the Phase I municipalities, including the Partnership, are also required to address construction and industrial activities in their own programs. USEPA intended this intentional overlap to induce more local regulation and enforcement and enable the municipalities to control construction and industrial discharges into their own storm drainage systems.

The SWRCB and Regional Boards issue NPDES permits by including Waste Discharge Requirements in conformance with the state's Porter-Cologne requirements. The state waste discharge program is broader than the NPDES Program, covering nonpoint sources and groundwater in addition to point sources and surface waters. The Regional Water Quality Control Board, Central Valley Region (referred to hereafter as "the Regional Board") issues and administers the Sacramento NPDES municipal stormwater permit for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

As part of Phase II, the State Water Resources Control Board adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional small MS4s, which include governmental facilities such as military bases, public campuses, and prison and hospital complexes.

In California, stormwater NPDES Permits include standard requirements to the effect that discharges "shall not cause or contribute to violations of water quality objectives nor shall they cause certain conditions to occur which create a condition of nuisance or water quality impairment in receiving waters." The SWRCB requires permittees to address these standard requirements through the implementation of control measures to reduce pollutants in storm water discharges.

SACRAMENTO NPDES MUNICIPAL STORMWATER PERMIT

The original Phase I municipal permits were issued between 1991 and 1994, following development and submittal of an extensive two-part application by each permittee or group of permittees. The Sacramento NPDES stormwater permit was one of the first permits to be issued in the nation, in 1990 (Order No. 90-158). This early permit preceded promulgation of the Phase I regulations (in December 1990) and did not require the development of the formal two-part application, although similar information was generally required of the Partnership during the first permit term. The Regional Boards try to reissue NPDES permits every five years. The Regional Board issued the second Sacramento NDPES permit in 1996 (Order No. 96-105), the third NPDES permit in December 2002 (Order No. R5-2002-0206), and the fourth and current permit in September 2008 (Order No. R5-2008-0142). The Regional Board made the current permit effective in late October 2008. The smaller municipalities, such as the cities of Folsom and Galt, were individually brought into the Phase I program as permittees along with larger municipalities. The Regional Board considers all Partnership municipalities as part of the Phase I regulated community, regardless of size.

The Partnership has subsequently developed Stormwater Quality Improvement Plans (SQIP) in conformance with the Phase I regulations. However, for planning purposes, the Partnership also reviewed and considered the Phase II regulations in developing the Stormwater Quality Improvement Plans, to account for advances in stormwater programs made in the ten years between the Phase I and Phase II regulations. Table 1, at the end of this appendix, is a summary of the pertinent points of the Phase I and II regulations.

Receiving Water Quality Objectives

The Sacramento Stormwater NPDES Permit requires comparison of receiving water monitoring data to receiving water quality objectives (WQOs), and submittal of a Notice of Water Quality Exceedance (NWQE) to the Regional Board within 90 days of an exceedance of a water quality objective in a receiving water monitoring event. A Report of Water Quality Exceedance (RWQE) is then required on determination by either the Partnership or Regional Board that municipal stormwater discharges are causing or contributing to an exceedance of an applicable receiving water specific water quality objective. The RWQE "describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Water Quality Standards." These evaluations consider water quality objectives for the Sacramento River, American River and their tributaries. The Partnership derives the applicable water quality objectives from the California Toxics Rule (CTR), the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), and objectives specified in the NPDES Permit (e.g., mercury).

The NPDES Permit also requires Regional Board notification within 48 hours of receiving water column toxicity results for receiving water samples with greater than 50% mortality.

"Maximum Extent Practicable" Standard

Section 402(p)(3)(B) of the CWA requires the Regional Boards to issue NPDES municipal stormwater permits that require dischargers to develop and implement programs with the goal of reducing the discharge of pollutants in stormwater runoff to the maximum extent practicable (MEP). Although the CWA established the permit requirement of MEP for municipal permittees,

neither the CWA nor subsequent regulations provide a specific definition. It is clear, however, that MEP is a requirement to reduce the discharge of pollutants, not to prohibit such discharge. The stormwater regulations state that MEP is to be achieved through implementation of control measures that involve public outreach, illegal discharge elimination, construction site controls, new development controls, pollution prevention and good housekeeping for municipal operations, and industrial site controls. The Phase II regulations provide additional insight into MEP by linking the implementation of BMPs with the achievement of measurable goals. The SWRCB's Senior Counsel, in a 1993 memorandum[3], further made the point that achieving the MEP standard requires a meaningful, rather than a perfunctory, program. The 1993 memorandum interprets the meaning of MEP to include *technical feasibility, cost and benefit derived with the burden being on the municipality to demonstrate compliance with MEP by showing that a BMP is not technically feasible in the locality or that BMP costs would exceed any benefit to be derived*. The SWRCB further discusses the term in two Water Quality Orders: WQ 1000-11 and 91-03.

The Sacramento Stormwater Management Program defines MEP in a functional way, as an iterative process of (1) developing a sound and thorough program of BMPs commensurate with available resources, (2) implementing the program, and (3) evaluating and refining the program over time. These steps are briefly described below:

- ***Development*** of the program relies on stormwater program guidance from USEPA, applicable regulations, best professional judgment, information gained from implementation and evaluation of the program, information learned from other municipal stormwater programs, evolving local conditions, communication with regulators, and public input. This is consistent with the SWRCB's expressed opinion that compliance with MEP requires a meaningful program.
- ***Implementation*** activities, including BMPs, are the foundation of the program. Considerations in selecting appropriate BMPs include technical feasibility, pollutant removal effectiveness, legal authority, compatibility with other agency programs and goals, economic factors (including the ability to capitalize on existing opportunities and cost effectiveness), public acceptance and whether the BMP focuses on Sacramento's target pollutants.
- The ***evaluation*** process for the program addresses both the overall program and its individual program elements through assessment of effectiveness measures and performance measures. Effectiveness measures are those intended to directly measure the effect that certain activities have on making a difference in water quality, the public's behavior, etc. Performance measures are intended to measure the level of effort that the Partnership is expending to satisfy the NPDES permit requirements in reducing stormwater pollution. See Chapter 2.3 of the Stormwater Quality Improvement Plan for more information.

The effectiveness of the iterative program outlined above is enhanced by the Partnership "target pollutant" process, in which target pollutants are identified in urban runoff discharges and priority-ranked according to a comprehensive set of criteria. The Partnership then investigates

[3] Elizabeth Miller Jennings, "Definition of Maximum Extent Practicable", State Water Resources Control Board Memorandum, February 11, 1993.

sources of high-ranking target pollutants, and identifies control measures for the reduction of significant sources of the high-priority pollutants.

Consequences of Noncompliance

The NPDES Permit is federally enforceable, which means that if a permittee does not comply with the terms of the permit, it may be subject to CWA authorized enforcement actions and penalties by the Regional Board, US EPA and private third parties. Penalties for noncompliance with the CWA can be up to $37,500[4] per incident per day. Moreover, federal enforceability includes the right of interested parties to sue under the CWA Section 405 citizen suit provision. Environmental advocacy groups have brought numerous lawsuits against NPDES permittees, various state regulatory agencies and the EPA since the early 1990's.

STATEWIDE/GENERAL PERMITS

Within the NPDES program, the State of California has adopted several statewide general permits, covering stormwater discharges from specific types of activities. Those wishing to engage in the specified activities must conform to the requirements of the relevant general permit. The state administers and enforces the general permits even when the activities take place in a municipality covered by an individual MS4 NPDES permit. The general permits are therefore generally of benefit to the permitted MS4s, as they provide an additional level of regulatory oversight and responsibility for the covered categories of discharges. The most pertinent statewide/general permits are discussed below.

Construction General Permit

Construction projects that disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (*Construction General Permit*, SWRCB Order #99-08-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade or capacity of the facility. The SWRCB reissued the Construction General Permit on August 19, 1999. The SWRCB circulated a preliminary review draft of the revised Construction General Permit on March 2, 2007 and subsequently circulated a second draft on March 18, 2008. The SWRCB recently released a third draft of the revised Construction General Permit.

To obtain coverage under the Construction General Permit, applicants must submit a Notice of Intent (NOI), Site Map, and the appropriate permit fee to the SWRCB. The discharger files a Notice of Termination with the Regional Board upon project completion.

The SWPPP must contain a site map(s), which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the applicant will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

[4]Current penalty as of January 12, 2009, regularly adjusted for inflation.

Based upon the previous drafts of the Construction General Permit, the final revised Construction General Permit will likely differ from Order 99-08-DWQ in several significant ways. Some of the more significant projected changes include:

- Electronic submittal of NOIs and SWPPP to allow greater public access
- Specific qualification requirements for construction SWPPP developers and those responsible for implementing the SWPPPs
- Categorization of the risk of sediment discharge from sites into at least three risk levels
- Permit requirements tiered to the risk level of the site
- Numeric Action Levels and Numeric Effluent Limitations for construction site runoff
- Runoff monitoring to assess performance and compliance with the action levels and effluent limits
- Receiving water monitoring for some sites
- Annual reporting of visual and water quality monitoring results through an electronic system.

From the standpoint of the municipal stormwater program, the net effect of this General Permit is to assist MS4s in the implementation of the construction element of the stormwater management program, by providing an independent means of ensuring compliance with stormwater regulations at construction sites.

Industrial General Permit

The Industrial Storm Water General Permit (*Industrial General Permit*, SWRCB Order #97-03-DWQ) regulates discharges associated with 10 broad categories of industrial activities. Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 CFR Section 122.26(b)(14). For the most part, these facilities are identified in the federal regulations by a Standard Industrial Classification (SIC). The SWRCB adopted this permit in 1999. The SWRCB circulated, but did not adopt, a draft revised permit in 2005.

To obtain coverage for stormwater discharges and authorized non-stormwater discharges pursuant to the Industrial General Permit, facility operators must submit a Notice of Intent (NOI), a site maps, and annual fee to the SWRCB. This General Permit requires facility operators to:

- Eliminate unauthorized non-storm water discharges;
- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP); and
- Perform monitoring of storm water discharges and authorized non-storm water discharges.

The Industrial General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). Through the SWPPP, sources of pollutants are identified and the means to manage the sources to reduce storm water pollution (i.e., BMPs) are described.

This General Permit does not preempt or supersede the authority of local agencies (e.g., municipal NPDES Permit-holders) to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other water-courses within their jurisdictions as allowed by state and federal law. The net effect of this General Permit for local

agencies is to assist MS4s in the implementation of the municipal stormwater program, by providing an independent means of ensuring compliance with stormwater regulations at industrial facilities.

Caltrans Statewide Stormwater Permit

The SWRCB regulates runoff discharges from Caltrans facilities under a statewide NPDES permit issued to Caltrans in 1999 (Order # 99-06-DWQ). Currently the SWRCB is drafting this permit renewal.

Caltrans discharges consist of stormwater and non-storm runoff generated from (a) maintenance and operation of state-owned highways, freeways, and roads; (b) maintenance facilities; (c) other properties, facilities, activities, and construction projects; (d) permanent discharges from subsurface dewatering, and (e) temporary construction related dewatering activities which discharge directly to surface waters or through municipal storm water conveyance systems to surface water bodies in the state. Some stormwater discharges from Caltrans-owned rights-of-way, properties, facilities and activities discharge to stormwater conveyances managed by NPDES-permitted municipalities. On the other hand, some stormwater discharges from these municipalities discharge to storm water conveyances managed by Caltrans.

The Regional Boards have issued stormwater NPDES Permits for the discharge of stormwater from MS4s to municipalities in California that require such permits. Caltrans operates highways and highway-related properties, activities, and facilities that cross through all of these permitted areas. This statewide Caltrans permit covers all municipal stormwater activities by Caltrans in California, both in areas that require an MS4 permit and areas that do not currently require a permit, and all Caltrans construction activities that require a permit under the federal stormwater regulations.

This NPDES Permit does not preempt or supersede the authority of local municipal agencies to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other watercourses within their jurisdictions as allowed by state and federal law. However, the principal responsibility for management of stormwater discharges from state transportation facilities in the Sacramento urban area rests with Caltrans.

Aquatic Pesticides General Permits

In response to court cases and guidance, in 2004 the SWRCB adopted two general permits for discharges of aquatic pesticides into waters of the United States. One permit regulates the use of aquatic weed killers (WQO 2004-0009-DWQ for aquatic weed control) and the other regulates aquatic pesticides used to control mosquitoes and other vectors (WQO 2004-0008-DWQ for vector control). In adopting these permits, the SWRCB found that Ninth Circuit Court decisions (beginning in 2001 with the “Headwaters” decision) appeared to require these permits and that relevant USEPA guidance documents might not be a legal basis for a lack of coverage under an NPDES permit. According to the Ninth Circuit Court, the application of pesticides into waters of the United States, or onto aquatic plants growing in waters of the United States, results in discharges of pollutants and requires coverage under a National Pollutant Discharge Elimination System (NPDES) permit.

On November 20, 2006, USEPA issued its final rule on aquatic pesticides (40 C.F.R. § 122.3(h)(1)). This rule was intended to eliminate the need for a NPDES permit for the

application of pesticides to waters, if the application is made in accordance with Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) labels. USEPA's regulation took effect on January 26, 2007. However a Sixth Circuit Court decision filed on January 7, 2009, determined that USEPA's final rule is not a reasonable interpretation of the CWA and vacated the final rule. The current status of the Aquatic Pesticide is still uncertain, as federal court actions are under appeal, and US EPA has requested a two year extension to develop the permit.

Low Threat and Limited Threat Discharges

Low threat discharges are those with low potential for causing or contributing to water quality impairment. Regional Boards issue general permits on a regional basis for such discharges, rather than on a statewide basis by the SWRCB. For the Central Valley Region, the relevant orders are Regional Board Orders:

- R5-2008-0081 Waste Discharge Requirements for Dewatering and Other Low Threat Discharges to Surface Waters
- R5-2008-0082 Waste Discharge Requirements For Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects and Other Limited Threat Wastewaters.

R5-2008-0081 covers discharges by individuals, public agencies, private businesses and other legal entities of clean or relatively pollutant-free wastewaters that pose little or no threat to the quality of waters of the United States. Discharges covered by this General Order are either four months or less in duration or have an average dry weather flow less than 0.25 million gallons per day (MGD).

To obtain coverage under this Order, the Discharger must submit a complete Notice of Intent including (1) information concerning its discharge location; (2) a map showing the location of the site, treatment system (if applicable), discharge point(s), and receiving water; (3) an evaluation of reclamation options; (4) narrative and schematic descriptions of the existing or proposed treatment system, including blueprints signed by a Registered Engineer or Geologist (if applicable); (5) analysis of the proposed effluent for specified pollutants; and (6) the appropriate fee.

R5-2008-0082 covers dischargers of treated or untreated groundwater from cleanup sites, including groundwater extracted during short-term and long-term pumping/aquifer tests, and equipment decontamination water, dischargers of wastewater from superchlorination projects, and dischargers of other limited threat wastewaters. Dischargers of wastewaters containing sewage of human origin or containing significant oxygen demanding substances prior to treatment are not covered by this Order.

To obtain coverage under this Order, the Discharger must submit a complete application, which includes USEPA Application Forms 1 and 2D; State Water Board Form 200, a map of the location of the project, discharge point(s), and receiving water; a full description of the proposed project on official letterhead; blueprints of the proposed treatment system signed by a Registered Engineer or Geologist (if applicable); analysis of the proposed effluent for specified pollutants; an evaluation of reclamation options; public notice requirements; and the appropriate fee.

This Order does not preempt or supersede the authority of state or local agencies to prohibit, restrict or control the discharge of wastewater subject to their jurisdiction.

OTHER REGULATIONS THAT MAY AFFECT THE SACRAMENTO STORMWATER MANAGEMENT PROGRAM

CWA Section 303(d) - Total Maximum Daily Loads

Section 303(d) of the CWA requires the states to identify waters that are not attaining water quality standards. The identified water bodies comprise the state's "303(d) list," also referred to as the "impaired waters" list. The CWA requires the states to establish priority rankings for listed water bodies and to establish the total maximum daily load (TMDL) for pollutants impairing those waters. According to USEPA, a TMDL is a numerical calculation of the amount of a pollutant – or load – that a water body can assimilate and still meet standards. A TMDL includes one or more numerical targets calculated to represent attainment of the applicable standards, considering seasonal variations and a margin of safety, and allocation of the target or load among the various sources of the pollutant. The states must incorporate TMDLs and load reduction requirements into the basin plans.

USEPA Region IX (which includes Sacramento) developed guidance for California on minimum requirements to meet TMDL regulations, the application of water quality standards, and how NPDES permits are to be written for discharges to listed water bodies.

The State of California subsequently adopted two policies related to the TMDL process:

- ***The Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*** (SWRCB Resolution 2004-0063, September 2004). The "Listing Policy" describes the process by which the State Water Resources Control Board and Regional Water Quality Control Boards will comply with the listing requirements of section 303(d) of the federal Clean Water Act (CWA). The Policy establishes a standardized approach for developing California's section 303(d) list.
- ***The Water Quality Control Policy for Addressing Impaired Waters*** (SWRCB Resolution 2005-0050, June 2005). The "TMDL Policy" is intended to ensure that the impaired waters of the state are addressed in a timely and meaningful fashion. The majority of TMDLs are established through an implementation plan adopted as a Basin Plan amendment (BPA), but the TMDL Policy allows a TMDL to be established through alternative regulatory actions. For the Amendment to become final, it must be approved by the State Water Resources Control Board, the California Office of Administrative Law, and USEPA.

TMDLs affect NPDES permit holders that discharge into 303(d) listed water bodies by, as Regional Boards develop source load allocations to support each TMDL. Listed water bodies on the 2006 303(d) list[5] into which Sacramento urban runoff ultimately flows include: Arcade Creek, Chicken Ranch Slough, Strong Ranch Slough, Elder Creek, Elk Grove Creek, Morrison Creek, the Natomas East Main Drain, Lake Natoma, the lower American River, the Sacramento River from Red Bluff to the Delta, and Delta waterways. The Sacramento Stormwater Management Program addresses pollutants for pertinent listed water bodies through its target

[5] The SWRCB adopted the 2006 Clean Water Act section 303(d) list of water quality limited segments at a October 25, 2006 Board Meeting.

pollutant reduction activities and monitoring program. The Regional Board issued a draft 303(d) list for public comment in January 2009 that includes new listings for pyrethroids and other constituents for water bodies that receive Sacramento urban runoff.

The following TMDLs are currently in effect or proceeding through the TMDL/BPA adoption and approval process.

Sacramento/Feather River Diazinon and Chlorpyrifos TMDL/BPA

The Regional Board originally adopted this TMDL and Basin Plan Amendment in 2003 and then readopted in them in 2007. The 2007 amendment revised the water quality objectives and control program for diazinon originally adopted in 2003 and adds water quality objectives and a control program for chlorpyrifos for the Sacramento and Feather River. The 2007 Basin Plan Amendment was fully approved and effective as of August 11, 2008. The pesticide objectives specified in the 2008 amendments are:

Diazinon Water Quality Objective:

0.16 µg/L 1-hour average (acute); 0.10 µg/L 4-day average (chronic), not to be exceeded more than once in a three-year period

Chlorpyrifos Water Quality Objective:

0.025 µg/L 1-hour average (acute); 0.015 µg/L 4-day average (chronic), not to be exceeded more than once in a three-year period

The Waste Load Allocations (WLA) for all NPDES-permitted dischargers, Load Allocations (LA) for nonpoint source discharges, and the Loading Capacity of the Sacramento and Feather Rivers shall not exceed the sum (S) of one (1) as defined below.

$$S = C_D/WQO_D + C_C/WQO_C \leq 1.0$$

where C_D = concentration of diazinon, WQO_D = diazinon water quality objective, C_C = concentration of chlorpyrifos, WQO_C = chlorpyrifos water quality objective,

Sacramento Urban Creeks TMDL – Diazinon/Chlorpyrifos

This TMDL was implemented in 2004 without a Basin Plan amendment, via provisions in the Sacramento Stormwater NPDES Permit. The TMDL contains the former California Department of Fish and Game criteria as objectives for diazinon and chlorpyrifos. The TMDL targets and load allocations are concentration based, and account for the additive effects of diazinon and chlorpyrifos. The requirements of the TMDL are addressed by the NPDES Permit requirement for development of a pesticide control plan. The TMDL is due to be reviewed for possible revision, and the Partnership has commented directly to the Regional Board that the TMDL is completed since the withdrawal by 2004 of Federal registration ofthese pesticides for most urban uses has led to greatly reduced concentrations in discharges, and attainment of the TMDL goals.

Sacramento/San Joaquin Delta TMDL/BPA for Diazinon and Chlorpyrifos

The "Basin Plan Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta" established water quality objectives for diazinon and chlorpyrifos in Delta waterways. The Basin Plan Amendment is fully approved and effective as

of October 10, 2007. The adopted diazinon objectives/TMDL targets are equal to the revised CA DF&G objectives (160 ng/L acute and 100 ng/L chronic).

Central Valley Pesticides TMDL/BPA

This ongoing TMDL project covers most of the Central Valley Regional Water Quality Control Board jurisdiction, i.e. the Sacramento and San Joaquin River watersheds, and is much broader in technical scope than any of the other previous or ongoing TMDLs. The project includes:

- all natural streams below major reservoirs that could receive agricultural or urban runoff (not constructed drains unless listed in Basin Plan)
- comprehensive coverage of current-use pesticides (not just diazinon and chlorpyrifos); excludes legacy pesticides (such as DDT)
- preparation of a risk assessment for pesticides in Sacramento Valley
- evaluation and development of water quality criteria for selected pesticides
- evaluation and development of sediment quality criteria for selected pesticides (likely including pyrethroids)
- a perfunctory aquatic life beneficial use assessment for selected streams
- monitoring for pesticides identified in the risk assessment

Pyrethroid Re-evaluation and Registration Review

Based on reported pyrethroid aquatic toxicity, including a signficant number of urban areas, the California Department of Pesticide Regulation (DPR) in 2006 initiated a re-evaluation of pyrethroid pesticide registrations. This process is intended to identify and effectively mitigate toxicity sources, which may include pesticide use restrictions or even removal of certain products from the market. USEPA is also preparing to address the observed toxicity as part of its registration review process which is scheduled to begin in 2010. As a result of comments by California water quality agencies, including the Permittees and CASQA, US EPA has begun incorporating improved urban surface water quality protection in pyrethroid product label language.

Structural Pest Control Board IPM regulations

The California Structural Pest Control Board (SPCB), which is the lead agency for regulation of professional structural pest control operators, in 2008 adopted regulations to establish Integrated Pest Management (IPM) training requirements for new licensees and as continuing education requirements for license renewal. These requirements, established largely in response to concerns expressed by California Water Boards and CASQA, became effective in April 2009. In addition, the SPCB has adopted regulations (pending final approval by the Office of Administrative Law) to allow its regulated community to more effectively market the environmental benefits of IPM, and has begun the process to establish statewide standards for certification of IPM services

Delta Mercury/Methylmercury TMDL/BPA

The TMDL and Basin Plan Amendment "For the Control of Methylmercury in the Sacramento-San Joaquin Delta Estuary" are currently in development using a facilitated stakeholder process in which the Permittees are participants. This TMDL will be precedent setting, as the Regional Board intends to work upstream from the Delta in developing mercury TMDLs for the American, Sacramento and Feather Rivers, building on the precedents/loadings set in the Delta TMDL. Proposed Delta water quality objectives include three fish tissue objectives for mercury,

covering different size classes/trophic levels of fish, to protect both human health and wildlife. Allocations for known mercury sources are proposed to limit fish mercury exposure and assimilation. The February 2008 draft TMDL/BPA includes wasteload allocations for urban runoff equivalent to a 44% reduction in current methylmercury concentrations, effective four years from the Basin Plan Amendment. This can be achieved through source reduction, treatment, or an offset program.

Related mercury policies under development:

- *Proposed CTR Objective for Methylmercury*
  The SWRCB has begun the process to develop "Proposed Methylmercury Objectives for Inland Surface Waters, Enclosed Bays, and Estuaries in California" (December 2006). The elements of the proposed policy may include methylmercury fish tissue objectives, total mercury water quality objectives, methylmercury water quality objectives, or some combination.
- *Proposed Mercury Offset Policy for SF Bay and Delta*
  The SWRCB's "Proposed State Policy for Water Quality Control, San Francisco Bay, Sacramento-San Joaquin River Delta and Tributaries Mercury Discharge Offset Policy" (January 2007) would allow mercury dischargers (especially those subject to NPDES permits) to offset some mercury TMDL loading allocations by taking other actions, such as removing mercury from Delta sediments. This policy, if properly constructed, has the potential to provide regulatory mechanisms that would allow NPDES dischargers, including urban runoff discharge agencies in the TMDL area, to apply resources within the watershed to most effectively address mercury and methyl mercury sources.

Central Valley Drinking Water Policy

To address drinking water treatment challenges and potential public health concerns in the crucial Sacramento/San Joaquin River Delta region, a multi-year effort is currently underway to develop a drinking water policy for surface waters in the Central Valley. The goal is to develop a policy that provides clear guidance to ensure consistent source water protection. This policy may include provisions that affect municipal stormwater dischargers upstream of the Delta. The policy considers pathogen indicators, organic carbon, nutrients, and salinity with a project horizon of 2030. Currently the City of Sacramento participates in the effort that is primary CalFed and stakeholder funded. Efforts include developing source control program alternatives and cost projections, comprehensive load modeling, and drinking water treatment requirement cost projections.

Wetlands and Riparian Area Protection Policy

A statewide Wetland and Riparian Area Protection Policy (WRAPP) is under development by the SWRCB to provide additional protection for wetlands and riparian areas, which are considered critical to the protection and enhancement of water quality throughout California's diverse watersheds. Additional regulatory attention to these areas is affirmed by statewide policies such as the Wetlands Conservation Policy (Executive Order W-59-93), also known as the state's "No Net Loss" Policy for Wetlands; and the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (State Water Board Resolution No. 2004-0030).

Special protections are considered warranted for wetlands, riparian areas, and headwaters because these areas have high resource value, are vulnerable to filling, and are not systematically protected by other programs. Insufficient protections for wetlands and riparian areas in the past led to significant historic losses of these resources in California. As a result, the remaining wetlands and riparian areas in the state are considered to be extremely valuable resources. The WRAPP policy will encourage basin-level analysis and protection, because some functions of wetlands, riparian areas and headwater streams - including pollutant removal, flood water retention and habitat connectivity - are manifest at the watershed level.

This new policy is primarily intended to address the following three areas:

- Provide clarity in the existing regulatory framework for protecting those wetlands and riparian areas that are no longer regulated under the CWA, due to recent federal court cases that have limited federal jurisdiction and increased the relative role and importance of the state's water quality programs and authorities.
- Provide statewide consistency in the definition of wetlands and riparian areas, to ensure protection of beneficial uses under the California Water Code.
- Provide statewide consistency in definitions of beneficial uses for wetland and riparian area functions (e.g., pollutant removal, floodwater retention, and habitat connectivity) and lack of consistent statewide requirements for evaluating the condition of wetland and riparian area resources. Condition assessments are necessary for determining potential impacts from discharges and other activities on wetland and riparian area water quality and associated beneficial uses; and for determining the actions that are necessary to avoid, minimize, and mitigate any potential impacts to protect wetland and riparian resources.

Upon adoption, this Policy may expand the areas covered as regulated receiving waters of the state beyond those covered by the federal definition.

LOW IMPACT DEVELOPMENT/SUSTAINABILITY

On January 20, 2005, the SWRCB adopted sustainability as a core value for all California Water Boards' activities and programs, and directed Regional Board staff to consider sustainability in all future policies, guidelines and regulatory actions.

An emerging tool of sustainability that is directly applicable to urban stormwater management is Low Impact Development (LID), which uses site design and storm water management practices to maintain, as nearly as possible, a site's pre-development runoff rates and volumes. Design techniques are employed to infiltrate, filter, store, evaporate and detain runoff close to the source of rainfall. The Water Boards are encouraging the use of LID in California in various ways:

- Regulation through site-specific and general permits;
- Providing advocacy and outreach to local governments through the Water Board's Training Academy and regional workshops;
- Researching how to incorporate LID language in to Standard Urban Storm Water Mitigation Plan (SUSMP) requirements;
- Funding LID-related projects through the consolidated grants program; and

- Funding through CWA 319 funds to provide for researching the applicability of the Impervious Surface Analysis Tool (ISAT) for land use planners.
- Participation in the California Water and Land Use Partnership (CaWaLUP) Center at U.C. Davis, a collaborative effort made up of representative staff from government agencies, non-profit organizations, and academia, which aims to improve consideration of the water resource implications of land use in California's local government decisions.

LID design tools present promise for assisting local stormwater agencies in meeting SUSMP requirements and reducing potential discharges of pollutants from areas of new and re-development.

Table 1. Summary of the Phase I and Phase II Stormwater Regulations

Phase I	Phase II
Promulgated in 1990	*Promulgated in 1999*
• Regulated community: municipal separate storm sewer systems serving populations of 100,000 or more, construction sites over 5 acres, and specified industrial activities	• Regulated community: municipal urban systems under 100,000 and construction sites of 1 acre or more • Also provides for a "no exposure" exemption for any Phase I industrial facility.
Goals: eliminate illegal discharges and reduce discharges of stormwater pollutants to the MEP	Goals: reduce the discharge of stormwater pollutants to the MEP and protect water quality
Application Process: • Two-part permit application • Individual municipal permits, which incorporate, by reference, the Partnership's management program. • General Permits are issued by the SWRCB to cover construction and industrial activities.	Application Process: • General Permit (SWRCB, 2003) • Application includes NOI, SWMP, and fee.
The proposed management program must address the following elements: • Commercial and residential area source control (includes municipal operations, new development, and pesticides control) • Illicit discharges and improper disposal (includes illicit connections, illegal dumping, and public education) • Industrial facilities • Construction sites The application must also specify proposed: • Monitoring • Assessment and reporting activities The two-part permit application also requires: • Statement of legal authority • Discharge characterization • Map of the system • Identification of industries • Field screening for illegal discharges • Identification of outfalls	Minimum control measures to be included in SWMP: • Public education • Public participation • Illicit discharge detection and elimination • Construction site stormwater runoff control • Post-construction stormwater management • Pollution prevention and good housekeeping for municipal operations BMPs and measurable goals must be specified in SWMP for each control measure. Must include assessment of effectiveness of SWMP and revision as necessary.

Sacramento must obtain an NPDES municipal storm water permit. The City of Sacramento has a population of approximately 468,000.

5. The City of Folsom is an urbanized area with a population of about 71,000. Because of its proximity to the urbanized areas of the County, and the location of its storm sewer system discharges relative to discharges from the County's system, Folsom was designated in 1990 as part of the large MS4 (40 CFR 122.26(b)(4)(iii)).

6. The City of Galt is an urbanized area with a population of about 24,000. Galt is unlike the other Permittees in that its MS4 is non-contiguous with the other MS4s; it is also surrounded by rural and agricultural areas that are not subject to the NPDES regulations. Galt became part of the Phase I Sacramento Storm Water Management Program voluntarily in 1990.

7. The Cities of Citrus Heights and Rancho Cordova have a population of less than 100,000 with contiguous urbanized areas within the County. Therefore, the Cities of Citrus Heights and Rancho Cordova are designated as part of the large MS4.

8. The City of Elk Grove has a population of approximately 137,000 and has the nation's fastest growth rate among large cities (100,000 or more population) between July 1, 2004, and July 1, 2005, according to new U.S. Census Bureau population estimates. The City is a contiguous urbanized area within the County. Therefore, the City of Elk Grove is designated as part of the large MS4.

9. Additional cities located in Sacramento County may be incorporated during the life of this Order. If that occurs, the Order may be reopened to consider designating those cities as part of the large MS4, and subject to the requirements of the Order.

10. The MS4 Permit does not apply to all areas within Sacramento County. The MS4 permit covers the land within the Sacramento County Urban Service Area boundary, as well as the City of Galt and the Sacramento International Airport. Land designated within the Urban Service Area includes the Cities of Citrus Heights, Elk Grove, Folsom, Rancho Cordova, Sacramento and unincorporated Sacramento County.

11. The Permittees have jurisdiction over and/or maintenance responsibilities for their respective MS4s that they own and operate in the Sacramento Urbanized Area. The storm water discharge consists of urban runoff generated from various land uses discharging from MS4s into smaller tributary watercourses and the primary rivers flowing through the area. The quality and quantity of these discharges varies considerably due to the effects of land use, season, geology, and the sequence and duration of hydrologic events.

12. Development which is not guided by water quality planning policies and principles can result in increased pollutant load discharges, flow rates, and flow durations, which can impact receiving water beneficial uses. Construction sites without adequate best management practices (BMPs) implementation result in sediment runoff rates which can

greatly exceed natural erosion rates of undisturbed lands, causing siltation and impairment of receiving waters. Existing development without adequate BMPs can generate substantial pollutant loads, which can be discharged in urban runoff to receiving waters.

13. The Permittees' land use authority allows urban developments that may generate pollutants and runoff that could impair receiving water quality and beneficial uses. The Permittees are therefore responsible for considering potential storm water impacts when making planning decisions in order to fulfill the Clean Water Act (CWA) requirement to reduce the discharge of pollutants in municipal storm water to the MEP from new development and redevelopment activities. In addition, the Permittees must exercise their legal authority to ensure that the increased pollutant loads and flows do not degrade the beneficial uses of the receiving water.

14. This Order is not intended to prohibit the inspection for or abatement of vectors by the State Department of Health Services or local vector agencies in accordance with California Health and Safety Code § 2270 et seq. and §116110 et seq. Certain Treatment Control Best Management Practices (BMPs) if not properly designed, operated or maintained may create habitats for vectors (e.g. mosquito and rodents). This Order expects that the Permittees will closely cooperate and collaborate with local vector control agencies and the State Department of Health Services for the implementation, operation, and maintenance of Treatment Control BMPs in order to minimize the risk to public health from vector borne diseases.

15. There are portions of the Sacramento MS4 that are rural, and open space lands. It is not the intent of the federal storm water regulations to regulate storm water discharges from land uses of these types. Therefore, these areas are exempt from the requirements of this Order. However, discharges from these sources may be subject to TMDL allocations and control programs.

16. When natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots, the natural absorption and infiltration abilities of the land are lost. Therefore, runoff leaving a developed urban area is significantly greater in runoff volume, velocity, and peak flow rate than pre-development runoff from the same area. Runoff durations can also increase as a result of flood control and other efforts to control peak flow rates. Increased volume, velocity, rate, and duration of runoff can accelerate the erosion of downstream natural channels. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. The increased runoff characteristics from new development must be controlled to protect against increased erosion of channel beds and banks, sediment pollutant generation, or other impacts to beneficial uses and stream habitat due to increased erosive forces. [1]

[1] USEPA, 1999. Part II. 40 CFR Parts 9, 122, 123, and 124. National Pollutant Discharge Elimination System –Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule. Federal Register.

17. Urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can be washed or directly dumped into the MS4. As a result, the runoff leaving the developed urban area may be significantly greater in pollutant load than the pre-development runoff from the same area. These increased pollutant loads must be controlled to protect downstream receiving water quality.

18. Development and urbanization may threaten environmentally sensitive areas (ESAs), which are water bodies supporting a rare beneficial use (supporting rare, threatened or endangered species) and CWA 303(d) impaired water bodies. These waters have a reduced capacity to withstand certain pollutant loads. In essence, development that is ordinarily insignificant in its impact on the environment may be significant in a particular sensitive environment. Therefore, additional control to reduce pollutants from new and existing development may be necessary for areas adjacent to or discharging directly to an ESA.

19. Infiltration is a technique that can be used to treat and reduce site runoff in areas with appropriate soils where the infiltration of storm water would not pose a potential threat to groundwater quality. Precautions must be taken to avoid damage to structures, roadways and utilities. The risks associated with infiltration can be managed by various techniques, such as: (1) designing landscape drainage features that promote infiltration of runoff, but do not “inject” runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; (3) requiring setbacks and other features to protect footings and foundations; and (4) ensuring that each drainage feature is adequately maintained in perpetuity.

20. The Permittees implement New Development Standards to mitigate potential urban run-off pollution and other water quality impacts associated with new development and redevelopment. As indicated by the anti-degradation analysis submitted in October 2007, and the 2005 Discharge Characterization study, the Permittee New Development Standards have been implemented to mitigate water quality impacts with new development and redevelopment.

DISCHARGE CHARACTERISTICS

21. The quality and quantity of MS4 discharges vary considerably because of the effects of hydrology, geology, land use, season, and sequence and duration of precipitation events. Urban storm water runoff may contain pollutants that may lower the quality of receiving waters and adversely impact beneficial uses of the Lower Sacramento and American River watersheds. Studies indicate there may be increases in pollutant levels and aquatic toxicity in receiving waters as a result of urban storm water discharges.

22. Pollutants that may be contained in storm water include, but are not limited to, certain heavy metals; sediments; petroleum hydrocarbons from sources such as used motor oil;

microbial pathogens; pesticides; sources of acute and chronic aquatic toxicity; and nutrients that cause or contribute to the depletion of dissolved oxygen and/or toxic conditions in the receiving water. Excessive flow rates of storm water may cause or contribute to downstream erosion and/or excessive sediment discharge and deposition in stream channels.

23. The discharge of wash waters and polluted storm water from industries and businesses is an environmental threat, and can also adversely impact public health and safety. The pollutants of concern in such wash waters include food waste, oil and grease, and toxic chemicals (Washtenaw County Statutory Drainage Board – 1987 Huron River Pollution Abatement Program). Other storm water/industrial waste programs in California have reported similar observations and have identified illicit discharges from automotive and food service facilities as a major cause of contamination and water quality problems.

24. Certain pollutants present in storm water and/or urban runoff may be derived from extraneous sources that Permittees have no or limited jurisdiction over. Examples of such pollutants and their respective sources are: polyaromatic hydrocarbons which are products of internal combustion engine operation, nitrates, bis (2-ethylhexyl) phthalate, pesticides, metals, and mercury from wet and dry atmospheric deposition; lead from fuels, copper from brake pad wear; zinc from tire wear; bacteria from natural sources including wildlife; dioxins as products of combustion, and natural-occurring minerals from local geology. However, the implementation of the measures set forth in this Order is intended to reduce the entry of these pollutants into storm water and their discharge to receiving waters to the MEP.

25. The Permittees have been monitoring storm water discharges since inception of the program in 1990. The Permittees have conducted various types of monitoring and maintain a database that includes data from river, creek and urban run-off discharge quality characterization, as well as water column toxicity and bioassessment monitoring.

26. The previous permit required under Discharge Prohibition. B. Receiving Water Limitations, the submittal of a report of water quality exceedance (RWQE) upon determination by either the Permittee or Regional Water Board that discharges are causing or contributing to an exceedance of applicable Water Quality Standards. As a result, the Permittees initiated studies for pesticide and metals persistence, and assessment of metals toxicity, and follow-up monitoring related to exceedances for pH, temperature, and dissolved oxygen in urban tributaries and pathogen source identification efforts.

27. In addition, the Permittees have developed and implemented a Target Pollutant Program (referred to as Water Quality Based Programs in this Order) to target specific pollutants that have been identified to cause or contribute to exceedances of water quality standards and potential impairment of beneficial uses. During the third permit term these programs included:

- Pesticide Plan (including organophosphate pesticides);

- Mercury Plan
- Fecal Waste Reduction Strategy
- Lead and Copper Control Strategies

The progress in implementing these plans has been reported in the Permittees' annual reports.

STATUTORY AND REGULATORY CONSIDERATIONS

28. The CWA authorizes the U.S. Environmental Protection Agency (U.S. EPA) to permit a state to serve as the NPDES permitting authority in lieu of the U.S. EPA. The State of California has in-lieu authority for the NPDES program. The Porter-Cologne Water Quality Control Act or California Water Code (CWC) authorizes the State Water Resources Control Board (State Board), through the Regional Water Boards, to regulate and control the discharge of pollutants into waters of the State. On 22 September 1989, the State Board entered into a memorandum of agreement with the U.S. EPA to administer the NPDES Program governing discharges to waters of the United States.

29. This Order does not constitute an unfunded local government mandate subject to subvention under Article XIIIB, Section (6) of the California Constitution for several reasons, including, but not limited to, the following. First, this Order implements federally mandated requirements under federal Clean Water Act section 402, subdivision (p)(3)(B). (33 U.S.C. § 1342(p)(3)(B).) This includes federal requirements to effectively prohibit non-storm water discharges, to reduce the discharge of pollutants to the maximum extent practicable, and to include such other provisions as the Administrator or the State determines appropriate for the control of such pollutants. Federal cases have held these provisions require the development of permits and permit provisions on a case-by-case basis to satisfy federal requirements. (*Natural Resources Defense Council, Inc. v. U.S. E.P.A.* (9th Cir. 1992) 966 F.2d 1292, 1308, fn. 17.) The authority exercised under this Order is not reserved state authority under the Clean Water Act's savings clause (*cf. Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 627-628 [relying on 33 U.S.C. § 1370, which allows a state to develop requirements which are not "less stringent" than federal requirements]), but instead, is part of a federal mandate to develop pollutant reduction requirements for municipal separate storm sewer systems. To this extent, it is entirely federal authority that forms the legal basis to establish the permit provisions. (See, *City of Rancho Cucamonga v. Regional Water Quality Control Bd.-Santa Ana Region* (2006) 135 Cal.App.4th 1377, 1389; *Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 882-883.)

Likewise, the provisions of this Order to implement total maximum daily loads (TMDLs) are federal mandates. The federal Clean Water Act requires TMDLs to be developed for water bodies that do not meet federal water quality standards. (33 U.S.C. § 1313(d).) Once the U.S. Environmental Protection Agency or a state develops a TMDL, federal law requires that permits must contain effluent limitations consistent with the assumptions of any applicable waste load allocation. [(40 C.F.R. § 122.44(d)(1)(vii)(B))]

Second, the local agency permittees' obligations under this Order are similar to the obligations of non-governmental dischargers who are issued NPDES permits for storm water discharges. With a few inapplicable exceptions, the Clean Water Act regulates the discharge of pollutants from point sources (33 U.S.C. § 1342) and the Porter-Cologne regulates the discharge of waste (Wat. Code, § 13263), both without regard to the source of the pollutant or waste. As a result, the "costs incurred by local agencies" to protect water quality reflect an overarching regulatory scheme that places similar requirements on governmental and nongovernmental dischargers. (See *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 [finding comprehensive workers compensation scheme did not create a cost for local agencies that was subject to state subvention].)

Third, the local agency permittees have the authority to levy service charges, fees, or assessments sufficient to pay for compliance with this Order. The fact sheet demonstrates that numerous activities contribute to the pollutant loading in the municipal separate storm sewer system. Local agencies can levy service charges, fees, or assessments on these activities, independent of real property ownership. (See, e.g., *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 842 [upholding inspection fees associated with renting property].) The ability of a local agency to defray the cost of a program without raising taxes indicates that a program does not entail a cost subject to subvention. (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487-488.)

Fourth, the permittees have requested permit coverage in lieu of compliance with the complete prohibition against the discharge of pollutants contained in federal Clean Water Act section 301, subdivision (a) (33 U.S.C. § 1311(a)) and in lieu of numeric restrictions on their discharges. To the extent, the local agencies have voluntarily availed themselves of the permit, the program is not a state mandate. (Accord *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 107-108.) Likewise, the permittees have voluntarily sought a program-based municipal storm water permit in lieu of a numeric limits approach. (See *City of Abilene v. U.S. E.P.A.* (5th Cir. 2003) 325 F.3d 657, 662-663 [noting that municipalities can choose between a management permit or a permit with numeric limits].) The local agencies' voluntary decision to file a report of waste discharge proposing a program-based permit is a voluntary decision not subject to subvention. (See *Environmental Defense Center v. USEPA* (9th Cir. 2003) 344 F.3d 832, 845-848.)

Fifth, the local agencies' responsibility for preventing discharges of waste that can create conditions of pollution or nuisance from conveyances that are within their ownership or control under state law predates the enactment of Article XIIIB, Section (6) of the California Constitution.

30. The Water Quality Act of 1987 added Section 402(p) to the Clean Water Act (CWA 33 U.S.C. § 1251-1387). This section requires the U.S. EPA to establish regulations setting forth NPDES requirements for storm water discharges in two phases.

- The U.S. EPA Phase I storm water regulations were directed at MS4s serving a population of 100,000 or more, including interconnected systems and storm water discharges associated with industrial activities, including construction activities. The Phase I Final Rule was published on November 16, 1990 (55 *Fed. Reg*. 47990).

- The U.S. EPA Phase II storm water regulations are directed at storm water discharges not covered in Phase I, including small MS4s (serving a population of less than 100,000), small construction projects (one to five acres), municipal facilities with delayed coverage under the Intermodal Surface Transportation Efficiency Act of 1991, and other discharges for which the U.S. EPA Administrator or the State determines that the storm water discharge contributes to a violation of a water quality standard, or is a significant contributor of pollutants to waters of the United States. The Phase II Final Rule was published on December 8, 1999 (64 *Fed. Reg*. 68722).

31. This Order specifies requirements necessary for the Permittees to reduce the discharge of pollutants in urban runoff to the maximum extent practicable (MEP).[2] However, since MEP is a dynamic performance standard which evolves over time as urban runoff management knowledge increases, the Permittees' storm water programs must continually be assessed and modified to incorporate improved programs, control measures, and best management practices (BMPs), etc. in order to achieve the evolving MEP standard. MEP is a technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. Factors that must be considered when defining MEP include, but is not limited to; effectiveness, regulatory compliance, public acceptance, cost and technical feasibility. This continual assessment, revision, and improvement of storm water management program implementation is expected to ultimately achieve compliance with water quality standards.

32. This Order contains requirements based on assessments by Regional Water Board staff. Those assessments found that modifications were necessary to improve the Permittees efforts to reduce the discharge of pollutants in urban runoff to the MEP and achieve water quality standards.

33. This Order is intended to develop, achieve, and implement a timely, comprehensive, cost-effective storm water pollution control program to reduce the discharge of pollutants in storm water runoff to the MEP from the permitted areas in the Sacramento Urbanized Area subject to the Permittees' jurisdiction to receiving waters.

34. Section 402(p)(3)(B)(ii) of the CWA requires that NPDES permits effectively prohibit non-storm water discharges into MS4s. Federal regulation 40 CFR 122.26(d)(2)(iv)(B)(1) requires control programs to prevent illicit discharges to MS4s and allows certain categories of non-storm water discharges to MS4s, provided that the Permittees

[2] A definition of MEP may be found in Attachment C.

eliminate such discharges once they are identified as sources of pollutants to waters of the United States. Illicit discharges can include low levels of chlorine if they originate from potable water sources.

35. The State Board has issued two statewide general NPDES permits for storm water discharges: one for storm water from industrial sites [NPDES No. CAS000001, General Industrial Activity Storm Water Permit (General Industrial Permit)] and the other for storm water from construction sites [NPDES No. CAS000002, General Construction Activity Storm Water Permit (General Construction Permit)]. These two General Permits are scheduled for renewal during this 5-year term of this Order. In addition, the Regional Water Board has issued General Permit Order No. R5-2008-0081 for dewatering and other low threat discharges, which authorizes such discharges to the MS4s owned and operated by Permittees. This Order requires the Permittees to conduct compliance inspections at industries and construction sites that discharge to their MS4s. Many of these sites are currently covered under State NPDES General Permits.

36. The Permittees have adopted their own respective storm water ordinances. These ordinances provide the Permittees the authority to protect and enhance the water quality of watercourses, water bodies, and wetlands in the Sacramento Urbanized Area in a manner pursuant to and consistent with the CWA and the Porter-Cologne Water Quality Control Act.

37. Federal regulations 40 CFR 122.26(d)(2)(iv)(A) and 40 CFR 122.26(d)(2)(iv)(C) require that MS4 Permittees implement a program to monitor and control pollutants in discharges to the municipal system from industrial and commercial facilities that contribute a substantial pollutant load to the MS4. Federal regulations require that Permittees establish priorities and procedures for inspection of industrial facilities and priority commercial establishments. This permit, consistent with the U.S. EPA policy, incorporates a cooperative partnership, including the specifications of minimum expectations, between the Regional Water Board and the Permittees for the inspection of industrial facilities and priority commercial establishments to control pollutants in storm water discharges (58 Fed. Reg. 61157).

38. When industrial or construction site discharges occur in violation of local permits and ordinances, the Regional Water Board defers first to the municipality where the discharge occurs for appropriate actions. If the municipality has demonstrated a good faith effort to educate and enforce but remains unsuccessful, the Regional Water Board may assist the municipality and conduct a cooperative investigation and/or enforcement effort including enforcement of the applicable statewide General Permit. If the municipality has not demonstrated a good faith enforcement effort, the Regional Water Board may initiate enforcement action against both the industrial or construction discharger under the statewide General Permits, as well as against the authorizing municipal Permittee for violations of this Order. Each Permittee must also provide the first level of enforcement against illegal discharges from other land uses it has authorized, such as commercial and residential developments.

39. This Order shall assure compliance with water quality standards. This Order therefore includes requirements to the effect that discharges shall not cause or contribute to violations of water quality standards that would cause or create a condition of nuisance, pollution, or water quality impairment in receiving waters. The Regional Water Board is requiring that these requirements be addressed through the effective implementation of Best Management Practices (BMPs) to reduce pollutants in storm water.

40. Regulations in 40 CFR 122.26(d)(2)(iv) require that the SQIP be implemented during the entire duration of the permit, which is five years. The Permittees shall demonstrate substantial compliance with the SQIP and this Order through the information and data supplied in the Annual Report. The SQIP shall remain in effect as an integral and enforceable part of this Order until revised and approved by the Regional Water Board. If there are conflicts between the SQIP and this Order, then the Order supercedes the SQIP.

41. Federal, state, regional, or local entities within the Permittees' boundaries, not currently named in this Order, operate storm drain facilities and/or discharge storm water to the storm drains covered by this Order. The Permittees may lack legal jurisdiction over these entities under applicable state and federal authorities. Consequently, the Regional Water Board recognizes that the Permittees should not be held responsible for such facilities and/or discharges. However, Permittees should notify the Regional Water Board upon recognition of discharges, which are a threat to storm water quality protection.

42. The State and Regional Water Boards may consider issuing separate NPDES storm water permits to other federal, state, or regional entities operating and discharging within the Permittees' boundaries that may not be subject to direct regulation by the Permittees. Federal agencies are not subject to municipal storm water requirements although they may be permitted as industrial dischargers.

43. The State Water Resources Control Board adopted an NPDES General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional Small MS4s, which are governmental facilities such as military bases, public campuses, and prison and hospital complexes. Currently the following entities have been designated to have a separate NPDES Small MS4 General Permit located within the Sacramento County Urbanized area:

- California Exposition and Fair;
- California State University at Sacramento;
- Cosumnes Community Services District; and
- Elk Grove Unified School District under the purview of Sacramento County Office of Education

The Permittees should work cooperatively with these entities for the purpose of maintaining mutually beneficial storm water management program coordination,

cooperation and communication. This will help provide consistency of storm water regulations throughout each Permittee's jurisdiction.

44. The Regional Water Board adopted the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. This Order implements the Basin Plan.

45. The beneficial uses of the American River, Cosumnes River, Mokelumne River, Sacramento River, and the Delta downstream of the discharge as identified in Table II-1 of the Basin Plan are municipal, domestic, industrial and agricultural supply; water contact and non-contact recreation; aesthetic enjoyment; navigation; groundwater recharge; fresh water replenishment; and preservation and enhancement of fish, wildlife and other aquatic resources. Tributaries of the waters may have similar beneficial uses.

46. The beneficial uses of the underlying ground water beneath the Sacramento Urbanized Area as identified in the Basin Plan are municipal and domestic water supply, industrial service, industrial process, and agricultural supply.

47. Congress has determined that it is not feasible at this time to establish numeric effluent limits for pollutants in storm water discharges from MS4s [Clean Water Act (CWA)[3] Section 402(p)(3)(B)(iii)[4]]. In addition, the California Superior Court ruled; *"Water quality-based effluent limitations are not required for municipal Stormwater discharges [33 USC §1342(p)(3)(B)] and [40 CFR §122.44(k)(3)]. For municipal stormwater discharges, the Permits must contain best management practices (BMPs), which reduce pollutants to the maximum extent practicable [33 USC §1342(p)(3)(B)]. These Permits do contain these through the Stormwater Management Plan which is incorporated into the Permits by reference."* (*San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region,* Case No. 500527, 14 November 2003). Therefore, the effluent limitations in this Order are narrative, and include the requirement to reduce pollutants in storm water discharges to the MEP. In lieu of numeric effluent limitations, this Order requires the implementation of BMPs identified in the Permittees' SQIP to control and abate the discharge of pollutants in storm water discharges. Implementation of BMPs, compliance with long-term performance standards in accordance with the Permittees' SQIP and its schedules, an established maintenance program with enforcement procedures, constitutes compliance with the MEP standard.

[3] The U.S. Environmental Protection Agency (EPA) published the regulation entitled "National Pollutant Discharge Elimination System - Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges" (Federal Register, Volume 64, Number 235, pages 68722-68852) on December 8, 1999 as required by Section 402(p) of the Clean Water Act (CWA).

[4] CWA Section 402(p)(3)(B)(iii): "…controls to reduce pollutants to the maximum extent practicable, including management practices, control techniques, and system, design and engineering methods, and such other provisions as the Administrator or the State determines appropriate for the control of such pollutants."

48. 40 CFR 122.26(d)(2)(iv)(B)(1)][5] lists types of non-storm water flows that are not required to be prohibited unless such discharges are specifically identified by the Phase I MS4 Permittees as sources of pollutants to waters of the United States.

49. The State Water Resources Control Board (SWRCB) convened a Storm Water Panel (Blue Ribbon Panel) of experts to address the issue of numeric effluent limits[6]. The study concluded that it is not feasible at this time to set enforceable numeric effluent criteria for storm water and non-storm water discharges from MS4s.

50. The U.S. EPA published an 'Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits' on August 26, 1996 (61 Fed. Reg. 43761). This policy discusses the appropriate kinds of water quality-based effluent limitations to be included in NPDES storm water permits to provide for the attainment of water quality standards.

51. On 12 March 2001, the U.S. Court of Appeals ruled that it is necessary to obtain an NPDES permit for application of aquatic pesticides to waterways [Headwaters, Inc. vs. Talent Irrigation District, 243 F.3d. 526 (Ninth Cir., 2001)]. The U.S. EPA issued a Final Rule on 17 October 2006, that exempts the application of a pesticide to or over, including near, waters of the United States if conducted consistent with all relevant requirements under the Federal Insecticide and Fungicide Rodenticide Act (FIFRA), from an NPDES permit under the Clean Water Act in the following two circumstances: (a) the application of pesticides directly to waters of the United States in order to control pests, and (b) The application of pesticides to control pests that are present over waters of the United States, including near such waters, that results in a portion of the pesticides being deposited to waters of the United States (40 CFR 122.3(h)).

52. On 17 June 1999, the State Board adopted Order No. WQ 99-05 (SBO 99-05), a precedent setting-decision, which identifies acceptable receiving water limitations language to be included in municipal storm water permits issued by the State and Regional Water Boards. The receiving water limitations included herein are consistent with the State Board Order, U.S. EPA policy, and the U.S. Court of Appeals decision in Defenders of Wildlife v. Browner (Ninth Cir., 1999). The State Board's OCC has determined that the federal court decision did not conflict with SBO 99-05 (memorandum dated October 14, 1999).

---

[5]40 CFR 122.26(d)(2)(iv)(B)(1) A description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system; this program description shall address all types of illicit discharges, however the following category of non-storm water discharges or flows shall be addressed where such discharges are identified by the municipality as sources of pollutants to waters of the United States: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, dechlorinated swimming pool discharges, and street wash water (program descriptions shall address discharges or flows from fire fighting only where such discharges or flows are identified as significant sources of pollutants to waters of the United States).

[6] Recommendations of the Blue Ribbon Panel were finalized as *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities,* dated 19 June 2006.

53. Federal regulation 40 CFR 122.42(c)(7) requires the Permittees to submit an annual report that identifies water quality improvements or degradation.

54. The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (Public Resources Code, Section 21100, et. seq.) in accordance with Section 13389 of the California Water Code.

55. This Order serves as an NPDES permit, pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect 50 days from the date of hearing, provided that U.S. EPA has no objections.

56. This Order does not authorize any take of endangered species. To ensure that endangered species issues have been raised to the responsible agencies, the Regional Water Board notified the U.S. Fish and Wildlife Service, National Marine Fisheries Service, and the California Department of Fish and Game of Regional Water Board consideration of this Order.

57. State law pre-empts local storm water programs from regulating pesticide sales and use. Regulatory activities by state and federal agencies, especially the state Department of Pesticide Regulation DPR and the United States Environmental Protection Agency (USEPA), are critical for achieving adequate control of pesticide uses that result in pesticide discharges in storm water. Pesticide registration and re-registration activities, which are very active areas of pesticide regulation, are especially important in the control of pesticide use.

58. Individually, and through California Stormwater Quality Association (CASQA), the Permittees have actively participated in State and Federal organizations and processes to address regulatory issues. This includes the Urban Pesticide Committee (UPC) and Department of Pesticide Regulation's (DPR) Pest Management Advisory Committee (PMAC) and Pesticide Registration and Evaluation Committee (PREC), and various committees convened by the State Structural Pest Control Board. These committees provide forums in which USEPA, DPR, and the Regional Water Boards participate, and have been effective in bringing water quality concerns to the attention of state and federal pesticide regulators. Ongoing support and participation in these efforts by the Regional Water Boards is an important factor for continued progress. Progress in these efforts has been documented in reports submitted to the San Francisco Bay Regional Water Board by the San Francisco Estuary Project.

STORM WATER QUALITY IMPROVEMENT PLAN

59. The Permittees submitted a Report of Waste Discharge (ROWD), as well as a proposed SQIP on 1 June 2007. The ROWD evaluated the effectiveness of the Permittees' storm water programs over the third permit term, identified which BMPs should continue to be implemented, and, as part of the iterative process, determined what additional efforts may be necessary in order to improve the storm water program and reduce the discharge

of pollutants to the MEP. Based on the evaluation, the ROWD and proposed SQIP propose a wide range of continuing, enhanced and new BMPs, control measures, and performance standards to be implemented during the fourth term Permit period (2008-2013).

60. Federal regulation 40 CFR 122.26(d)(2)(iv) requires the Permittees to submit a SQIP to reduce the discharge of pollutants in storm water to the MEP, and to effectively prohibit non-storm water discharges into municipal storm drain systems within the Permittees' jurisdictions during the five-year duration of the permit. During the fourth term permit period, the Permittees shall continue to demonstrate substantial compliance with their respective SQIP and this Order through the information and data supplied in the Annual Reports. The SQIP shall remain in effect, as an enforceable component of this Order, until revised and approved by the Regional Water Board. If there are conflicts between the SQIP and this Order, then the Order supersedes the SQIP.

61. This Order requires evaluation of water quality impacts of storm water discharges from existing urbanized areas and new developments. This Order also requires implementation and evaluation of the SQIP and related programs to reduce the discharge of pollutants in storm water runoff to MEP and to improve water quality and protect beneficial uses.

62. The Permittees are required to submit a revised SQIP by **11 March 2009** (or 6 months after the effective date of this Order, whichever is later). The SQIP fulfills the Regional Water Board's permit application requirements subject to the condition that it will be improved and revised in accordance with the provisions of this Order. The SQIP includes program elements and control measures that each Permittee will implement to reduce the discharge of pollutants in storm water to the MEP, and to effectively prohibit non-storm water discharges into MS4s and watercourses within each Permittees jurisdiction. The Permittee's SQIP is a site-specific modification of the existing Storm Water Management Plan required under the previous MS4 permit Order No. R5-2002-0206. The various components of the SQIP, taken as a whole rather than individually, are expected to reduce pollutants in storm water and urban runoff to the MEP.

63. The SQIP describes the framework for management of storm water discharges during the term of this Order. The Permittees' SQIPs contain comprehensive activities that provide the framework and direction for each Permittee to implement BMPs. The Permittees' SQIPs include joint program and individual Permittee activities as described below.

    a. Joint Program Activities:

        i. Program Management – Planning, cost-sharing and coordination activities.

        ii. Target Pollutant Program – Based on the Permittees methodologies, Target Pollutants have been identified and prioritized that have the potential to cause exceedances of water quality standards and impairment of beneficial uses. Some of these Target Pollutants are also 303(d) listed constituents. Pollutant

sources and control measures are identified and strategies developed to focus joint program resources and activities.

iii. Monitoring Program - This program includes extensive monitoring to provide data used to characterize storm water discharge and receiving water quality, evaluate BMP performance and assess SQIP effectiveness.

iv. Special Studies – Includes effectiveness evaluations for various new development storm water quality control measures, such as a wet detention basin and proprietary treatment control devices.

v. Regional Public Outreach – The Permittees conduct regional public outreach programs to educate residents, school children, and businesses about the harmful effects of storm water pollution and create opportunities for public involvement. The Permittee's public outreach implementation strategy includes, but is not limited to, developing and distributing educational materials, conducting media campaigns, and participating in public outreach events.

vi. Program Effectiveness Assessment - Evaluation activities are a required and important aspect of the Program. Conducting assessments and evaluating performance standards and BMP studies allow for modification and continued improvement of program activities.

b. Individual Permittee-Specific Activities

The Permittees' SQIPs include a description of each Permittee's program organization, legal authority and funding. The following implementation activities are also described:

i. Program Management (includes planning, staffing and fiscal analysis)
ii. Construction
iii. Illicit Discharge
iv. Commercial/Industrial
v. Municipal Operations and Facilities
vi. Planning and New Development
vii. Public Education and Outreach
viii. Watershed Stewardship
xi. Program Effectiveness Assessment and Reporting

64. The overall goals of the Permittees' SQIP are to: a) reduce the degradation of waters of the State and Waters of the United States (U.S.) by urban runoff and protect their beneficial uses; and b) develop and implement an effective SQIP that is well understood and broadly supported by regional stakeholders.

The core objectives are to:

a. Identify and control those pollutants in urban runoff that pose significant threats to the waters of the State and waters of the U.S. and their beneficial uses;
b. Comply with the federal regulations to eliminate or control, to the MEP, the discharge of pollutants from urban runoff associated with the storm drain system;
c. Achieve compliance with water quality standards;
d. Develop a cost-effective program which focuses on pollution prevention of urban storm water;
e. Seek cost effective alternative solutions where prevention is not a practical solution for a significant problem; and
f. Coordinate implementation of control measures with other agencies.

65. This Order includes a Monitoring Program that incorporates analytical Minimum Levels (MLs) established under the State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP). The SIP's MLs represent the lowest quantifiable concentration for priority toxic pollutants that is measurable with the use of proper method-based analytical procedures and factoring out matrix interference. The SIP's MLs therefore represent the best available science for determining MLs and are appropriate for a storm water monitoring program. The use of MLs allows the detection of toxic priority pollutants at concentrations of concern using recent advances in chemical analytical methods.

66. The Permittees' proposed SQIPs contain control measures that identify the specific BMPs that each Permittee will implement to reduce the discharge of pollutants from their respective MS4s to the MEP. The SQIPs also include performance standards for each Control Measure to establish the level of effort required to comply with this Order and the federal MEP standard and an implementation schedule to identify when certain activities must be completed. Each Program Element also identifies how effectiveness assessments will be utilized to ensure that the program is resulting in the desired outcomes and that the resources that are expended are providing commensurate benefit and are protective of water quality.

67. The SQIPs and modifications or revisions to the SQIPs that are approved in accordance with this Order, are an integral and enforceable component of this Order. USEPA Phase I Final Rule and Regulations states the Clean Water Act contemplated MS4 permit conditions requiring storm water management programs to be developed and implemented or required specific practices, those program elements were enforceable in accordance with the terms of permit.

68. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16. Resolution 68-16 incorporates the federal antidegradation policy (40 CFR 131.12) where the federal policy applies under federal law. The proposed discharge complies with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Resolution 68-16 requires in part:

1) High quality waters be maintained until it has been demonstrated that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies; and

2) Any activity, which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

The Permittees submitted an antidegradation analysis in October 2007. The report demonstrates that the proposed increase in discharge as a result of continued urban development will result in some minimal degradation of waters of the State and navigable waters of the United States, but in this case, such degradation is consistent with the maximum benefit to the people of the state. Limited degradation that does not cause exceedance of water quality objectives is warranted to allow for the economic benefit stemming from local growth. There is a need in Sacramento to accommodate growth. The Regional Water Board does not have the jurisdiction to control growth in the Sacramento Urbanized Area, but is required to assure that the receiving waters are adequately protected as a result of urban discharges. The proposed Order allows the service necessary to accommodate housing and economic expansion in the area and is considered to be a benefit to the people of the State. The Fact Sheet contains additional information regarding the antidegradation analysis and constituents of concern in the waste discharge. The run-off concentrations for all constituents are based on water quality objectives and an increase in mass for some constituents, if any, will be insignificant. While the accommodation of the development can in some circumstances justifies lowering of receiving water quality, in this case, the proposed Order would authorize, very minimal, if any lowering of receiving water quality given the requirement to meet MEP by this Order.

These requirements implement best management practices and reduce pollutants to the maximum extent practicable to assure that pollution or nuisance will not occur and that the highest water quality consistent with maximum benefit to the people of the State will be maintained. Due to the high level of source and treatment control measures to prevent and reduce discharges to surface waters, the proposed order will result in maintenance of existing in-stream uses.

DEVELOPMENT STANDARDS

69. The primary purpose of the New Development Standards is to mitigate urban run-off pollution and other water quality impacts associated with new development and redevelopment.

70. On 5 October 2000, the State Board adopted Order WQ 2000-11, a precedent setting decision concerning the use of Standard Urban Storm Water Mitigation Plans (hereafter Development Standards) in municipal storm water permits for new developments and significant redevelopments. The State Board recognized that the decision includes significant legal or policy determinations that are likely to recur (Gov. Code §11425.60). Due to the precedent setting nature of Order WQ 2000-11, the Regional Water Board's MS4 permits must be consistent with applicable portions of the State Board's decision and include Development Standards.

71. Federal regulation 40 CFR 131.10(a) prohibits states from designating waste transport or waste assimilation as a use for any water of the United States. Authorizing the construction of a storm water/urban runoff treatment facility in a jurisdictional water body would be tantamount to accepting waste assimilation as an appropriate use for that water body. Furthermore, the construction and operation of a pollution control facility in a water body can impact the physical, chemical, and biological integrity as well as the beneficial uses of the water body. Therefore, storm water treatment in accordance with Development Standards and any other requirements of this Order must occur prior to the discharge of storm water into a water of the United States.

72. The Permittees are implementing programs consistent with their Development Standards Plan (DSP), which was approved by the Regional Water Board on 18 May 2005. The DSP requires the Permittees to have development standards related to storm water quality management for eight categories of new development and significant redevelopment and consistent with State Board adopted Order WQ 2000-11. Each Permittee amended its development standards (effective 18 May 2006) to conform to the DSP. Compliance with the Permittees' development standards requires the selection of post-construction storm water quality controls (BMPs) to reduce pollutants from new development and significant redevelopment to the MEP.

73. The Permittees published updated technical design guidelines on 18 May 2007 to help the development community understand and comply with the Permittees' amended development standards. Use of the guidelines requires a thoughtful process to select from the menu of BMPs those that are most appropriate for the site's land use (expected pollutant loadings) and unique site conditions. The Permittees consider potential storm water impacts when making planning decisions in order to fulfill the Clean Water Act (CWA) requirement to reduce the discharge of pollutants in municipal storm water to the maximum extent practicable (MEP) from new development and redevelopment projects within their local jurisdiction. In doing so, each Permittee exercises their legal authority to ensure that the increased pollutant loads and flows do not degrade the beneficial uses of their local receiving waters. This was demonstrated by the Antidegradation Analysis completed by the Permittees in 2007.

74. Urbanization is defined as the transformation of land into residential, commercial and industrial properties, and associated drainages, roads, sewers and other community planned infrastructure. Urbanization modifies natural watershed and stream processes by altering the terrain, modifying the vegetation and soil characteristics, introducing

impervious surfaces such as pavement and buildings, installing drainage and flood control infrastructure and altering the condition of stream channels through straightening, deepening, and armoring. These changes affect hydrologic characteristics in the watershed (rainfall interception, infiltration, runoff and stream flows) and affect the supply and transport of sediment in the stream system. The change in runoff characteristics from a watershed caused by changes in land use conditions (i.e., urbanization) is defined as hydrograph modification, or hydromodification.[7] When development projects do not address and mitigate for this change in runoff characteristics, a variety of problems can result, such as: excess sediment flowing into streams; downstream erosion and sedimentation; flooding; disruption of natural drainage patterns, stream flows and riparian habitat; and elevated water temperatures**.**

75. Urban development includes both new development and redevelopment of existing properties. These development projects may be undertaken by either private or public entities. Policies governing review and approval of development projects for compliance with this Order vary among the Permittees.

76. The quality and quantity of storm water runoff must be considered early during project planning to identify permanent (post-construction) BMPs that will be included in project design, constructed as part of the project, and ultimately implemented and maintained for the life of each category of urban development in order to protect storm water quality.

77. On January 20, 2005, the State Water Resources Control Board adopted sustainability as a core value for all California Water Boards' activities and programs, and directed California Water Boards' staff to consider sustainability in all future policies, guidelines, and regulatory actions.

78. Low Impact Development (LID) sometimes referred to as Low Impact Design, is a sustainable practice that benefits water supply and contributes to water quality protection. LID uses site design and storm water management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using de-centralized design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall. LID has been a proven approach in other parts of the country and is seen in California as an alternative to traditional storm water management. The Water Boards are advancing LID in California in various ways, specifically through regulation of site-specific (Phase I MS4) and general permits (Phase II MS4).

79. In a study conducted for the San Diego region, it was concluded that LID substantially preserves pre-development hydrologic conditions and prevents most or all pollutant transport to receiving waters from urbanization.[8] Further, it was concluded that LID reduces storm water run-off and contaminants by decreasing their generation at sources,

[7] Santa Clara Valley Urban Runoff Pollution Prevention Program. March 2005. Hydromodification Management Report. (Chapter 1, Problem Statement).
[8] Horner, Richard R., Ph.D., "Investigation of the feasibility and benefits of Low Impact Design (LID) practices for the San Diego Region," University of Washington.

infiltrating into the soil or evaporating storm flows before they can enter surface receiving waters, treating flow remaining on surface through contact with vegetation and soil, or a combination of these strategies.[9] LID practices maintain and restore the natural hydrologic functions of a site to achieve natural resource protection objectives.

80. During the initial site layout and design planning of new development or re-development for LID integration, there is a higher probability for preservation/integration of existing natural resource features (trees and other vegetation, creek buffers, wetlands, vernal pools, and open space).

81. In November 2005, under the direction of EPA Assistance Agreement funded by the Office of Water, The Low Impact Development Center prepared a document titled, "Low Impact Development for Big Box Retailers."[10] The document provides recommendations to large building and site footprint high volume retailers with strategies that integrate innovative and highly effective LID storm water management techniques into their site designs for regulatory compliance and natural resource protection at the local levels.

82. Studies indicate that facilities with paved surfaces subject to frequent motor vehicle traffic (such as parking lots and fast food restaurants), or facilities that perform vehicle repair, maintenance, or fueling (automotive service facilities) are potential sources of pollutants of concern in storm water. [References: Pitt et al., Urban Storm Water Toxic Pollutants: Assessment, Sources, and Treatability, Water Environment Res., 67, 260 (1995); Results of Retail Gas Outlet and Commercial Parking Lot Storm Water Runoff Study, Western States Petroleum Association and American Petroleum Institute, (1994); Action Plan Demonstration Project, Demonstration of Gasoline Fueling Station Best Management Practices, Final Report, County of Sacramento (1993); Source Characterization, R. Pitt, In Innovative Urban Wet-Weather Flow Management Systems (2000) Technomic Press, Field, R et al. editors; Characteristics of Parking Lot Runoff Produced by Simulated Rainfall, L.L. Tiefenthaler et al. Technical Report 343, Southern California Coastal Water Research Project (2001)].

83. Retail Gasoline Outlets (RGOs) are significant sources of pollutants in urban runoff. RGOs are points of convergence for motor vehicles for automotive related services such as repair, refueling, tire inflation, and radiator fill-up and consequently produce significantly higher loadings of hydrocarbons and trace metals (including copper and zinc) than other urban areas. To meet MEP, source control and treatment control BMPs are needed at RGOs.

[9] Ibid.
[10] "Low Impact Development for Big Box Retailers," EPA Office of Water, November 2005

84. The Los Angeles and San Diego Regional Water Quality Control Boards have jointly prepared a Technical Report on the applicability of new development BMP design criteria for RGOs, [Retail Gasoline Outlets: New Development Design Standards for Mitigation of Storm Water Impacts, (June 2001)]. RGOs in Washington, Oregon, and other parts of the United States are already subject to numerical BMP design criteria under the MS4 program.

85. Each Permittee is individually responsible for adopting and enforcing local ordinances necessary to implement effective BMPs to prevent or reduce pollutants in storm water, and for providing funds for capital, operation, and maintenance expenditures necessary to implement such BMPs for the storm drain system that it owns and/or operates. Enforcement actions concerning this Order will, whenever necessary, be pursued only against the individual Permittee responsible for specific violations of this Order.

IMPAIRED WATER BODIES

86. Section 303(d)(1)(A) of the CWA requires that "Each state shall identify those waters within its boundaries for which the effluent limitations…are not stringent enough to implement any water quality standard (WQS) applicable to such waters." The CWA also requires states to establish a priority ranking of impaired waterbodies known as Water Quality Limited Segments and to establish Total Maximum Daily Loads (TMDLs) for such waters. This priority list of impaired waterbodies is called the Section 303(d) List.

87. CWA Section 303(d) and 40 CFR 130.7 require states to identify water quality-impaired water bodies and pollutants of concern, and develop Total Maximum Daily Loads (TMDLs). A TMDL is a quantitative assessment of the total pollutant load that can be discharged from all sources each day while still meeting water quality objectives. The Regional Water Board is currently in the process of developing TMDLs for listed water bodies within the Region. Prior to TMDL's being adopted and approved, Permittees must implement actions to address their contribution to the water quality impairments. Once the Regional Water Board and U.S. EPA approve TMDLs, this Order may be amended to incorporate provisions consistent with waste load allocations established under the TMDLs.

88. The Regional Water Board considers storm water discharges from the Sacramento Urbanized Area to be significant sources of pollutants. The CWA Section 303(d) Listed Waterbodies in the Sacramento Urbanized Area include the following. These impairments are based on identified exceedances of water quality standards.

Waterbody	Reach	Estimated Size Affected	Pollutant/Stressor(s)
Sacramento San Joaquin Delta		41,746 acres	Chlordane DDT Dieldrin Dioxin Compounds (including 2,3,7,8-TCDD) Exotic Species Furan Compounds Mercury Nickel PCBs (Polychlorinated biphenyls) PCBs (Polychlorinated biphenyls (dioxin-like) Selenium
American River (Nimbus Dam to confluence with Sacramento River)	Lower	27 miles	Mercury
Arcade Creek		9.9 miles	Chlorpyrifos Diazinon Copper
Morrison Creek	Morrison Creek from Elk Grove-Florin Rd to Beach Lake	26 miles	Chlorpyrifos Diazinon
Elder Creek		11 miles	Chlorpyrifos Diazinon
Elk Grove Creek		6.9 miles	Chlorpyrifos Diazinon
Strong Ranch Slough		6.4 miles	Chlorpyrifos Diazinon

Waterbody	Reach	Estimated Size Affected	Pollutant/Stressor(s)
Chicken Ranch Slough		8 miles	Chlorpyrifos Diazinon
Natoma, Lake		485 acres	Mercury
Natomas East Main Drainage Canal	(aka Steelhead Creek, downstream of confluence with Arcade Creek)	3.5 miles	Diazinon PCBs (Polychlorinated biphenyls)
Natomas East Main Drainage Canal	(aka Steelhead Creek, upstream of confluence with Arcade Creek)	12 miles	PCBs (Polychlorinated biphenyls)
Sacramento River	Knights Landing to the Delta	16 miles	Mercury Diazinon Unknown Toxicity

TMDLs for these water bodies are in various stages of completion. NPDES permits must be consistent with approved TMDL waste load allocations. To implement adopted TMDLs, this Order implements control programs developed to attain waste load allocations.

89. The Permittees submitted to the Regional Water Board a Pesticide Plan (in 2004) to fulfill the need for a pesticide toxicity control plan as required by the urban creeks pesticide TMDL. The Pesticide Plan was subsequently approved by the Regional Water Board. The plan addresses their own use of pesticides including diazinon, chlorpyrifos, and other lower priority pesticides and use of such pesticides by other sources within their jurisdiction.

90. The Regional Water Board Toxic Hot Spots Clean-up Plan (California Water Code section 13394) identified the following hot spots that are applicable to this discharge:

    a. Mercury in the Delta; and
    b. Diazinon and Chlorpyrifos in Morrison Creek in the City of Sacramento.

91. The Porter-Cologne Act (§ 13395) requires the reevaluation of waste discharge requirements for dischargers who have discharged pollutants causing all or part of the toxic hot spot. The waste discharge requirements must be revised to include requirements that “prevent the maintenance or further pollution of existing toxic hot spots.” Further “(t)he Regional Water Board may determine it is not necessary to revise a

waste discharge requirement only if it finds that the toxic hot spot resulted from practices no longer being conducted by the discharger... or that the discharger's contribution to the creation or maintenance of the toxic hot spot is not significant."

a. The data are not available to determine the relative contribution of the Permittee's discharge (compared to upstream and atmospheric contributions from non-urban sources) to the diazinon and chlorpyrifos levels in 303(d) listed waters and toxic hot spots. The provisions in the previous Order that addressed pesticide toxicity were intended to satisfy the toxic hot spot requirements for waste discharge requirement revisions. In compliance with those provisions, the Permittees submitted a Pesticide Plan, which was subsequently approved by the Regional Water Board. Implementation of the approved Pesticide Plan will continue under this Order, and satisfies the Permittee's toxic hot spot requirement to establish a control plan for pesticide toxicity.

b. The phase-out of the sale of diazinon and chlorpyrifos for most residential and commercial uses was expected to reduce or eliminate the contribution of the Permittees' discharge to the non-attainment of water quality standards in the 303(d) listed waters and the maintenance of the diazinon and chlorpyrifos hot spots.

c. The monitoring of diazinon and chlorpyrifos was conducted to determine the significance of the Permittees' contribution to diazinon and chlorpyrifos levels in 303(d) listed waters and the toxic hot spots. The monitoring was also conducted to determine the effectiveness of the phase-out of urban uses of diazinon and chlorpyrifos; to assess whether the hot spots are maintained; and to assess whether water quality objectives are met. The monitoring results were submitted in the June 2007 ROWD as well as prior years' annual reports.

   Since the 2005 phase-out of urban uses, diazinon concentrations in receiving waters, when detected, have been consistently below water quality objectives and chlorpyrifos has been rarely detected in receiving waters. Diazinon and chlorpyrifos monitoring of the six additional pesticide locations and the Morrison Creek at Brookfield is no longer necessary. The data indicated that the seven creeks sampled had similar concentrations and those concentrations were reduced to non-detectable levels by 2005 once the phase-out went into effect. Analysis of the data shows that these sites are sufficiently characterized by the Arcade Creek at Watt Avenue and Willow Creek at Blue Ravine Road locations, which are part of the monitoring and reporting program of this Order.[11]

[11] *Evaluation of Additional Pesticide Monitoring Data – 2007 Update.* May 25, 2007 memorandum by Larry Walker Associates to Delia McGrath, City of Sacramento and Janet Parris, Sacramento County.

d. The Regional Water Board has adopted water quality objectives for:

i. Diazinon: 160 nanograms per liter (ng/L or parts per trillion), one-hour average, not to be exceeded more than once in a three-year period and 100 ng/L, four-day average, not to be exceeded more than once in a three-year period, which apply to Sacramento-San Joaquin Delta Waterways (Delta Waterways) (Basin Plan[12]);

ii. Diazinon: 80 nanograms per liter (ng/L or parts per trillion), one-hour average, not to be exceeded more than once every three years on average and 50 ng/L, four-day average, not to be exceeded more than once every three years on average (Sacramento River from the Colusa Basin Drain to I Street Bridge); and[13]

iii. Chlorpyrifos: 25 ng/L, one-hour average, not to be exceeded more than once in a three-year period and 15 ng/L, four-day average, not to be exceeded more than once in a three-year period, which apply to Delta Waterways (Basin Plan).[14]

e. The Regional Water Board has also established in the Basin Plan the Loading Capacity for the Delta Waterways and Sacramento River[15], Waste Load Allocations, and Load Allocations for discharges to the Delta Waterways and Sacramento River, which are equal to:

$$S = \frac{C_D}{WQO_D} + \frac{C_C}{WQO_C} \leq 1.0$$

where:

C_D = diazinon concentration in μg/L of point source discharge for the WLA; nonpoint source discharge for the LA; or a Delta Waterway for the LC.
C_C = chlorpyrifos concentration in μg/L of point source discharge for the WLA; nonpoint source discharge for the LA; or a Delta Waterway for the LC.
WQO_D = acute or chronic diazinon water quality objective in μg/L.
WQO_C = acute or chronic chlorpyrifos water quality objective in μg/L.

[12] Sacramento-San Joaquin Delta Waterways, Central Valley Regional Water Quality Control Board, *Water Quality Control Plan (Basin Plan), Central Valley Region, Sacramento River and San Joaquin River Basins (Fourth Edition, revised Oct. 2007)* including Appendix 42 –
[13] Amended by Regional Water Board Resolution R5-2007-0034 to 160 nanograms per liter (ng/L or parts per trillion), one-hour average, not to be exceeded more than once every three years on average and 100 ng/L, four-day average, not to be exceeded more than once every three years on average. Pending California's Office of Administrative Law and U.S. EPA approval.
[14] Amended by Regional Water Board Resolution R5-2007-0034 to include the Sacramento and Feather Rivers. Pending U.S. EPA approval.
[15] Revised requirements for Diazinon and Chlorpyrifos discharges into the Sacramento River were adopted by the Regional Water Board by Resolution R5-2007-0034 and will become effective upon U.S. EPA approval.

Compliance with the waste load allocation is required by December 1, 2011 (Basin Plan).

f. Regional Water Board's Basin Plan requires dischargers of diazinon and chlorpyrifos to Delta Waterways and the Sacramento River to submit a management plan (i.e., BMPs, BMP implementation plan, effectiveness assessment, schedule) that describes actions that will be taken to reduce diazinon and chlorpyrifos discharges and meet the applicable allocations.

g. The approved Pesticide Plan and any modifications to it, as proposed in the SQIP, meet the requirements for a management plan as described in the Basin Plan.

h. This Order includes Provisions consistent with the TMDL waste load allocations and the Basin Plan implementation program. This Order specifies monitoring and assessment requirements to implement these Provisions.

92. The Delta, Sacramento River, American River, and Lake Natoma are on the Clean Water Act Section 303(d) List as mercury impaired because of elevated methylmercury levels in fish. In addition, as stated above, the State Water Resources Control Board (State Water Board) designated the Delta as a toxic hot spot for mercury under the Bay Protection and Toxic Hot Spot Cleanup Program. Urban runoff from the Sacramento area contributes total (inorganic) mercury and methylmercury to these mercury-impaired water bodies.

93. This Order requires an evaluation of total mercury and methylmercury data collected under the previous Order and additional urban discharge monitoring to determine how much methylmercury and total mercury loading urban lands within the Sacramento Area contribute to the individual impaired water bodies (Delta, Sacramento River, American River, and Lake Natoma). In addition, the Order also requires that the Permittees estimate the amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs such as (but not limited to) street cleaning, detention basins, and erosion and sediment controls. This Order also requires that the Permittees consider including monitoring in the design of future BMP studies to estimate the extent to which existing and new BMPs reduce total mercury transport and reduce and/or increase methylmercury discharges. The Monitoring and Reporting Program (MRP) portion of this Order specifies monitoring and assessment requirements that must be implemented to gather information for mercury control programs for impaired water bodies. Once the Delta mercury control program is approved, there may be additional monitoring requirements to identify the sources of, and controls for, the methylmercury and total mercury in urban runoff.

94. The Permittees identified mercury as a top ranked target pollutant in 2002. The Permittees submitted to the Regional Water Board a Mercury Plan in 2004 that outlined the Permittees' strategy to reduce mercury in Sacramento area urban runoff. The Mercury Plan also included background information on mercury pollution in local waters, a summary of key regulations, and a description of related mercury control efforts and

studies. Adequate progress was made on all Mercury Plan commitments during the term of the previous Order.

95. Ambient water and sediment quality monitoring by the Surface Water Ambient Monitoring Program (SWAMP - Sacramento Basin) identified a high incidence of sediment toxicity in several urban creeks that drain the suburbs of Roseville (Weston et al., 2005[16]). Nearly all creek sediments sampled caused toxicity to the resident aquatic amphipod *Hyalella azteca*, and about half the samples (10 of 21) caused nearly complete mortality (>90%). Another study by the Sacramento River Watershed Program (SRWP) observed sediment toxicity in almost every Sacramento area urban creek that was tested (Amweg et al., 2006[17]). Several pyrethroid pesticides were present in sediment samples from both studies at acutely toxic concentrations. Pyrethroid pesticides are persistent, hydrophobic, and rapidly sorb to sediments in aquatic environments. The sediment toxicity observed was localized to within tens to hundreds of meters downstream of storm water outfalls draining residential areas.

    The phase-out of the sale of diazinon and chlorpyrifos for most residential and commercial uses resulted in an increase in the use of pyrethroid pesticide use in urban and residential areas. Monitoring of pyrethroid concentrations in sediment is needed to characterize sediment quality conditions, determine the significance of the increase in urban pyrethroid usage, and assess management practice effectiveness.

96. The Permittees have performed bioassessment monitoring at selected urban creek sites, in compliance with the Monitoring and Reporting Program requirements of previous Orders. The purpose of the bioassessment requirement is to assess the biological integrity of receiving waters, to detect biological responses to pollution, and to identify probable causes of impairment not detected by chemical and physical water quality analysis. The State Water Resources Control Board (State Board) has developed a statewide strategy for the Surface Water Ambient Monitoring Program (SWAMP), with an emphasis on utilizing bioassessment to assess biological integrity in waters of the state. Characterizing the chemical (water quality), physical (sediment quality) and biological (bioassessment) processes of the waterways provides a holistic approach to designing BMPs. This Order requires the Permittees to evaluate the bioassessment data collected during previous years.

PUBLIC PROCESS

97. The Regional Water Board has notified the Permittees and interested parties of its intent to prescribe waste discharge requirements for this discharge. These parties have been given an opportunity to address the Regional Water Board at a public hearing and an opportunity to submit their written views and recommendations to the Regional Water Board.

---

[16] Weston, D.P., R.W. Holmes, J. You, and M.J. Lydy. 2005. Aquatic toxicity due to residential use of pyrethroid insecticides. *Environ. Sci. & Technol*. 39: 9778-9784.

[17] Amweg, E.L., D.P. Weston, J. You, and M.J. Lydy. 2006. Pyrethroid insecticides and sediment toxicity in urban creeks from California and Tennessee. *Environ. Sci. & Technol*. Published on web 1/31/2006.

98. The Regional Water Board has considered the information in the attached Fact Sheet in developing the Findings of this Order. The attached Fact Sheet is in informational part of this Order.

99. The Regional Water Board, in a public meeting, has heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. R5-2002-0206 is rescinded, and that the Permittees, their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions – Storm Water Discharges

1. Discharges from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance as defined in Section 13050 of the California Water Code are prohibited.

2. Discharges from MS4s, which cause or contribute to exceedances of receiving water quality standards and water quality objectives (designated beneficial uses of the Basin Plan[18] and water quality objectives developed to protect beneficial uses) for surface water or ground water are prohibited.

3. Discharges from MS4s containing pollutants, which have not been reduced to the MEP, are prohibited.

B. Discharge Prohibitions – Non-Storm Water Discharges

1. Each Permittee shall effectively prohibit all types of non-storm water discharges into its MS4s unless such discharges are either authorized by a separate NPDES permit, or not prohibited in accordance with this Order.

2. Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1), the following categories of non-storm water discharges need only be prohibited from entering a MS4 if such categories of discharges are identified as a source of pollutants to waters of the United States:

    a. Diverted stream flows;
    b. Rising ground waters;
    c. Uncontaminated ground water infiltration as defined by 40 CFR 35.2005(20);
    d. Uncontaminated pumped ground water;
    e. Foundation drains;

[18] California Water Code Section 13243 provides that a Regional Water Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The discharge prohibitions are applicable to any person, as defined by Section 13050(c) of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the Central Valley Region.

f. Springs;
g. Water from crawl space pumps;
h. Footing drains;
i. Air conditioning condensation;
j. Flows from riparian habitats and wetlands;
k. Water line flushing;
l. Landscape irrigation;
m. Discharges from potable water sources;
n. Irrigation water;
o. Individual residential car washing;
p. De-chlorinated swimming pool discharges;
q. Lawn watering; and
r. Street wash water.

3. When a non-storm water discharge category above is identified as a source of pollutants to waters of the United States, the Permittees shall either:

   a. Prohibit the discharge category from entering its MS4s; or

   b. Not prohibit the discharge category and implement, or require the responsible parties to implement, BMPs which will reduce pollutants to the MEP. In addition, permittees shall submit the following information to the Regional Water Board as part of the Annual Report:

      i. The non-storm water discharge category listed above that the Permittee elects not to prohibit; and

      ii. The BMPs for each discharge category listed above that the Permittee will implement, or require the responsible parties to implement, to prevent or reduce pollutants to the MEP.

4. Emergency fire fighting flows (i.e., flows necessary for the protection of life or property) do not require immediate implementation of BMPs and are not prohibited.

5. Each Permittee shall examine all dry weather analytical monitoring results collected in accordance with the Monitoring and Reporting Program of this Order to identify water quality problems that may be the result of any non-storm water discharge, including any non-prohibited discharge category(ies). Follow-up investigations shall be conducted to identify and control any non-storm water discharges that are sources of pollutants. Non-prohibited discharges listed above containing pollutants that cannot be reduced to the MEP by the implementation of BMPs shall be prohibited on a categorical or case-by-case basis.

C. Receiving Water Limitations

1. Receiving water limitations are site-specific interpretations of water quality standards from applicable water quality control plans. As such they are required as part of the permit. However, a receiving water condition not in conformance with the limitation is not necessarily a violation of this Order. The Regional Water Board may require an investigation to determine cause and culpability prior to asserting a violation has occurred.

   Discharges from MS4s shall not cause the following in receiving waters:

   a. Concentrations of dissolved oxygen to fall below 6.0 mg/l from 1 September through 30 November and 5.0 mg/l the remainder of the year.

   b. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.

   c. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.

   d. Aesthetically undesirable discoloration.

   e. Fungi, slimes, or other objectionable growths.

   f. The 30-day average for turbidity to increase as follows:

      i. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
      ii. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
      iii. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
      iv. More than 10 percent where natural turbidity is greater than 100 NTUs.

   g. The normal ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 unit.

   h. Deposition of material that causes nuisance or adversely affects beneficial uses.

   i. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.

j. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of Radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

k. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

l. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.

m. In waters designated for contact recreation (REC-1), the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.

n. Violation of any applicable water quality standard for receiving waters adopted by the Regional Water Board or the State Board pursuant to the CWA and regulations adopted thereunder.

2. The discharge shall not cause or contribute to an exceedance of any applicable water quality standards.

3. The Permittees shall comply with Discharge Prohibition A.2 and Receiving Water Limitations C.1 and C.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the SQIP and other requirements of this Order, including any modifications. The SQIP shall be designed to achieve compliance with Receiving Water Limitations C.1 and C.2. If exceedance(s) of water quality objectives or water quality standards (collectively, WQS) persist notwithstanding implementation of the SQIP and other requirements of this Order, the Permittees shall assure compliance with Discharge Prohibition A.2 and Receiving Water Limitations C.1 and C.2 by complying with the following procedure:

a. The Permittees shall prepare Notification of Water Quality Exceedances (NWQE) pursuant to notification requirements set forth in the Monitoring and Reporting Program of this Order.

b. The Permittees shall submit a Report of Water Quality Exceedance (RWQE) annually to the Executive Officer for reporting discharges that cause or contribute to an exceedance of applicable water quality standards. The RWQE shall describe BMPs that are currently being implemented and additional BMPs

that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of WQSs. The Report of Water Quality Exceedance (RWQE) shall be incorporated in the Annual Report. The report shall include proposed revisions to the SQIP and an implementation schedule containing milestones and performance standards for new or improved BMPs, if applicable. The RWQE shall also include a monitoring program and the rationale for new or improved BMPs, including a discussion of expected pollutant reductions and how implementation of additional BMPs will prevent future exceedance of WQSs. The Regional Water Board may require modifications to the RWQE.

c. Within **30 days** following approval of the RWQE by the Executive Officer, the Permittees shall revise the SQIP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, implementation schedule, and any additional monitoring required.

d. The Permittees shall implement the revised SQIP and monitoring program in accordance with the approved schedule after Regional Water Board approval of the revised SQIP.

So long as the Permittees have complied with the procedures set forth above and are implementing the revised SQIP, the Permittees do not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Executive Officer to develop additional BMPs.

D. Provisions

1. Within its geographic jurisdiction, each Permittee shall:

   a. Comply with the requirements of this Order, the SQIP, any modifications to the SQIP, and directives of the Executive Officer concerning this Order;

   b. Coordinate among its internal departments and agencies, as appropriate, to facilitate the implementation of the requirements of the SQIP applicable to such Permittee in an efficient and cost-effective manner;

   c. Participate in intra-agency coordination with agencies outside of its jurisdictional control (e.g. Federal and State agencies and special districts such as utility, sanitation, fire, park and recreation and school) necessary to successfully implement the provisions of this Order and the SQIP.

STORM WATER QUALITY IMPROVEMENT PLAN

2. Upon the effective date of this Order, the Permittees shall modify their SQIPs to address the requirements of this Order and submit the revised SQIPs by **11 March 2009** (or six months after the Order is effective, whichever is later), for

public review and comment, and Regional Water Board approval. The SQIPs shall include an implementation schedule containing identifiable milestones, performance standards, and a compliance monitoring and reporting program. The Permittees shall incorporate newly developed or updated BMPs and assessment tools/Performance Standards into applicable annual revisions to the SQIPs and adhere to implementation of the new/revised BMPs. The approved SQIPs shall serve as the framework for identification, assignment, and implementation of BMPs. The Permittees shall implement or require implementation of BMPs in the approved SQIPs to ensure that pollutant discharges from the MS4 are prevented or reduced to the MEP. The SQIPs shall contain the following components:

a. Program Management
   i. Legal Authority
   ii. Fiscal Analysis

b. Program Effectiveness Assessment

c. Program Elements
   i. Construction
   ii. Commercial/Industrial
   iii. Municipal Operations
   iv. Illicit (Illegal) Discharges
   v. Public Education and Outreach
   vi. Planning and New Development
   vii. Monitoring Program (including Special Studies)
   viii. Water Quality Based Program (Target Pollutant Program)

Each Permittee's SQIP shall include a section that identifies all departments within the jurisdiction that conduct activities that may potentially impact urban runoff quality, and their roles and responsibilities under this Order. The annual report shall include an up-to-date organizational chart specifying these departments and key personnel responsible for issuance of enforcement actions.

PROGRAM MANAGEMENT

3. Program management involves ensuring that all elements of the SQIP are implemented on schedule and all requirements of this Order are complied with.

   a. **Annual Work Plan**: The Permittees shall submit an Annual Work Plan by **1 May** of each year. The Annual Work Plan shall provide the Permittee's proposed activities for the upcoming fiscal year beginning 1 July of the current year and ending 30 June the following year. The Permittees may submit combined Annual Work Plans that cover more than one Permittee's jurisdiction, or they may submit separate Annual Work Plans.

   b. **Annual Report**: The Permittees shall submit an Annual Report by **1 October** of each year. The Annual Report shall document the status of the SQIPs and the

Permittees' activities during the previous fiscal year, including the results of a qualitative and quantitative assessment of activities implemented by the Dischargers, and the performance of tasks contained in the SQIP. The Annual Report shall include a compilation of deliverables and milestones completed during the previous 12-month period, as described in the SQIP and Annual Work Plan. The Annual Report shall include a program effectiveness assessment and recommended modifications for each Program Element. Each Annual Report shall build upon the previous year's efforts. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SQIP, which shall be complied with under this Order.

c. **SQIP Implementation**: Each Permittee shall continue implementation of their current SQIP until such time that the SQIP has been modified to be consistent with this Order and approved by the Regional Water Board. Once approved, the Permittees shall implement the modified SQIP consistent with the schedule specified within this Order. The SQIP, with modifications, revisions, or amendments as may be approved by the Executive Officer or Regional Water Board, is an enforceable part of this Order.

d. **SQIP Modification**: The Permittees' SQIP may need to be modified, revised, or amended from time to time to respond to a change in conditions and to incorporate more effective approaches to pollutant control. Provisions of this Order require review and/or revision of the certain components of the Permittees' SQIP. Proposed SQIP revisions will be part of the annual review process and incorporated in the Annual Report.

In addition, the Permittees shall revise their SQIP to comply with regional or watershed-specific requirements, and/or waste load allocations developed and approved pursuant to the process for the designation and implementation of TMDLs for impaired water bodies.

A thirty-day public notice and comment period shall apply to all proposed significant revisions to the SQIP. Significant revisions include the Hydromodification Management Plan (HMP) and *The Stormwater Quality Design Manual for Sacramento and South Placer Regions* required under this Order. SQIP revisions which are significant in terms of the magnitude of public interest, as evidenced by public comments, shall be brought before the Regional Water Board for review and approval. Minor, non-substantive changes to the SQIP are not significant and therefore are not subject to the thirty-day public notice and comment period. Minor SQIP revisions may be approved by the Executive Officer.

e. **Memorandum of Understanding**: The Permittees shall collaborate with each other to address common issues, promote consistency between SQIPs and Monitoring Programs, and to plan and coordinate activities required under this Order.

i. The Permittees shall review and revise their existing Memorandum of Understanding (MOU) to ensure that it provides for a management structure that includes the items below, and submit the updated MOU to the Regional Water Board no later than **11 March 2009** (or six months after the effective date of this Order, whichever is later), The MOU should address the following:

a) Designation of Joint Responsibilities;
b) Decision making;
c) Cost sharing;
d) Information management of data and reports, including the requirements under this Order; and
e) Any and all other collaborative arrangements for compliance with this Order.

ii. The Permittees shall jointly develop and/or update the standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be used by all Permittees and shall include protocols for electronic reporting, specifically data reporting.

4. **Legal Authority:** The Permittees shall review, revise, maintain, and enforce adequate legal authority to control pollutant discharges from their MS4s through ordinance, statute, permit, contract, or similar means. This legal authority must, at a minimum, authorize the Permittees to:

a. Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity to their MS4s. This requirement applies both to industrial and construction sites, which have coverage under the statewide general industrial or construction storm water permits, as well as to those sites that do not require permit coverage;

b. Effectively prohibit identified illegal discharges (e.g., discharges consisting of or resulting from the following: surface cleaning wastewater from gas stations (RGOs) and parking lots; wastewater from mobile business activities; commercial vehicle and equipment washing wastewater; discharges of pool water containing chlorine or bromine; discharges/dumping of sediment, construction debris, pet waste, vegetation or food related wastes; pesticide dumping and rinsate; charitable car washes, etc.).

c. Prohibit and eliminate illicit connections to the MS4s;

d. Prohibit the discharge of spills, dumping, or disposal of materials other than storm water and permitted non-storm water discharges to its MS4s;

e. Use enforcement mechanisms to require compliance with the Permittees storm water ordinances, permits, contracts, or orders;

f. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition on illicit discharges to the MS4s;

g. Require the use of BMPs to prevent or reduce the discharge of pollutants from MS4s to the MEP; and

h. Require that Treatment Control BMPs be properly operated and maintained.

5. Each Permittee shall amend its existing ordinances to enforce all the requirements of this Order within **one year** after Regional Water Board approval of the SQIP. The ordinance(s) shall contain implementable and progressive enforcement procedures.

6. Each Permittee shall provide to the Executive Officer a statement certified by its chief legal counsel that it has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement shall be included in Permittees' revised SQIP(s), which shall describe the following:

a. Citation of urban runoff related ordinances adopted by the Permittees and the reasons they are enforceable;

b. Progressive enforcement policy and how it will be effectively implemented;

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

7. **Fiscal Analysis:** Each Permittee shall secure the resources necessary to meet the requirements of this Order and shall prepare an annual fiscal summary as part of the SQIP Annual Report. This summary shall, for each fiscal year covered by

this Order, identify the expenditures for the previous fiscal year and the budget for the following year necessary to accomplish the activities of the SQIP Such summary shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

PROGRAM ELEMENTS

8. **Construction Program Element**

a. The objectives of the Construction Program are to:

i. Provide adequate legal authority to control pollutants from construction sites with land disturbance greater than or equal to one acre in size;

ii. Review construction plans and issue grading permits consistent with Permittee requirements;

iii. Require BMPs to control sediment and pollutants from construction sites;

iv. Maintain a tracking systems (inventory) of active construction sites;

v. Maintain tracking system of inspections and enforcement data;

vi. Inspect construction sites to ensure proper BMP implementation and compliance with Permittee requirements (e.g., Erosion and Sediment Control Plan [ESC plan]) and applicable Provisions of this Order;

vii. Bring forth enforcement actions for sites in violation of Permittee requirements and advise the Regional Water Board of violations of Construction General Permit requirements;

viii. Provide regular internal and external training on applicable components of the SQIP and related Permits; and

ix. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.

b. Each Permittee shall update and continue to implement the Construction Program Element of its SQIP to reduce pollutants in runoff from construction sites during all construction phases to the MEP. At a minimum, the Construction Program Element shall address the objectives listed above, as well as the following control measures:

- Pollutant Source Identification
- Threat to Water Quality Prioritization

- Reporting of Non-compliant Sites

c. Each Permittee shall continue to implement and enforce a program to control runoff from all construction sites subject to the NPDES General Construction Permit. The program shall ensure the following minimum requirements are effectively implemented at these construction sites:

i. Sediments generated on the project site shall be retained using adequate Source Control BMPs;

ii. Construction-related materials, wastes, spills, or residues shall be retained at the project site to avoid discharge to streets, drainage facilities, receiving waters, or adjacent properties by wind or runoff;

iii. Non-storm water runoff from equipment and vehicle washing and any other activity shall be contained at the project site;

iv. Erosion from slopes and channels shall be controlled by implementing an effective combination of BMPs such as but not limited to; inspecting graded areas during rain events; limiting grading during the wet season; planting and maintenance of vegetation on slopes; and covering erosion susceptible slopes.

v. Prior to issuing a grading permit for a construction site, each Permittee must require submittal of an erosion and sediment control plan to the permitting agency that meets Permittee requirements.

(a) Prior to issuing a grading permit for a construction site, each Permittee shall require proof that a State General Construction Permit has been obtained, if applicable. Permittees shall verify that the State Storm Water Pollution Prevention Plan (SWPPP) contains, at a minimum, the following:

(i) If applicable to the site, a certification or proof that a Notice of Intent has been submitted to the State Water Board.

(ii) A vicinity map showing nearby roadways, the construction site perimeter, and the geographic features and general topography surrounding the site;

(iii) A site map showing the construction project in detail, including the existing and planned paved areas and buildings; general topography both before and after construction; drainage patterns across the project area; and anticipated storm water discharge locations (i.e., the receiving water, a conduit to receiving water, and/or drain inlets);

(iv) A description of BMPs to address contractor activities that generates pollutants including, at a minimum, vehicle washing, equipment maintenance, and waste handling.

(v) A description of the type and general location of erosion and sediment control BMPs, such as but not limited to, limited grading during the wet season, and planting and maintenance of vegetation on slopes, to be employed at the site; and

(vi) The name and telephone number of the qualified person responsible for implementing the Storm Water Pollution Prevention Plan (SWPPP).

d. If applicable, all environmental permits must be obtained from agencies such as Department of Fish and Game, U.S. Army Corp of Engineers, and the Regional Water Board's 401 Water Quality Certification.

e. Inspections

The Permittees shall include the inspection frequency for construction sites for compliance with local ordinances in the SQIP and shall continue to inspect each site until construction activities are completed and the site has been stabilized. The inspections shall occur at a frequency determined to be effective by the Permittees and shall include a higher inspection frequency during the winter months (wet season) than during the summer months (dry season).

The Permittees shall inspect these sites for compliance with the local ordinances and the ESC plan described above and as prescribed in the SQIP. In addition, if the Permittees observe chronic (e.g., three or more) violations of their respective storm water ordinances at a given construction site, they shall notify the Regional Water Board as described in the SQIP. Each Permittee shall use its legal authority to promptly and effectively enforce its storm water ordinance to correct any violations observed during inspections.

f. Interdepartmental Coordination and Agreement

i. Each Permittee shall enter into an agreement with other departments/entities charged with compliance of this section of the Order.

ii. The agreement shall describe policies and procedures and relationships of each interdepartmental coordination, in compliance of this Order.

9. **Industrial/Commercial Program:**

a. The objectives of the Industrial/Commercial Program are to:

i. Provide adequate legal authority to control pollutants from industrial and commercial facilities;

ii. Develop and maintain an inventory of priority industrial and commercial facilities located within the Permittee's jurisdiction;

iii. Prioritize the industrial and commercial facilities within the inventory based on their threat to water quality;

iv. Conduct inspections of the priority industrial and commercial facilities that pose a significant threat to water quality with an inspection frequency based on the prioritization of the facility. Conduct follow-up inspections to verify compliance;

v. Implement a progressive enforcement policy to ensure that adequate enforcement is conducted;

vi. Refer significant violations of the Permittees' storm water ordinances and potential General Industrial Permit non-filers to the Regional Water Board. Coordinate inspections and enforcement with the Regional Water Board.

vii. Provide regular internal and external training on components of the SQIP and related Permits; and

viii. Conduct an assessment as described in the SQIP to determine the effectiveness of the Program Element and identify any necessary modifications.

b. Each Permittee shall update and continue to implement the existing Industrial and Commercial Program component of its SQIP. At a minimum, the Industrial and Commercial Program shall address the objectives listed above, as well as to the following control measures:

i. Priority Facility Inventory/Tracking
ii. Prioritization and Inspection
iii. Industrial/Commercial Outreach
iv. Enforcement
v. Training
vi. Effectiveness Assessment

The program shall address the following priority commercial and industrial businesses: auto body shops, auto dealers, auto repair shops, equipment rental companies, nurseries, kennels, restaurants, retail gasoline outlets and

those covered by the General Industrial Permit. The list of industries may be revised based on further prioritization or results of effectiveness assessment as reported in the annual reports.

c. Each Permittee shall require implementation of pollutant reduction and control measures for activities associated with priority industrial and commercial businesses, with the objective of effectively prohibiting non-storm water runoff and reducing pollutants in storm water runoff to the MEP. Except as specified in other sections of this Order, pollutant reduction and control measures can be used alone or in combination, and can include Structural and Source Control BMPs, and operation and maintenance procedures, which can be applied before, during, and/or after pollution generating activities. The Regional Board recognizes that property owners are responsible for selecting and implementing BMPs since the Permittees do not have the authority to specify BMPs.

10. **Municipal Program**

a. The objectives of the Municipal Program are to:

i. Respond quickly and appropriately if an illicit discharge threatens to enter or enters the storm drain system;

ii. Implement standards that require BMPs to reduce pollutants from Permittee owned development and construction projects as specified in the New Development and Construction Elements;

iii. Implement pollution prevention BMPs for public facilities (e.g., corporation yards, material storage facilities, and vehicle/equipment maintenance facilities) having the potential to discharge pollutants to the storm drain system;

iv. Implement integrated pest management (IPM) and pesticide storage, usage, and disposal procedures as described in the Pesticide Plan;

v. Maintain the storm drain system (e.g., drain inlets, ditches/channels, detention basins and pump stations) to remove debris accumulation and prevent flooding;

vi. Ensure that storm drain inlets are properly and legibly marked to discourage illicit discharges into the storm drain system.

vii. Conduct street sweeping activities;

viii. Maintain Permittee-owned parking facilities to minimize the build-up and discharge of pollutants to the storm drain system;

ix. Permittees having a fire protection agency within their jurisdictional control shall develop and implement a response plan to minimize the impact of

fire fighting flows to the environment. BMPs must be implemented to reduce pollutants from non-emergency fire fighting flows (i.e., flows from controlled or practice blazes) identified by the Permittees to be significant sources of pollutants to waters of the State. The response plan and BMPs shall be updated and submitted with the Annual Reports.

x. Provide regular internal training on applicable components of the SQIP; and

xi. Conduct an assessment as a part of the annual reporting process, determine the effectiveness of the Program Element and identify any necessary modifications.

b. Each Permittee shall update and continue to implement a Municipal Program in its SQIP to effectively prohibit non-storm water discharges and prevent or reduce pollutants in runoff from all municipal land use areas, facilities, and activities to the MEP. At a minimum, the Municipal Program shall address the objectives listed above, as well as include the following control measures:

i. New Development and Construction Requirements for Municipal Capital Improvement Projects;
ii. Pollution Prevention at Permittee Facilities;
iii. Landscape and Pest Management;
iv. Storm Drain System Maintenance;
v. Street Cleaning and Maintenance;
vi. Parking Facilities Maintenance;
vii. Detention Basin Maintenance;
viii. Emergency Procedures;
ix. Non-emergency Fire Fighting Flows;
x. Training; and
xi. Effectiveness Assessment.

11. **Illicit Discharge Program**

a. The objectives of the Illicit Discharge Program are to:

i. Provide adequate legal authority to control and/or prohibit pollutants from being discharged to the municipal storm drain system;

ii. Proactively detect illicit discharges and illegal connections through a variety of mechanisms including, but not limited to, public reporting, dry weather monitoring, and field crew inspections;

iii. Upon identification of an illegal connection, investigate and eliminate the connection through a variety of mechanisms including, but not limited to, permitting or plugging the connection;

iv. Upon identification of an illicit discharge, investigate the discharge and conduct any necessary follow up actions to mitigate the impacts of the discharge;

v. Maintain a database for recording the information related to illicit discharges and illegal connections and, to the extent possible, use mapping to assist in evaluating the data; and

vi. Conduct an assessment as described in the SQIP to determine the effectiveness of the Program Element and identify any necessary modifications.

b. Each Permittee shall update and continue to implement an Illicit Discharge Program component of the SQIP to actively seek and eliminate illicit discharges and connections. At a minimum, the Illicit Discharge Detection and Elimination Component shall address the objectives listed above and include the following control measures:

i. Detection of Illicit Discharges and Illegal Connections;

ii. Illegal Connection Identification and Elimination;

iii. Investigation/Inspection and Follow-up Procedures;

iv. Enforcement of Local Codes and Ordinances;

v. Public Reporting of Illicit Discharges and Connections – Public Hotline;

vi. Training; and

vii. Effectiveness Assessment.

12. **Public Outreach and Public Education (Collectively Public Outreach Program):**

a. Each Permittee shall implement a Public Outreach Program using appropriate media to (1) measurably increase the knowledge of target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. To accomplish these goals, the following objectives shall be addressed:

i. Encourage the public to actively participate in the implementation of the storm water program as well as the various outreach events;

ii. Promote the use of the 24-hour public education and illicit discharge reporting hotline;

iii. Implement a public outreach strategy for the overall program that includes developing and distributing materials, conducting a mixed media campaign, participating in community outreach events, and conducting public opinion surveys to gauge the level of awareness and behavior change within a community and/or target audience;

iv. Coordinate with local school districts to deliver storm water education messages to schoolchildren;

v. Implement a business outreach program; and

vi. Conduct an assessment as described in the SQIP to determine the effectiveness of the Program Element and identify any necessary modifications.

b. Each Permittee shall update and continue to implement the Public Outreach Component of its SQIP to educate the public and encourage their participation in the implementation of the SQIP. At a minimum, the Public Outreach Program shall address the objectives listed above and include the following control measures:

i. Public Participation;

ii. Hotline;

iii. Public Outreach Implementation;

iv. Public School Education;

v. Business Outreach; and

vi. Effectiveness Assessment.

c. Each Permittee shall incorporate a mechanism for public participation in the implementation of the SQIP (i.e., programs that engage the public in cleaning up creeks, removal of litter in river embankments, etc.).

PLANNING AND NEW DEVELOPMENT PROGRAM

13. The objectives of the Planning and New Development Element are as follows:

a. Provide a framework and a process to incorporate watershed protection/storm water quality management principles into the Permittees' General Plan

process, environmental review process, and development permit approval process;

b. Develop a program that covers initial project planning through design, construction and completion, including requirements for long-term maintenance of post-construction storm water controls;

c. Incorporate water quality and watershed protection principles into the Permittee's policies and into the planning procedures early in the development process;

d. Ensure storm water quality components have been addressed during the entitlement and CEQA process and verified as completed during the development plan process;

e. Ensure that selected post-construction storm water controls will remain effective upon project completion by requiring appropriate maintenance provisions for all priority development projects;

f. Ensure that storm water quality controls are properly selected and required during the development plan review process to minimize storm water quality impacts to the MEP;

g. Ensure that appropriate selected post-construction storm water controls are chosen on the basis of project- and site-specific conditions and land use characteristics, as well as receiving water impacts;

h. Provide regular internal training on applicable components of the SQIP; and

i. Conduct an assessment as described in the SQIP to determine the effectiveness of the Program Element and identify any necessary modifications.

14. Each Permittee shall ensure the Planning and New Development Program of its SQIP includes requirements to minimize the short and long-term impacts on receiving water quality from new development and redevelopment. At a minimum, the Planning and New Development Program shall address the objectives listed above, as well as the following:

a. Incorporation of Water Quality Protection Principles into Permittee Procedures and Policies;

b. New/Revised Development Standards: Each Permittee shall continue to implement existing development standards as identified in the Permittees Development Standards Plan (a.k.a. *The Stormwater Quality Design Manual for Sacramento and South Placer Regions*) approved by Regional Water Board in May 2005. The plan identifies measures to reduce pollutant discharges from eight categories of new development and redevelopment (referred to as the Priority Development Project Categories);

c. Plan Review and Approval Process;

d. Maintenance Agreement and Transfer;

e. Training; and

f. Effectiveness Assessment.

15. **Water Quality Planning and Design Principles** - In order to reduce pollutants and runoff flows from new development and redevelopment to the MEP, each Permittee shall address the following concepts:

a. Each Permittee shall incorporate water quality and watershed protection principles into planning procedures and policies or requirements to direct land-use decisions and require implementation of consistent water quality protection measures for priority development projects. These principles and policies shall be designed to protect natural water bodies and shall consider, at a minimum, the following:

i. Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment to maximize on-site infiltration of runoff (low impact development practices).

ii. Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use strategies that control the sources of pollutants or constituents (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into MS4s.

iii. Preserve and create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones (e.g., levees).

iv. Minimize disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.

v. Require incorporation of structural and non-structural BMPs to mitigate the projected increases in pollutant loads from future development.

vi. Identify and avoid development in areas that are susceptible to erosion and sediment loss; and establish and implement development standards that protects areas from erosion and sediment loss.

vii. Coordinate with local traffic management programs to minimize pollutants associated with vehicles and increased traffic resulting from development.

viii. Implement source and/or treatment controls to protect downstream receiving water quality from increased pollutant loads in runoff flows from new development and significant redevelopment.

ix. Control the post-development peak storm water run-off discharge rates and velocities to prevent or reduce downstream erosion and to protect stream habitat (hydromodification concepts).

b. **Low Impact Development Strategies:** Priority new development and redevelopment projects shall integrate Low Impact Development (LID) principles early in the project planning and design process. LID is a storm water management and land development strategy that emphasizes conservation and the use of existing natural site features integrated with engineered, small-scale hydrologic controls to more closely reflect predevelopment hydrologic functions in residential, commercial, and industrial settings. When developing the LID Program the Permittees shall consider and incorporate all appropriate and applicable LID components and measures that have been successfully and effectively implemented in other municipal areas. Other programs include, but are not limited to, USEPA's "Managing Wet Weather with Green Infrastructure, Action Strategy, 2008" and LID program elements specified in the permits or Storm Water Management Plans of other MS4s throughout the state.

The Stormwater Quality Design Manual for Sacramento and South Placer Regions currently promotes LID principles such as conservation and use of natural site features; site specific, lot scale source and treatment control measures that keep pollutants from contacting run-off and leaving the site; and run-off reduction control measures integrated into site design.

i. Each Permittee shall amend, revise or adopt quantitative and qualitative development standards (including policies, codes, ordinances and/or regulations) to require implementation of LID strategies at priority new development and redevelopment projects **no later than six months** after approval of the HMP by the Regional Water Board.

c. **Hydromodification Management Plan (HMP)**

The Permittees shall submit a HMP Work Plan as part of their SQIPs for approval by the Regional Water Board One year after Regional Board approval of the SQIP/HMP Work Plan, the HMP shall be submitted for approval. The Permittees shall amend their development standards to implement the HMP **no later than six months** after Regional Water Board approval of the HMP.

i. The HMP shall require controls to manage the increases in the magnitude (e.g., flow control), frequency, volume and duration of runoff from development projects in order to protect receiving waters from increased potential for erosion and other adverse impacts with consideration towards maintaining (or reproducing) the pre-development hydrology. The HMP shall address, but not be limited to, the following:

(a) Requires incorporation of controls, including structural and non-structural BMPs, to mitigate the projected increases in flows;

(b) Controls post-development runoff rates and velocities from a site to avoid adverse impact on downstream erosion, flooding and stream habitat;

(c) Minimizes the quantity of storm water directed to impermeable surfaces and the MS4s (municipal storm drain);

(d) Maximizes the percentage of permeable surfaces to allow more percolation of storm water into the ground;

(e) Considers the full range of BMPs in the *Stormwater Quality Design Manual*; and

(f) Considers various assessment methodologies designed to evaluate the existing geomorphic condition of receiving waters, along with the expected susceptibility of these receiving waters to erosion/change as a result of hydromodification from land development and other land uses.

ii. This requirement does not apply to new development and redevelopment projects where the project discharges storm water runoff into creeks or storm drains where the potential for erosion, or other impacts to beneficial uses, is minimal. The HMP shall describe the criteria used in determining the site-specific conditions applied to this

requirement. Such situations may include, but not limited to the following:

(a) Discharges into creeks that are concrete-lined or significantly armored;

(b) Underground storm drain systems discharging directly to the rivers;

(c) Construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal; and

(d) Projects that do not create an increase in impervious surfaces over pre-project conditions.

16. **General Plan Update**

a. Each Permittee's General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) shall include water quality and watershed protection principles and policies applicable to land use decisions and require implementation of consistent water quality protection measures for development projects paying special attention to water quality protection from urban runoff and storm water pollution.

b. Each Permittee shall include principles and policies if the following are present in a Permittee's jurisdiction;

i. Sensitive water resources (e.g 303d-listed water bodies) in, or immediately downstream of, their jurisdiction;

ii. Existing Total Maximum Daily Loads (TMDLs) or other such regulations pertaining to receiving waters within their jurisdiction;

iii. Major new development or significant redevelopment expected; and

iv. Major new infrastructure projects anticipated (e.g. roads, sewer, flood control, storm drains).

c. Each Permittee shall provide the Regional Water Board with the draft amendment or revision when a listed General Plan element or the General Plan is noticed for comment in accordance with California Government Code § 65350 et seq.

d. Each Permittee shall amend, revise, or update its General Plan to include watershed and storm water quality and quantity management considerations and policies when any of the following General Plan elements are updated or amended: (i) Land Use, (ii) Housing, (iii) Conservation, (iv) Open Space (v) Circulation and Infrastructure (i.e. transportation), (vi) Safety, and (vii) and Public Facilities.

e. Each Permittee shall review and modify the development goals and policies, open space goals and policies including preservation or integration with natural features, and when defined the need for specific urban runoff and storm water pollution protection policies (i.e., low impact development policies, hydromodification management plans) if they are determined deficient. Each Permittee shall provide the Regional Water Board with the draft amendment or revision when a listed General Plan element or the General Plan is noticed for comment in accordance with California Government Code § 65350 *et seq*. The Permittees shall also provide the Regional Water Board a written summary identifying how the draft amendment or revision complies with this Order.

17. **Entitlement Process:**

a. Private Development: Each Permittee shall incorporate into its entitlement process standard procedures in order to consider potential storm water quality impacts early in the planning process of any new development and redevelopment project. The Permittees' shall clearly demonstrate the developer and Permittee considered storm water quality site issues before the facilities/projects are final designed. The Permittees must demonstrate involvement in the conceptual storm water quality design in either two different points in project planning and permitting process:

i. During Discretionary action[19] approval process (land use permit) of a proposed project, when the Permittee must exercise judgment or deliberation in order to approve or disapprove a development or significant redevelopment project, or

ii. During Ministerial action[20] approval process of issuing a grading, building, demolition, or similar "construction" permits in which only fixed standards or objective measures are applied.

[19] A "discretionary action" under CEQA is defined as "an activity which requires the public agency to exercise judgment in deciding whether to approve or disapprove the particular activity, as distinguished from situations where the public agency merely has to determine whether there has been conformity with applicable ordinances or other laws." (California Public Resources Code § 21080(a); CEQA Guidelines § 15357)

[20] "Ministerial actions" under CEQA are those where little or no judgment or deliberation by a Permittee is required.

b. Permittee Development: The process for planning and reviewing Permittee-owned new development and redevelopment projects differs from the private sector development process. However, Permittee-owned new development and redevelopment projects must consider potential storm water quality impacts early in the planning process. The Permittees shall develop an equivalent approach to ensure development process procedures consider storm water quality site issues before the facilities/projects are final designed.

18. **Maintenance Agreement and Transfer**

Each Permittee shall require that all developments subject to Development Standards and site specific plan requirements provide verification of maintenance provisions for Structural Treatment Control BMPs, including but not limited to legal agreements, covenants, California Environmental Quality Act (CEQA) mitigation requirements, and or conditional use permits. Verification at a minimum shall include:

a. The developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; or

b. Written conditions in the sales or lease agreement, which requires the recipient to assume responsibility for maintenance; or

c. Written text in project conditions, covenants and restrictions for residential properties assigning maintenance responsibilities to the Home Owners Association for maintenance of the Structural Treatment Control BMPs; or

d. Any other legally enforceable agreement that assigns responsibility for the maintenance of post-construction Structural Treatment Control BMPs.

19. **Mitigation Funding**

The Permittees may propose a management framework, for endorsement by the Regional Water Board Executive Officer, to support regional or sub-regional solutions to storm water pollution, where any of the following situations occur:

a. A waiver for impracticability is granted;

b. Legislative funds become available;

c. Off-site mitigation is required because of loss of environmental habitat; or an approved watershed management plan or a regional storm water mitigation plan exists that incorporates an equivalent or improved strategy for storm water mitigation.

20. **Waiver Program:** A Permittee may develop a waiver program that would require a developer to pay into an in-lieu fund or storm water mitigation fund instead of incorporating a structural treatment control measure into a development project. A waiver may be used for projects where accepted structural treatment control measures have been considered and rejected as infeasible. Infeasibility criteria may include items such as extreme space limitations in redevelopment projects or infill areas, unfavorable soil conditions for infiltration, potential groundwater contamination, or topographic and hydraulic head limitations. The storm water mitigation funds shall be used for regional or alternative solutions within the Sacramento River watershed. The Permittee shall obtain approval from the Executive Officer prior to implementation of a waiver program and shall notify the Regional Water Board annually of waivers granted in that year.

21. **California Environmental Quality Act (CEQA) Document Update**

Each Permittee shall incorporate into its CEQA process, procedures for considering potential storm water quality impacts and providing for appropriate mitigation when preparing and reviewing CEQA documents. The procedures shall require consideration of the following:

a. Potential impact of project construction on storm water runoff;

b. Potential impact of project post-construction activity on storm water runoff;

c. Potential for discharge of storm water from areas for material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;

d. Potential for discharge of storm water to impair the beneficial uses of the receiving waters or areas that provide water quality benefit;

e. Potential for the discharge of storm water to cause significant harm on the biological integrity of the waterways and water bodies;

f. Potential for significant changes in the flow velocity or volume of storm water runoff that can cause environmental harm; and

g. Potential for significant increases in erosion of the project site or surrounding areas.

22. **Coordination, Enforcement and Tracking**

a. Each Permittee shall provide for the review of proposed project plan and require measures to ensure that all applicable development will be in compliance with their storm water ordinances, local permits, and all other applicable ordinances and requirements.

b. Each Permittee shall develop a process by which Development Standards will be implemented. The process shall identify at what point in the planning process development projects will be required to meet Development Standards. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the Development Standards, as well as any other measures necessary for the implementation of Development Standards.

c. Each Permittee shall develop and implement (no later than one year after Regional Water Board approval of the SQIP) the following:

i. A GIS or other electronic system for tracking projects that have been issued a permit for the construction of post-construction treatment control BMPs. The electronic system, at a minimum, shall contain the following information:
   a) Municipal Project ID.
   b) State WDID No.
   c) Project Acreage.
   d) BMP Type and Description.
   e) BMP Location.
   f) Date of Acceptance.

23. **Infiltration and Groundwater Protection –** To protect groundwater quality, each Permittee shall consider the type of development and resulting storm water discharge and, if appropriate, apply restrictions to the use of structural BMPs which are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins).

24. **Development Standards Outreach –** Each Permittee shall continue to implement outreach and training associated with the Planning and New Development Program Element.

25. **Targeted Employee Training**

Each Permittee shall periodically train its employees in targeted positions (whose jobs or activities are engaged in development planning) to ensure they can adequately implement the Planning and New Development Program requirements.

26. **Technical Guidance and Information for Developers**

The Permittees shall submit updated technical guidance consistent with the requirements of Provisions 15b and c of this Order, no later than 6 months following amendment of development standards. The updated technical guidance shall include and encourage low impact development/ hydromodification strategies for the development community in the Sacramento urbanized area. The strategies shall be based on the existing site design control measures identified in the existing Development Standards. Prior to approval of the Development Standards, the early implementation of measures likely to be included in the Development Standards shall be encouraged by the Permittees.

WATER QUALITY BASED PROGRAMS

27. The Permittees shall continue to implement the Target Pollutant identification and prioritization processes described in the SQIP. These processes shall continue to include as key evaluation criteria, pollutants that cause or contribute to exceedances of water quality standards and known or probable impairment of beneficial uses. The Permittees shall develop and/or implement target pollutant control programs for pollutants that have been identified as top priorities. Target pollutant control programs shall be incorporated into each Permittee's SQIP and revised in accordance with the directives of this Order. At a minimum, these control programs shall include the following:

a. **Pesticides:** To address pesticide impairment of urban streams, the Permittees shall continue to implement the Regional Water Board-approved Pesticide Plan that addresses their own use of pesticides including diazinon and chlorpyrifos, and to the extent authorized by law, the use of such pesticides by other sources within their jurisdictions. The goal of the Pesticide Plan is to reduce the discharge of pesticides from municipal storm water systems to urban creeks within the Sacramento urbanized area. The Permittees shall identify and promote, within the context of integrated pest management (IPM) programs, the use of pest management practices that minimize the risk of pesticide impacts on surface water quality resulting from urban runoff discharges.

IPM shall be integrated into the Permittee municipal operations and promoted to residents, businesses and public agencies through the public outreach program.

i. For municipal operations, the Permittees shall implement the action items listed under the "Permittee Pest Control" section of the Pesticide Plan

ii. For public outreach, the Permittees shall implement the action items listed in the "Public Education and Outreach" section of the Pesticide Plan.

iii. The Permittees shall conduct the following studies of the local or regional sales and use of residential and commercial pest control products potentially found in storm water runoff:

a) A telephone survey of residential pesticide use
b) A review of structural and landscape pesticide use based on Pesticide Use Reports available from the DPR
c) A shelf survey of pesticides available to the public at retail settings

The studies may be based on the study design used for previous studies conducted by the Permittees, and shall be conducted by 1 August 2011 (or three years after the effective date of this Order, whichever is later). The survey may be conducted in conjunction with other municipalities in the Central Valley or San Francisco Bay Area as long as residences and retailers located with Sacramento urbanized area are adequately represented.

iv. **No later than the end of year 4 of the Permit term,** the Permittees shall complete an assessment to determine if urban storm water is causing or contributing to an exceedance of water quality standards for diazinon and chlorpyrifos. If urban storm water is causing or contributing to an exceedance, then the Permittees shall determine the relative contribution of urban storm water runoff to diazinon and chlorpyrifos levels in waters within its jurisdiction that are identified as a toxic hot spot (per § 13394 of Porter-Cologne) or are on the CWA 303(d) list.

v. The Permittees, either separately or through organizations such as CASQA, shall continue to support or participate in efforts to influence pesticide regulatory activities by state and federal agencies, especially DPR, the Structural Pest Control Board, and the USEPA Office of Pesticides, with respect to promoting adequate evaluation and regulation of pesticide uses that have significant potential to impact receiving waters through discharges of urban runoff.

vi. The Permittees shall coordinate with the Pesticide Plan component of the SQIP, to the extent that pesticides in sediments are identified as causing or contributing to receiving water impacts. The Permittees shall incorporate a Sediment Monitoring program into the Pesticide Plan as part of the SQIP. The Sediment Monitoring

program shall include information as specified in the Monitoring and Reporting Program of this Order.

b. **Mercury:** To address the mercury impairment of the Delta, Sacramento River, American River, and Lake Natoma, the Permittees shall continue to implement the mercury reduction strategy (Mercury Plan) that was submitted in 2004. Compliance with the Mercury Plan shall be assessed by data and information submitted in the Annual Reports.

In addition, the Permittees shall incorporate the following into their mercury reduction strategy.

i. For public outreach and municipal operations, the Permittees' mercury control programs shall coordinate with the countywide universal waste (U-waste) management strategy, described in the "Sacramento Countywide U-Waste Collection Strategy Letter Report" (R3 Consulting Group Inc., 2007, pages 9 and 10), and describe in the Annual Reports specific coordination efforts related to mercury control (e.g., fluorescent lamp collections, public outreach, sustainable funding mechanisms, and U-waste tonnage tracking).

ii. For public outreach, the Permittees shall evaluate and summarize the 2004 and 2007 public awareness/opinion survey data related to mercury (e.g., fluorescent lamps disposal). In the 2008/2009 Annual Report, provide recommendations for amending Permittees' mercury source control programs and amend the mercury source control programs in accordance with those recommendations.

iii. As components of the Monitoring Program, the Permittees shall complete the following efforts, which are further described in the MRP:

a) Evaluate total mercury and methylmercury data collected under the previous Order and continue urban discharge monitoring to determine the amount of total mercury and methylmercury loading that urban lands within the Sacramento area contribute to individual impaired water bodies (the Delta, Sacramento River, American River, and Lake Natomas).

b) Estimate the amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs such as (but not limited to) street cleaning, detention basins, and erosion and sediment controls.

c) Consider including monitoring in the design of future BMP studies to estimate the extent to which existing and new BMPs reduce total mercury and methylmercury discharges.

Based on the results of the above mercury-related evaluations and Permittee recommendations, the Executive Officer may require additional mercury monitoring, BMPs, and SQIP revisions.

28. In support of the Water Quality Based Programs, the Permittees shall develop and implement the storm water monitoring program as defined in the Monitoring and Reporting Program No. R5-2008-0142, which is part of this Order, and any revisions thereto adopted by the Regional Water Board.

29. **Program Effectiveness Assessment**

a. The Permittees shall describe their approach to program effectiveness assessment in their SQIPs and report the results of the assessment in their Annual Reports. The assessment shall identify the direct and indirect measurements that the Permittees used to track the effectiveness of their programs as well as the outcome levels at which the assessment is occurring consistent with this Order. Direct and indirect measurements such as the following shall be included: conformance with established performance standards, quantitative monitoring to assess the effectiveness of representative control measures, measurements or estimates of pollutant load reductions or increases from identified sources where feasible, measurements of raised awareness of the public, and/or detailed accounting/documentation of SQIP accomplishments.

b. The Permittees shall track the long-term progress of their SQIPs towards achieving improvements in receiving water quality.

c. The Permittees shall use the information gained from the program effectiveness assessment to improve their SQIPs and identify new BMPs, or modification of existing BMPs. This information shall be reported within the Annual Reports consistent with this Order.

d. Long Term Effectiveness Assessment (LTEA): Each Permittee shall collaborate with the other Permittees to develop the LTEA of the program, which shall build on the results of the Permittees' Annual Reports and the initial program effectiveness assessments. The LTEA shall be submitted to the Regional Water Board **no later than 180 days prior to the permit expiration date** and shall identify the storm water program long term effectiveness in achieving both programmatic goals (raising awareness, changing behavior) and environmental goals (reducing pollutant discharges, improving environmental conditions).

ADDITIONAL REQUIREMENTS

30. Monitoring and Reporting Program: The Permittees shall comply with Monitoring and Reporting Program No. R5-2008-0142, which is part of this Order, and any revisions thereto approved by the Board. Because the Permittees operate facilities which discharge waste subject to this Order, the Monitoring and Reporting Program is necessary to ensure compliance with these waste discharge requirements.

31. This Order may be modified, or alternatively, revoked or reissued, prior to the expiration date as follows: a) to address significant changed conditions identified in the technical reports required by the Regional Water Board which were unknown at the time of the issuance of this Order; b) to incorporate applicable requirements of statewide water quality control plans adopted by the State Board or amendments to the Basin Plan approved by the State Board; or c) to comply with any applicable requirements, guidelines, or regulations issued or approved under Section 402(p) of the CWA, if the requirement, guideline, or regulation so issued or approved contains different conditions or additional requirements not provided for in this Order. The Order as modified or reissued under this paragraph shall also contain any other requirement of the CWA when applicable.

32. Each Permittee shall comply with all applicable items of the "Standard Provisions and Monitoring Requirements for Waste Discharge Requirements (NPDES)," dated February 2004 (Attachment D), which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provisions."

33. This Order expires on **11 September 2013**. The Permittees must file a Report of Waste Discharge (ROWD) in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of such date as application for re-issuance of waste discharge requirements. U.S. EPA 40 CFR Part 122 Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems states the fourth year annual report may be used as the ROWD reapplication package. The reapplication package must identify any proposed changes or improvement to the SQIPs, an assessment of the effectiveness of the program, and monitoring activities for the upcoming five year term of the permit, if those proposed changes have not already been submitted pursuant to 40 CFR 122.42 (c).

I, PAMELA C. CREEDON, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Valley Region, on **11 September 2008**.

_____
PAMELA C. CREEDON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0142

NPDES NO. CAS082597

MONITORING AND REPORTING PROGRAM

CITIES OF CITIRUS HEIGHT, ELK GROVE, FOLSOM, GALT, RANCHO CORDOVA, SACRAMENTO, AND COUNTY OF SACRAMENTO
STORM WATER DISCHARGES FROM
MUNICIPAL SEPARATE STORM SEWER SYSTEM
SACRAMENTO COUNTY

I. MONITORING AND REPORTING PROGRAM REQUIREMENTS

This Monitoring Reporting Program (MRP) is issued pursuant to the California Water Code Section 13267 and 13383. This MRP is necessary to determine compliance with Order No. R5-2008-0142 and to determine the effectiveness of the storm water program.

The Permittees shall not implement any changes to this MRP unless and until the Regional Water Board or Executive Officer issues a revised MRP. Attachment A shows the individual Permittee municipal separate storm water system (MS4) limits known as the Sacramento urbanized area, which are covered under this Order. To save time and money, and avoid duplication of efforts, the Permittees shall coordinate their monitoring program with local, state, and federal agencies whenever possible.

A. **Annual Monitoring Plan:** The Permittees shall submit by **1 May** of each year a proposed joint-Permittee Annual Monitoring Plan that includes clearly defined tasks, responsibilities, and schedules for implementation of monitoring activities for the next fiscal year. The Annual Monitoring Plan shall be deemed to be final and enforceable under this Order as of **1 July** of each year unless determined to be unacceptable by the Executive Officer. Each Permittee shall address any comments or conditions of acceptability received from the Executive Officer on the Permittees' Annual Monitoring Plan.

B. **Annual Report:** The Permittees shall submit, in both electronic and paper formats and no later than **1 October** of each year, an Annual Report documenting the progress of the Permittees' implementation of the Storm Water Quality Improvement Plan (SQIP) and the requirements of this Order. The Annual Report shall discuss each Permittee's status of compliance with this Order and the SQIPs, including implementation dates for all time-specific deadlines should be included for each program area. If permit deadlines are

not met, the Permittees shall report the reasons why the requirement was not met and how the requirements will be met in the future, including projected implementation dates. It shall include a compilation of deliverables and milestones completed during the previous fiscal year, and a discussion of program effectiveness relative to performance standards defined in the SQIPs. In each Annual Report, the Permittees may propose pertinent updates, improvements, or revisions to the SQIPs, which shall be complied with under this Order unless disapproved by the Executive Officer or acted upon in accordance with this Order. A comparison of program implementation results to performance standards established in the SQIP and Order No. R5-2007-0173 shall be included for each program area. Specific requirements that must be addressed in the Annual Reports are listed below.

1. An Executive Summary discussing the effectiveness of the SQIP to reduce storm water pollution to the maximum extent practicable (MEP) and to achieve compliance with water quality standards in receiving waters;

2. Summary of activities conducted by the Permittees;

3. Identification of best management practices (BMPs) and a discussion of their effectiveness at reducing urban runoff pollutants and flow, where applicable; and

4. Summary of the monitoring data and an assessment of each component of the MRP. To comply with Provisions C.1 and C.2 of the Order No. R5-2008-0142 the Permittees shall compare receiving water data with applicable water quality standards. The lowest applicable standard from the Basin Plan, California Toxics Rule (CTR), and California Title 22 (Title 22), and constituent specific concentrations limits (e.g., mercury) shall be used for comparison. The Permittees shall additionally provide a summary of monitoring data for the discharges to assess the effectiveness of BMPs in reducing pollutants in the discharge and in assessing whether a discharge may have caused or contributed to an exceedance of water quality standards.

   When the data indicate that discharges are causing or contributing to exceedances of applicable water quality standards or constituent specific concentrations limits, the Permittees shall prepare a Report of Water Quality Exceedance (RWQE), prepared pursuant to Receiving Water Limitations C.3 of this Order, and identify potential sources of the problems, and recommend future monitoring and BMP implementation measures to identify and address the sources.

Raw data shall be submitted in electronic format.

5. Effectiveness assessment for each program element, as defined in the SQIP, shall be conducted annually, shall be built upon each consecutive year, and shall identify any necessary modifications. The SQIP shall describe, in detail, the performance standards or goals to use to gauge the effectiveness of the storm water management program. The primary questions that must be assessed for each program element include the following:

   a. Level 1 Outcome: Was the Program Element or BMP implemented in accordance with the Permit Provisions, SQIP Control Measures and Performance Standards?

   b. Level 2 Outcome: Did the Program Element or BMP raise the target audience's awareness of an issue?

   c. Level 3 Outcome: Did the Program Element or BMP change a target audience's behavior, resulting in the implementation of recommended BMPs?

   d. Level 4 Outcome: Did the Program Element or BMP reduce the load of pollutants from the sources to the storm drain system?

   e. Level 5 Outcome: Did the Program Element or BMP enhance or change the urban runoff and discharge quality?

   f. Level 6 Outcome: Did the Program Element or BMP enhance or change receiving water quality?

   Annually, the Permittees shall evaluate Water Quality Based Programs and shall include consideration of applicable physical, chemical and biological data water quality data. Such evaluation may include graphs, charts, statistics, modeling, and any other analyses in support of the Permittees' evaluation of the data and conclusions derived from that analysis. Documentation shall include quality assurance and control procedures (QA/QC).

6. Pursuant to 40 CFR 122.42(c)(7), the Permittees shall identify water quality improvements in, or degradation of, urban storm water;

7. For each monitoring component, photographs and maps of all monitoring station locations and descriptions of each location; and

8. Recommendations to improve the monitoring program, BMPs, Performance Standards, and the SQIP to address potential receiving water quality exceedances and potential pollutant sources, and to meet the MEP standard.

9. Provide operating data from all pump stations as an appendix in electronic format as necessary and estimate discharge volumes unless other technically defensible means to estimate urban runoff discharge volumes can be substituted. Historically, the Permittees have estimated runoff volumes based on rainfall-runoff volume empirical relationships.

10. In addition to the requirements listed above, the final Annual Report of this Order's permit term shall include:

    a. An estimate of total pollutant loads attributable to urban runoff for target pollutants at each discharge monitoring station;

    b. An evaluation of the long-term trends in MS4 discharges and receiving water quality. Several factors need to be considered when evaluating trends, such as changes in sample collection methods, data quality differences, and changes in analytical methods.

    c. An evaluation of significant correlations of target pollutants with other constituents, such as total suspended solids (TSS).

11. The SQIP shall include separate sections for specific program elements, as well as separate sections for Plans required by the Order (i.e., Sediment Monitoring, Mercury Plan).

C. **Notification of Water Quality Exceedances (NWQE):** The Permittees shall notify the Regional Water Board, in writing, of any exceedance in receiving waters of applicable water quality standards within **90 days** of the monitoring event from which the exceedance was detected. The Permittees shall notify the Regional Water Board electronically within **48 hours** of receiving Water Column Toxicity monitoring data in receiving waters that indicates 50% mortality.

D. **Certification**: All work plans and reports submitted to the Regional Water Board shall be signed and certified pursuant to federal regulations at 40 CFR 122.41 (k). Each report shall contain the following completed declaration:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system

designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility, of a fine and imprisonment for knowing violations."

Executed on the ___ day of, 200__, at _____.

(Signature)_____(Title)_____.

The Permittees shall mail the original of each annual report to:

CALIFORNIA REGIONAL WATER QUALITY
CONTROL BOARD – CENTRAL VALLEY REGION
11020 SUN CENTER DRIVE, #200
RANCHO CORDOVA, CA 95670

A copy of the annual report shall also be mailed to:

REGIONAL ADMINISTRATOR
ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 Hawthorne Street
San Francisco, CA 94105

II. MONITORING PROGRAM

The primary objectives of the Monitoring Program are:

- Assessing compliance with this Order;
- Measuring and improving the effectiveness of the SQIPs;
- Assessing the chemical, physical, and biological impacts on receiving waters resulting from urban runoff;
- Characterization of urban runoff;
- Identifying sources of pollutants; and
- Assessing the overall health and evaluating long-term trends in receiving water quality.

Ultimately, the results of the monitoring requirements should be used to refine the SQIP to reduce pollutant loadings, and to protect and enhance the beneficial uses of the receiving waters in the Sacramento Urbanized Area.

The monitoring program shall address:

- Baseline Monitoring
  - Receiving Water Monitoring, including river and urban tributaries
  - Urban Discharge Monitoring
  - Water Column Toxicity Monitoring

- Sediment and Bioassessment Monitoring

- Water Quality Based Programs
  - Pesticide Monitoring
  - Mercury Monitoring

- Special Studies
  - Detention Basin Effectiveness Evaluation Monitoring
  - Pilot Watershed – New Development BMP Effectiveness Evaluation
  - Proprietary Treatment BMP Effectiveness Evaluation

The Permittees shall implement the Monitoring Program as follows:

A. **Sampling Protocol**

1. Sampling events should be coordinated with monitoring activities such as receiving water monitoring (river and urban tributary), and urban discharge.

2. The Permittees shall collect flow data at the time of sampling for all monitoring stations sampled. Receiving water or urban discharge flow may be estimated using U.S. EPA methods[1] at sites where flow measurement devices are not in place.

3. All sample collection and analyses shall follow standard USEPA protocol.

4. To meet a monitoring requirement, the Permittees may support (financially or otherwise) another agency or monitoring program that will conduct the monitoring.

[1] NPDES Storm Water Sampling Guidance Document, U.S. EPA 833-B-92-001, July 1992

B. **Receiving Water Monitoring**

The new receiving water monitoring requirements described herein will require the Permittees to establish new monitoring stations, develop new operating procedures, and train personnel as described in the SQIP.

The proposed locations of receiving water monitoring stations for rivers and urban tributaries shall be presented in the revised SQIP and presented in the Annual Reports. If additional monitoring stations are needed, they shall be established under the direction of Regional Water Board staff. A description of any additional stations shall be attached to this MRP. Receiving water monitoring may be postponed if a given monitoring station cannot be safely accessed.

Each year (annually), samples shall be collected **during three storm events**[2] and **one monitoring event during the dry season**.[3] The Permittees shall target monitoring the first rain event of the year forecasted for at least 0.25 inch in a twenty-four hour period that is preceded by at least 30 days of dry weather. The second and third rain events to be monitored shall be selected by the Permittees to fill data gaps for different types of rain events in the region. These rain event selection criteria shall be included in the sampling and analysis plans.

Receiving water monitoring for Rivers and Urban Tributaries shall be consistent with the attached Table B list of constituents of concern, except for pyrethroid pesticides in water.

1. **River Monitoring:** Monitoring of river receiving water stations shall be conducted at: American River at Nimbus, American River at Discovery Park, Sacramento River at Veteran's Bridge, and Sacramento River at Freeport Bridge, as shown on Attachment B. Monitoring shall be conducted in a manner that best measures the maximum anticipated water quality impacts from MS4 discharges. However, because of safety reasons, samples will be collected during daylight hours, only when conditions are safe for boat operations.

   Samples collected at the American River at Nimbus location shall be collected as grab samples. All other river samples shall be cross-sectional depth-composite samples, unless a particular parameter analysis requires grab samples, or if flow and safety conditions warrant the collection of grab samples.

[2] Storm Event means any rain event greater than 0.25 inch in 24 hours except where specifically stated otherwise.
[3] Dry weather day means a day with a rain event too small to generate runoff (typically 0.1 inches or less) shall be considered a dry weather day.

2. **Urban Tributary Monitoring:**

a. Monitoring of urban tributary receiving waters shall be conducted at: Arcade Creek, Willow Creek and Laguna Creek, as shown on Attachment B.

i. If a given tributary is dry or has only standing water during a scheduled sampling event, then sampling is not required; however, Permittees shall attempt to sample tributaries at times when water flows are more likely, such as the early part of the dry season.

ii. Tributary receiving water samples shall be either grab, time-composited, or flow-composited and collected at mid-depth and mid-stream.

iii. Samples shall be taken just upstream of the tributary's confluence with the main stem of creeks or rivers.

iv. Sample collection can be limited to daylight hours, when conditions are safe.

b. Report of Water Quality Exceedance (RWQE) preparation during the previous permit term included development of a work plan to address the cause and nature of dissolved oxygen (DO), pH, and temperature exceedances in several urban tributaries. Multiple steps in the work plan have been completed.[4] [5] [6] The Permittees shall continue to implement the work plan elements and begin Phase II upon adoption of this Order. Much of the work shall be performed in Morrison Creek, other creeks may be identified. The work plan and any updates to the plan shall be included in the SQIP.

C. **Urban Discharge Monitoring**

The Permittees shall monitor urban discharges from the following monitoring stations: Sump 111, Strong Ranch Slough, and the North Natomas Development, as shown on Attachment B, for those constituents listed in Table B. The change from monitoring at the long term Sump 104 site to the

[4] Larry Walker Associates, September 20, 2006. Memorandum from Brian Laurenson, *Assessment Strategy for Dissolved Oxygen, Temperature and pH in Sacramento Urban Tributaries.*
[5] Larry Walker Associates, November 13, 2006. Memorandum from Brian Laurenson. *Urban Tributary Dissolved Oxygen, pH and Temperature Investigation Sampling and Analysis Plan – Phase 1.*
[6] Larry Walker Associates, May 2007. Memorandum from Iain Clark. *Phase 1 Investigation Results – Willow Creek and Morrison Creek pH, Dissolved Oxygen, and Temperature.*

North Natomas Development site will be evaluated to determine effects on long term effectiveness evaluations. Following this evaluation and the finalization of the new location, if an alternate location is identified to replace Sump 104, the Permittees may request such a change through modification of the SQIP.

Sampling of pyrethroids in water as listed in Table B shall be conducted if required by Regional Water Board staff after evaluating the results and recommendations from the sampling of Permittee discharges currently being conducted by Dr. Donald Weston through Statewide Ambient Monitoring Program (SWAMP).

In coordination with Receiving Water Monitoring, in two of every three years, samples shall be collected **during three storm events** and **one dry season monitoring event.** The Permittees shall target for monitoring the first storm event of the year preceded by at least 30 days of dry weather.[7] The second and third storm events to be monitored shall be selected by the Permittees to fill data gaps for different types of storm events in the region.

Samples shall be flow-weighted composites collected for the duration of the storm, with a maximum composite period of 24 hours. Because of the inherent difficulty in fully capturing an entire storm event, the Permittees shall report the portion of the storm event "captured" or during which samples were collected.

D. **Water Column Toxicity**

The Permittees shall conduct short-term toxicity analyses to evaluate the extent and causes of toxicity in receiving waters, and to provide information to support identification of practices that eliminate sources of toxicity or remove them to the MEP.

The Permittees shall conduct toxicity testing at each receiving water monitoring station during two of the five fiscal years (July 1 of the current year to June 30 of the following year) of the Order; this testing shall not be done in consecutive years. Toxicity testing includes (1) analysis of samples from two storm events (including the first storm of the year) and one during the dry season from each receiving water monitoring station; and (2) analysis of at least the following two freshwater test species for each storm event: Fathead minnow (*Pimephales promelas*) and water flea (*Ceriodaphnia dubia*). The testing shall be conducted in accordance with U.S. EPA's method 821-R-02-

[7] A day with a rain event too small to generate runoff (typically 0.1 inches or less) shall be considered a dry weather day.

013 (U.S. EPA 2002, 4th Edition). A modification[8] to this method is allowed for *Pimephales promelas* to address previously observed pathogen interference. A minimum sample volume of 5 gallons for each test species shall be provided with a sample storage (holding time) not to exceed 36 hours.

If 100% mortality to *Pimephales promelas* or *Ceriodaphnia dubia* is detected within 24 hours of test initiation, then a dilution series shall be initiated (0.5x steps) ranging from the undiluted sample (or the highest concentration that can be tested within the limitations of the test methods or sample type) to less than or equal to 6.25 percent of the sample. Further, if statistically significant toxicity is detected and a greater than or equal to 50% increase in *Pimephales promelas* or *Ceriodaphnia dubia* mortality compared to the laboratory control is observed, then TIEs shall be conducted on the initial sample that caused toxicity.

1. Toxicity Identification Evaluations (TIE)

   The Permittees shall begin a Phase I TIE immediately on all samples that cause statistically significant toxicity and greater than or equal to 50% increase in *Pimephales promelas* or *Ceriodaphnia dubia* mortality compared to the laboratory control. If mortality of both test species exceeds the 50% trigger, then TIEs shall be conducted using both species. TIEs are required until the cause of toxicity is determined. TIE shall be conducted by qualified personnel.

2. Toxicity Reduction Evaluations (TRE)

   a. A TRE shall be conducted whenever a toxicant is successfully identified through the TIE process. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. Once the source of toxicity and appropriate BMPs are identified, the Permittees shall submit the TRE Corrective Action Plan as part of the Annual Report to the Executive Officer for approval. At a minimum, the TRE shall include a discussion of the following items:

      i. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity;

[8] Geis, Stephen W., et al., *Modifications to the Fathead Minnow (Pimephales promelas) chronic Test Method to Remove Mortality Due to Pathogenic Organisms.* Environmental Toxicology and Chemistry. Vo.. 22 No. 10. Pg. 2400-2404. April 2003.

ii. The potential sources of pollutant(s) causing toxicity;

iii. A list of Permittees having jurisdiction over sources of pollutant(s) causing toxicity;

iv. Recommended BMPs to reduce the pollutant(s) causing toxicity;

v. Proposed changes to the SQIP to reduce the pollutant(s) causing toxicity; and

vi. Suggested follow-up monitoring to demonstrate BMP effectiveness in reducing the pollutant causing toxicity.

b. The Permittee's do not need to prepare a TRE if the identified pollutant is already being addressed in the Permittee's Target Pollutant Program. If this is the case, the toxicity found shall be noted and addressed through on-going implementation of that pollutant control strategy.

c. If TRE implementation for a specific pollutant coincides with Total Maximum Daily Load (TMDL) implementation for that pollutant, the efforts may be coordinated.

d. Upon approval by the Executive Officer, the Permittees(s) having jurisdiction over sources causing or contributing to toxicity shall implement the recommended BMPs and take all reasonable steps necessary to eliminate toxicity.

e. The Permittees shall develop a maximum of two TREs per year. If applicable, the Permittees may use the same TRE for the same toxic pollutant or pollutant class in different watersheds or basins. The TRE process shall be coordinated with TMDL development and implementation to avoid overlap.

The Permittees shall include a monitoring plan, which shall include a sampling and analysis plan and an implementation schedule in the SQIP for approval by the Executive Officer. Subsequent information (e.g., all data (electronic format), assessment of the data, conclusions, proposed BMPs to be implemented, and assessment of program effectiveness) shall be included in the Annual Reports as required in this MRP Order.

E. **Sediment Monitoring**

1. Sediment toxicity resulting from pyrethroid pesticides was recently identified in a study[9] performed through Statewide Ambient Monitoring Program (SWAMP) monitoring in the Sacramento area (Roseville, CA) urban tributaries. The Permittees will conduct pyrethroid sediment sampling as part of the urban tributary monitoring and as part of any bioassessment sampling. Sampling of sediment shall be consistent with SWAMP Quality Assurance Management Plan (QAMP) protocols. Specifically, **one wet season[10] and one dry season** sample will be collected annually at least five years at each of the three urban tributaries. Reporting limits in sediment will conform to Table B. Sediment toxicity sampling is not required under this Order. These requirements may change based on an evaluation of data performed by the Permittees.

2. The Permittees shall review and amend the Pesticide Plan component of the SQIP, if pesticides in sediments are identified as causing or contributing to receiving water impacts.

   The Pesticide Plan shall address the following elements:

   a. Identification, development, implementation and assessment of BMPs to address controllable discharges of sediment-bound contaminants that may be linked to sediment toxicity to the MEP;

   b. Development and adoption of policies, procedures, and/or ordinances to implement BMPs;

   c. A time schedule for implementation and assessment.

F. **Bioassessment Monitoring**

The purpose of this requirement is to fully evaluate biological data collected under the previous MRP in order to assess the biological integrity of receiving waters, detect biological responses to pollution, and identify probable causes of impairment not detected by chemical and physical water quality analysis.

Further bioassessment monitoring activities will not be required under this Order until the evaluation with recommendations is complete, and the monitoring effort is adapted in consultation with SWAMP's bioassessment

[9] Weston, D. P., Holmes, R. W., et.al. Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides. Environmental Science and Technology. 2005, 39, 9778-9784.
[10] Wet Season means the calendar period beginning October 1 through April 15.

workgroup. If applicable, an updated bioassessment monitoring plan shall be included in the SQIP.

1. The following results and information shall be included in the 2008-09 Annual Report:

    a. All physical, chemical and biological data collected in the assessment;
    b. Photographs and GPS locations of all stations;
    c. Documentation of quality assurance and control procedures;
    d. Analysis that shall include calculation of the metrics used in the CSBP;
    e. Comparison of mean biological and habitat assessment metric values between stations and year-to-year trends;
    f. Electronic data formatted to the DFG Aquatic Bioassessment Laboratory for inclusion in the Statewide Access Bioassessment Database; and
    g. Copies of all QA/QC documents from laboratories.

2. The Permittees shall participate in and coordinate with the SWAMP to identify the most appropriate locations for future bioassessment stations within the Sacramento urbanized area and determine coordinated needs for the initial development of an Index of Biological Integrity for the region.

G. Water Quality-Based Programs

The following minimum requirements shall apply to the specified programs:

1. **Additional Pesticide Monitoring.** Additional pesticide monitoring shall be developed to comply with the Basin Plan amendments or TMDLs developed during the Permit term and will be proposed in the Permittees Annual Work Plans submitted to the Regional Water Board.

2. **Additional Total Mercury and Methylmercury Analyses.** Previous monitoring included the analysis of total mercury and methylmercury at a variety of urban tributaries and urban discharge stations during a range of weather conditions and storm events. The Permittees shall fully evaluate total mercury and methylmercury data collected under the previous MRP in order to determine average annual methylmercury and total mercury concentrations and loads discharged to the CWA 303(d) Listed mercury-impaired waterways by urban lands in the Sacramento Urbanized Area during a range of wet and dry years.

The following results and information shall be included in the **2008/2009 Annual Report**:

a. A summary of all total mercury, methylmercury and TSS water column data collected at urban tributaries and urban discharge stations by previous MRPs.

b. GPS locations of all tributary and urban discharge stations;

c. Documentation of sample collection and analytical methods;

d. Documentation of quality assurance and control procedures;

e. Evaluation of whether the (1) available concentration data represents a range of storm conditions and normal, above- and below-average wet and dry years (as determined by the DWR Water Year Hydrologic Classification Indices[11] for the Sacramento River Basin or other comparable methods); and (2) sampling locations represent runoff from urban lands throughout the Sacramento Urbanized Area that contribute discharge to each of the mercury-impaired waterways (Delta, Sacramento River, American River, and Lake Natoma).

f. Evaluation of available data and methods to estimate dry- and wet-weather discharge volume (flow) from urban lands in the Sacramento Urbanized Area (e.g., LWA, 1996;[12] Ruby, 2005[13]) that will be needed to calculate the annual average total mercury and methylmercury loads in urban runoff contributed to each of the mercury-impaired waterways. Evaluation shall include the identification of a preferred method for estimating runoff volume, calculation of annual average discharge volumes contributed by urban lands within the Sacramento Urbanized Area to each of the mercury-impaired waterways using the preferred and alternative methods, and identification of any needs for additional data to better estimate annual runoff volumes.

---

[11] DWR. 2006. Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices. DWR California Cooperative Snow Surveys. Sacramento, CA. Available at: http://cdec.water.ca.gov/cgi-progs/iodir/WSIHIST.

[12] LWA. 1996. Sacramento NPDES Stormwater Discharge Characterization Program 1996 DCP Update Report. Prepared by Larry Walker Associates (LWA) for the County of Sacramento, the City of Sacramento, the City of Folsom, and the City of Galt. September 1996.

[13] Ruby, A. 2005. Sacramento Urban Runoff Discharge Characterization 2005. Prepared for: The Sacramento Stormwater Quality Partnership. Prepared by: Armand Ruby, Armand Ruby Consulting, in association with Larry Walker Associates Inc. August 2005.

g. Evaluation of different methods to estimate total mercury and methylmercury loads contributed to each of the mercury-impaired waterways by Sacramento Urbanized Area urban runoff (e.g., Ruby, 2005; Laurenson, 2007[14]; Wood et al., 2008[15]) and identification of a preferred method.

h. Identification of data gaps and recommendations for additional monitoring or weather-specific sampling events necessary to fully characterize annual average total mercury and methylmercury concentrations and loads in runoff from established urban areas and new urban developments that contribute discharge to each of the mercury-impaired waterways. Recommendations may include a monitoring time schedule (e.g., when the monitoring will begin and its frequency) and will be developed in coordination with TMDL development and implementation for the Delta, Sacramento River, American River, and Lake Natoma.

i. Estimates of the amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs in the Sacramento Urbanized Area such as, but not limited to, street cleaning, detention basins, and erosion and sediment controls.

j. Recommendations for including total mercury and methylmercury monitoring in the design of future BMP studies to estimate the extent to which existing and new BMPs reduce total mercury and reduce and/or increase methylmercury discharges.

The baseline monitoring described in Section II.B of this MRP includes total mercury and methylmercury for three urban tributaries: Arcade Creek, Willow Creek and Laguna Creek. In addition, the monitoring described in Section II.C includes total mercury and methylmercury for three urban discharge stations: Sump 111, Strong Ranch Slough, and North Natomas Development Sump. Section III.A of this MRP also requires monitoring of methylmercury and total mercury in water in a special study to assess the pollutant removal performance of representative detention basins.

[14] Laurenson, B.M. 2007. Report of Waste Discharge – Discharge and Receiving Water Characterization. Memorandum and summary statistics prepared by Brian M. Laurenson, P.E. (Larry Walker Associates) for Delia McGrath (City of Sacramento) and Janet Parris (Sacramento County).

[15] Wood, M.L., C.G. Foe, J. Cooke, S.J. Louie, and D.H. Bosworth. 2008. Sacramento – San Joaquin Delta Estuary TMDL for Methylmercury – Draft Report for Public Review. Central Valley Regional Water Quality Control Board staff report, February 2008.

Total mercury and methylmercury monitoring activities may be modified pending the Permittees' evaluation in the 2008/09 Annual Report. Any changes to the Monitoring Program will be made in consultation with Regional Water Board MS4 and Mercury TMDL staff, and in coordination with the final Delta TMDL and TMDL development efforts for the American River, Sacramento River, and Lake Natomas. The Executive Officer may require SQIP revisions based on the results of the above mercury-related evaluations and Permittee and Regional Water Board staff recommendations.

III. SPECIAL STUDIES

A. Wet Detention Basin Monitoring

1. The Permittees shall complete the Water Quality Detention Basin Effectiveness study initiated in the last permit term to assess the pollutant removal performance of a representative wet water quality detention basin.

2. As described in Table B, the Permittees shall conduct monitoring for the following constituents in the water column at the inlet and outlet: pyrethroids, total mercury, and methylmercury, total suspended solids (TSS), turbidity, and bacteria. All samples will be analyzed using the methods and minimum levels as described in Table B. Other constituents that shall be sampled include: bacteria, total dissolved solids (TDS), and organophosphate pesticides (chlorpyrifos and diazinon), as described in Table B.

3. The study shall be designed to perform inflow and outflow monitoring to measure removal effectiveness, which is representative of typical conditions within the Sacramento urban watershed. Monitoring shall be designed to evaluate the effectiveness of the detention basin in removing pollutants of concern.

4. For a minimum of three years (annually), inlet and outlet samples shall be collected during **three storm events** and **one dry season event** for a total of nine storm events and three dry events. The study may be completed sooner if more storm events can be sampled in a given year.

5. Monitoring summaries will be reported in each Annual Report.

6. The monitoring results shall be evaluated and submitted with the FY 2010/2011 Annual Report. The report shall include an evaluation of basin effectiveness in removing pollutants of concern, including methylmercury. The report shall include a recommendation for collecting

inlet and outlet grab samples at two other detention basins. The two additional detention basins shall be located in watersheds outside the North Natomas area. The results will be submitted to the Regional Water Board in the final Annual Report of the permit term.

7. If the detention basins are found to be ineffective, the Study shall be updated to include recommendations on how to manage or design detention basins differently (i.e., redesign new basins, reconfigure existing basins, periodic dredging).

8. An addendum to the 2010/2011 Wet Detention Basin Effectiveness Report, including the results of the additional detention basin monitoring, shall be submitted in the final Annual Report of the permit term.

B. **Sampling Schedule**

The monitoring program shall implement the sampling schedule shown in Table A;

TABLE A. SAMPLING SCHEDULE

MRP Section Reference	Type	Sites	No. Sites	Permit Years Monitored	Total Events Over 5 Year Permit Term at Each Site	Constituent List [1]	Management Goals Addressed [2]	Notes
II.B.1.	River	Sacramento River (2) and American River (2)	4	Years 1 through 5	15 Wet, 5 Dry	Table B. No pyrethroids in water column, pending evaluation.	A, F	3 Wet, 1 Dry per year Sites located upstream and downstream of Sacramento urban area.
II.B.2.	Urban Tributary	Arcade Creek, Willow Creek, and Laguna Creek	3	Years 1 through 5	15 Wet, 5 Dry	Table B. No pyrethroids in water column, pending evaluation. Sediment monitoring described in MRP section II.E.	A, F	3 Wet, 1 Dry per year The long term Laguna Creek urban tributary monitoring site will be within an existing developed area of the watershed.
II.C.	Urban Discharge Monitoring	Sump 111, Strong Ranch Slough, North Natomas	3	Years 1, 2, 4, & 5	12 Wet, 4 Dry	Table B. No pyrethroids in water column, pending evaluation.	C, D, E, G	3 Wet, 1 Dry per year North Natomas site replaces Sump 104 pending data review and site selection. Monitoring in two of every three years.

TABLE A. SAMPLING SCHEDULE

MRP Section Reference	Type	Sites	No. Sites	Permit Years Monitored	Total Events Over 5 Year Permit Term at Each Site	Constituent List [1]	Management Goals Addressed [2]	Notes
II.D.	Water Column Toxicity	Sacramento River (2), American River (2), Arcade Creek, Willow Creek, and Laguna Creek	7	Years 2 and 4	4 Wet, 2 Dry	Fathead and Ceriodaphnia	A, E, F, G	2 Wet, 1 Dry per year Targeted TIE triggered based on 50% mortality.
II.E.	Sediment	Urban Tributary Monitoring Sites	3	Years 1 through 5	5 Wet, 5 Dry	Pyrethroids	A, E, F, G	1 Wet, 1 Dry per year Wet event to be performed directly following a wet weather urban tributary event, and no later than April
II.F.	Bioassessment	Arcade Creek, Willow Creek, and Laguna Creek	3	None Required. See Notes.	None Required. See Notes.	None Required. See Notes.	A, C, F, G	May be added at Permittee's discretion.
III.A.	Wet Detention Basin	North Natomas	2	Years 1, 2, & 3	9 Wet, 3 Dry	Water column monitoring includes total mercury, methylmercury, TSS, bacteria, turbidity, TDS, OP pesticides, and pyrethroids.	B, C, D, E, F, G	3 Wet, 1 Dry per year Monitoring initiated in 2007/08. Water column monitoring at inlet and outlet. Additional sampling of two more basins post 2010/2011 report.
III.B.	Pilot Watershed	Laguna Creek New Development BMP Effectiveness Evaluation	1	After year 2	None Required. See Notes.	None Required. See Notes.	B, D, E, G	Monitoring frequency, constituents, and sites to be determined during development of monitoring work plan in 2008/09.

Notes:
[1] “Table B” refers to the MRP constituent list that includes, among other constituents, total mercury, methyl mercury, and TSS.
[2] Management Goals
A. What is the existing condition of receiving water quality and is it protective of beneficial uses?
B. What is the quality of urban discharge in new developed areas?
C. What is the trend of urban discharge quality?
D. What is the relative urban runoff contribution to receiving water quality?
E. What are the sources to urban runoff that affect receiving water quality?
F. Are conditions in receiving waters getting better or worse?
G. How can changes in urban water quality affect receiving water quality?

C. **Pilot Watershed – New Development BMP Effectiveness Evaluation**

1. The Permittees shall prepare and implement a work plan over the permit term for monitoring a receiving water site within the Upper Laguna Creek Collaborative project area. The work plan shall be submitted as part of the revised SQIP.

   The objective of the study shall include the following:

   a. Monitor the reduction of pollutants of concern in storm water including, but not limited to, pathogen indicators, nutrients, heavy metals (including total mercury and methylmercury), and pesticides from a minimum of one BMP (e.g., low impact development) to determine BMP effectiveness;

   b. Evaluate the requirements for and installation and maintenance cost of each BMP; and

   c. Develop recommendations for appropriate BMPs for the reduction of pollutants of concern in storm water in the Sacramento urbanized area.

D. **Proprietary Treatment BMP Effectiveness Evaluation**

The Permittees shall continue to research the effectiveness and applicability of proprietary structural treatment BMPs for use in the Sacramento urbanized area. This study will include the review of manufacturer's field test data to verify their claims of product performance. This study shall be conducted a minimum of once per permit term.

IV. Standard Monitoring Provisions

All monitoring activities shall meet the following requirements:

A. Monitoring and Records [40 CFR 122.41(j)(1)]

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

B. Monitoring and Records [40 CFR 122.41(j)(2)] [California Water Code §13383(a)]

The Permittees shall retain records of all monitoring information, including all calibration and maintenance of monitoring instrumentation, copies of all

reports required by this Order, and records of all data used to complete the Report of Waste Discharge and application for this Order, for a period of at least five (5) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board or U.S. EPA at any time and shall be extended during the course of any unresolved litigation regarding this discharge.

C. Monitoring and Records [40 CFR 122.41(j)(3)]. Records of monitoring information shall include:

1. Date, location, and time of sampling or measurements;
2. Individual(s) who performed the sampling or measurements;
3. Date analyses were performed;
4. Individual(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. Results of such analyses.

D. Monitoring and Records [40 CFR 122.41(j)(4)]

All sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR Part 136, unless otherwise specified in this Order.

E. Monitoring and Records [40 CFR 122.41(j)(5)]

The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than two years, or both. If a conviction is for a violation committed after a first conviction under this paragraph, punishment shall be a fine of not more than $20,000 per day of violation, or by imprisonment for not more than two years, or both.

F. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory certified for such analyses by an appropriate governmental regulatory agency.

G. For priority toxic pollutants that are identified in the CTR (65 Fed. Reg. 31682), the MLs published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California - 2000 (SIP) shall be used for all analyses, unless otherwise specified. Appendix 4 of the SIP is included in Table B. For pollutants not contained in Appendix 4 of the SIP, the test method and method detection limit (MDL) listed in Table B shall be used for all analyses, and the ML for these parameters shall be lower than or equal to the lowest applicable water quality criteria from the Basin Plan and/or the Inland Surface Waters Plan.

H. The Monitoring Report shall specify the analytical method used, the MDL and the ML for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported with one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML;

2. "Not-detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used; or

3. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported. This is the concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

4. For priority toxic pollutants, if the Permittees can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Permittees must submit documentation from the laboratory to the Executive Officer for approval prior to raising the ML for any constituent.

I. Monitoring Reports [40 CFR 122.41(l)(4)(ii)]

If the Permittees monitor any pollutant more frequently than required by the permit using test procedures approved under this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Annual Report.

J. Monitoring Reports [40 CFR 122.41(l)(4)(iii)]

Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.

K. If no flow occurred during the reporting period, the Monitoring Report shall so state.

L. The Executive Officer or the Regional Water Board, consistent with 40 CFR 122.41, may approve changes to the Monitoring Program, after providing the opportunity for public comment, either:

1. By petition of the Permittees, or by petition of interested parties, after the submittal of the Annual Report (such petition shall be filed not later than 60 days after the Annual Report submittal date), or

2. As deemed necessary by the Executive Officer following notice to the Permittees.

Ordered by _____

PAMELA C. CREEDON, Executive Officer

11 September 2008

Date

Attachments: Table B – List of Constituents

Attachment A – Permit Area Map

Attachment B – Monitoring Locations Map

Attachment C – Definitions

Attachment D – Standard Provisions and Reporting Requirements (February 2004)

TABLE B. LIST OF CONSTITUENTS AND ASSOCIATED MINIMUM LEVELS (MLs)[16] FOR THE STORM WATER AND URBAN DISCHARGE MONITORING PROGRAM

CONSTITUENTS	MLs
FIELD/LAB MEASUREMENTS	
Date	mm/dd/yyyy
Sample Time	hr:min (regular time)
Weather	degrees F
Water Temperature	degrees C
pH	0 – 14
Dissolved Oxygen	Sensitivity to 5 mg/L
Turbidity	0.1 NTU
Electrical Conductivity (EC)	µmhos/cm
BACTERIA	
Fecal coliform	<20mpn/100ml
E. coli (fresh waters)	<20mpn/100ml
GENERAL	**mg/L**
Total Petroleum Hydrocarbons	5
Total Suspended Solids	2
Total Dissolved Solids	2
Total Organic Carbon	1
Dissolved Organic Carbon	1
Biochemical Oxygen Demand	2
Chemical Oxygen Demand	20-900
Total Kjeldahl Nitrogen	0.1
Alkalinity	2
Nitrate-Nitrite	0.1
Total Phosphorus	0.05
Total Hardness	2
Methylmercury	0.05 ng/L

[16] For Priority Pollutants, the MLs represent the lowest value listed in Appendix 4 of SIP. Method Detection Limit (MDLs) must be lower than or equal to the ML value. If a particular ML is not attainable in accordance with procedures set for in 40 CFR 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure may be used instead.

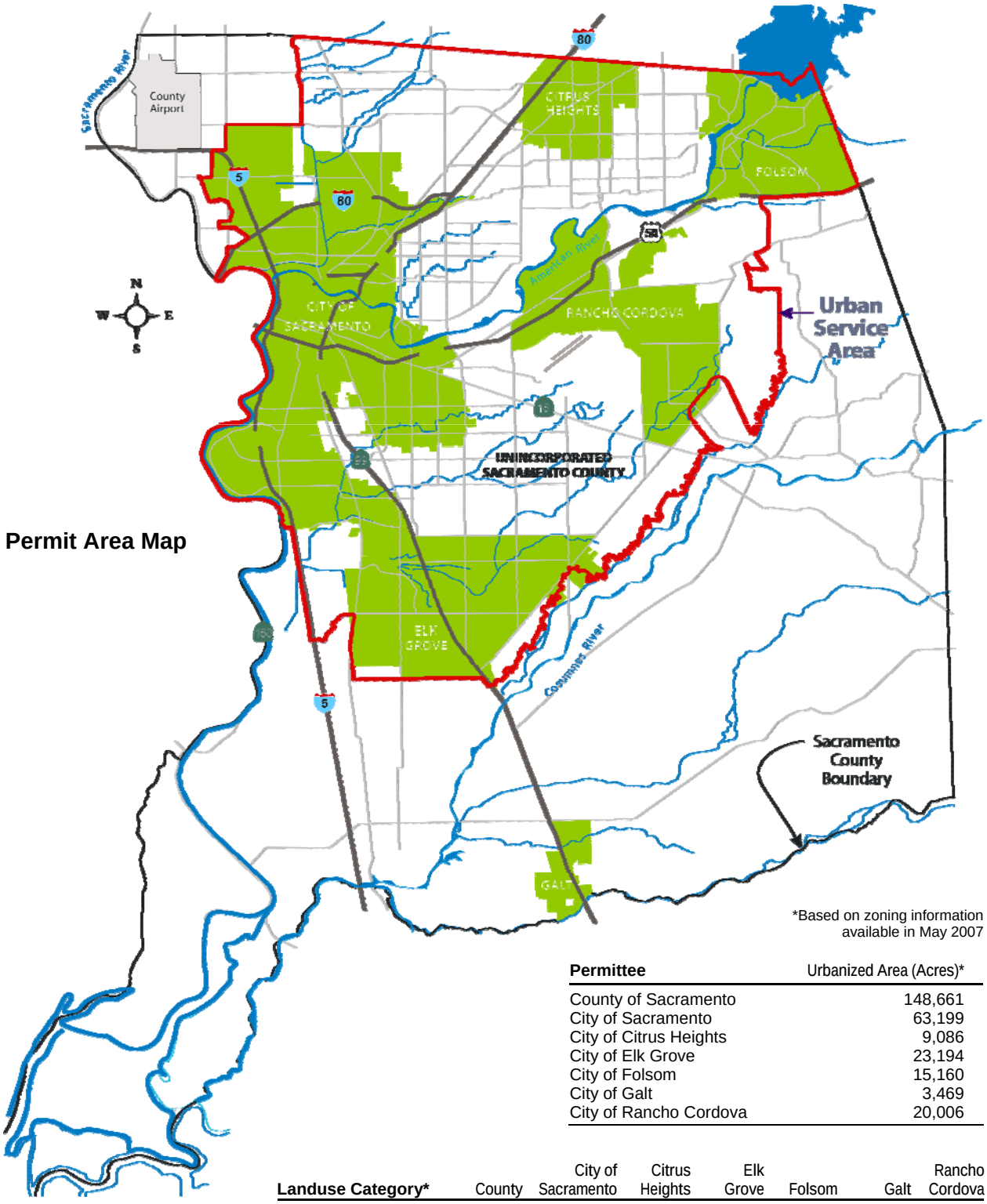
CONSTITUENTS	MLs
METALS	**µg/L**
Copper, Dissolved	0.5
Copper, Total	0.5
Iron, Total	100
Lead, Dissolved	0.5
Lead, Total	0.5
Mercury, Total	0.5 ng/L
Zinc, Dissolved	1
Zinc, Total	1
ORGANOPHOSPHATE PESTICIDES	**µg/L**
Chlorpyrifos	0.01
Diazinon	0.05
Malathion	0.05
SEMI- AND NON-VOLATILE ORGANICS	**µ g/L**
Perylene	0.005
Benz[a]anthracene	0.005
Chrysene	0.005
Fluorene	0.005
Benzo[b]fluoranthene	0.005
Benzo[e]pyrene	0.005
Benzo[k]fluoranthene	0.005
Benzo[a]pyrene	0.005
Indeno[1,2,3-c,d]pyrene	0.005
Dibenz[a,h]anthracene	0.005
Benzo[g,h,i]perylene	0.005
Pyrene	0.005
Acenaphthylene	0.005
Acenaphthene	0.005
Naphthalene	0.005
2-Methylnaphthalene	0.005
1-Methylnaphthalene	0.005
2,6-Dimethylnaphthalene	0.005
2,3,5-Trimethylnaphthalene	0.005
Fluoranthene	0.005
Phenanthrene	0.005
Anthracene	0.005
1-Methylphenanthrene	0.005

CONSTITUENTS	MLs
PYRETHROID PESTICIDES IN SEDIMENT	**Target Reporting Limit (ng/g)[2]**
Bifenthrin	2
Cyfluthrin	4
Cypermethrin	4
Deltamethrin/Tralomethrin	4
Esfenvalerate/Fenvalerate	2
Fenpropathrin	4
Lambda-cyhalothrin	4
Permethrin	8
The following analysis would only be required if monitoring results from the studies investigating the Pelagic Organism Decline in the Delta indicate these concentrations are present and of concern in Sacramento Permittee discharges	
PYRETHROID PESTICIDES IN WATER[3]	**Target Reporting Limit ppb (ug/L)[2]**
Bifenthrin	0.002
Cyfluthrin	0.004
Cypermethrin	0.004
Deltamethrin/Tralomethrin	0.004
Esfenvalerate/Fenvalerate	0.002
Fenpropathrin	0.004
Lambda-cyhalothrin	0.002
Permethrin	0.005

[2] Acceptable method should generally be able to meet the minimum level target, however, the method detection limit (MDL) reported should be equal to or less than the listed target.
[3] Unfiltered, grab sample using glass jars

ATTACHMENT A

Permit Area Map



*Based on zoning information available in May 2007

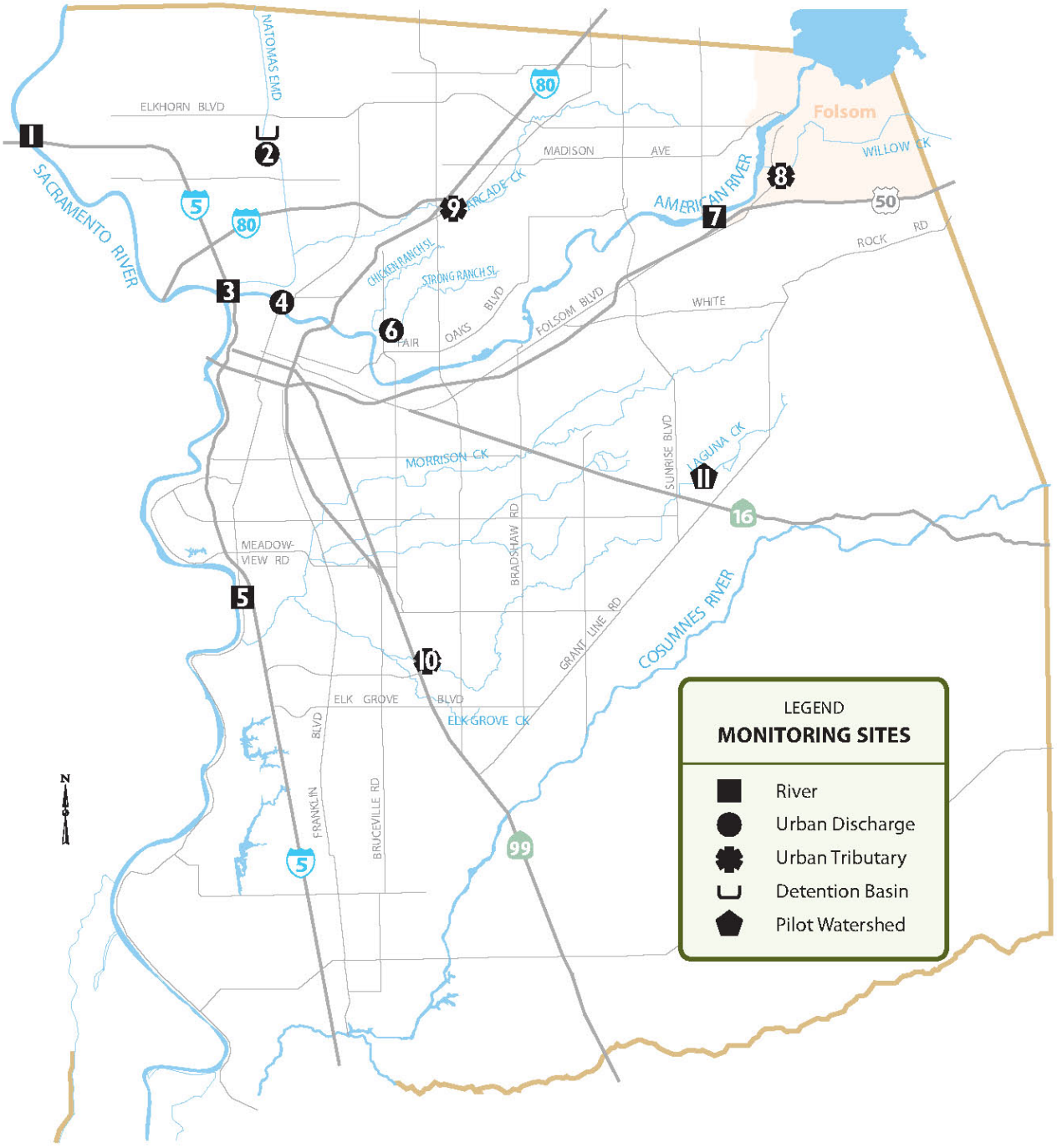
Permittee	Urbanized Area (Acres)*
County of Sacramento	148,661
City of Sacramento	63,199
City of Citrus Heights	9,086
City of Elk Grove	23,194
City of Folsom	15,160
City of Galt	3,469
City of Rancho Cordova	20,006

Landuse Category*	County	City of Sacramento	Citrus Heights	Elk Grove	Folsom	Galt	Rancho Cordova
Residential	33%	55%	63%	74%	46%	59%	53%
Commercial	4%	17%	8%	10%	8%	15%	14%
Industrial	10%	2%	OC	4%	5%	7%	6%
Institutional	OC	9%	6%	2%	10%	7%	6%
Major Roads/Freeways	OC	5%	15%	3%	OC	OC	OC
Parks and Open Space	10%	11%	2%	7%	22%	4%	21%
Agricultural	20%	0%	0%	0%	0%	8%	0%
Other/Miscellaneous	24%	1%	6%	0%	9%	0%	0%

OC = included in other land use categories

SACRAMENTO STORMWATER QUALITY PARTNERSHIP

2008–2013 Proposed Monitoring Sites



Monitoring Site Names

1 Sacramento River at Veterans Bridge
2 North Natomas
3 American River at Discovery Park
4 Sump 111
5 Sacramento River at Freeport Marina
6 Strong Ranch Slough
7 American River at Nimbus Dam
8 Willow Creek at Blue Ravine Rd
9 Arcade Creek at Watt Ave
10 Laguna Creek Lower Watershed
11 Laguna Creek Upper Watershed

DEFINITIONS
ORDER NO. R5-2008-0142
CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, RANCHO CORDOVA, SACRAMENTO AND COUNTY OF SACRAMENTO
MUNICIPAL SEPARATE STORM SEWER SYSTEM
SACRAMENTO COUNTY

Adverse Impact means a detrimental effect upon water quality or beneficial uses caused by a discharge or loading of a pollutant or pollutants.

Anti-degradation Policy means the *Statement of Policy with Respect to Maintaining High Quality Water in California* (State Board Resolution No. 68-16), which protects surface and ground waters from degradation. In particular, this policy protects water bodies where existing quality is higher than that necessary for the protection of beneficial uses including the protection of fish and wildlife propagation and recreation on and in the water.

Applicable Standards and Limitations means all state, interstate, and federal standards and limitations to which a discharge or a related activity is subject under the Clean Water Act (CWA), including effluent limitations, water quality standards, standards of performance, toxic effluent standards or prohibitions, best management practices, and pretreatment standards under CWA Sections 301, 302, 303, 304, 306, 307, 308, 403 and 404.

Authorized Discharge means any discharge that is authorized pursuant to a National Pollutant Discharge Elimination System (NPDES) permit or meets the conditions set forth in this Order.

Automotive Service Facilities means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 5511, 7532-7534, or 7536-7539.

Basin Plan means the *Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins*. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin.

Beneficial Uses means the existing or potential uses of receiving waters in the permit area as designated by the Regional Board in the Basin Plan.

Best Management Practices (BMPs) means methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and nonstructural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technologies (BCT) or Best Practicable Treatment or Control (BPTC): is a requirement of State Water Resources Control Board Resolution 68-16 - “Statement of Policy with Respect to Maintaining High Quality of Waters in California” (referred to as the

"Antidegradation Policy"). BPTC is the treatment or control of a discharge necessary to assure that, "(a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained." Pollution is defined in CWC Section 13050(l). In general, an exceedance of a water quality objective in the Basin Plan constitutes "pollution".

Commercial Development means any development on private land that is not heavy industrial or residential. The category includes, but is not limited to hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, plant nurseries, car wash facilities, mini-malls, business complexes, shopping malls, hotels, office buildings, public warehouses, and light industrial complexes.

Commercial/Industrial Facility means any facility involved and/or used in the production, manufacture, storage, transportation, distribution, exchange or sale of goods and/or commodities, and any facility involved and/or used in providing professional and non-professional services. This category of facilities includes, but is not limited to, any facility defined by the SIC Code. Facility ownership (federal, state, municipal, private) and profit motive of the facility are not factors in this definition.

Construction means clearing, grading, excavating, etc. that results in soil disturbance. Construction includes structure teardown. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety; interior remodeling with no outside exposure of construction material or construction waste to storm water; mechanical permit work; or sign permit work.

Control means to minimize, reduce, eliminate, or prohibit by technological, legal, contractual or other means, the discharge of pollutants from an activity or activities.

Dechlorinated/Debrominated Swimming Pool Discharge means swimming pool discharges which have no measurable chlorine or bromine and do not contain any detergents, wastes, or additional chemicals not typically found in swimming pool water. The term does not include swimming pool filter backwash.

Development means any construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail and other non-residential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

Director means the Director of a municipality and Person(s) designated by and under the Director's instruction and supervision.

Discharge means when used without qualification the discharge of a pollutant.
Discharging Directly means outflow from a drainage conveyance system that is composed entirely or predominantly of flows from the subject, property, development, subdivision, or industrial facility, and not commingled with the flows from adjacent lands.

Discharge of a Pollutant means any addition of any pollutant or combination of pollutants to waters of the United States from any point source or, any addition of any pollutant or combination of pollutants to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term discharge includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

Disturbed Area means an area that is altered as a result of clearing, grading, and/or excavation.

Dry weather day means a day with a rain event too small to generate runoff (typically 0.1 inches or less) shall be considered a dry weather day.

Construction Activities Storm Water General Permit (GCP) means the general NPDES permit adopted by the State Board which authorizes the discharge of storm water from construction activities under certain conditions.

Industrial Activities Storm Water General Permit (IGP) means the general NPDES permit adopted by the State Board which authorizes the discharge of storm water from certain industrial activities under certain conditions.

Hydrology is a scientific discipline concerned with the waters of the Earth, including their occurrence, distribution, and circulation via the hydrologic cycle and interactions with living things. It also deals with the chemical and physical properties of water in all its phases.

Hydromodification means the change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport. In addition, alteration of stream and river channels, installation of dams and water impoundments, and excessive stream bank and shoreline erosion are also considered hydromodification, due to their disruption of natural watershed hydrologic processes.

Illicit Connection means any man-made conveyance that is connected to the storm drain system without a permit, excluding roof drains and other similar type connections. Examples include channels, pipelines, conduits, inlets, or outlets that are connected directly to the storm drain system.

Illicit Discharge means any discharge to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term "illicit discharge" includes all non storm-water discharges except discharges pursuant to an NPDES permit, discharges that are identified in **Discharge Prohibitions** of this Order, and discharges authorized by the Regional Board.

Illicit Disposal means any disposal, either intentionally or unintentionally, of materials or wastes that can pollute storm water.

Infiltration means the downward entry of water into the surface of the soil.

Inspection means entry and the conduct of an on-site review of a facility and its operations, at reasonable times, to determine compliance with specific municipal or other legal requirements. The steps involved in performing an inspection, include, but are not limited to:

a. Pre-inspection documentation research.;
b. Request for entry;
c. Interview of facility personnel;
d. Facility walk-through.
e. Visual observation of the condition of facility premises;
f. Examination and copying of records as required;
g. Sample collection if necessary or required;
h. Exit conference to discuss preliminary evaluation; and,
i. Report preparation, and if appropriate, recommendations for coming into compliance.

In the case of restaurants, a Permittee may conduct an inspection from the curbside, provided that such curbside inspection provides the Permittee with adequate information to determine an operator's compliance with BMPs that must be implemented per requirements of this Order and the SWMP.

Medium Municipal Separate Storm Sewer System (MS4) means all MS4s that serve a population less than 250,000 (1990 Census) as defined in 40 CFR 122.26 (b)(4).

Local SWPPP means the Storm Water Pollution Prevention Plan required by the local agency for a project that disturbs one or more acres of land.

Low Impact Development (LID) – A storm water management and land development strategy that emphasizes conservation and the use of on-site natural features integrated with engineered, small-scale hydrologic controls to more closely reflect pre-development hydrologic functions.

Maximum Extent Practicable (MEP) – The technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that operators of MS4s must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve;

typically by treatment or by a combination of source control and treatment control BMPs. MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their storm water management programs (SWMP). The Permittees' total collective and individual activities conducted pursuant to the storm water management programs (SWMP) becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for MS4 maintenance).

In the absence of a proposal acceptable to the Regional Board, the Regional Board defines MEP. In a memo dated February 11, 1993, entitled *"Definition of Maximum Extent Practicable,"* Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

> "*To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:*
>
> *a. Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*
>
> *b. Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
>
> *c. Public Acceptance: Does the BMP have public support?*
>
> *d. Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
>
> *e. Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*
>
> *The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a*

choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented."

Method Detection Limit (MDL) means the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR 136, Appendix B.

Minimum Level (ML) means the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Municipal Separate Storm Sewer System (MS4) means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, alleys, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a State, city, county, town or other public body, that is designed or used for collecting or conveying storm water, which is not a combined sewer, and which is not part of a publicly owned treatment works, and which discharges to Waters of the United States.

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under CWA §307, 402, 318, and 405.

Natural Drainage Systems means unlined or unimproved (not engineered) creeks, streams, rivers or similar waterways.

New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Non-Storm Water Discharge means any discharge to a storm drain that is not composed entirely of storm water.

Nuisance means anything that meets all of the following requirements: (1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; (2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although

the extent of the annoyance or damage inflicted upon individuals may be unequal.; (3) occurs during, or as a result of, the treatment or disposal of wastes.

Parking Lot means land area or facility for the parking or storage of motor vehicles used for businesses, commerce, industry, or personal use, with a lot size of 5,000 square feet or more of surface area, or with 25 or more parking spaces.

Performance Standard means a narrative or measurable number specifying the minimum acceptable outcome for a pollution control practice.

Permittees means Co-Permittees and any agency named in this Order as being responsible for permit conditions within its jurisdiction. Permittees to this Order include the County of Sacramento, and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

Planning Priority Projects means those projects that are required to incorporate appropriate storm water mitigation measures into the design plan for their respective project. These types of projects include:

a. Ten or more unit homes including single family homes, multifamily homes, condominiums, and apartments;
b. A 100,000 or more square feet of impervious surface area industrial/ commercial development (1 acre starting March 2003);
c. Automotive service facilities (SIC 5013, 5014, 5541, 7532-7534, and 7536-7539);
d. Retail gasoline outlets;
e. Restaurants (SIC 5812);
f. Parking lots 5,000 square feet or more of surface area or with 25 or more parking spaces;
g. Redevelopment projects in subject categories that meet Redevelopment thresholds;
h. Projects located in or directly adjacent to or discharging directly to an ESA, which meet thresholds; and
i. Those projects that require the implementation of a site-specific plan to mitigate post-development storm water for new development not requiring a SUSMP but which may potentially have adverse impacts on post-development storm water quality, where the following project characteristics exist:

    1) Vehicle or equipment fueling areas;
    2) Vehicle or equipment maintenance areas, including washing and repair;
    3) Commercial or industrial waste handling or storage;
    4) Outdoor handling or storage of hazardous materials;
    5) Outdoor manufacturing areas;
    6) Outdoor food handling or processing;
    7) Outdoor animal care, confinement, or slaughter; or
    8) Outdoor horticulture activities.

Pollutants means those substances defined in CWA §502(6) (33.U.S.C.§1362(6)), and incorporated by reference into California Water Code §13373.

Potable Water Distribution Systems Releases means sources of flows from drinking water storage, supply and distribution systems including flows from system failures, pressure releases, system maintenance, distribution line testing, fire hydrant flow testing; and flushing and dewatering of pipes, reservoirs, vaults, and minor non-invasive well maintenance activities not involving chemical addition(s). It does not include wastewater discharges from activities that occur at wellheads, such as well construction, well development (i.e., aquifer pumping tests, well purging, etc.), or major well maintenance.

Project means all development, redevelopment, and land disturbing activities. The term is not limited to "Project" as defined under CEQA (Pub. Resources Code §21065).

Receiving Waters means all surface water bodies in the Central Valley Region that are identified in the Basin Plan.

Receiving Water Limitations (RWLs) - Waste discharge requirements issued by the Regional Board typically include both: (1) “Effluent Limitations” (or “Discharge Limitations”) that specify the technology-based or water-quality-based effluent limitations; and (2) “Receiving Water Limitations” that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the “Receiving Water Limitations” provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Redevelopment means land-disturbing activity that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of a routine maintenance activity; and land disturbing activities related to structural or impervious surfaces. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

Regional Administrator means the Regional Administrator of the Regional Office of the U.S. Environmental Protection Agency (EPA) or the authorized representative of the Regional Administrator.

Restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812).

Retail Gasoline Outlet means any facility engaged in selling gasoline and lubricating oils.

Runoff means any runoff including storm water and dry weather flows from a drainage area that reaches a receiving water body or subsurface. During dry weather it is typically comprised of base flow either contaminated with pollutants or uncontaminated, and nuisance flows.

Screening means using proactive methods to identify illicit connections through a continuously narrowing process. The methods may include: performing baseline monitoring of open channels, conducting special investigations using a prioritization approach, analyzing maintenance records for catch basin and storm drain cleaning and operation, and verifying all permitted connections into the storm drains. Special investigation techniques may include: dye testing, visual inspection, smoke testing, flow monitoring, infrared, aerial and thermal photography, and remote control camera operation.

Sidewalk Rinsing means pressure washing of paved pedestrian walkways with average water usage of 0.006 gallon per square foot, with no cleaning agents, and properly disposing of all debris collected.

Significant Natural Area (SNA) means an area defined by the California Department of Fish and Game (DFG), Significant Natural Areas Program, as an area that contains an important example of California's biological diversity. The most current SNA maps, reports, and descriptions can be downloaded from the DFG website at ftp://maphost.dfg.ca.gov/outgoing/whdab/sna/. These areas are identified using the following biological criteria only, irrespective of any administrative or jurisdictional considerations:

a. Areas supporting extremely rare species or habitats;
b. Areas supporting associations or concentrations of rare species or habitats; and
c. Areas exhibiting the best examples of rare species and habitats in the state.

Site means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

Source Control BMP means any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent storm water pollution by reducing the potential for contamination at the source of pollution.

State Storm Water Pollution Prevention Plan (State SWPPP) means a plan, as required by a State General Permit, identifying potential pollutant sources and describing the design, placement and implementation of BMPs, to effectively prevent non-stormwater Discharges and reduce Pollutants in Stormwater Discharges during activities covered by the General Permit.

Storm Event means any rain event greater than 0.25 inch in 24 hours except where specifically stated otherwise.

Storm Water means storm water runoff, snow melt runoff, and surface runoff and drainage.

Storm Water Discharge Associated with Industrial Activity means industrial discharge as defined in 40 CFR 122.26(b)(14)

Storm Water Quality Improvement Plan (SQIP) is the Permittees equivalent title for a Storm Water Management Plan. The SQIP means the Permittees program, which includes all elements and descriptions, collectively developed by the Permittees in accordance with provisions of the NPDES Permit, to comply with applicable federal and state law.

Structural BMP means any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution (e.g. canopy, structural enclosure). The category may include both Treatment Control BMPs and Source Control BMPs.

SUSMP or Development Standards means Standard Urban Stormwater Mitigation Plans. They are standards which the Permittees must develop and implement for new development and significant redevelopment projects to control the discharge of storm water pollutants in post-construction storm water.

Total Maximum Daily Load (TMDL) means the sum of the individual waste load allocations for point sources and load allocations for nonpoint sources and natural background.

Toxicity Identification Evaluation (TIE) means a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

Toxicity Reduction Evaluation (TRE) means a study conducted in a step-wise process to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity.

Treatment means the application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media absorption, biodegradation, biological uptake, chemical oxidation and UV radiation.

Treatment Control BMP means any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process.

U.S. EPA Phase I Facilities means facilities in specified industrial categories that are required to obtain an NPDES permit for storm water discharges, as required by 40 CFR 122.26(c). These categories include facilities subject to storm water effluent limitation guidelines, new source performance standards, or toxic pollutant effluent standards (40 CFR N); manufacturing facilities; oil and gas/mining facilities; hazardous waste treatment, storage, or disposal facilities; landfills, land application sites, and open dumps; recycling facilities; steam electric power generating facilities; transportation facilities sewage of wastewater treatment works; and light manufacturing facilities.

Vehicle Maintenance/Material Storage Facilities/Corporation Yards means any Permittee owned or operated facility or portion thereof that conducts industrial activity, operates equipment, handles materials, and provides services similar to Federal Phase I facilities; performs fleet vehicle service/maintenance on ten or more vehicles per day including repair, maintenance, washing, and fueling; performs maintenance and/or repair of heavy industrial machinery/equipment; and stores chemicals, raw materials, or waste materials in quantities that require a hazardous materials business plan or a Spill Prevention, Control, and Counter-measures (SPCC) plan.

Water Quality Standards and Water Quality Objectives means water quality criteria contained in the Basin Plan, the National Toxics Rule, the California Toxics Rule, and other state or federally approved surface water quality plans. Such plans are used by the Regional Board to regulate all discharges, including storm water discharges.

Waters of the State means any surface water or groundwater, including saline waters, within boundaries of the state.

Waters of the United States means:

a. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

b. All interstate waters, including interstate wetlands;

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

    1. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
    2. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    3. Which are used or could be used for industrial purposes by industries in interstate commerce;

d. All impoundments of waters otherwise defined as waters of the United States under this definition;

e. Tributaries of waters identified in paragraphs (a) through (d) of this definition;

f. The territorial sea; and

g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.22(m), which also meet the criteria of this definition) are not waters of the United States. This exclusion applies only to man-made bodies of water, which neither were originally created in waters of the United States (such as disposal area in wetlands) nor resulted from the impoundment of waters of the United States. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with U.S. EPA.

Wet Season means the calendar period beginning October 1 through April 15.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

STANDARD PROVISIONS AND REPORTING REQUIREMENTS
FOR
WASTE DISCHARGE REQUIREMENTS
(National Pollutant Discharge Elimination System)

February 2004

A. GENERAL PROVISIONS

1. Any violation of this Order constitutes a violation of the Federal Clean Water Act (CWA) and the California Water Code (CWC) and, therefore, may result in enforcement action under either or both laws.

2. The Clean Water Act provides that any person who violates a portion of this Order implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $25,000 per day for each violation. Any person who willfully or negligently violates this Order with regard to these sections of the CWA is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

3. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another; protect the Discharger from liability under federal, state, or local laws; or guarantee the Discharger a capacity right in the receiving waters.

4. The Discharger shall allow representatives of the Regional Water Quality Control Board (hereafter Board), the State Water Resources Control Board (hereafter State Board) and the United States Environmental Protection Agency (hereafter U.S. U.S. EPA), upon presentation of credentials, at reasonable hours, to:

   a. enter premises where wastes are treated, stored, or discharged and facilities in which any required records are kept;

   b. copy any records required to be kept under terms and conditions of this Order;

   c. inspect facilities, monitoring equipment, practices, or operations regulated or required by this Order; and

   d. sample, photograph or video tape any discharge, waste, waste unit or monitoring device.

5. If the Discharger's wastewater treatment plant is publicly owned or subject to regulation by the California Public Utilities Commission, it shall be supervised and operated by persons possessing certificates of appropriate grade according to Title 23, California Code of Regulations (CCR), Division 3, Chapter 14.

6. The Discharger shall at all times properly operate and maintain all facilities, and systems of treatment and control including sludge use and disposal facilities (and related appurtenances) that are installed or used to achieve compliance with this Order.

   Proper operation and maintenance includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger only when necessary to achieve compliance with this Order.

7. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

a. violation of any term or condition contained in this Order;

b. obtaining this Order by misrepresentation or by failing to disclose fully all relevant facts;

c. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and

d. a material change in the character, location, or volume of discharge.

The causes for modification include:

a. New regulations. New regulations have been promulgated under Section 405(d) of the Clean Water Act, or the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued.

b. Land application plans. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.

c. Change in sludge use or disposal practice. Under 40 Code of Federal Regulations (CFR) 122.62(a)(1), a change in the Discharger's sludge use or disposal practice is a cause for modification of the permit. It is cause for revocation and reissuance if the Discharger requests or agrees.

The Regional Board may review and revise this Order at any time upon application of any affected person or the Board's own motion.

8. The filing of a request by the Discharger for modification, revocation and reissuance, or termination of this Order, or notification of planned changes or anticipated noncompliance, does not stay any condition of this Order.

   The Discharger shall furnish, within a reasonable time, any information the Board or U.S. EPA may request to determine compliance with this Order or whether cause exists for modifying or terminating this Order. The Discharger shall also furnish to the Board, upon request, copies of records required to be kept by this Order.

9. If a toxic effluent standard or prohibition (including any scheduled compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the CWA, or amendments thereto, for a toxic pollutant that is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition.

   The Discharger shall comply with effluent standards and prohibitions within the time provided in the regulations that establish those standards or prohibitions, **even if this Order has not yet been modified.**

10. If more stringent applicable water quality standards are approved, pursuant to Section 303 of the CWA, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

11. This Order shall be modified, or alternately revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:

    a. contains different conditions or is otherwise more stringent than any effluent limitation in the Order; or

    b. controls any pollutant limited in the Order.

    The Order, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

12. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.

13. By-pass (the intentional diversion of waste streams from any portion of a treatment facility or collection system, except those portions designed to meet variable effluent limits) is prohibited except under the following conditions:

    a. (1) by-pass was unavoidable to prevent loss of life, personal injury, or severe property damage; (severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a by-pass; severe property damage does not mean economic loss caused by delays in production);

    and

    (2) there were no feasible alternatives to by-pass, such as the use of auxiliary treatment facilities or retention of untreated waste; this condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a by-pass that would otherwise occur during normal periods of equipment downtime or preventive maintenance;

    or

    b. (1) by-pass is required for essential maintenance to assure efficient operation;

    and

    (2) neither effluent nor receiving water limitations are exceeded;

    and

    (3) the Discharger notifies the Board ten days in advance.

    The permittee shall submit notice of an unanticipated by-pass as required in paragraph B.1. below.

14. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, failure to

implement an appropriate pretreatment program, or careless or improper action. A Discharger that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through properly signed, contemporaneous operating logs, or other evidence, that:

a. an upset occurred due to identifiable cause(s);

b. the permitted facility was being properly operated at the time of the upset;

c. notice of the upset was submitted as required in paragraph B. 1.; and

d. remedial measures were implemented as required under paragraph A. 17.

In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof.

15. This Order is not transferable to any person except after notice to the Board. The Board may modify or revoke and reissue the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA.

16. Except for data determined to be confidential under Section 13267 of the CWC, all reports prepared in accordance with terms of this Order shall be available for public inspection at the offices of the Board and U.S. EPA. Effluent data are not confidential.

17. The Discharger shall take all reasonable steps to minimize any adverse effects to waters of the State or users of those waters resulting from any discharge or sludge use or disposal in violation of this Order. Reasonable steps shall include such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge or sludge use or disposal.

18. The fact that it would have been necessary for the Discharger to halt or reduce the permitted activity in order to comply with this Order shall not be a defense for violating this Order.

19. The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by U.S. EPA under Section 307 of the CWA, or amendment thereto, for any discharge to the municipal system.

20. The discharge of any radiological, chemical or biological warfare agent or high-level, radiological waste is prohibited.

21. A copy of this Order shall be maintained at the discharge facility and be available at all times to operating personnel. Key operating personnel shall be familiar with its content.

22. Neither the treatment nor the discharge shall create a condition of nuisance or pollution as defined by the CWC, Section 13050.

B. GENERAL REPORTING REQUIREMENTS

1. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, daily maximum effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Board by telephone (916) 464-3291*[Note: Current phone numbers for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact_us.]* within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Board waives

confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

2. Safeguard to electric power failure:

   a. The Discharger shall provide safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharge shall comply with the terms and conditions of this Order.

   b. Upon written request by the Board the Discharger shall submit a written description of safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. A description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past five years on effluent quality and on the capability of the Discharger to comply with the terms and conditions of the Order. The adequacy of the safeguards is subject to the approval of the Board.

   c. Should the treatment works not include safeguards against reduction, loss, or failure of electric power, or should the Board not approve the existing safeguards, the Discharger shall, within ninety days of having been advised in writing by the Board that the existing safeguards are inadequate, provide to the Board and U.S. EPA a schedule of compliance for providing safeguards such that in the event of reduction, loss, or failure of electric power, the Discharger shall comply with the terms and conditions of this Order. The schedule of compliance shall, upon approval of the Board, become a condition of this Order.

3. The Discharger, upon written request of the Board, shall file with the Board a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. This report may be combined with that required under B.2.

   The technical report shall:

   a. Identify the possible sources of spills, leaks, untreated waste by-pass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks and pipes should be considered.

   b. Evaluate the effectiveness of present facilities and procedures and state when they became operational.

   c. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

      The Board, after review of the technical report, may establish conditions, which it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions shall be incorporated as part of this Order, upon notice to the Discharger.

4. The Discharger shall file with the Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A **material change** includes, but is not limited to, the following:

   a. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of

the waste.

b. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.

c. Significantly changing the method of treatment.

d. Increasing the discharge flow beyond that specified in the Order.

5. A publicly owned treatment works (POTW) whose waste flow has been increasing, or is projected to increase, shall estimate when flows will reach hydraulic and treatment capacities of its treatment and disposal facilities. The projections shall be made in January, based on the last three years' average dry weather flows, peak wet weather flows and total annual flows, as appropriate. When any projection shows that capacity of any part of the facilities may be exceeded in four years, the Discharger shall notify the Board by **31 January.** A copy of the notification shall be sent to appropriate local elected officials, local permitting agencies and the press. Within 120 days of the notification, the Discharger shall submit a technical report showing how it will prevent flow volumes from exceeding capacity or how it will increase capacity to handle the larger flows. The Board may extend the time for submitting the report.

6. A manufacturing, commercial, mining, or silvicultural discharger shall notify the Board as soon as it knows or has reason to believe:

   a. That any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels":

      (1) 100 micrograms per liter (µg/l);

      (2) 200 µg/l for acrolein and acrylonitrile; 500 µg/l for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/l) for antimony;

      (3) five times the maximum concentration value reported for that pollutant in the Report of Waste Discharge; or

      (4) the level established by the Board in accordance with 40 CFR 122.44(f).

   b. That it expects to begin to use or manufacture, as an intermediate or final product or by-product, any toxic pollutant that was not reported in the Report of Waste Discharge.

7. A POTW shall provide adequate notice to the Board of:

   a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants, and

   b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order, and

   c. any planned physical alterations or additions to the permitted facility, or changes planned in the Discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of permit conditions that are different from or absent in the existing permit including notification of additional disposal sites not reported during the permit application

process, or not reported pursuant to an approved land application plan.

Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

8. The Discharger shall give advance notice to the Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order.

9. The Discharger shall submit technical reports as directed by the Executive Officer.

10. Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both.

C. PROVISIONS FOR MONITORING

1. All analyses shall be performed in accordance with the latest edition of *Guidelines Establishing Test Procedures for Analysis of Pollutants,* promulgated by U.S. EPA (40 CFR 136) or other procedures approved by the Board.

2. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. In the event a certified laboratory is not available to the Discharger, analyses performed by a noncertified laboratory will be accepted provided a Quality Assurance-Quality Control Program is instituted by the laboratory. A manual containing the steps followed in this program must be kept in the laboratory and shall be available for inspection by Board staff. The Quality Assurance-Quality Control Program must conform to U.S. EPA guidelines or to procedures approved by the Board.
   Unless otherwise specified, all metals shall be reported as Total Metals.
   Unless otherwise specified, bioassays shall be performed in the following manner:

   a. Acute bioassays shall be performed in accordance with guidelines approved by the Board and the Department of Fish and Game or in accordance with methods described in U.S. EPA's manual for measuring acute toxicity of effluents (EPA-821-R-02-012 and subsequent amendments).

   b. Short-term chronic bioassays shall be performed in accordance with U.S. EPA guidelines (EPA-821-R-02-013 and subsequent amendments).

3. Laboratories that perform sample analyses must be identified in all monitoring reports submitted to the Board and U.S. EPA.

4. The Discharger shall conduct analysis on any sample provided by U.S. EPA as part of the Discharge Monitoring Quality Assurance (DMQA) program. The results of any such analysis shall be submitted to U.S. EPA's DMQA manager.

5. Effluent samples shall be taken downstream of the last addition of wastes to the treatment or discharge works where a representative sample may be obtained prior to mixing with the receiving waters. Samples shall be collected at such a point and in such a manner to ensure a representative sample of the discharge.

6. All monitoring and analysis instruments and devices used by the Discharger to fulfill the prescribed

monitoring program shall be properly maintained and calibrated as necessary, at least yearly, to ensure their continued accuracy.

7. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or be imprisoned for not more than two years per violation, or by both.

8. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records, all original strip chart recordings of continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order. Records shall be maintained for a minimum of five years from the date of the sample, measurement, report, or application. This period may be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board Executive Officer.

9. The records of monitoring information shall include:

    a. the date, exact place, and time of sampling or measurements,
    b. the individual who performed the sampling of measurements,
    c. the date(s) analyses were performed,
    d. the individual(s) who performed the analyses,
    e. the laboratory which performed the analyses,
    f. the analytical techniques or methods used, and
    g. the results of such analyses.

D. REPORTING REQUIREMENTS FOR MONITORING

1. The Discharger shall file with the Board technical reports on self-monitoring performed according to the detailed specifications contained in the Monitoring and Reporting Program attached to this Order.

2. Monitoring reports shall be submitted on forms to be supplied by the Board to the extent that the information reported may be entered on the forms. Alternate forms may be approved for use by the Board.

3. The results of all monitoring required by this Order shall be reported to the Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. Unless otherwise specified, discharge flows shall be reported in terms of the monthly average and the daily maximum discharge flows.

4. The results of analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in the Monitoring and Reporting Program, shall be reported to the Board and used in determining compliance.

5. Upon written request of the Board, the Discharger shall submit a summary monitoring report to the Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year(s).

6. All reports shall be signed by a person identified below:

    a. **For a corporation:** by a principal executive officer of at least the level of senior vice-president.

b. **For a partnership or sole proprietorship:** by a general partner or the proprietor, respectively.

c. **For a municipality, state, federal or other public agency:** by either a principal executive officer or ranking elected or appointed official.

d. A duly authorized representative of a person designated in 6a, 6b or 6c of this requirement if:

(1) the authorization is made in writing by a person described in 6a, 6b, or 6c of this provision,

(2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position), and

(3) the written authorization is submitted to the Board.

Each person signing a report required by this Order or other information requested by the Board shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

The Discharger shall mail a copy of each monitoring report and any other reports required by this Order to:

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, #200
Rancho Cordova, CA 95670-6114
Note: Current addresses for all three Regional Board offices may be found on the internet at http://www.swrcb.ca.gov/rwqcb5/contact_us.

In addition, dischargers designated as a "major" discharger shall transmit a copy of all monitoring reports to U.S. EPA (see address in Provision G. 10).

E. DEFINITIONS:

1. The **daily discharge rate** is obtained from the following calculation for any calendar day:

$$\text{Daily discharge rate (lbs/day)} = \frac{8.34}{N} \sum_{I}^{N} Q_i C_i$$

In which N is the number of samples analyzed in a day. Q_i and C_i are the flow rate (mgd) and the

constituent concentration (mg/l), respectively, which are associated with each of the N grab samples that may be taken in a day. If a composite sample is taken, C_i is the concentration measured in the composite sample and Q_i is the average flow rate occurring during the period over which samples are composited.

2. The **monthly or weekly average discharge rate** is the total of daily discharge rates during a calendar month or week, divided by the number of days in the month or week that the facility was discharging.

   Where less than daily sampling is required by this permit, the monthly or weekly average discharge rate shall be determined by the summation of all the daily discharge rates divided by the number of days during the month or week for which the rates are available.

   For other than weekly or monthly periods, compliance shall be based upon the average of all rates available during the specified period.

3. The **monthly or weekly average concentration** is the arithmetic mean of measurements made during a calendar month or week, respectively.

4. The **daily maximum discharge rate** means the total discharge by weight during one day.

5. The **daily maximum concentration** is the greatest concentration found in grab or composite samples analyzed for one day.

6. **A grab sample** is an individual sample collected in less than 15 minutes.

7. Unless otherwise specified, a **composite sample** is a combination of individual samples collected over the specified sampling period:

   a. at equal time intervals, with a maximum interval of one hour, and

   b. at varying time intervals (average interval one hour or less) so that each sample represents an equal portion of the cumulative flow.

   The duration of the sampling period shall be specified in the Monitoring and Reporting Program. The method of compositing shall be reported with the results.

8. **Sludge** means the solids, residues, and precipitates separated from, or created in, wastewater by the unit processes of a treatment system.

9. **Median** is the value below which half the samples (ranked progressively by increasing value) fall. It may be considered the middle value, or the average of the two middle values.

10. **Overflow** means the intentional or unintentional diversion of flow from the collection and transport systems, including pumping facilities.

F. PRETREATMENT PROGRAM REQUIREMENTS (Applies to dischargers required to establish pretreatment programs by this Order.)

The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 CFR Part 403 and shall be subject to enforcement actions, penalties, fines, and other remedies by the U.S. EPA, or other appropriate parties, as provided in the CWA, as amended (33 USC 1351, et. seq.)

The Discharger shall implement and enforce its Approved publicly owned treatment works (POTW) Pretreatment Program. The Discharger's Approved POTW Pretreatment Program is hereby made an enforceable condition of this permit. U.S. EPA may initiate enforcement action against an industrial user for noncompliance with applicable standards and requirements as provided in the Act.
The Discharger shall enforce the requirements promulgated under Sections 307(b), (c), and (d) and Section 402(b) of the CWA. The Discharger shall cause industrial users subject to Federal Categorical Standards to achieve compliance no later than the date specified in those requirements or, in the case of a new industrial user, upon commencement of the discharge.

1. The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:

   a. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(l).

   b. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6.

   c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2), in particular, the publishing of a list of significant violators.

   d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

G. ANNUAL PRETREATMENT REPORT REQUIREMENTS (Applies to dischargers required to establish pretreatment programs by this Order.)

The Discharger shall submit annually a report to the Board, with copies to US U.S. EPA Region 9 and the State Board, describing the Discharger's pretreatment activities over the previous 12 months. In the event that the Discharger is not in compliance with any conditions or requirements of this Order, including noncompliance with pretreatment audit/compliance inspection requirements, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements.

An annual report shall be submitted by **28 February** or as otherwise specified in the Order and include at least the following items:

1. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants U.S. EPA has identified under Section 307(a) of the CWA which are known or suspected to be discharged by industrial users.

   The Discharger is not required to sample and analyze for asbestos until U.S. EPA promulgates an applicable analytical technique under 40 CFR 136. Sludge shall be sampled during the same 24-hour period and analyzed for the same pollutants as the influent and effluent sampling and analysis. The sludge analyzed shall be a composite sample of a minimum of 12 discrete samples taken at equal time intervals over the 24-hour period. Wastewater and sludge sampling and analysis shall be performed at least annually. The discharger shall also provide any influent, effluent or sludge monitoring data for nonpriority pollutants which may be causing or contributing to Interference, Pass-Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.

2. A discussion of Upset, Interference, or Pass-Through incidents, if any, at the treatment plant which the Discharger knows or suspects were caused by industrial users of the POTW. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name

and address of the industrial user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent Pass-Through, Interference, or noncompliance with sludge disposal requirements.

3. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

4. An updated list of the Discharger's industrial users including their names and addresses, or a list of deletions and additions keyed to a previously submitted list. The Discharger shall provide a brief explanation for each deletion. The list shall identify the industrial users subject to federal categorical standards by specifying which set(s) of standards are applicable. The list shall indicate which categorical industries, or specific pollutants from each industry, are subject to local limitations that are more stringent than the federal categorical standards. The Discharger shall also list the noncategorical industrial users that are subject only to local discharge limitations. The Discharger shall characterize the compliance status through the year of record of each industrial user by employing the following descriptions:

   a. complied with baseline monitoring report requirements (where applicable);

   b. consistently achieved compliance;

   c. inconsistently achieved compliance;

   d. significantly violated applicable pretreatment requirements as defined by 40 CFR 403.8(f)(2)(vii);

   e. complied with schedule to achieve compliance (include the date final compliance is required);

   f. did not achieve compliance and not on a compliance schedule; and

   g. compliance status unknown.

   A report describing the compliance status of each industrial user characterized by the descriptions in items c. through g. above shall be submitted for each calendar quarter **within 21 days of the end of the quarter.** The report shall identify the specific compliance status of each such industrial user and shall also identify the compliance status of the POTW with regards to audit/pretreatment compliance inspection requirements. If none of the aforementioned conditions exist, at a minimum, a letter indicating that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter must be submitted. The information required in the fourth quarter report shall be included as part of the annual report. This quarterly reporting requirement shall commence upon issuance of this Order.

5. A summary of the inspection and sampling activities conducted by the Discharger during the past year to gather information and data regarding the industrial users. The summary shall include:

   a. the names and addresses of the industrial users subjected to surveillance and an explanation of whether they were inspected, sampled, or both and the frequency of these activities at each user; and

   b. the conclusions or results from the inspection or sampling of each industrial user.

6. A summary of the compliance and enforcement activities during the past year. The summary shall

include the names and addresses of the industrial users affected by the following actions:

a. Warning letters or notices of violation regarding the industrial users' apparent noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the apparent violation concerned the federal categorical standards or local discharge limitations.

b. Administrative orders regarding the industrial users noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.

c. Civil actions regarding the industrial users' noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.

d. Criminal actions regarding the industrial users noncompliance with federal categorical standards or local discharge limitations. For each industrial user, identify whether the violation concerned the federal categorical standards or local discharge limitations.

e. Assessment of monetary penalties. For each industrial user identify the amount of the penalties.

f. Restriction of flow to the POTW.

g. Disconnection from discharge to the POTW.

7. A description of any significant changes in operating the pretreatment program which differ from the information in the Discharger's approved Pretreatment Program including, but not limited to, changes concerning: the program's administrative structure, local industrial discharge limitations, monitoring program or monitoring frequencies, legal authority or enforcement policy, funding mechanisms, resource requirements, or staffing levels.

8. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

Duplicate signed copies of these reports shall be submitted to the Board and the

State Water Resources Control Board
Division of Water Quality
P.O. Box 100
Sacramento, CA 95812-0100

and the

Regional Administrator
U.S. Environmental Protection Agency W-5
75 Hawthorne Street
San Francisco, CA 94105

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0142

NPDES NO. CAS082597

FACT SHEET

CITIES OF CITRUS HEIGHTS, ELK GROVE, FOLSOM, GALT, RANCHO CORDOVA
SACRAMENTO AND COUNTY OF SACRAMENTO
STORM WATER DISCHARGES FROM
MUNICIPAL SEPARATE STORM SEWER SYSTEM
SACRAMENTO COUNTY

I. PURPOSE

The Regional Water Quality Control Board, Central Valley Region (Regional Water Board) will be considering adoption of a renewal of the County of Sacramento and the cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento Municipal Separate Storm Sewer System NPDES Permit (hereinafter referred to as Permit). The purpose of this Fact Sheet is to give the Permittees and interested parties an overview of the Permit as well as to provide the regulatory, technical and background basis for the Permit requirements. Sections II through IV describe water quality problems from storm water and urban runoff, and Permit conditions designed to address these problems. Sections V and VI discuss each major element of the permittees' storm water management plans (referred to as Storm Water Quality Improvement Plans (SQIPs) by the Permittees). The SQIPs will be adopted by the Regional Water Board and are considered an integral and enforceable component of the proposed Permit.

The proposed Permit specifies requirements necessary for the Permittees to reduce the discharge of pollutants in urban runoff to the maximum extent practicable (MEP). However, since compliance with the MEP standard is an iterative process, the Permittees' storm water programs must continually be assessed and modified as urban runoff management knowledge increases, to incorporate improved programs, control measures, best management practices (BMPs), etc. in order to achieve the MEP standard. This iterative process of continual assessment, revision, and improvement of storm water management program implementation is expected to achieve compliance with water quality standards.

II. THE NEED TO REGULATE STORM WATER DISCHARGES

A. Impacts

The quality of storm water and urban runoff are fundamentally important to the health of the environment and the quality of life in the Central Valley Region. Polluted storm water runoff is a leading cause of water quality impairment in the Sacramento area, as well as other potential sources as aerial deposition and runoff from sources outside the urban area. Storm water and urban runoff (during dry and wet weather) are often polluted with pesticides, fertilizers, animal droppings, trash, food wastes, automotive byproducts, and many other toxic substances generated by urban environments. Water that flows over streets, parking lots, construction sites, and industrial, commercial, residential, and municipal areas carries these pollutants through the storm drain systems directly into receiving waters.

The Natural Resources Defense Council (NRDC) 1999 report, *Stormwater Strategies, Community Responses to Runoff Pollution*[1] identifies two main causes of the storm water pollution problem in urban areas. Both causes are directly related to development in urban and urbanizing areas:

1. Increased volume and velocity of surface runoff. There are three types of human-made impervious covers that increase the volume and velocity of runoff: (i) rooftop, (ii) transportation imperviousness, and (iii) non-porous (impervious) surfaces. As these impervious surfaces increase, infiltration will decrease, forcing more water to run off the surface, picking up speed and pollutants.

2. High concentration of pollutants in the runoff. Certain activities, such as those from industrial sites, are large contributors of pollutant concentrations to the storm water system.

The report also identified several activities causing storm water pollution from urban areas, practices of homeowners, businesses, and government agencies.

Studies conducted by the United States Geological Survey (USGS)[2] confirm the link between urbanization and water quality impairments in urban watersheds due to contaminated storm water runoff. Furthermore, the water quality impacts of urbanization and urban storm water discharges have been

[1] *Clean Water & Oceans: Water Pollution: In Depth Report Stormwater Strategies, Community Responses to Runoff Pollution*. Natural Resources Defense Council (NRDC), 1999.
[2] *Water Quality in the Puget Sound Basin, Washington and British Columbia, 1996-98,*Circular 1216 - USGS 2000; *Water Quality in the Long Island-New Jersey Coastal Drainages, New Jersey and New York, 1996-98,* Circular 1201 - USGS 2000

summarized by several other U.S. EPA reports.[3] Urbanization causes changes in hydrology and increases pollutant loads, which adversely impact water quality and impairs the beneficial uses of receiving waters.

Increases in population density and imperviousness result in changes to stream hydrology including:

1. Increased peak discharges compared to predevelopment levels;

2. Increased volume of storm water runoff with each storm compared to pre-development levels;

3. Decreased travel time to reach receiving water; increased frequency and severity of floods;

4. Reduced stream flow during prolonged periods of dry weather due to reduced levels of infiltration;

5. Increased runoff velocity during storms due to a combination of effects of higher discharge peaks, rapid time of concentration, and smoother hydraulic surfaces from channelization; and

6. Decreased infiltration and groundwater recharge.

In order to reduce pollutants and runoff flows from new development and redevelopment to the MEP, each Permittee is required to ensure that all feasible BMPs are considered. The MEP standard involves applying BMPs that are effective in reducing the discharge of pollutants in storm water runoff. In discussing the MEP standard, the State Water Board has said the following: "There must be a serious attempt to comply, and practical solutions may not be lightly rejected. If, from the list of BMPs, a permittee chooses only a few of the least expensive methods, it is likely that MEP has not been met. On the other hand, if a permittee employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit to be derived, it would have met the standard. MEP requires permittees to choose effective BMPs, and to reject applicable BMPs only where other effective BMPs will serve the same purpose, the BMPs would not be technically feasible, or the cost would be prohibitive." (Order No. WQ 2000-11, at p.20.) MEP is the result of the cumulative effect of implementing, continuously evaluating, and making corresponding changes to a variety of technically and economically feasible BMPs that ensures the most appropriate controls are implemented in the

[3] *Storm Water Phase II Report to Congress* (U.S. EPA 1995); Report to Congress on the Phase II Storm Water Regulations (U.S. EPA1999); Coastal Zone Management Measures Guidance (U.S. EPA 1992)

most effective manner. This process of implementing, evaluating, revising, or adding new BMPs is commonly referred to as the iterative approach. For Small MS4s, EPA has stated that pollutant reductions to the MEP will be realized by implementing BMPs through the six minimum measures described in the permit. (64 Federal Register 68753.)

B. **Benefits of Permit Program Implementation**

Implementation of Best Management Practices (BMPs) will reduce pollutant discharges and improve surface water quality to the maximum extent practicable (MEP). The expected benefits of implementing the provisions of the Sacramento MS4 National Pollutant Discharge Elimination System (NPDES) permit include:

1. **Enhanced Aesthetic Value**: Storm water affects the appearance and quality of a water body, and the desirability of working, living, traveling, or owning property near that water body. Reducing storm water pollution will increase benefits as these water bodies recover and become more desirable.

2. **Enhanced Opportunities for Boating**: reducing sediment and other pollutants, and increasing water clarity, which enhances the boating experience for users, offer additional benefits.

3. **Enhanced Commercial Fishing**: Important because commercial fisheries are a significant part of the nation's economy, and 28% of the estuaries in the 305(b) Report were impacted by storm water/urban runoff.

4. **Enhanced Recreational and Subsistence Fishing**: Pollutants in storm water can eliminate or decrease the numbers, or size, of sport fish and shell fish in receiving waters.

5. **Reduced Flood Damage**: Storm water runoff controls may mitigate flood damage by addressing problems due to the diversion of runoff, insufficient storage capacity, and reduced channel capacity from sedimentation.

6. **Reduced Illness from Consuming Contaminated Fish**: Storm water controls may reduce the presence of pathogens in fish caught by recreational anglers.

7. **Reduced Illness from Swimming in Contaminated Water**: Epidemiological studies indicate that swimmers in water contaminated

by storm water runoff are more likely to experience illness than those who swim farther away from a storm water outfall.

8. **Enhanced Opportunities for Non-contact Recreation**: Storm water controls reduce turbidity, odors, floating trash, and other pollutants, which then allow waters to be used as focal point for recreation, and enhance the experience of the users.

9. **Drinking Water Benefits**: Pollutants from storm water runoff, such as solids, toxic pollutants, and bacteria may pose additional costs for treatment, or render the water unusable for drinking.

10. **Water Storage Benefits**: Storm water is a major source of impairment for reservoirs. The heavy load of solids deposited by storm water runoff can lead to rapid sedimentation of reservoirs and the loss of needed water storage capacity.[4]

11. **Improved Habitat Benefits**: Storm water can have significant impacts to habitat and aquatic life. Stormwater controls can minimize impacts to creek corridors and the wildlife dependent on them.

III. STATUTORY AND REGULATORY HISTORY AND OTHER CONSIDERATIONS OF THE STORM WATER PROGRAM

A. Basis for Permit Conditions

In the 15 years following the introduction of the Clean Water Act in 1972, water pollution control efforts focused primarily on wastewater discharges from facilities such as factories and sewage treatment plants, with less emphasis on diffuse sources. The federal Clean Water Act (CWA) prohibits the discharge of any pollutant to waters from a point source, unless a NPDES permit authorizes the discharge. Because the focus on reducing pollutants was centered on industrial and sewage treatment discharges, the U.S. Congress amended the CWA in 1987, requiring the U.S. EPA to create phased NPDES requirements for storm water discharges.

In response to the 1987 Amendments to the CWA, the U.S. EPA developed Phase I of the NPDES Storm Water Program in 1990. Phase I required NPDES permits for storm water discharges from: (i) "medium" and "large" MS4s generally serving, or located in incorporated places or counties with, populations of 100,000 or more people; and (ii) eleven categories of industrial

[4] *Report to Congress on Phase II Storm Water Regulations*. U.S. EPA, Office of Water. EPA-833-R-99-001, Oct. 1999.

activity (including construction activity that disturbs five acres or greater of land).

Phase II, adopted in December 2000 and implemented in March 2003, required operators of small MS4s and small construction sites (construction activity disturbing greater than or equal to 1 acre of land or less than 1 acre if part of a larger common plan of development or sale) in urban areas to control storm water runoff discharges.

B. Statutory Basis for Permit Conditions

The intent of the permit conditions is to meet the statutory mandate of the CWA. The conditions established by this permit are based on Section 402(p)(3)(B) of the CWA which mandates that a permit for discharges from MS4s must: (1) effectively prohibit the discharges of non-storm water to the MS4; and (2) require controls to reduce pollutants in discharges from MS4 to the maximum extent practicable (MEP) including best management practices, control techniques, system design and engineering methods, and such other provisions determined to be appropriate. Compliance with water quality standards is to be achieved over time, through an iterative approach requiring improved BMPs.

The permit requires the implementation of a comprehensive SQIP through a selection of BMPs [see 40 Code of Federal Regulations (CFR) 122.44(k)] as the mechanism to achieving the reduction of pollutants in storm water to the maximum extent practicable (MEP) [see CWA. § 402(p)(3)(B)(iii)].

C. Regulatory Basis for Permit Conditions

As a result of the statutory requirements of the CWA, the U.S. EPA promulgated the MS4 Permit application regulations set forth in 40 CFR 122.26(d). These federal regulations described in detail the permit application requirements for MS4s operators. The information in the Report of Waste Discharge[5] was utilized to develop the permit conditions and determine the Permittees' status in relationship to these conditions.

D. Discharge Limitations

Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality standard. Based on information submitted as part of

[5] County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova, *Report of Waste Discharge,* June 2007.

the application, in studies, and as directed by monitoring and reporting programs, the Regional Water Board finds that the discharge has a reasonable potential to cause or contribute to an in-stream excursion above a water quality standard for several constituents including pesticide and metals, toxicity, pH, temperature, dissolved oxygen, pathogen and chlorine from illicit discharges.

No numeric effluent limitations are proposed at this time. In accordance with 40 CFR 122.44(k), the U.S. EPA has required a series of increasingly more effective BMPs[6], in the form of a comprehensive SQIP and performance standards, in lieu of numeric limitations.[7]

The State Water Resources Control Board (SWRCB) convened a Storm Water Panel (Blue Ribbon Panel) of experts to address the issue of numeric effluent limits.[8] The study, finalized in June 2006, also concluded that it is not feasible at this time to set enforceable numeric effluent limits for storm water and non-storm water discharges from MS4s.

E. Permitting Approach

The 1987 amendments to the Clean Water Act required municipalities to apply for MS4 permits that would reduce the pollutants in discharges to the maximum extent practicable. EPA Phase I Final Rule and Regulations then established the regulations for NPDES permit application requirements. EPA discussed how the language of CWA section 402(p)(3) contemplated fundamentally different characteristics of many municipalities and that municipalities would have permits tailored to meet particular geographical, hydrological, and climatic conditions. EPA continued to discuss that if MS4 permit conditions required storm water management programs (SWMP) to be developed and implemented, the program elements were enforceable in accordance with the terms of permit. EPA further pointed out that the permit goal for MS4 discharges is to avoid inflexibility in the types and levels of control. EPA stated that if mandatory requirements were appropriate, these requirements should be established under the authority of 40 CFR Section 402(p)(6), which addresses permit application requirements.

The SQIP is required as part of the Report of Waste Discharge pursuant to 40 CFR 122.26(2)(d)(iv); therefore is an integral and enforceable component

[6] *Interpretative Policy Memorandum on Reapplication Requirements* of MS4s issued by U.S. EPA (61 Fed. Reg. 41697), August 9, 1996
[7] *Interim Permitting Approach for Water Quality-Based Effluent Limitations in Storm Water Permits* (61 Fed. Reg. 43761), September 1, 1996
[8] Recommendations of the Blue Ribbon Panel were finalized as *The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities,* dated 19 June 2006.

of the MS4 permit. In addition, the California Superior Court ruled, *"Because the Storm water Management Plan is incorporated and is deemed an integral part of the Permits…any changes to the Plan are actually changes to the Permits. Because these are changes to the Permits, the notice and comment requirements must be complied with."* (*San Francisco Baykeeper vs. Regional Water Quality Control Board, San Francisco Bay Region,* Consolidated Case No. 500527, California Superior Court, 14 November 2003).

F. **Policy**

The State Water Resources Control Board adopted Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California") (Antidegradation Policy), which requires the Regional Water Board to assure maintenance of the high quality of waters of the State unless the Regional Water Board makes certain findings. Under this policy, water quality degradation may be allowed if the following conditions are met: 1) any change in water quality must be consistent with maximum benefit to the people of the State; 2) will not unreasonably affect present and anticipated beneficial uses; 3) will not result in water quality less than prescribed in the Basin Plan; and 4) the discharge is required to meet waste discharge requirements that result in the best practicable treatment or control necessary to assure that pollution or nuisance will not occur and the highest water quality consistent with maximum benefit to the people of the state will be maintained. The communities covered by this Permit have continued to develop since adoption of the previous permit. The increase in volume and mass of pollutants from the new urban runoff will not have significant impacts on aquatic life, municipal and domestic supply, and recreation uses, which are the beneficial uses most likely affected by the pollutants discharged.

An antidegradation analysis was submitted in September 2007.[9] The water quality impacts presented in the analysis shows that storm water runoff emanating from new urban development projected to occur in the Sacramento Urbanized Area during the next five years will generally produce minor changes in loadings and concentrations of the ten pollutants evaluated. The pollutants evaluated include: diazinon, dissolved copper, *E. coli,* biological oxygen demand (BOD), total dissolved solids (TDS), total mercury, total nitrogen, total organic carbon (TOC), chrysene and total suspended solids (TSS). Constituents selected for evaluation include those identified by the Permittees as Target Pollutants in the Report of Waste Discharge,[10] constituents for which the Regional Water Board is developing TMDLs, and/or

[9] Sacramento Stormwater Quality Partnership, *Antidegradation Analysis – Storm Water Management Program,* September 2007, Larry Walker and Associates.
[10] County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova, *Report of Waste Discharge,* June 2007.

constituents considered particularly relevant to the water quality of the Sacramento-San Joaquin Delta.

Section 5.0 of the Antidegradation Analysis[11] provides an assessment of the Storm Water Management Program. The program elements include new development standards that were developed and implemented during the last permit term. This Permit requires the revision of the development standards and associated technical design guidance (a.k.a. *Stormwater Quality Design Manual*,[12] requiring new development and significant redevelopment priority projects to incorporate appropriate source control measures, runoff reduction control measures, and/or treatment control measures. Site design and site-specific source controls are generally the most effective means to control urban runoff pollution because they keep pollutants from contacting runoff and minimize the need for treatment. Runoff reduction measures disconnect impervious surfaces from the storm drain system and promote infiltration when site conditions allow; such measures can reduce the treatment volume or flow required. Treatment controls are intended to remove pollutants from site runoff before reaching the storm drain system or receiving water.

The Water Quality Impacts Assessment Methodology, found in Section 6.3 of the antidegradation analysis, includes a rainfall-runoff mass balance model. Land use projections and the best available agricultural runoff data were used to estimate the change in loadings from 2007 and 2012 urbanized areas. These load changes were then used along with available receiving water data to assess changes in receiving water concentrations and compliance with known water quality objectives. The model shows that the estimated pollutant loading attributable to new urban development show both increases and decreases depending on the constituent. The constituent-by-constituent evaluation of modeled impacts due to new urban development is presented in Section 6.3.5. The analysis reports that the estimated pollutant reductions for existing and new urban development range from 5% to 10%, with the exception of reductions assumed for diazinon. Diazinon has been phased out of urban use and its use in agriculture has greatly decreased, but a conservative estimate of 75% rather than 100% pollutant reduction was chosen to account for stockpiling and continued allowable use of products containing the pesticide. The percent reductions shown in Table 6-7[13] reflect a very conservative estimate for pollutant reduction due to implementation of Stormwater Quality Improvement Plan best management practices. Additionally, implementation of best management practices (primarily, extended detention basins) for new urban development, along with elements

[11] *Antidegradation Analysis*, pages 5-1 to 5-11.
[12] Sacramento Stormwater Quality Partnership and City of Roseville, *Stormwater Quality Design Manual for the Sacramento and South Placer Regions,* May 2007.
[13] *Antidegradation Analysis,* pages 6-8.

of low impact development, such as onsite infiltration, and hydromodification concepts, are expected to further reduce pollutant concentrations and flows attributable to new urban development runoff. Specific elements of the Permittee's Stormwater Quality Improvement Plan are discussed in Section 5, and outlined in Appendix A of the analysis.

Based on the antidegradation analysis: 1) some degradation for a limited number of constituents is consistent with the maximum benefit to the people of the state; 2) the activity is necessary to accommodate important economic or social development in the area; 3) resulting water quality is adequate to fully protect and maintain existing beneficial uses; and 4) the discharge will not cause measurable changes in the receiving waters that cause the receiving waters to fall below applicable water quality objectives.

The analysis included an examination of: 1) existing applicable water quality standards; 2) ambient conditions in receiving waters compared to standards; 3) incremental changes in constituent loading, both concentration and mass; 4) treatability and levels of treatment or controls to be used and whether increased treatment is proposed to offset any increased volume or mass of discharge; 5) reduction of the discharge of pollutants from the urban areas to the maximum extent practicable (MEP); 6) comparison of the proposed increased volume or mass of pollutants relative to the volume or mass of pollutants that existed when the current permit was adopted; 7) an assessment of the significance of changes in ambient water quality compared to historic conditions, and 8) an analysis of alternatives to the discharge and treatment or control methods that would reduce water quality impacts.

The discharge from continued urban development will result in some minimal degradation of waters of the state and navigable waters of the United States, but in this case, such degradation is consistent with the maximum benefit to the people of the state. Limited degradation that does not cause exceedance of water quality objectives is warranted to allow for the economic benefit stemming from local growth. There is also a need in the Sacramento area to accommodate growth. The Regional Water Board does not have the jurisdiction to control growth in the County of Sacramento and associated Cities, but is required to assure that the receiving waters are adequately protected as a result of urban discharges. The proposed Permit allows storm water utility service necessary to accommodate housing and economic expansion in the area, and is considered to be a benefit to the people of the State. Compliance with these requirements will result in the reduction of discharge pollutants from the urban areas to the MEP.

The Regional Water Board is required to protect beneficial uses of receiving waters that involve freshwater aquatic life (e.g., WARM, COLD, SPWN, MIGR). The Basin Plan's toxicity narrative objective, reflected in Receiving

Water Limitation C.1 of the Order states in L: "Toxic pollutants to be present in the water column, sediments, or biota in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health." This receiving water limitation is designed to provide protection of the beneficial uses of the receiving water. Therefore, the numeric receiving water limit for chlorine has been removed from the order since the objective is covered by the narrative toxicity objective.

IV. BACKGROUND – SACRAMENTO AREAWIDE NPDES MS4 PERMIT PROGRAM

A. Sacramento Areawide NPDES MS4 Permit History

In June 1990, the Regional Board issued the first NPDES permit for the Sacramento area-wide MS4 program (Program). The permit was issued to Permittees from the County of Sacramento and the cities of Sacramento, Folsom and Galt. The County of Sacramento and the City of Sacramento have populations greater than 250,000 and are considered large municipalities in accordance with Appendices H and F, respectively, of Part 122 of Title 40 of the Federal Code of Regulations (40 CFR 122). The Cities of Folsom and Galt are urbanized areas with populations of less than 100,000 and would ordinarily not be covered under the Phase I program. However, because of their proximity to the urbanized areas of the County and the location of their storm sewer system discharges relative to discharges from the County's system, these cities were designated in 1990 as part of the large MS4 (40 CFR 122.26(b)(7)(iii)).

In 1996, the Regional Board renewed the Sacramento area-wide MS4 permit for a second five-year term. On 3 November 2000, the Permittees (now including the newly incorporated Cities of Citrus Heights and Elk Grove within the Sacramento Urbanized Area) submitted Reports of Waste Discharge to the Regional Water Board to request renewal of their MS4 permit.

In December 2002, the Regional Water Board adopted the third Sacramento area-wide MS4 permit. The City of Rancho Cordova incorporated in 2003 and was therefore added to the Permit by the Regional Water Board in 2004.

The Permittees' SQIPs[14,15] submitted with the Report of Waste Discharge in June 2007 describe the 18-year history and evolution of the Sacramento program, including a summary of accomplishments and findings.

[14] County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova, *Storm Water Quality Improvement Plan (SQIP), Draft* June 2007.
[15] City of Sacramento, *Stormwater Quality Improvement Plan (SQIP)*, Draft June 2007.

B. Storm Drain System

The Permittees have jurisdiction over and/or maintenance responsibility for their respective MS4s that they own and operate in Sacramento County. The storm water discharges consist of storm water generated from various land uses in all the hydrologic sub-basins, which discharge into urban creeks and in turn flow into the primary rivers of Sacramento County. All discharges from the Sacramento Urbanized Area ultimately make their way to the Sacramento River. The tributary rivers which receive storm water from one or more Permittees include the American, Cosumnes and Mokelumne Rivers. The quality and quantity of these storm water discharges varies considerably, owing to the effects of land use, season, geology, and sequence and duration of hydrologic events.

C. Total Maximum Daily Loads (TMDLs)

Total Maximum Daily Loads (TMDLs) are one of the Regional Board's highest priorities. The Regional Water Board considers storm water discharges from the Sacramento Urbanized Area to be significant sources of pollutants. The proposed Permit includes a list of 303(d) listed waterbodies, some of which have TMDLs that are in various stages of completion. NPDES permits must be consistent with approved TMDL waste load allocations. To implement adopted TMDLs, this proposed Permit implements control programs developed to attain waste load allocations.

The Permittees submitted to the Regional Water Board a Pesticide Plan (in 2004) to fulfill the need for a pesticide toxicity control plan as required by the urban creeks pesticide TMDL. The Pesticide Plan was subsequently approved by the Regional Water Board. The plan addresses their own use of pesticides including diazinon, chlorpyrifos, and other lower priority pesticides and use of such pesticides by other sources within their jurisdiction. This proposed Order fulfills a component of the TMDL Implementation Plan adopted by this Regional Water Board on 23 June 2006 for diazinon and chlorpyrifos for the Sacramento-San Joaquin Delta Waterways and by requiring a management plan which includes BMPs, BMP implementation plan, effectiveness assessment, and compliance schedule that describes actions that will be taken to reduce diazinon and chlorpyrifos discharges and meet the applicable allocations. This proposed Order includes Provisions consistent with the TMDL waste load allocations and the Basin Plan implementation program. This proposed Order specifies monitoring and assessment requirements to implement these Provisions. The establishment of Water Quality Based Effluent Limits expressed as iterative BMPs to achieve the Waste Load Allocation (WLA) compliance schedule is appropriate and is expected to be sufficient to achieve the WLA specified in the TMDL.

The Regional Water Board Toxic Hot Spots Clean-up Plan (California Water Code section 13394) identified the following hot spots that are applicable to this discharge:

a. Mercury in the Delta; and
b. Diazinon and Chlorpyrifos in Morrison Creek in the City of Sacramento

The California Water Code section 13395 requires the reevaluation of waste discharge requirements for dischargers who have discharged pollutants causing all or part of the toxic hot spot. The waste discharge requirements must be revised to include requirements that "prevent the maintenance or further pollution of existing toxic hot spots." Further "(t)he Regional Water Board may determine it is not necessary to revise a waste discharge requirement only if it finds that the toxic hot spot resulted from practices no longer being conducted by the discharger... or that the discharger's contribution to the creation or maintenance of the toxic hot spot is not significant." Requirements to prevent the creation of new or maintenance of existing toxic hot spots are included with the provisions to address the 303(d) listings for these waterbodies.

The Delta, Sacramento River, American River, and Lake Natoma are on the Clean Water Act Section 303(d) List as mercury impaired because of elevated levels of methylmercury in fish. In addition, the State Board has designated the Delta as a toxic hot spot under the Bay Protection and Toxic Hot Spot Cleanup Program.

To address mercury impairment of the Delta, Sacramento and American Rivers, and Lake Natoma, this Permit requires the Permittees to:

- Continue to implement the Mercury Plan.

- Coordinate the Permittees' mercury control programs with the above-mentioned countywide U-waste management strategy.

- Evaluate the total mercury and methylmercury data collected under the previous Permit and continue urban discharge monitoring to determine the extent to which urban lands within the Sacramento area contribute methylmercury and total mercury to the individual impaired water bodies (Delta, Sacramento River, American River, and Lake Natoma).

- Estimate the amount of total mercury and sediment prevented from discharging to receiving waters by existing BMPs in the Sacramento Urbanized Area such as, but not limited to, street cleaning, detention basins, and erosion and sediment controls.

- Consider including total mercury and methylmercury monitoring in the design of future BMP studies to estimate the extent to which existing and new BMPs reduce total mercury and reduce and/or increase methylmercury discharges.

The Monitoring and Reporting Program portion of this proposed Order specifies monitoring and assessment requirements that must be implemented to gather information for future mercury control programs. Once the Delta mercury control program is approved, there may be additional monitoring requirements to identify the sources of the methylmercury and total mercury in urban runoff to the Delta, lower American River, and the other mercury-impaired water bodies.

Finding No. 87 of the proposed Order states: "CWA Section 303(d) and 40 CFR 130.7 require states to identify water quality-impaired water bodies and pollutants of concern, and develop Total Maximum Daily Loads (TMDLs). A TMDL is a quantitative assessment of the total pollutant load that can be discharged from all sources each day while still meeting water quality objectives. The Regional Water Board is currently in the process of developing TMDLs for listed water bodies within the Region. Prior to TMDL's being adopted and approved, Permittees must implement actions to address their contribution to the water quality impairments. Once the Regional Water Board and U.S. EPA approve TMDLs, this Order may be amended to incorporate provisions consistent with waste load allocations established under the TMDLs."

Provision D.3.d. of the proposed Order requires the Permittees revise their SQIP to comply with regional or watershed-specific requirements, and/or waste load allocations developed and approved pursuant to the process for the designation and implementation of TMDLs for impaired water bodies.

V. STORM WATER MANAGEMENT PROGRAM ELEMENTS

Federal regulations (40 CFR 122.26(d)(2)(iv)) provide that, *"A proposed management program covers the duration of the permit. It shall include a comprehensive planning process which involves public participation and where necessary intergovernmental coordination, to reduce the discharge of pollutants to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. The program shall also include a description of staff and equipment available to implement the program."*

As part of the June 2007 Report of Waste Discharge, the County of Sacramento in association with the cities of Citrus Heights, Elk Grove, Folsom, Galt and Rancho Cordova submitted a SQIP, and the City of Sacramento submitted a separate

SQIP. These SQIPs describe the framework for management of storm water discharges during the term of this permit. The draft SQIPs provide the goals and objectives, legal authorities, source identification process, funding sources, best management practices (BMPs) evaluation and improvement process, approach for effectiveness assessments of the programs, and a monitoring plan. The draft SQIPs also include specificity for each program element and control measures that identifies what actions are to be taken, the timeframe for the actions, the responsible parties and the data that needs to be collected in order to identify if the program is effective. The overall goals of the Permittees' SQIPs are to a) reduce the degradation of waters of the State and Waters of the United States (U.S.) by urban runoff and protect their beneficial uses, and b) develop and implement an effective SQIP that is well understood and broadly supported by regional stakeholders. The SQIPs are an integral and enforceable component of the proposed Permit.

The SQIPs include the following major program components:

i. Program Management
ii. Construction Element
iii. Commercial/Industrial Element
iv. Municipal Operations Element
v. Illicit Discharge Element
vi. Public Outreach Element (including watershed stewardship)
vii. Planning and New Development Element
viii. Monitoring Program
ix. Water Quality Based Program (Target Pollutant Program)
x. Watershed Stewardship
xi. Training
xii. Program Effectiveness Assessment

Some of the components and the corresponding Order requirements are discussed below.

A. **Program Management**

Program management includes planning, fiscal analysis, legal authority, staffing, inter and intra-agency coordination, and internal and external (i.e., compliance) reporting.

The Permit requires that each Permittee agency demonstrates that they have adequate funding to comply with the requirements of this Permit. Most agencies have established stormwater utilities, which are fees assessed on a property to the property owner based on an estimate of storm water runoff generated for the site, to fund these activities. The City of Folsom is the only Permittee agency that receives their program funding from the General Fund.

Financing the increasing requirements of the MS4 program offers a considerable challenge for municipalities. Proposition 218 significantly limits a municipality's ability to increase funding by requiring storm water utility fees and fee increases to go before the voters for approval[16]. There has been limited success in California in recent years in achieving approval of new stormwater utility fees.

The Permit requires each agency to have the legal authority necessary to implement their program. Each Permittee agency has an adopted stormwater ordinance in place, which defines allowable discharges within the municipality and provides the necessary authority to conduct enforcement against those who discharge illegally. In addition, each municipality has the legal authority to require the use and maintenance of construction BMP's through their grading ordinances.

The Permit also requires that the Permittees demonstrate that they have the necessary agreements in place to coordinate joint program activities. The Permittees have executed a memorandum of understanding (MOU) which defined a partnership and each agency's role in the joint program. This Permit requires that the Permittees update the MOU.

For compliance reporting, the Permit requires submission of an Annual Work Plan by 1 May of each year. The Annual Work Plan describes the Permittees' proposed activities for the upcoming year beginning 1 July of the current year and ending 30 June the following year. The Permit also requires submission of an Annual Report by 1 October of each year. The Annual Report documents the status of the Permittees' activities conducted during the previous fiscal year in conformance with the approved SQIPs, including the results of the Program Effectiveness Assessment. The Annual Report includes a compilation of deliverables and milestones completed during the previous 12-month period, as described in the SQIP and Annual Work Plan.

B. Construction Program Element

Legal Authority and Discussion

Federal regulations [40 CFR 122.26(d)(2)(iv)(D)] provide that a proposed management program must include *"a description of a program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system."*

[16] Cal. Const. Art. XIID, 6.c; *Howard Jarvis Taxpayers Association v. City of Salinas* (2002) 98. Cal.App. 4th 1351.

Status of the Sacramento Program

Since the initiation of the program in 1990, the Permittees have completed the following work:

- Established the legal authority to prohibit non-stormwater discharges and enforce those prohibitions through the adoption of local land grading and erosion control and stormwater ordinances
- Established and continued implementation of inspections, reporting procedures and enforcement to achieve compliance on construction sites.
- Conducted employee training with regard to review, inspection and enforcement
- Provided outreach and guidance to the development community through workshops and brochures on local and State requirements
- Established and maintained tracking databases and maps to assist with investigations and identification of problem areas

Discussion of the Requirements in This Permit

This Permit requires the continuation of the Permittees' review, inspection, and enforcement activities, and further requires the performance of an assessment to determine the effectiveness of these activities and identify any necessary modifications for continuous improvement.

C. **Commercial/Industrial Program Element**

Legal Authority and Discussion

Federal regulations [40 CFR 122.26(d)(2)(iv)(C)] require the following, *"A description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system.*

The program shall:

1. *Identify priorities and procedures for inspections and establishing and implementing control measures for such discharges;*

2. Describe a monitoring program for storm water discharges associated with industrial facilities… "

The municipality is ultimately responsible for discharges from the MS4. Because industrial awareness of the program may not be complete, there may be facilities within the MS4 area that should be permitted but are not (non-filers). The Phase I regulations requiring industries to obtain permit coverage for storm water discharges is largely based on the Standard Industrial Classification Code. This has been shown to be incomplete in identifying industries (which include commercial businesses) that may be significant sources of storm water pollution. In addition, the permitting authority may not have adequate resources to provide the necessary oversight of permitted facilities. Therefore, it is in the municipality's best interest to assess the specific situation and implement an industrial/commercial inspection and enforcement program to control the contribution of pollutants to the MS4 from all these potential sources.

In the preamble to the 1990 regulations, the U.S. EPA clearly states the intended strategy for discharges of storm water associated with industrial activity:

"Municipal operators of large and medium municipal separate storm sewer systems are responsible for obtaining system-wide or area permits for their system's discharges. These permits are expected to require that controls be placed on storm water discharges associated with industrial activity which discharge through the municipal system."

The U.S. EPA also notes in the preamble that *"municipalities will be required to meet the terms of their permits related to industrial dischargers*."

Similarly, in the U.S. EPA's Guidance Manual[10] (Chapter 3.0), it is specified that MS4 applicants must demonstrate that they possess adequate legal authority to:

- Control construction site and other industrial discharges to MS4s;
- Prohibit illicit discharges and control spills and dumping;
- Carry out inspection, surveillance, and monitoring procedures.[17]

The document goes on to explain that *"control"*, in this context means not only to require disclosure of information, but also to *limit, discourage, or terminate* a storm water discharge to the MS4. Further, to satisfy its permit conditions, a municipality may need to impose additional requirements on discharges from

[17] *Guidance Manual For the Preparation of Part 2 of the NPDES Permit Applications for Discharges from Municipal Separate Storm Sewer Systems* - U.S. EPA -November 1992

permitted industrial facilities, as well as discharges from industrial facilities and construction sites *not* required to obtain permits.

In the same Guidance Manual[18] (Chapter 6.3.3), it is stated that the municipality is ultimately responsible for discharges from their MS4. Consequently, the MS4 applicant must describe how the municipality will help the U.S. EPA and authorized NPDES States to:

- Identify priority industries discharging to their systems;
- Review and evaluate storm water pollution prevention plans (SWPPPs) and other procedures that industrial facilities must develop under general or individual permits;
- Establish and implement BMPs to reduce pollutants from these industrial facilities (or require industry to implement them); and
- Inspect and monitor industrial facilities discharging storm water to the municipal systems to ensure these facilities are in compliance with their NPDES storm water permit, if required.
- Recognizing that the Permittees are ultimately responsible for the quality of storm water discharges from the MS4, the Permittees must effectively regulate industrial/commercial facilities and activities to maintain compliance with their stormwater ordinances by continuing implementation of their current programs and enhancing them, as needed, based on effectiveness assessments.

It may be necessary to update existing ordinances if they do not provide sufficient legal authority to implement the above components as required by the regulations.

Status of the Sacramento Program

Since 1990, the Permittees have completed the following work as part of the Industrial/Commercial Program:

- Developed and revised Stormwater Ordinances to prohibit non-stormwater discharges to the MS4, prevent prohibited conditions, require appropriate BMPs for pollutant generating activities, and authorize a structured inspection program for industrial and commercial facilities
- Significant industries were identified based upon their potential to discharge pollutants to the MS4. Mobile categories are subject to focused outreach efforts while stationary facilities are included in a program of regular compliance inspections

[18] *Id.*

- Established agreement with Sacramento County Environmental Management Department (EMD) to conduct routine inspections of targeted industries on behalf of MS4 Permittees. EMD was provided authority to enforce local stormwater ordinances within 7 jurisdictions in Sacramento County and to recover costs from the regulated community to fund the program.
- Launched the Clean Water Business Partner program, an incentive program to encourage businesses to protect stormwater quality

Discussion of Requirements in This Permit

This Permit requires the continuation of the Permittees' inspection, response and enforcement activities at priority commercial/industrial facilities and coordination with the Regional Water Board at facilities covered under the Industrial General Permit. The Permit also requires the performance of an assessment to determine the effectiveness of these activities and identify any necessary modifications for continuous improvement.

Recognizing the dual coverage envisioned by the federal regulations[19], and suggested partnership between local and State authorities, this Permit requires Permittees to coordinate with State activities for the implementation of the General Industrial Activities Storm Water Permit (General Industrial Permit). The goal is to control industrial sources and other sources not specifically covered under Phase I storm water regulations but identified as significant contributors of pollutants by the municipalities through their identification and prioritization studies. The net result should be a better and improved coordinated program with greater impact on limiting and eliminating (as a final goal) the contribution of pollutants to the receiving water while maintaining and/or restoring the capacity of the receiving water to sustain the beneficial uses without impairments.

Based on the dual coverage and partnership approach between the permitting authority and municipalities that the U.S. EPA envisioned in the storm water regulations[20,21], and in order to best use limited resources at the State and local levels, the Permit includes improvements requiring the Permittees to: (i) Control the storm water discharges associated with industrial activities and other commercial facilities identified as significant contributors of pollutants; and (ii) Assist the Regional Board in implementing the general permit for industrial activities.

[19] Federal Register Vol. 55, No 222, pp. 48000; U.S. EPA Storm Water Phase II Compliance Assistance Guide, 2000, pp. 4-32 and 5-11, where it clarifies the dual responsibility
[20] Letter dated December 19, 2000, from Alexis Strauss, Director, Water Division, U.S. EPA Region IX, to Dennis Dickerson, Executive Officer, Regional Water Quality Control Board-Los Angeles Region.
[21] Letter dated April 30, 2001, from Alexis Strauss, Director, Water Division, U.S. EPA Region IX, to Honorable Stephen Horn, U.S. House of Representatives

This approach is consistent with the nationwide approach used by the U.S. EPA in issuing *second term* MS4 permits[22]. Also, this approach is consistent with other MS4 permits issued in California: San Diego, Santa Clara, and Los Angeles permits. The education and outreach should be continued under the auspices of the Public Education program.

D. **Municipal Operations Program Element**

Legal Authority and Discussion

Federal regulations [40 CFR 122.26(d)(2)(iv)(A)(1,3,4,5, and 6)] require that each Permittee must develop a program to reduce the discharge of pollutants from the MS4 to the maximum extent practicable for all urban land uses and activities, including municipal areas and activities.

Permittees regularly provide services to communities that result in the enhancement of the lives of the residents. Some of these services include: sewage system operations; drinking water distribution; flood control and prevention activities; public construction activities; road maintenance; landscaping; recreational facility management; and parking facility management. Other activities are required to support these community services, such as fleet maintenance and operation of corporation yards and material storage facilities.

Each Permittee is required to update and continue to implement a Municipal Operations Program Element in its SQIP to effectively prohibit non-storm water discharges and prevent or reduce pollutants in runoff from all municipal land use areas, facilities, and activities to the MEP.

Status of the Sacramento Stormwater Program

Since 1990, the Permittees have completed the following work as part of the Municipal Operations Element:

- Complied with the State General Construction Permit for applicable municipal construction projects;
- Conducted audits of existing municipal facilities having the potential to discharge pollutants into urban runoff, and developed applicable mitigation procedures and/or best management practices (BMPs) to reduce pollutant discharges to the MEP at these sites;
- Conducted prioritized storm drain/facility maintenance activities based

[22] MS4 NPDES Permits issued to Palm Beach County, Broward County, Sarasota County, Florida, Tulsa, Oklahoma, Denver, Colorado.

upon accumulation of debris, customer complaints, and seasonal concerns;
- Implemented cleaning and maintenance programs for prioritized streets and parking lots;
- Ensured that most (for some Permittees, all) storm drain inlets were marked with the "No Dumping-Drains to Creek/River" message with either durable curb markers, stenciling, or permanent concrete stamps; and
- Trained affected staff at least annually on the impacts of stormwater pollution, associated prevention activities, and illicit connection and discharge identification and reporting procedures.

Discussion of the Requirements in This Permit

This Permit requires the continuation of the Permittees' efforts from the previous permit term to control stormwater pollution resulting from the operation and maintenance of permittee-owned land use areas, facilities, and activities. The Permit further requires the performance of an assessment to determine the effectiveness of these activities and identify any necessary modifications for continuous improvement.

E. **Illicit Discharge Program Element**

Legal Authority and Discussion

Federal regulations [40 CFR 122.26(d)(2)(iv)(B)] state that a proposed management program shall include a schedule, to detect and remove (or require the discharger to the municipal storm sewer to obtain a separate NPDES permit for) illicit discharges and improper disposal into the storm sewer. It states further that a Permittee must include in its proposed management program a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal storm sewer system.

During dry weather, much of the discharge to storm drain systems consists of wastes and wastewater from non-storm water sources that could include illicit discharges or connections, or both. Illicit discharges may occur either through direct connections, such as deliberate or mistaken piping, or through indirect connections, such as dumping, spillage, subsurface infiltration, and washdown.

Each Permittee is required to update and continue to implement an Illicit Discharge Detection and Elimination Program component of the SQIP to actively seek and eliminate illicit discharges and connections to the MEP.

Status of the Sacramento Program

Since the initiation of the program in 1990, the Permittees have completed the following work:

- Established the legal authority to prohibit illegal discharges and enforce those prohibitions through the adoption of local Stormwater Ordinances
- Established and have been implementing illicit discharge response and reporting procedures to investigate, identify and abate illicit discharges
- Conducted employee training with regard to illicit discharges and enforcement
- Continued implementation of solid, recycling and household hazardous waste collection programs
- Conducted illicit discharge field screening activities which resulted in few if any discharges to eliminate.
- Established and maintained tracking databases and maps to assist with investigations and identification of problem areas

Discussion of Requirements in this Permit

This Permit requires the continuation of the Permittees' inspection, response, and enforcement activities, and further requires the performance of an assessment to determine the effectiveness of these activities and identify any necessary modifications for continuous improvement.

F. **Public Outreach Public Education Program (Collectively Public Outreach Program)**

Legal Authority and Discussion

Federal regulations [40 CFR 122.26(d)(2)(iv)(A)(6)] provide that the proposed management program include, "*A description of a program to reduce to the maximum extent practicable, pollutants in discharges from municipal separate storm sewer system associated with the application of pesticides, herbicides, and fertilizer which will include, as appropriate, controls such as educational activities, permits, certifications, and other measures for commercial applicators and distributors, and controls for application in public right-of-ways and at municipal facilities." These regulations [40 CFR 122.26(d)(2)(iv)(B)(6)] also provide that the proposed management program include, "A description of education activities, public information activities, and other appropriate activities to facilitate the proper management and disposal of used oil and toxic materials."*

To satisfy the Public Outreach Program, the Permittees need to: (i) Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of storm water discharges on local water bodies and the steps that can be taken to reduce storm water pollution; and (ii) Determine the appropriate BMPs and measurable goals for this minimum control measure.

Status of the Sacramento Program

The Permittees have made significant progress in developing and implementing programs to educate the public about the impacts of stormwater pollution. In addition, the Permittees encourage the public to participate in stewardship activities to enhance and protect the quality of Sacramento's waterways.

The following highlights the major accomplishments of the regional public outreach program since 1990:

- Developed a 24-hour public reporting hotline for stormwater-related issues
- Developed and implemented a regional media campaign, including Cable TV commercials, billboards and other media. Due in large part to this campaign, the permittees far exceeded the 2002-07 stormwater permit term requirements for the number of impressions
- Promoted the Sacramento Stormwater Quality Partnership's website to the general public
- Promoted citizen participation in watershed stewardship (e.g., volunteer storm drain stenciling, creek cleanups)
- Developed and distributed several educational materials for school children, residents, and businesses
- Developed the Clean Water Business Partner program, an incentive program to encourage businesses to protect stormwater quality
- Developed educational materials for the multicultural community
- Supported several educational programs targeting school children
- Participated in various community outreach events
- Coordinated with other agencies/organizations to develop and implement effective outreach
- Conducted public opinion surveys to gauge the level of awareness and behavior changes within the community or target audience

Discussion of Requirements in This Permit

Appendix 1B

Regulatory Background and Requirements Relevant to the Sacramento Stormwater Quality Partnership

REGULATIONS DIRECTLY RELEVANT TO THE SACRAMENTO STORMWATER MANAGEMENT PROGRAM

The principal regulatory vehicles for protection of water quality in California are the federal Clean Water Act and the State of California Porter-Cologne Water Quality Control Act. Figure C-1 in Appendix C shows regulatory milestones in the 19-year history of the Sacramento Stormwater Management Program.

FEDERAL NPDES PROGRAM

In 1972, the US Congress enacted the Clean Water Act (CWA), a landmark piece of legislation intended to restore the nation's waterways to "fishable and swimmable" conditions. The United States Environmental Protection Agency (USEPA) is the federal agency charged with implementation of the CWA. The CWA includes a "zero discharge" goal, in which discharges of pollutants to waters of the United States from any point source are effectively prohibited, unless the discharge complies with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added Section 402(p), which established a framework for regulating municipal, industrial, and construction site stormwater discharges under the NPDES program. Section 402(p) also established the NPDES permit program goals for the municipal stormwater programs, which are to reduce the discharge of pollutants to the "maximum extent practicable" and to eliminate non-stormwater discharges. To meet these requirements the municipality uses "management practices, control techniques and systems, design and engineering methods and such other provisions … appropriate for the control of such pollutants" (CWA Section 402(p)). These measures are commonly referred to as best management practices (BMPs).

On November 16, 1990, USEPA published the Phase I stormwater regulations[1], which established application requirements for stormwater NPDES permits for municipal separate storm sewer systems (MS4s). The Phase I regulations required municipalities with a population greater than 100,000 and selected industries (including construction sites greater than five acres) to obtain a NPDES permit for their stormwater discharges. In 1999, USEPA promulgated the Phase II regulations[2], which established permit application requirements for communities with a population between 50,000 and 100,000, and construction sites that disturb an area from one to five acres in size.

In California, the State Water Resources Control Board (SWRCB) administers the NPDES stormwater permitting program through the nine Regional Water Quality Control Boards (Regional Boards).

---

[1] National Pollutant Discharge Elimination System (NPDES) Permit Application Regulations for Stormwater Discharges; Final Rule, 40 CFR Part 122.26, U.S. Environmental Protection Agency (USEPA), November 16, 1990.

2 National Pollutant Discharge Elimination System – Regulations for Revision of the Water Pollution Control Program – Additional Stormwater Discharges; Final Rule. 40 CFR Parts 9, 122, 123 and 124, U.S. Environmental Protection Agency (USEPA), December 9, 1999.

STATE OF CALIFORNIA BASIN PLANS, NPDES PROGRAM

The Porter-Cologne Water Quality Control Act requires the development of water quality management plans for drainage basins within California ("basin plans"). The basin plans serve as the regional policy for protecting water quality within each watershed, defined as the area of land draining to a particular water body. The basin plans include identification of the beneficial uses of each receiving water, establishment of water quality objectives necessary to protect these beneficial uses, and development of an implementation plan to ensure long-term protection of the water body and its beneficial uses. In establishing water quality objectives, the regulatory agencies must consider: (1) past, present, and probable future beneficial uses, (2) environmental characteristics of the watershed, (3) water quality conditions that could reasonably be achieved, (4) economic considerations, (5) the need for developing housing in the area, and (6) the need to develop and use recycled water. The Regional Boards principally implement basin plans through Waste Discharge Requirements (WDRs).

The SWRCB issues statewide permits, including categorical "general permits" for construction sites and industrial facilities, and Phase II municipalities. The nine Regional Boards issue individual permits to specific dischargers within their geographic areas of jurisdiction. Regional Boards may also issue general permits for construction or industrial activities in their regions. Municipalities, including the Sacramento Stormwater Quality Partnership permittees (Partnership), obtain individual NPDES permits from the Regional Boards. It should be noted that even though construction sites and industries are covered under the general permits, the Phase I municipalities, including the Partnership, are also required to address construction and industrial activities in their own programs. USEPA intended this intentional overlap to induce more local regulation and enforcement and enable the municipalities to control construction and industrial discharges into their own storm drainage systems.

The SWRCB and Regional Boards issue NPDES permits by including Waste Discharge Requirements in conformance with the state's Porter-Cologne requirements. The state waste discharge program is broader than the NPDES Program, covering nonpoint sources and groundwater in addition to point sources and surface waters. The Regional Water Quality Control Board, Central Valley Region (referred to hereafter as "the Regional Board") issues and administers the Sacramento NPDES municipal stormwater permit for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

As part of Phase II, the State Water Resources Control Board adopted a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities, including non-traditional small MS4s, which include governmental facilities such as military bases, public campuses, and prison and hospital complexes.

In California, stormwater NPDES Permits include standard requirements to the effect that discharges "shall not cause or contribute to violations of water quality objectives nor shall they cause certain conditions to occur which create a condition of nuisance or water quality impairment in receiving waters." The SWRCB requires permittees to address these standard requirements through the implementation of control measures to reduce pollutants in storm water discharges.

SACRAMENTO NPDES MUNICIPAL STORMWATER PERMIT

The original Phase I municipal permits were issued between 1991 and 1994, following development and submittal of an extensive two-part application by each permittee or group of permittees. The Sacramento NPDES stormwater permit was one of the first permits to be issued in the nation, in 1990 (Order No. 90-158). This early permit preceded promulgation of the Phase I regulations (in December 1990) and did not require the development of the formal two-part application, although similar information was generally required of the Partnership during the first permit term. The Regional Boards try to reissue NPDES permits every five years. The Regional Board issued the second Sacramento NDPES permit in 1996 (Order No. 96-105), the third NPDES permit in December 2002 (Order No. R5-2002-0206), and the fourth and current permit in September 2008 (Order No. R5-2008-0142). The Regional Board made the current permit effective in late October 2008. The smaller municipalities, such as the cities of Folsom and Galt, were individually brought into the Phase I program as permittees along with larger municipalities. The Regional Board considers all Partnership municipalities as part of the Phase I regulated community, regardless of size.

The Partnership has subsequently developed Stormwater Quality Improvement Plans (SQIP) in conformance with the Phase I regulations. However, for planning purposes, the Partnership also reviewed and considered the Phase II regulations in developing the Stormwater Quality Improvement Plans, to account for advances in stormwater programs made in the ten years between the Phase I and Phase II regulations. Table 1, at the end of this appendix, is a summary of the pertinent points of the Phase I and II regulations.

Receiving Water Quality Objectives

The Sacramento Stormwater NPDES Permit requires comparison of receiving water monitoring data to receiving water quality objectives (WQOs), and submittal of a Notice of Water Quality Exceedance (NWQE) to the Regional Board within 90 days of an exceedance of a water quality objective in a receiving water monitoring event. A Report of Water Quality Exceedance (RWQE) is then required on determination by either the Partnership or Regional Board that municipal stormwater discharges are causing or contributing to an exceedance of an applicable receiving water specific water quality objective. The RWQE "describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Water Quality Standards." These evaluations consider water quality objectives for the Sacramento River, American River and their tributaries. The Partnership derives the applicable water quality objectives from the California Toxics Rule (CTR), the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins (Basin Plan), and objectives specified in the NPDES Permit (e.g., mercury).

The NPDES Permit also requires Regional Board notification within 48 hours of receiving water column toxicity results for receiving water samples with greater than 50% mortality.

"Maximum Extent Practicable" Standard

Section 402(p)(3)(B) of the CWA requires the Regional Boards to issue NPDES municipal stormwater permits that require dischargers to develop and implement programs with the goal of reducing the discharge of pollutants in stormwater runoff to the maximum extent practicable (MEP). Although the CWA established the permit requirement of MEP for municipal permittees,

neither the CWA nor subsequent regulations provide a specific definition. It is clear, however, that MEP is a requirement to reduce the discharge of pollutants, not to prohibit such discharge. The stormwater regulations state that MEP is to be achieved through implementation of control measures that involve public outreach, illegal discharge elimination, construction site controls, new development controls, pollution prevention and good housekeeping for municipal operations, and industrial site controls. The Phase II regulations provide additional insight into MEP by linking the implementation of BMPs with the achievement of measurable goals. The SWRCB's Senior Counsel, in a 1993 memorandum[3], further made the point that achieving the MEP standard requires a meaningful, rather than a perfunctory, program. The 1993 memorandum interprets the meaning of MEP to include *technical feasibility, cost and benefit derived with the burden being on the municipality to demonstrate compliance with MEP by showing that a BMP is not technically feasible in the locality or that BMP costs would exceed any benefit to be derived*. The SWRCB further discusses the term in two Water Quality Orders: WQ 1000-11 and 91-03.

The Sacramento Stormwater Management Program defines MEP in a functional way, as an iterative process of (1) developing a sound and thorough program of BMPs commensurate with available resources, (2) implementing the program, and (3) evaluating and refining the program over time. These steps are briefly described below:

- ***Development*** of the program relies on stormwater program guidance from USEPA, applicable regulations, best professional judgment, information gained from implementation and evaluation of the program, information learned from other municipal stormwater programs, evolving local conditions, communication with regulators, and public input. This is consistent with the SWRCB's expressed opinion that compliance with MEP requires a meaningful program.
- ***Implementation*** activities, including BMPs, are the foundation of the program. Considerations in selecting appropriate BMPs include technical feasibility, pollutant removal effectiveness, legal authority, compatibility with other agency programs and goals, economic factors (including the ability to capitalize on existing opportunities and cost effectiveness), public acceptance and whether the BMP focuses on Sacramento's target pollutants.
- The ***evaluation*** process for the program addresses both the overall program and its individual program elements through assessment of effectiveness measures and performance measures. Effectiveness measures are those intended to directly measure the effect that certain activities have on making a difference in water quality, the public's behavior, etc. Performance measures are intended to measure the level of effort that the Partnership is expending to satisfy the NPDES permit requirements in reducing stormwater pollution. See Chapter 2.3 of the Stormwater Quality Improvement Plan for more information.

The effectiveness of the iterative program outlined above is enhanced by the Partnership "target pollutant" process, in which target pollutants are identified in urban runoff discharges and priority-ranked according to a comprehensive set of criteria. The Partnership then investigates

[3] Elizabeth Miller Jennings, "Definition of Maximum Extent Practicable", State Water Resources Control Board Memorandum, February 11, 1993.

sources of high-ranking target pollutants, and identifies control measures for the reduction of significant sources of the high-priority pollutants.

Consequences of Noncompliance

The NPDES Permit is federally enforceable, which means that if a permittee does not comply with the terms of the permit, it may be subject to CWA authorized enforcement actions and penalties by the Regional Board, US EPA and private third parties. Penalties for noncompliance with the CWA can be up to $37,500[4] per incident per day. Moreover, federal enforceability includes the right of interested parties to sue under the CWA Section 405 citizen suit provision. Environmental advocacy groups have brought numerous lawsuits against NPDES permittees, various state regulatory agencies and the EPA since the early 1990's.

STATEWIDE/GENERAL PERMITS

Within the NPDES program, the State of California has adopted several statewide general permits, covering stormwater discharges from specific types of activities. Those wishing to engage in the specified activities must conform to the requirements of the relevant general permit. The state administers and enforces the general permits even when the activities take place in a municipality covered by an individual MS4 NPDES permit. The general permits are therefore generally of benefit to the permitted MS4s, as they provide an additional level of regulatory oversight and responsibility for the covered categories of discharges. The most pertinent statewide/general permits are discussed below.

Construction General Permit

Construction projects that disturb one or more acres of soil are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (*Construction General Permit*, SWRCB Order #99-08-DWQ). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade or capacity of the facility. The SWRCB reissued the Construction General Permit on August 19, 1999. The SWRCB circulated a preliminary review draft of the revised Construction General Permit on March 2, 2007 and subsequently circulated a second draft on March 18, 2008. The SWRCB recently released a third draft of the revised Construction General Permit.

To obtain coverage under the Construction General Permit, applicants must submit a Notice of Intent (NOI), Site Map, and the appropriate permit fee to the SWRCB. The discharger files a Notice of Termination with the Regional Board upon project completion.

The SWPPP must contain a site map(s), which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the applicant will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

[4]Current penalty as of January 12, 2009, regularly adjusted for inflation.

Based upon the previous drafts of the Construction General Permit, the final revised Construction General Permit will likely differ from Order 99-08-DWQ in several significant ways. Some of the more significant projected changes include:

- Electronic submittal of NOIs and SWPPP to allow greater public access
- Specific qualification requirements for construction SWPPP developers and those responsible for implementing the SWPPPs
- Categorization of the risk of sediment discharge from sites into at least three risk levels
- Permit requirements tiered to the risk level of the site
- Numeric Action Levels and Numeric Effluent Limitations for construction site runoff
- Runoff monitoring to assess performance and compliance with the action levels and effluent limits
- Receiving water monitoring for some sites
- Annual reporting of visual and water quality monitoring results through an electronic system.

From the standpoint of the municipal stormwater program, the net effect of this General Permit is to assist MS4s in the implementation of the construction element of the stormwater management program, by providing an independent means of ensuring compliance with stormwater regulations at construction sites.

Industrial General Permit

The Industrial Storm Water General Permit (*Industrial General Permit*, SWRCB Order #97-03-DWQ) regulates discharges associated with 10 broad categories of industrial activities. Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 CFR Section 122.26(b)(14). For the most part, these facilities are identified in the federal regulations by a Standard Industrial Classification (SIC). The SWRCB adopted this permit in 1999. The SWRCB circulated, but did not adopt, a draft revised permit in 2005.

To obtain coverage for stormwater discharges and authorized non-stormwater discharges pursuant to the Industrial General Permit, facility operators must submit a Notice of Intent (NOI), a site maps, and annual fee to the SWRCB. This General Permit requires facility operators to:

- Eliminate unauthorized non-storm water discharges;
- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP); and
- Perform monitoring of storm water discharges and authorized non-storm water discharges.

The Industrial General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). Through the SWPPP, sources of pollutants are identified and the means to manage the sources to reduce storm water pollution (i.e., BMPs) are described.

This General Permit does not preempt or supersede the authority of local agencies (e.g., municipal NPDES Permit-holders) to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other water-courses within their jurisdictions as allowed by state and federal law. The net effect of this General Permit for local

agencies is to assist MS4s in the implementation of the municipal stormwater program, by providing an independent means of ensuring compliance with stormwater regulations at industrial facilities.

Caltrans Statewide Stormwater Permit

The SWRCB regulates runoff discharges from Caltrans facilities under a statewide NPDES permit issued to Caltrans in 1999 (Order # 99-06-DWQ). Currently the SWRCB is drafting this permit renewal.

Caltrans discharges consist of stormwater and non-storm runoff generated from (a) maintenance and operation of state-owned highways, freeways, and roads; (b) maintenance facilities; (c) other properties, facilities, activities, and construction projects; (d) permanent discharges from subsurface dewatering, and (e) temporary construction related dewatering activities which discharge directly to surface waters or through municipal storm water conveyance systems to surface water bodies in the state. Some stormwater discharges from Caltrans-owned rights-of-way, properties, facilities and activities discharge to stormwater conveyances managed by NPDES-permitted municipalities. On the other hand, some stormwater discharges from these municipalities discharge to storm water conveyances managed by Caltrans.

The Regional Boards have issued stormwater NPDES Permits for the discharge of stormwater from MS4s to municipalities in California that require such permits. Caltrans operates highways and highway-related properties, activities, and facilities that cross through all of these permitted areas. This statewide Caltrans permit covers all municipal stormwater activities by Caltrans in California, both in areas that require an MS4 permit and areas that do not currently require a permit, and all Caltrans construction activities that require a permit under the federal stormwater regulations.

This NPDES Permit does not preempt or supersede the authority of local municipal agencies to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other watercourses within their jurisdictions as allowed by state and federal law. However, the principal responsibility for management of stormwater discharges from state transportation facilities in the Sacramento urban area rests with Caltrans.

Aquatic Pesticides General Permits

In response to court cases and guidance, in 2004 the SWRCB adopted two general permits for discharges of aquatic pesticides into waters of the United States. One permit regulates the use of aquatic weed killers (WQO 2004-0009-DWQ for aquatic weed control) and the other regulates aquatic pesticides used to control mosquitoes and other vectors (WQO 2004-0008-DWQ for vector control). In adopting these permits, the SWRCB found that Ninth Circuit Court decisions (beginning in 2001 with the “Headwaters” decision) appeared to require these permits and that relevant USEPA guidance documents might not be a legal basis for a lack of coverage under an NPDES permit. According to the Ninth Circuit Court, the application of pesticides into waters of the United States, or onto aquatic plants growing in waters of the United States, results in discharges of pollutants and requires coverage under a National Pollutant Discharge Elimination System (NPDES) permit.

On November 20, 2006, USEPA issued its final rule on aquatic pesticides (40 C.F.R. § 122.3(h)(1)). This rule was intended to eliminate the need for a NPDES permit for the

application of pesticides to waters, if the application is made in accordance with Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) labels. USEPA's regulation took effect on January 26, 2007. However a Sixth Circuit Court decision filed on January 7, 2009, determined that USEPA's final rule is not a reasonable interpretation of the CWA and vacated the final rule. The current status of the Aquatic Pesticide is still uncertain, as federal court actions are under appeal, and US EPA has requested a two year extension to develop the permit.

Low Threat and Limited Threat Discharges

Low threat discharges are those with low potential for causing or contributing to water quality impairment. Regional Boards issue general permits on a regional basis for such discharges, rather than on a statewide basis by the SWRCB. For the Central Valley Region, the relevant orders are Regional Board Orders:

- R5-2008-0081 Waste Discharge Requirements for Dewatering and Other Low Threat Discharges to Surface Waters
- R5-2008-0082 Waste Discharge Requirements For Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects and Other Limited Threat Wastewaters.

R5-2008-0081 covers discharges by individuals, public agencies, private businesses and other legal entities of clean or relatively pollutant-free wastewaters that pose little or no threat to the quality of waters of the United States. Discharges covered by this General Order are either four months or less in duration or have an average dry weather flow less than 0.25 million gallons per day (MGD).

To obtain coverage under this Order, the Discharger must submit a complete Notice of Intent including (1) information concerning its discharge location; (2) a map showing the location of the site, treatment system (if applicable), discharge point(s), and receiving water; (3) an evaluation of reclamation options; (4) narrative and schematic descriptions of the existing or proposed treatment system, including blueprints signed by a Registered Engineer or Geologist (if applicable); (5) analysis of the proposed effluent for specified pollutants; and (6) the appropriate fee.

R5-2008-0082 covers dischargers of treated or untreated groundwater from cleanup sites, including groundwater extracted during short-term and long-term pumping/aquifer tests, and equipment decontamination water, dischargers of wastewater from superchlorination projects, and dischargers of other limited threat wastewaters. Dischargers of wastewaters containing sewage of human origin or containing significant oxygen demanding substances prior to treatment are not covered by this Order.

To obtain coverage under this Order, the Discharger must submit a complete application, which includes USEPA Application Forms 1 and 2D; State Water Board Form 200, a map of the location of the project, discharge point(s), and receiving water; a full description of the proposed project on official letterhead; blueprints of the proposed treatment system signed by a Registered Engineer or Geologist (if applicable); analysis of the proposed effluent for specified pollutants; an evaluation of reclamation options; public notice requirements; and the appropriate fee.

This Order does not preempt or supersede the authority of state or local agencies to prohibit, restrict or control the discharge of wastewater subject to their jurisdiction.

OTHER REGULATIONS THAT MAY AFFECT THE SACRAMENTO STORMWATER MANAGEMENT PROGRAM

CWA Section 303(d) - Total Maximum Daily Loads

Section 303(d) of the CWA requires the states to identify waters that are not attaining water quality standards. The identified water bodies comprise the state's "303(d) list," also referred to as the "impaired waters" list. The CWA requires the states to establish priority rankings for listed water bodies and to establish the total maximum daily load (TMDL) for pollutants impairing those waters. According to USEPA, a TMDL is a numerical calculation of the amount of a pollutant – or load – that a water body can assimilate and still meet standards. A TMDL includes one or more numerical targets calculated to represent attainment of the applicable standards, considering seasonal variations and a margin of safety, and allocation of the target or load among the various sources of the pollutant. The states must incorporate TMDLs and load reduction requirements into the basin plans.

USEPA Region IX (which includes Sacramento) developed guidance for California on minimum requirements to meet TMDL regulations, the application of water quality standards, and how NPDES permits are to be written for discharges to listed water bodies.

The State of California subsequently adopted two policies related to the TMDL process:

- ***The Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List*** (SWRCB Resolution 2004-0063, September 2004). The "Listing Policy" describes the process by which the State Water Resources Control Board and Regional Water Quality Control Boards will comply with the listing requirements of section 303(d) of the federal Clean Water Act (CWA). The Policy establishes a standardized approach for developing California's section 303(d) list.
- ***The Water Quality Control Policy for Addressing Impaired Waters*** (SWRCB Resolution 2005-0050, June 2005). The "TMDL Policy" is intended to ensure that the impaired waters of the state are addressed in a timely and meaningful fashion. The majority of TMDLs are established through an implementation plan adopted as a Basin Plan amendment (BPA), but the TMDL Policy allows a TMDL to be established through alternative regulatory actions. For the Amendment to become final, it must be approved by the State Water Resources Control Board, the California Office of Administrative Law, and USEPA.

TMDLs affect NPDES permit holders that discharge into 303(d) listed water bodies by, as Regional Boards develop source load allocations to support each TMDL. Listed water bodies on the 2006 303(d) list[5] into which Sacramento urban runoff ultimately flows include: Arcade Creek, Chicken Ranch Slough, Strong Ranch Slough, Elder Creek, Elk Grove Creek, Morrison Creek, the Natomas East Main Drain, Lake Natoma, the lower American River, the Sacramento River from Red Bluff to the Delta, and Delta waterways. The Sacramento Stormwater Management Program addresses pollutants for pertinent listed water bodies through its target

[5] The SWRCB adopted the 2006 Clean Water Act section 303(d) list of water quality limited segments at a October 25, 2006 Board Meeting.

pollutant reduction activities and monitoring program. The Regional Board issued a draft 303(d) list for public comment in January 2009 that includes new listings for pyrethroids and other constituents for water bodies that receive Sacramento urban runoff.

The following TMDLs are currently in effect or proceeding through the TMDL/BPA adoption and approval process.

Sacramento/Feather River Diazinon and Chlorpyrifos TMDL/BPA

The Regional Board originally adopted this TMDL and Basin Plan Amendment in 2003 and then readopted in them in 2007. The 2007 amendment revised the water quality objectives and control program for diazinon originally adopted in 2003 and adds water quality objectives and a control program for chlorpyrifos for the Sacramento and Feather River. The 2007 Basin Plan Amendment was fully approved and effective as of August 11, 2008. The pesticide objectives specified in the 2008 amendments are:

Diazinon Water Quality Objective:

0.16 µg/L 1-hour average (acute); 0.10 µg/L 4-day average (chronic), not to be exceeded more than once in a three-year period

Chlorpyrifos Water Quality Objective:

0.025 µg/L 1-hour average (acute); 0.015 µg/L 4-day average (chronic), not to be exceeded more than once in a three-year period

The Waste Load Allocations (WLA) for all NPDES-permitted dischargers, Load Allocations (LA) for nonpoint source discharges, and the Loading Capacity of the Sacramento and Feather Rivers shall not exceed the sum (S) of one (1) as defined below.

$$S = C_D/WQO_D + C_C/WQO_C \leq 1.0$$

where C_D = concentration of diazinon, WQO_D = diazinon water quality objective, C_C = concentration of chlorpyrifos, WQO_C = chlorpyrifos water quality objective,

Sacramento Urban Creeks TMDL – Diazinon/Chlorpyrifos

This TMDL was implemented in 2004 without a Basin Plan amendment, via provisions in the Sacramento Stormwater NPDES Permit. The TMDL contains the former California Department of Fish and Game criteria as objectives for diazinon and chlorpyrifos. The TMDL targets and load allocations are concentration based, and account for the additive effects of diazinon and chlorpyrifos. The requirements of the TMDL are addressed by the NPDES Permit requirement for development of a pesticide control plan. The TMDL is due to be reviewed for possible revision, and the Partnership has commented directly to the Regional Board that the TMDL is completed since the withdrawal by 2004 of Federal registration ofthese pesticides for most urban uses has led to greatly reduced concentrations in discharges, and attainment of the TMDL goals.

Sacramento/San Joaquin Delta TMDL/BPA for Diazinon and Chlorpyrifos

The "Basin Plan Amendment for the Control of Diazinon and Chlorpyrifos Runoff into the Sacramento-San Joaquin Delta" established water quality objectives for diazinon and chlorpyrifos in Delta waterways. The Basin Plan Amendment is fully approved and effective as

of October 10, 2007. The adopted diazinon objectives/TMDL targets are equal to the revised CA DF&G objectives (160 ng/L acute and 100 ng/L chronic).

Central Valley Pesticides TMDL/BPA

This ongoing TMDL project covers most of the Central Valley Regional Water Quality Control Board jurisdiction, i.e. the Sacramento and San Joaquin River watersheds, and is much broader in technical scope than any of the other previous or ongoing TMDLs. The project includes:

- all natural streams below major reservoirs that could receive agricultural or urban runoff (not constructed drains unless listed in Basin Plan)
- comprehensive coverage of current-use pesticides (not just diazinon and chlorpyrifos); excludes legacy pesticides (such as DDT)
- preparation of a risk assessment for pesticides in Sacramento Valley
- evaluation and development of water quality criteria for selected pesticides
- evaluation and development of sediment quality criteria for selected pesticides (likely including pyrethroids)
- a perfunctory aquatic life beneficial use assessment for selected streams
- monitoring for pesticides identified in the risk assessment

Pyrethroid Re-evaluation and Registration Review

Based on reported pyrethroid aquatic toxicity, including a signficant number of urban areas, the California Department of Pesticide Regulation (DPR) in 2006 initiated a re-evaluation of pyrethroid pesticide registrations. This process is intended to identify and effectively mitigate toxicity sources, which may include pesticide use restrictions or even removal of certain products from the market. USEPA is also preparing to address the observed toxicity as part of its registration review process which is scheduled to begin in 2010. As a result of comments by California water quality agencies, including the Permittees and CASQA, US EPA has begun incorporating improved urban surface water quality protection in pyrethroid product label language.

Structural Pest Control Board IPM regulations

The California Structural Pest Control Board (SPCB), which is the lead agency for regulation of professional structural pest control operators, in 2008 adopted regulations to establish Integrated Pest Management (IPM) training requirements for new licensees and as continuing education requirements for license renewal. These requirements, established largely in response to concerns expressed by California Water Boards and CASQA, became effective in April 2009. In addition, the SPCB has adopted regulations (pending final approval by the Office of Administrative Law) to allow its regulated community to more effectively market the environmental benefits of IPM, and has begun the process to establish statewide standards for certification of IPM services

Delta Mercury/Methylmercury TMDL/BPA

The TMDL and Basin Plan Amendment "For the Control of Methylmercury in the Sacramento-San Joaquin Delta Estuary" are currently in development using a facilitated stakeholder process in which the Permittees are participants. This TMDL will be precedent setting, as the Regional Board intends to work upstream from the Delta in developing mercury TMDLs for the American, Sacramento and Feather Rivers, building on the precedents/loadings set in the Delta TMDL. Proposed Delta water quality objectives include three fish tissue objectives for mercury,

covering different size classes/trophic levels of fish, to protect both human health and wildlife. Allocations for known mercury sources are proposed to limit fish mercury exposure and assimilation. The February 2008 draft TMDL/BPA includes wasteload allocations for urban runoff equivalent to a 44% reduction in current methylmercury concentrations, effective four years from the Basin Plan Amendment. This can be achieved through source reduction, treatment, or an offset program.

Related mercury policies under development:

- *Proposed CTR Objective for Methylmercury*
  The SWRCB has begun the process to develop "Proposed Methylmercury Objectives for Inland Surface Waters, Enclosed Bays, and Estuaries in California" (December 2006). The elements of the proposed policy may include methylmercury fish tissue objectives, total mercury water quality objectives, methylmercury water quality objectives, or some combination.
- *Proposed Mercury Offset Policy for SF Bay and Delta*
  The SWRCB's "Proposed State Policy for Water Quality Control, San Francisco Bay, Sacramento-San Joaquin River Delta and Tributaries Mercury Discharge Offset Policy" (January 2007) would allow mercury dischargers (especially those subject to NPDES permits) to offset some mercury TMDL loading allocations by taking other actions, such as removing mercury from Delta sediments. This policy, if properly constructed, has the potential to provide regulatory mechanisms that would allow NPDES dischargers, including urban runoff discharge agencies in the TMDL area, to apply resources within the watershed to most effectively address mercury and methyl mercury sources.

Central Valley Drinking Water Policy

To address drinking water treatment challenges and potential public health concerns in the crucial Sacramento/San Joaquin River Delta region, a multi-year effort is currently underway to develop a drinking water policy for surface waters in the Central Valley. The goal is to develop a policy that provides clear guidance to ensure consistent source water protection. This policy may include provisions that affect municipal stormwater dischargers upstream of the Delta. The policy considers pathogen indicators, organic carbon, nutrients, and salinity with a project horizon of 2030. Currently the City of Sacramento participates in the effort that is primary CalFed and stakeholder funded. Efforts include developing source control program alternatives and cost projections, comprehensive load modeling, and drinking water treatment requirement cost projections.

Wetlands and Riparian Area Protection Policy

A statewide Wetland and Riparian Area Protection Policy (WRAPP) is under development by the SWRCB to provide additional protection for wetlands and riparian areas, which are considered critical to the protection and enhancement of water quality throughout California's diverse watersheds. Additional regulatory attention to these areas is affirmed by statewide policies such as the Wetlands Conservation Policy (Executive Order W-59-93), also known as the state's "No Net Loss" Policy for Wetlands; and the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (State Water Board Resolution No. 2004-0030).

Special protections are considered warranted for wetlands, riparian areas, and headwaters because these areas have high resource value, are vulnerable to filling, and are not systematically protected by other programs. Insufficient protections for wetlands and riparian areas in the past led to significant historic losses of these resources in California. As a result, the remaining wetlands and riparian areas in the state are considered to be extremely valuable resources. The WRAPP policy will encourage basin-level analysis and protection, because some functions of wetlands, riparian areas and headwater streams - including pollutant removal, flood water retention and habitat connectivity - are manifest at the watershed level.

This new policy is primarily intended to address the following three areas:

- Provide clarity in the existing regulatory framework for protecting those wetlands and riparian areas that are no longer regulated under the CWA, due to recent federal court cases that have limited federal jurisdiction and increased the relative role and importance of the state's water quality programs and authorities.
- Provide statewide consistency in the definition of wetlands and riparian areas, to ensure protection of beneficial uses under the California Water Code.
- Provide statewide consistency in definitions of beneficial uses for wetland and riparian area functions (e.g., pollutant removal, floodwater retention, and habitat connectivity) and lack of consistent statewide requirements for evaluating the condition of wetland and riparian area resources. Condition assessments are necessary for determining potential impacts from discharges and other activities on wetland and riparian area water quality and associated beneficial uses; and for determining the actions that are necessary to avoid, minimize, and mitigate any potential impacts to protect wetland and riparian resources.

Upon adoption, this Policy may expand the areas covered as regulated receiving waters of the state beyond those covered by the federal definition.

LOW IMPACT DEVELOPMENT/SUSTAINABILITY

On January 20, 2005, the SWRCB adopted sustainability as a core value for all California Water Boards' activities and programs, and directed Regional Board staff to consider sustainability in all future policies, guidelines and regulatory actions.

An emerging tool of sustainability that is directly applicable to urban stormwater management is Low Impact Development (LID), which uses site design and storm water management practices to maintain, as nearly as possible, a site's pre-development runoff rates and volumes. Design techniques are employed to infiltrate, filter, store, evaporate and detain runoff close to the source of rainfall. The Water Boards are encouraging the use of LID in California in various ways:

- Regulation through site-specific and general permits;
- Providing advocacy and outreach to local governments through the Water Board's Training Academy and regional workshops;
- Researching how to incorporate LID language in to Standard Urban Storm Water Mitigation Plan (SUSMP) requirements;
- Funding LID-related projects through the consolidated grants program; and

- Funding through CWA 319 funds to provide for researching the applicability of the Impervious Surface Analysis Tool (ISAT) for land use planners.
- Participation in the California Water and Land Use Partnership (CaWaLUP) Center at U.C. Davis, a collaborative effort made up of representative staff from government agencies, non-profit organizations, and academia, which aims to improve consideration of the water resource implications of land use in California's local government decisions.

LID design tools present promise for assisting local stormwater agencies in meeting SUSMP requirements and reducing potential discharges of pollutants from areas of new and re-development.

Table 1. Summary of the Phase I and Phase II Stormwater Regulations

Phase I	Phase II
Promulgated in 1990	*Promulgated in 1999*
• Regulated community: municipal separate storm sewer systems serving populations of 100,000 or more, construction sites over 5 acres, and specified industrial activities	• Regulated community: municipal urban systems under 100,000 and construction sites of 1 acre or more • Also provides for a "no exposure" exemption for any Phase I industrial facility.
Goals: eliminate illegal discharges and reduce discharges of stormwater pollutants to the MEP	Goals: reduce the discharge of stormwater pollutants to the MEP and protect water quality
Application Process: • Two-part permit application • Individual municipal permits, which incorporate, by reference, the Partnership's management program. • General Permits are issued by the SWRCB to cover construction and industrial activities.	Application Process: • General Permit (SWRCB, 2003) • Application includes NOI, SWMP, and fee.
The proposed management program must address the following elements: • Commercial and residential area source control (includes municipal operations, new development, and pesticides control) • Illicit discharges and improper disposal (includes illicit connections, illegal dumping, and public education) • Industrial facilities • Construction sites The application must also specify proposed: • Monitoring • Assessment and reporting activities The two-part permit application also requires: • Statement of legal authority • Discharge characterization • Map of the system • Identification of industries • Field screening for illegal discharges • Identification of outfalls	Minimum control measures to be included in SWMP: • Public education • Public participation • Illicit discharge detection and elimination • Construction site stormwater runoff control • Post-construction stormwater management • Pollution prevention and good housekeeping for municipal operations BMPs and measurable goals must be specified in SWMP for each control measure. Must include assessment of effectiveness of SWMP and revision as necessary.

Appendix 1C

History of the Sacramento Stormwater Management Program

This appendix provides a brief history of the Sacramento Stormwater Management Program (Program). Since its beginning in 1990, the Program has evolved significantly by building on accomplishments made, utilizing experience and data gained, and responding to changing regulations and permit provisions. Early efforts focused on program development, but as priorities and activities became better defined through the years, the Program has shifted more towards implementation, while continuing to adapt and improve activities based on effectiveness evaluations.

Sacramento Areawide NPDES Municipal Stormwater Permit

As explained briefly in Chapter 1 and in more detail in Appendix B (Regulatory Background), under the federal Clean Water Act, stormwater discharges are regulated through National Pollutant Discharge Elimination System (NPDES) stormwater permits. In California, the State Water Board and its nine Regional Water Boards oversee implementation of the Clean Water Act, and the Central Valley Regional Water Quality Control Board (referred to as "Regional Water Board" in this SQIP) issues and enforces NPDES stormwater permits within the Central Valley.

In 1990, under the Phase I NPDES stormwater regulations adopted by U.S. EPA, municipal stormwater permits are required for municipalities located in metropolitan areas with a population greater than 100,000. In 1990, the Regional Board issued the Sacramento area municipal stormwater permit to the County of Sacramento and Cities of Sacramento, Folsom and Galt (collectively Permittees). The municipal stormwater permit requires the Permittees to implement best management practices to reduce pollutants in urban stormwater discharges to the maximum extent practicable (MEP)[1].

The Sacramento area municipal stormwater permit was renewed in 1996, 2002 and most recently in 2008. Three cities within the county (Citrus Heights, Elk Grove and Rancho Cordova) have become incorporated since the program began and were added as Permittees.

Sacramento Stormwater Management Program

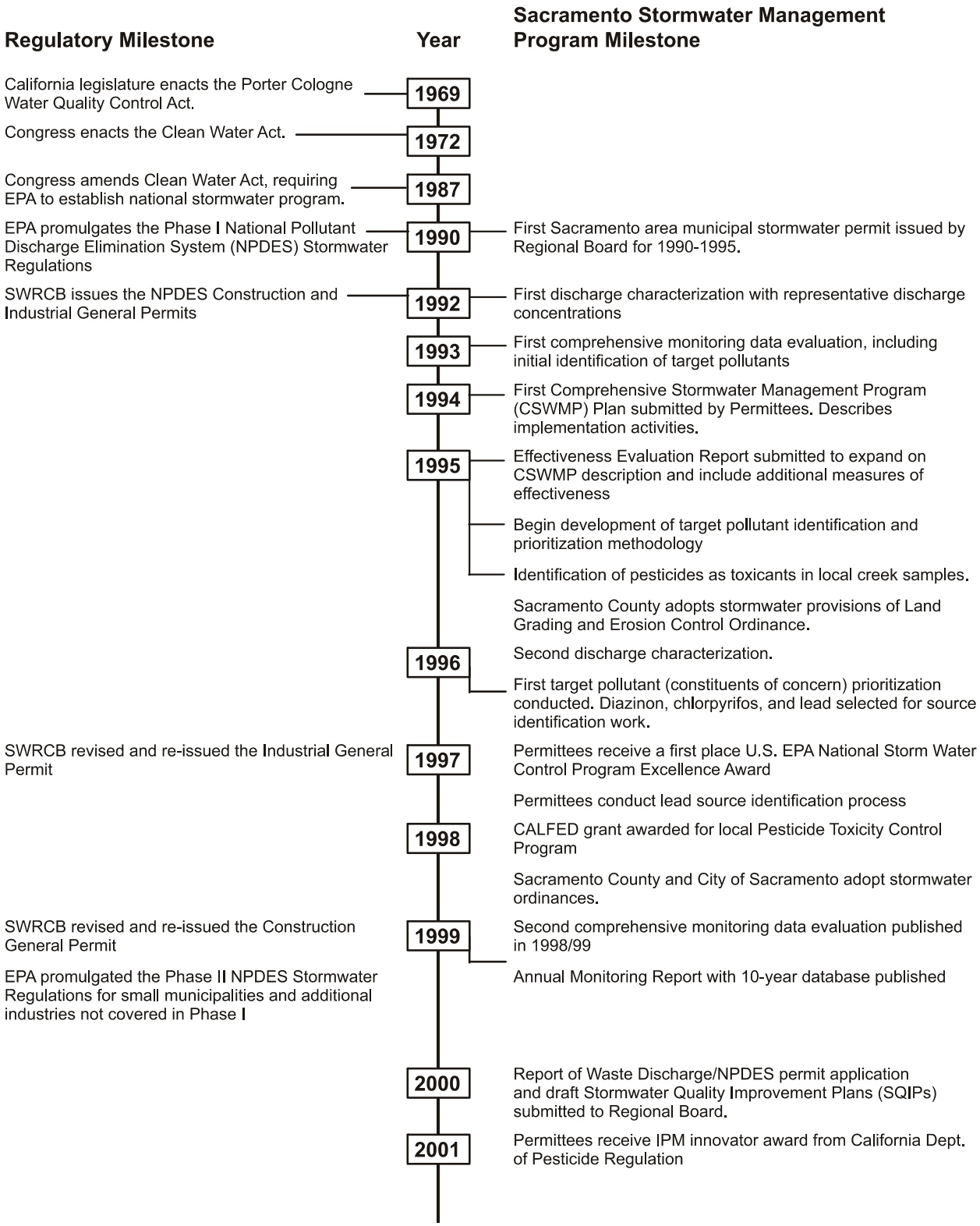
The Program's initial emphasis in the early 1990s was on securing support and stable funding from upper management and their respective jurisdictions' governing bodies, as well as establishing a basic program structure consistent with federal stormwater regulations. Evolution of the Program has included significant refinements of program activities primarily aimed at promoting the most effective use of resources. Several key strategies listed below have guided the Permittees in the selection and design of best management practices:

- Identification and focus on pollutants that pose the highest risk for water quality impacts.
- Evaluation of the Program's effectiveness
- Leveraging of resources through coordination with other agencies and programs

Figure C-1 shows major regulatory and Program milestones. Additional detail about the significant monitoring accomplishments since 1989 is provided on Figure C-2.

[1] The term MEP is discussed in more detail in Appendix 1B.

Figure C-1
Milestones of the Sacramento Stormwater Quality Partnership



Regulatory Milestone	Year	Sacramento Stormwater Management Program Milestone
SWRCB revised and re-issued the Construction General Permit	2002	Third Sacramento NPDES Municipal Stormwater Permit (No. CAS082597) issued by Regional Board for 2003-2007
		Newly incorporated Citrus Heights and Elk Grove added as Permittees.
		Second target pollutant ID and ranking conducted.
SWRCB issued the Phase II NPDES municipal stormwater general permit. Municipalities in Placer, Yolo and El Dorado Counties began submitting Notices of Intent to Comply and associated stormwater management plans	2003	SQIPs modified to address new municipal stormwater permit requirements.
		Industrial inspection program begins.
		Cost share MOU adopted by Permittees.
Regional Water Board adopts TMDL for Diazinon and Chlorpyrifos in Urban Creeks	2004	Modifi ed Sacramento County/Small Cities SQIP to add information for new City of Rancho Cordova
	2005	City of Elk Grove modified its SQIP in response to directive from Regional Water Board
		Mercury and Pesticide Plans submitted to Regional Board.
Regional Water Board releases draft Delta mercury TMDL.	2006	Pesticide Plan approved
		Permittees adopt drainage design regulations
SWRCB issued the Preliminary Draft Construction General Permit (March 2007)	2007	Report of Waste Discharge/NPDES permit application and SQIPs submitted to Regional Water Board 180 days prior to expiration of 2002 permit (Submitted to Regional Water Board June 2007)
		Drainage Design Manual finalized by Permittees
SWRCB issued the second Preliminary Draft Construction General Permit (March 2008)	2008	Fourth Sacramento NPDES Municipal Stormwater Permit (No. CAS082597) issued by Regional Board for 2008-2013 (December 2008)
Regional Water Board drafts update to CWA 303(d) list of impaired waters (January 2009)	2009	SQIP submitted to Regional Water Board as required by permit (April 2009)
SWRCB expected the third Draft Construction General Permit (April 2009)		

See SQIP Glossary for definitions of acronyms.

Sacramento Stormwater Monitoring Program

The Permittees implemented the Monitoring Program (described in Chapter 2, Section 2.4) since the 1989/90 fiscal year. Notable accomplishments over the seventeen-year history are summarized below and illustrated on the timeline in Figure C-2.

- Considerable environmental data have been collected to characterize water quality of urban runoff discharges, urban tributaries and local rivers.
- Water quality data collected by the Permittees, along with other available data, have been used to identify top priority pollutants (target pollutants) in local urban runoff discharges and receiving waters.
- Studies of selected structural best management practices (BMPs) have been conducted to provide information on performance and effectiveness of these devices for potential use in the Sacramento area.
- A study was initiated of wet detention basin performance in the North Natomas area of recent development. Inlet and outlet (discharge) can be used to characterize the effectiveness of new development standards and wet detention basins

- Water quality database tools have been developed to facilitate data access and evaluation using statistical analysis tools and water quality objective (WQO) comparison tools.
- A study was conducted to quantify the statistical power of the water quality data being collected to reliably measure changes in urban runoff water quality over time.
- A methodology was developed during the 2002-07 permit term to evaluate receiving water data, notify the Regional Water Board of receiving water quality exceedances and modify program activities to address receiving water quality concerns.
- During 2008-13 permit stormwater permit term, the Permittees will better evaluate urban runoff from new development with the addition of the North Natomas monitoring site
- The Permittees initiated a new program-wide effectiveness evaluation that will be reported annually with more detailed reports in the 2013 Report of Waste Discharge (ROWD)

Figure C–2
Sacramento Stormwater Monitoring Program Highlights (1990-2009)

Pre-Permit	1989/90	• Conducted American River and urban runoff monitoring under a 205(j) grant
Year 1	1990/91	• Initiated the Sacramento Stormwater Monitoring Program under NPDES Stormwater Permit issued in June 1990
Year 2	1991/92	• Conducted the First Discharge Characterization Project study • Completed the Auto Dismantler Special Study
Year 3	1992/93	• Developed first target pollutant lists (formerly called “constituents of concern”)
Year 4	1993/94	• Prepared the first comprehensive Annual Monitoring Report (1992/93) • Augmented Regional Board 104(b) grant study to identify toxicants in urban creeks and urban runoff • Completed Gasoline Station BMP Special Study
Year 5	1994/95	• Supported the Coordinated Monitoring Program for continued river monitoring • Continued to augment the Regional Board 104(b) grant study which identified diazinon as urban creek and urban runoff toxicant • Investigated oil/water separators

Figure C-2 (Continued)
Sacramento Stormwater Monitoring Program Highlights (1990-2009)

Year 6 1995/96	• Completed toxicity identification evaluation special study on urban runoff, Arcade Creek, and Elder Creek • Conducted second Discharge Characterization Project study • Developed long-term effectiveness evaluation methodology • Developed procedures for target pollutant prioritization, source identification, and control measure identification. • Conducted inlet protection device special study for the Construction Element
Year 7 1996/97	• Augmented the Sacramento River Watershed Program Pesticide Toxicity Survey on Arcade Creek
Year 8 1997/98	• Developed stormwater quality database • Conducted statistical power analysis of water quality data • Developed long-term discharge monitoring strategy of monitoring two years on and one year off • Completed copper source identification work • Awarded grant from CALFED for Pesticide Toxicity Control Program • Began monitoring for New Development Element special studies • Continued river, BMP, and urban runoff monitoring
Year 9 1998/99	• Began Pesticide Toxicity Control Program Phase 1 monitoring • Conducted copper/lead workshop to identify opportunities to incorporate target pollution reduction activities into program elements • Completed investigation of structural control measure for new development • Continued river, BMP, and urban runoff monitoring
Year 10 1999/00	• Conducted a comprehensive analysis of 10-year stormwater quality database • Completed the Pesticide Toxicity Control Program Phase 1 monitoring • Prepared the Clean Water Business Partner Program Non-Structural Control Measures Report • Continued river, BMP, and urban runoff monitoring
Year 11 2000/01	• Amended the target pollutant prioritization process and conducted a full target pollutant prioritization • Submitted the final Pesticide Toxicity Control Program report to CALFED • Continued river, BMP, and urban runoff monitoring

Figure C-2 (Continued)
Sacramento Stormwater Monitoring Program Highlights (1990-2009)

Year 12	2001/02	• Completed the Brown Road Detention Basin Study • Completed the Landscape Control Measure Study • Completed river and BMP monitoring.
Year 13	2002/03	• Completed urban runoff and river monitoring • Prepared for bioassessment, urban tributary, additional pesticide, rainwater and water column toxicity monitoring
Year 14	2003/04	• Initiated bioassessment, urban tributary, additional pesticide, Rainwater, and Water Column Toxicity monitoring • Continued coordinated urban runoff and river monitoring • Submitted work plan for Wet Detention Basin Water Quality Study • Began Erosion Potential Study
Year 15	2004/05	• Completed Erosion Potential Study • Began Structural BMP Effectiveness Study • Continued preparation for Wet Detention Basin Water Quality Study • Continued coordinated river, urban tributary, additional pesticide, rainwater and bioassessment monitoring • Cooperated with UC Davis on pathogen source tracking
Year 16	2005/06	• Began Dry Weather Diversion Feasibility Study • Completed Discharge Characterization Study • Continued coordinated river, urban runoff, urban tributary, additional pesticide and bioassessment monitoring • Began work on Dissolved Oxygen, pH and Temperature Urban Tributary Study • Began Detention Basin Sediment Study • Continued cooperation with UC Davis on pathogen source tracking
Year 17	2006/07	• Completed Dry Weather Diversion Feasibility Study • Completed Detention Basin Sediment Study • Continued with Structural BMP Effectiveness Studies • Completed Phase I of Dissolved Oxygen, pH and Temperature Urban Tributary Study • Continued coordinated river, urban runoff, urban tributary, additional pesticide and bioassessment monitoring

Figure C-2 (Continued)
Sacramento Stormwater Monitoring Program Highlights (1990-2009)

Year 18 2007/08	• Continued Wet Detention Basin Water Quality monitoring • Completed Phase II of Dissolved Oxygen, pH and Temperature Urban Tributary Study • Completed receiving water monitoring required in permit • Continued coordinated river, urban tributary, additional pesticide and bioassessment monitoring
Year 19 2008/09	• Transition to new permit monitoring requirements including urban runoff, urban tributary, river, and sediment monitoring • Continued Wet Detention Basin Water Quality monitoring • Continued Phase III of Dissolved Oxygen, pH and Temperature Urban Tributary Study • Began discharge characterization monitoring of new development urban runoff • Amended the target pollutant prioritization process and conducted a full target pollutant prioritization

See SQIP Glossary for definitions of acronyms

The foregoing is a correct copy of a resolution adopted by the Board of Supervisors, Sacramento County, California

on 4-22-2003

Dated 4-23-2003

Clerk of said Board of Supervisors

By Kay F. Johnson Deputy

RESOLUTION NO. 2003-0396

BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute the "Memorandum of Understanding Regarding Administrative Responsibilities and Apportionment of Costs Under NPDES Permit No. CAS0082597", in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, with the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento, and to do and perform everything necessary to carry out the purpose of this Resolution.

On a motion by Supervisor Johnson, seconded by Supervisor Dickinson, the foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Sacramento this 22nd day of April, 2003, by the following vote, to wit:

AYES: Supervisors, Dickinson, Johnson, Niello, Nottoli, Collin

NOES: Supervisors, None

ABSENT: Supervisors, None

ABSTAIN: Supervisors, None

In accordance with Section 25103 of the Government Code of the State of California a copy of the document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on APR 2 2 2003

By Kay F. Johnson Deputy Clerk, Board of Supervisors

(SEAL)

Chair of the Board of Supervisors
of Sacramento County, California

ATTEST: Cindy A. Turner
Clerk of the Board of Supervisors

FILED

APR 2 2 2003

BOARD OF SUPERVISORS

Cindy A. Turner

CLERK OF THE BOARD

RESOLUTION NO. 2003-30

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CITRUS HEIGHTS, CALIFORNIA, APPROVING A MEMORANDUM OF UNDERSTANDING REGARDING ADMINISTRATIVE RESPONSIBILITIES AND APPORTIONMENT OF COSTS UNDER NPDES PERMIT NO. CAS0082597

WHEREAS, Congress in 1987 amended Section 402 of the Federal Clean Water Act (33 U.S.C.A. Section 1342 (p)) to require the U.S. Environmental Protection Agency ("EPA") to promulgate regulations ("regulations") for permits for stormwater discharges; and

WHEREAS, the regulations are designed to control pollutants associated with stormwater discharges though the use of the National Pollutant Discharge Elimination System ("NPDES") permit system which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, the regulations are designed to require NPDES permits for discharges from municipal storm sewers on a system-wide or jurisdiction-wide basis; and

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the State of California, as delegated by the EPA, with the responsibility to issue NPDES permits within the Central Valley Region; and

WHEREAS, the Regional Board has adopted a NPDES stormwater permit (NPDES No. CAS0082597, Order No. R5-2002-0206 and hereinafter referred to as "Permit") for the County and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento (hereinafter referred to collectively as the "Permittees") on December 2002, effective January 25, 2003; and

WHEREAS, the Permit requires the Permittees to monitor stormwater discharges and implement multiple programs to reduce the level of pollutants discharged into receiving waters; and

WHEREAS, the Permittees desire to develop an integrated stormwater discharge management program with the objective of improving water quality in urban creeks, the Sacramento River, American River, and the Delta; and

WHEREAS, the parties desire to receive and/or share the work product of consultants retained by the other parties, the direct work product of the parties themselves, and costs associated with monitoring and implementation of the program; and

WHEREAS, in an effort to meet the deadline set forth by the NPDES permit, City Council grants authority to the city attorney and City Manager to approve minor changes to the MOU without returning to City Council.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Citrus Heights that the City Manager is hereby authorized to execute a Memorandum of Understanding Regarding Administrative Responsibilities and Apportionment of Costs Under NPDES Permit No. CAS0082597.

The City Clerk shall certify the passage and adoption of this Resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Citrus Heights, California, this 26th day of March, 2003, by the following vote, to wit:

AYES: Council Members Bruins, Daniels, MacGlashan, Shelby and Hughes
NOES: None
ABSTAIN: None
ABSENT: None

WILLIAM C. HUGHES, Mayor

ATTEST:

LILLIAN E. HARE, City Clerk

STATE OF CALIFORNIA
COUNTY OF SACRAMENTO
CITY OF CITRUS HEIGHTS

I, Lillian E. Hare, City Clerk of the City of Citrus Heights, certify the foregoing is the full and true Resolution 2003-30, passed and adopted by the City Council of the City of Citrus Heights at a regular meeting held on March 26, 2003.

Dated: March 27, 2003

Lillian E. Hare, City Clerk

I hereby certify, under penalty of perjury, that this is a true and correct copy of the original document consisting of 2 pages which is on file in this office.
Executed on 6-24-03
at Citrus Heights, California
City Clerk's Office

RESOLUTION NO. 2003-76

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ELK GROVE TO AUTHORIZE THE CITY ELK GROVE TO ENTER INTO A MEMORANDUM OF UNDERSTANDING WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMITTEES IN SACRAMENTO COUNTY

WHEREAS, the City of Elk Grove desires to take over responsibility for the Stormwater Drainage Program on July 1, 2003, from Sacramento County, which will include the responsibility for meeting the requirements of the NPDES permit; and

WHEREAS, the City of Elk Grove must sign a formal Memorandum of Understanding (MOU) with the other permittees in Sacramento County to meet the NPDES permit requirements.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Elk Grove hereby authorizes the Mayor to sign the new Memorandum of Understanding with permittees in Sacramento County.

PASSED AND ADOPTED by the City Council of the City of Elk Grove this 16th day of April 2003.

Rick Soares
RICK SOARES, MAYOR of the
CITY OF ELK GROVE

ATTEST:

Tina 4/14/03 for
PEGGY E. JACKSON, CITY CLERK

APPROVED AS TO FORM:

ANTHONY B. MANZANETTI,
CITY ATTORNEY

CITY OF ELK GROVE INCORPORATED July 1, 2000 STATE OF CALIFORNIA

The foregoing is a correct copy of a resolution adopted by City Council, City of Elk Grove, California
On 4-16-03
Dated 6-24-03
City Clerk of the City of Elk Grove
By Peggy E. Jackson

AYES: Soares, Briggs, Cooper, Leary
NOES: None
ABSTAIN: None
ABSENT: Scherman

RESOLUTION NO. 7052

A RESOLUTION AUTHORIZING THE MAYOR TO EXECUTE A MEMORANDUM OF UNDERSTANDING REGARDING ADMINISTRATIVE RESPONSIBILITIES AND APPORTIONMENT OF COSTS UNDER NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT NO. CAS082597

WHEREAS, in July 1992, a Memorandum of Understanding (MOU) was executed by the County of Sacramento and the Cities of Folsom, Sacramento, and Galt (the Co-Permittees) to define the apportionment of costs for joint activities conducted to comply with the provisions of National Pollutant Discharge Elimination System (NPDES) Permit CAS082597 (Permit); and,

WHEREAS, Resolution 3779 authorized execution of the apportionment MOU; and,

WHEREAS, in November 1996, an additional MOU was executed by the Co-Permittees to define the roles and responsibilities of conducting administrative services for joint activities to comply with the Permit; and,

WHEREAS, Resolution 5240 authorized execution of the administrative services responsibilities MOU; and,

WHEREAS, on December 19, 2002, the California Regional Water Quality Control Board adopted a renewal of the Permit which included the addition of the Cities of Citrus Heights and Elk Grove; and,

WHEREAS, Provision 7e of the new Permit requires an updated MOU be executed no later than April 1, 2003, to identify the roles and responsibilities and apportionment of costs for joint activities to be conducted by the Co-Permittees:

NOW, THEREFORE, BE IT RESOLVED that the City of Folsom authorizes the Mayor to execute the Memorandum of Understanding regarding administrative responsibilities and apportionment of costs under NPDES permit no. CAS082597

PASSED AND ADOPTED on this 25th day of March 2003, by the following roll-call vote:

AYES:	Council Member(s):	Howell, King, Morin, Starsky, Miklos
NOES:	Council Member(s):	None
ABSENT:	Council Member(s):	None
ABSTAIN:	Council Member(s):	None

Stephen E. Miklos, MAYOR

ATTEST:

Christa Schmidt

Christa Schmidt, INTERIM CITY CLERK

IT IS HEREBY CERTIFIED THAT THIS
IS A TRUE AND CORRECT
COPY OF Resolution No. 2003-40
ADOPTED ON 4-15-03
DATE CERTIFIED 4-22-03
Elizabeth Aguirre
CITY CLERK, CITY OF GALT

RESOLUTION NO. 2003-40

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GALT, CALIFORNIA, APPROVING THE MEMORANDUM OF UNDERSTANDING BETWEEN THE COUNTY OF SACRAMENTO, AND THE CITIES OF SACRAMENTO, CITRUS HEIGHTS, ELK GROVE, FOLSOM AND GALT REGARDING ADMINISTRATIVE RESPONSIBILITIES UNDER NATIONAL POLLUTANTS DISCHARGE ELIMINATION SYSTEM (NPDES)

WHEREAS, the City of Galt is a co-permittee with Sacramento County and Cities of Sacramento, Citrus Heights, Elk Grove, and Folsom under a Stormwater National Pollutant Discharge Elimination System (NPDES) permit issued by Regional Water Quality Control Board (RWQCB); and

WHEREAS, this permit was adopted on December 6, 2002 by RWQCB and became effective January 25, 2003; and

WHEREAS, the NPDES permit required development and implementation of programs to reduce pollution caused by stormwater runoff in accordance with the Federal Clean Water Act and administered by the State of California Department of Water Resources; and

WHEREAS, the NPDES permit also requires that permittees enter into a Memorandum of Understanding outlining various activities required and each permittee's financial and permit requirement responsibilities.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the City Council of the City of Galt, California, that the Mayor, or in his absence, the Vice Mayor, is hereby authorized and directed to execute said Memorandum of Understanding between the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom and Galt.

BE IT FURTHER RESOLVED AND ORDERED that said Memorandum of Understanding is available and on file in the City Clerk's Office, and is incorporated herein by reference and made a part of this Resolution.

The City Clerk shall certify the passage and adoption of this resolution and enter it into the book of original resolutions.

PASSED AND ADOPTED by the City Council of the City of Galt, California, this 15th day of April, 2003, upon a motion by Council Member Malson, seconded by Council Member Raboy, by the following vote, to wit:

AYES:	Council members:	Shelton, Stancil, Malson, Raboy, Clare
NOES:	Council members:	None
ABSTAIN:	Council members:	None
ABSENT:	Council members:	None

Darryl Clare
MAYOR, City of Galt

ATTEST:

Elizabeth Aguirre
CITY CLERK, City of Galt

CERTIFIED AS TRUE COPY
OF Resolution 2003-202
May 7, 2003
DATE CERTIFIED
Teresa Fahnin
CITY CLERK, CITY OF SACRAMENTO
SST.

RESOLUTION NO. 2003-202

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF APR 22 2003

RESOLUTION TO AUTHORIZE THE DEPARTMENT OF UTILITIES TO SIGN A STORMWATER PROGRAM COST SHARING MEMORANDUM OF UNDERSTANDING (MOU) WITH THE COUNTY OF SACRAMENTO AND THE CITIES OF FOLSOM, GALT, ELK GROVE AND CITRUS HEIGHTS

BE IT RESOLVED BY THE SACRAMENTO CITY COUNCIL THAT:

The Director of Utilities is authorized to sign a Stormwater Program Cost Sharing Memorandum of Understanding (MOU) with the County of Sacramento and the Cities of Folsom, Galt, Elk Grove and Citrus Heights.

HEATHER FARGO
MAYOR

ATTEST:

VALERIE BURROWES
CITY CLERK

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2003-202

DATE ADOPTED: APR 22 2003

MEMORANDUM OF UNDERSTANDING REGARDING ADMINISTRATIVE RESPONSIBILITIES AND APPORTIONMENT OF COSTS UNDER NPDES PERMIT NO. CAS0082597

This Memorandum of Understanding ("MOU") is made and entered into this ___ day of _____, 2003 by the County of Sacramento ("County"), the City of Sacramento ("City of Sacramento"), the City of Citrus Heights ("Citrus Heights"), the City of Elk Grove ("Elk Grove"), the City of Folsom ("Folsom"), and the City of Galt ("Galt").

RECITALS

WHEREAS, Congress in 1987 amended Section 402 of the Federal Clean Water Act (33 U.S.C.A. Section 1342 (p)) to require the United States Environmental Protection Agency ("EPA") to promulgate regulations ("Regulations") for permits for stormwater discharges; and

WHEREAS, the Regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") permit system which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, the Regulations are designed to require NPDES permits for discharges from municipal storm sewers on a system-wide or jurisdiction-wide basis; and

WHEREAS, the EPA has delegated to the State of California the authority to issue NPDES permits; and

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the State of California State Water Resources Control Board (SWRCB) with the responsibility to issue NPDES permits within the Central Valley Region; and

WHEREAS, on December 6, 2002 the Regional Board has adopted a NPDES stormwater permit, NPDES No. CAS0082597, Order No. R5-2002-0206, (hereinafter referred to as "Permit") for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento (hereinafter referred to collectively as the "Permittees" and individually as a "Permittee"); and

WHEREAS, the Permit is effective January 25, 2003; and

WHEREAS, the incorporation of the City of Rancho Cordova was approved by the voters in November 5, 2002; and

WHEREAS, the provisions of the Permit will apply to Rancho Cordova upon its incorporation which is effective July 1, 2003; and

WHEREAS, upon the incorporation of Rancho Cordova, the County will provide services to Rancho Cordova at least until June 30, 2004 related to compliance with the Permit; and

WHEREAS, the Permit requires the Permittees to monitor stormwater discharges and implement multiple programs to reduce the level of pollutants discharged into receiving waters; and

WHEREAS, the Permittees desire to develop an integrated stormwater discharge management program with the objective of improving water quality in receiving waters identified in the Permit including but not limited to, urban creeks, the Sacramento River, and the American River; and

WHEREAS, the Permittees will incur various other costs relating to monitoring and/or implementing programs; and

WHEREAS, the parties desire to receive and/or share the work product of consultants retained by the other parties, or the direct work product of the parties themselves; and

WHEREAS, the Permit requires execution of a MOU regarding administrative responsibilities and apportionment of costs.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the Permittees agree as follows:

1. Purpose

This MOU formalizes the manner in which each Permittee shall collaborate with all other Permittees to address common issues, promote consistency among each Permittees' stormwater quality programs, coordinate resources in regional monitoring and public outreach programs, and plan and coordinate activities required to comply with the Permit.

This MOU provides a management structure and cost sharing method for the following:

a. Term of MOU and participant responsibilities;

b. Primary contacts and decision making;

c. Designation of Joint Activities and cost sharing;

d. Information management and reporting; and

e. Other collaborative arrangements for NPDES Permit compliance activities.

2. Previous MOU superseded

This MOU supersedes and terminates the following agreements previously existing between the parties to this MOU:

- The MOU entitled "Memorandum Of Understanding Regarding Administrative Responsibilities Under NPDES Permit No. CA0082597", dated November 12, 1996.
- The MOU entitled "Memorandum of Understanding Regarding Apportionment of Costs for NPDES Program Activities" dated July 28, 1992.

This MOU does not affect, supersede, or modify any other agreements presently existing between any of the parties to this MOU.

3. Participants in MOU

The parties to this MOU include the County, Citrus Heights, Elk Grove, Folsom, Galt, and City of Sacramento.

4. Addition of new Permittees to MOU

Any newly incorporated city, including the City of Rancho Cordova, or any other local jurisdiction that becomes a Permittee due to action by the Regional Board, may become a party to this MOU. To become a party to this MOU, the governing body of the new Permittee must approve a separate addendum to the MOU making the new Permittee bound by its terms and conditions. Addition of a new Permittee in this manner shall not require further modification of this MOU nor approval by the other Permittees, except that Exhibit A shall be modified to reflect the new permittee and appropriate shared costs. A copy of any such addendum shall be made available to all the Permittees.

5. Rancho Cordova

Upon the incorporation of the City of Rancho Cordova ("Rancho Cordova") it will become a Permittee and the County will provide services pursuant to Government Code section 57348 to Ranch Cordova related to its compliance with the Permit and will implement the provisions of this MOU on behalf of Rancho Cordova. After June 30, 2004, Rancho Cordova may choose to comply with the Permit using its own staff or may contract with another entity to provide services related to its compliance with the Permit. After June 30, 2004, the Rancho Cordova City Council must approve an addendum to this MOU to bind Rancho Cordova to the terms of this MOU. If it fails to take this affirmative action, Rancho Cordova will not become a party to this MOU.

6. Term of MOU

The provisions of this MOU shall commence upon approval of this MOU by each of the Permittees and shall terminate upon adoption of a successor MOU or in a manner consistent with section 8 of this MOU.

7. Withdrawal of Individual Permittees

If any Permittee withdraws or ceases to be covered by the Permit, then said Permittee shall no longer be bound by all terms and conditions of this MOU except for the indemnity and hold harmless provisions of this MOU, which shall remain in full force as to acts or omissions occurring prior to withdrawal. The withdrawal of any Permittee shall not affect the terms and conditions of this MOU among the remaining Permittees, except that the cost sharing proportions shall be recalculated to reflect the changes caused by the withdrawal.

8. Termination

Each party shall have the right to withdraw from and terminate its responsibilities under this MOU at any time by serving upon all other parties thirty (30) business days advance written notice of withdrawal. The notice shall be deemed served and effective for all purposes on the date it is deposited in the United States mail, postage prepaid and addressed in accordance with the terms and provisions of this MOU.

Any party withdrawing from this MOU shall pay its proportionate share of any work performed under the MOU up to the effective date of withdrawal. This shall include unexpected expenses that were not known at the time of withdrawal, but are related to work or actions that occurred before the effective date of the withdrawal.

9. Indemnification and Claims

Notwithstanding any other provisions of this MOU, each Permittee shall indemnify, defend and hold harmless all other Permittees, their officers, agents, and employees from and against any and all claims, losses, liabilities or damages, including payment of reasonable attorney's fees and costs, arising, out of the Permittee's non-compliance with the Permit, through negligence, internal act or omission, or through any other act or omission by the Permittee, its officers, agents, employees, and/or subcontractors.

It is the intention of each Permittee that the provisions of this paragraph be interpreted to impose on each party responsibility to the other for the acts and omissions of their respective officers, directors, agents, employees, and/or contractors. It is also the intention of each Permittee that, where comparative fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage

attributable to the fault of that party, its officers, directors, agents, employees, and/or contractors.

The County will be responsible for the administration of any public liability claims made against the parties to the MOU.

10. Insurance or Self-Insurance

Each party, at its sole cost and expense, shall carry insurance -or self-insure - its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent programs of self-insurance, for general liability, workers compensation, property, professional liability, and business automobile liability with coverage limits that are adequate to cover its potential liabilities hereunder, subject to the reasonable approval of the other parties. Each party agrees to provide the other thirty (30) days' advance written notice of any cancellation, termination or lapse of any of the insurance or self-insurance coverages.

11. Amendments

This MOU may be modified or amended in writing if executed by the governing body of all parties.

12. Responsibilities of Each Permittee

a. Each Permittee understands and agrees that there is no agency relationship between the Permittees. It is further understood and agreed by the Permittees that any person employed by each Permittee shall be entirely and exclusively under the direction, supervision, and control of the employing Permittee.

b. The Permittees are legal entities and have the authority to develop, administer, implement, and enforce stormwater management programs within their own jurisdictions. The individual Permittees are solely responsible for compliance with the Permit within their respective jurisdictions. The County is solely responsible for compliance with the Permit within the urbanized unincorporated areas of the County of Sacramento.

c. Each Permittee acknowledges, understands, and accepts that it is legally bound by the terms and conditions of the Permit as issued by the Regional Board.

d. Each Permittee is solely responsible for the retention and/or storage of its own data, documents, and reports or writings, for the length of time required by the Permit or until three years after the expiration of the Permit, whichever is greater.

e. Each Permittee is responsible for complying with the provisions of the California Environmental Quality Act (CEQA, Public Resource Code section 21000, et seq.) in connection with the implementation of the terms, conditions, and requirements of the Permit and this MOU.

13. Separate Agreements between Permittees

Nothing in this MOU shall prevent individual Permittees from entering into agreements with each other or with other parties to obtain or to provide services related to implementation of Permit or MOU obligations. Such service agreements do not relieve individual Permittees from their obligations under the Permit or this MOU, and obligations under this MOU will supercede any conflicting obligations of separate agreements.

14. Primary Contacts

The County and City of Sacramento shall serve as the primary co-contacts with regulating agencies such as EPA, SWRCB, and the Regional Board regarding Permit matters that are of interest to all Permittees. Permit matters that are specific to a particular jurisdiction should be addressed directly to that jurisdiction. The County and City of Sacramento shall relay and transmit any correspondence relating to the Permit received from the Regional Board, SWRCB, or EPA to the other Permittees within five (5) business days of receipt. The designation of primary contacts is intended only as a convenience for the regulating agencies, and each Permittee understands and agrees that this provision does not relieve each Permittee of any of its Permit obligations, nor imposes any new Permit obligations on the County and City of Sacramento.

15. Information sharing

Except as provided in the section of this MOU entitled "Non-participation in Joint Activities", if any Permittee submits any required documents, reports, or writings relating to stormwater discharges to the Regional Board, SWRCB, or EPA, said Permittee shall send a copy of the document, report, or other writing to the each other Permittee. At its discretion, the Permittee sending copies of documents may require reimbursement from the receiving parties for its copying costs.

Each Permittee agrees to make available to the other parties to this MOU all non-confidential and non-privileged data, documents, reports, or writings that are public records relating to the Permit upon written request. At the discretion of the Permittee that is providing the copies, the Permittee requesting the information shall be responsible for all costs incurred in connection with said request, including copying costs.

16. Steering Committee

The Permittees shall establish a Steering Committee, consisting of representatives designated by their jurisdiction's management. The purpose of the Steering Committee is to provide forum for making decisions and providing guidance to the Permittees relative to the implementation of common activities that are subject to the terms of this MOU. The responsibilities and activities of the Steering Committee including, but not limited to, the following:

- Oversight of MOU implementation
- Resolution of issues and disputes regarding this MOU
- Management of Joint Activities defined in this MOU
- Management and designation of additional Joint Activities not specified in this MOU.
- Approval of the scope of Joint Activities.
- Designation and approval of reimbursable staff support for Joint Activities.
- Determination of reimbursement mechanisms.

Any action by the Steering Committee requires the support of at least two-thirds of all the Steering Committee members. The Steering Committee may conduct its business, including any official actions or approvals, in various reasonable manners as it sees fit, provided that a good faith effort is made to accommodate the preferences of all members. Methods for conducting Steering Committee business may include but are not limited to the following: meetings conducted in person, telephone, email, on-line discussions, routing of hard copy by courier or U.S. Mail, or any reasonable combination of methods.

Each Steering Committee representative has an equal vote on the Steering Committee.

The management of any Permittee jurisdiction may delegate authority to another authorized representative to represent it on the Steering Committee, including the casting of its vote. This does not relieve each Permittee of the responsibility to obtain funding authority or any other authority necessary for participation in a Joint Activity.

17. Joint Activities

The terms and conditions of this MOU apply to activities, as defined in this section, that are related to compliance with the requirements of the Permit, and that provide work products, services, or other benefits that are of common benefit to all Permittees. Such activities shall be referred to herein as "Joint Activities".

18. Joint Activities designated in MOU

a. Mandatory Joint Activities. The following activities are hereby designated as Joint Activities and include projects specified in the Permit. All the signatories of this MOU agree to participate in cost sharing for these activities:

(1) Annual Monitoring Report
(2) Development Standards Plan
(3) Urban Discharge Monitoring
(4) River Monitoring
(5) Water Column Toxicity Monitoring
(6) Urban Tributary Monitoring
(7) Additional Pesticide Monitoring
(8) Bioassessment
(9) Water Quality Detention Effectiveness Study
(10) Erosion Potential Study
(11) Dry weather flow diversion study
(12) Structural BMP Effectiveness Studies

b. Optional Joint Activities. With respect to the Joint Activities described in this section, the Permitee advocating the activity will query the Permittees to determine whether or not they agree to cost-share in the particular support activity. If a Permittee does not desire to cost share in the support activity, they will not be included in the cost share formula for that activity, and will be considered a non-participant subject to the restrictions in the Non-Participation in Joint Activities section of this agreement. Optional Joint Activities include, but are not limited to:

(1) Monitoring Program Support contract
(2) The following elements of the Pesticide Control Program:
    (a) Water Wise Pesticide Outreach
    (b) PRISM grant for pesticide activities
    (c) Participation in Urban Pesticide Committee
    (d) Pesticide Program Support contract

(3) Certain portions of the Public Education and Outreach Programs requirements as designated and approved by the Steering Committee

19. Joint Submittals

All Permittees agree to cooperate on a consolidated submittal for the Joint Activities designated in this MOU. To facilitate and coordinate these submittals, each year the Steering Committee shall designate a lead agency or agencies for each submittal. The lead agency will be responsible for overall coordination, completion, and delivery of the submittal. The lead agency shall deliver or mail to the Regional Board joint compliance documents, reports, or other writings.

The other Permittees agree to prepare and forward to the lead agency in a timely manner, any jurisdiction specific sections that are necessary for these submittals. When the Permit requires submission of any joint compliance documents, reports, or other writings by a specific date, each Permittee shall ensure that the lead agency receives the document, report, or other writing to be filed thirty (30) business days prior to the specified date unless a different time is otherwise agreed to in writing by the Permittees. In the event that a Permittee is unable to comply with this provision for any reason, said Permittee shall notify the other Permittees in writing of the anticipated submission date and the reason for the delay, and shall provide a copy of the letter to the Regional Board.

20. Designation of Additional Joint Activities

The Steering Committee shall be responsible for the consideration and designation of additional activities as Joint Activities. Joint Activities should be activities that provide work products, services, or other benefits that are of benefit to all Permittees.

21. Documentation of Joint Activities

For each Joint Activity designated by this MOU or by the Steering Committee, the Steering Committee or the lead agency responsible for the implementation of the activity shall provide all Permittees with adequate documentation. This documentation shall include the following elements and any other documentation as determined by the Steering Committee:

a. Description of the scope and purpose of the activity;
b. Copies of applicable contracts;
c. Significant decisions regarding the management of the activity;
d. Any changes to the scope and purpose of a joint activity shall be in writing.

Each Permittee shall submit documentation to the other Permittees indicating whether or not it will participate in each Joint Activity, except for mandatory Joint Activities designated in this MOU.

22. Non-participation in Joint Activities

Permittees must participate in the mandatory Joint Activities as designated in this MOU. For any other Joint Activity, a Permittee may choose not to participate. A Permittee that chooses not to participate, fails to obtain proper authority to fund the Joint Activity, or fails to pay its portion of costs, will be considered a Non-Participant and shall not be entitled to the consultant services or the use of work products resulting from the Joint Activity. In addition, Non-Participants for a given Joint Activity may not claim or imply participation in any public documents, including any reports to the Regional Board, such as Annual Progress Reports or Annual Monitoring Reports. Any Non-Participant that fails to comply with these

restrictions, thereby gaining the benefit of a particular Joint Activity, shall be liable to reimburse the other Permittees, according to the cost sharing provisions of this MOU, as though it had been a full participant in the Joint Activity.

23. Contract Administrator

For each designated Joint Activity that requires contracted services, the Steering Committee shall designate one Permittee that is willing to serve as the Contract Administrator. The Contract Administrator shall be responsible for the following activities for each contract:

a. Establish a contract through its jurisdiction.
b. Act as the fiscal agent for the contract and provide accounting of costs as needed.
c. Provide on-going contract administration.
d. Maintain records regarding Permittee decisions, agreements, and obligations related to the contract and the Joint Activity.
e. Update other Permittees in a timely manner regarding implementation of the Joint Activity and the status of pertinent contracts.
f. Distribute to other Permittees copies of studies, reports, and other work products prepared per the contract.

Upon approval by the Steering Committee, the Contract Administrator for a particular Joint Activity may be entitled to reimbursement of costs from the other Permittees, according to the cost sharing proportions in Exhibit A. Such reimbursement may include staff time and other resources used to provide contract administration on behalf of the other Permittees.

The Contract Administrator shall be authorized to conduct day-to-day administration of the contract. However, no changes to the scope of services or the approved contract amount shall be made without the approval of the Steering Committee.

24. Ownership of Work Product

All technical data, evaluations, plans, specifications, reports or other work products associated with a Joint Activity produced by a consultant or any party to the Joint Activity shall become the mutual property of all participating parties, subject to Federal copyright laws.

25. Communication with Consultant

Each party may communicate directly with a consultant, except as set forth below:

a. Any communications relating to a change or modification in the scope of work to be performed by a consultant, or any communication which will

increase or should reasonably be expected to increase the compensation due to a consultant shall not be submitted to the consultant unless:

1. The Steering Committee approves the change or modification; or

2. The Steering Committee does not object and the party requesting the change or modification advises all other parties in writing that it will be solely responsible for any and all compensation due to the consultant resulting from said change or modification.

b. Any communications relating to a change or modification in the schedule of performance shall not be submitted to a consultant unless all parties agree to the change or modification.

c. If any party submits any document, reports or writing to a consultant, as provided herein, a copy of such document, report or writing shall be submitted to all other parties.

26. Permittee responsibilities for Joint Activities

Each Permittee is responsible for the following:

a. Designation of an authorized representative and any necessary alternates to the Steering Committee.
b. Accurate documentation of staff time and other resources for which Joint Activity cost share reimbursement is claimed.
c. Obtaining any necessary legal and administrative authority to participate in each Joint Activity.
d. Timely payment of all monetary obligations as a Participant.

27. Cost Apportionment for Joint Activities

a. Each Permittee understands and acknowledges that the implementation of the terms, conditions, or requirements of the Permit by each Permittee may result in significant benefit to the other Permittees. It is the intent of the Permittees to fairly and equitably apportion the costs of such benefits. When a Permittee agrees to participate in a Joint Activity it agrees to share the costs of the Joint Activity as defined by this MOU and the Steering Committee.

b. Cost apportionment for Joint Activities shall apply to any costs associated with contracting under this MOU, including but not limited to, services, materials, and equipment.

c. Cost apportionment for Joint Activities may include the following as specified and approved by the Steering Committee:

1. Contract administration by Permittee staff.
2. Significant Joint Activity support provided by specified Permittee staff.
3. Any other expenses that provide a shared benefit to the Permittees.

d. Each Permittee is responsible for confirming or obtaining the necessary authority from its governing body and to meet any other legal and administrative requirements of its jurisdiction to provide the funding for its participation in Joint Activities.

28. Cost Apportionment Method

All parties hereby agree that any compensation due to consultants or any other party under the terms and conditions of this MOU shall be apportioned among all parties participating in a given Joint Activity, in proportion to their respective populations, utilizing the following method:

- The populations used for this apportionment shall be based on the official population estimates of the Sacramento Area Council of Governments (SACOG) for the years 2000 and 2010,
- The arithmetic mean of the population of each Permittee for these years will be calculated.
- The calculated mean populations will be used to determine the cost share proportions of each Permittee.

The SACOG population estimates and calculated population proportions agreed to by the Permittees are shown in Exhibit A of this MOU.

Upon approval by the Steering Committee, revised official SACOG estimates may be used to recalculate the population proportion used for allocating costs.

29. Invoicing, Payment, and Notices

The Contract Administrator shall, upon receipt of an invoice from the consultant, or upon the computation of the charges for the work product, send a copy of said invoice or computation to all participating parties.

The participating parties shall advise the Contract Administrator of any disputed amount in writing within ten (10) business days of the receipt of said invoice. The Contract Administrator shall thereafter submit separate invoices to the participating parties for their proportioned share of the undisputed amount. The participating parties shall pay to the Contract Administrator their invoiced share within thirty (30) business days of receipt of the separate invoice. The parties agree to exercise good faith and diligence in the resolution of any disputed invoiced amounts.

Unless the persons or addresses are otherwise identified in the manner specified in this paragraph, all invoices, payments or notices or other writings authorized or

required by this MOU shall be deposited in the United States mail, postage prepaid and addressed to the respective parties as follows:

County: Department of Water Resources County of Sacramento 827 7th Street, Room 301 Sacramento, CA 95814 Attn: Stormwater Program Manager	City of Sacramento: Director Department of Utilities City of Sacramento 1391 35th Ave Sacramento, CA 95822
Elk Grove: Manager of Engineering and Building City of Elk Grove 8400 Laguna Palms Way Elk Grove, CA 95758	Folsom: Director Department of Public Works/City Engine City of Folsom 50 Natoma Street Folsom, CA 95630
Galt: Director Public Works Department City of Galt 495 Industrial Drive Galt, CA 95632	Citrus Heights: Director, General Services Department 6237 Fountain Square Drive Citrus Heights, CA 95621-5577

30. Dispute resolution

Whenever any party disagrees as to any matter covered under this MOU, this dispute resolution process shall govern. Until the dispute is resolved, all parties shall continue to perform pursuant to the terms of this MOU.

The parties shall make a good faith effort to resolve the dispute at the Steering Committee level. If this effort is unsuccessful, within ten (10) business days after the identification of the dispute, any party may give the other party a written request for a meeting between the respective Department Directors or Directors' designees. The purpose of this meeting shall be to ascertain whether a resolution of the disagreement is possible without third party intervention.

31. Entire MOU

Except as provided otherwise herein, this instrument and any attachments hereto constitute the entire MOU between the parties concerning the subject matter hereof.

32. Execution in Counterparts

This agreement may be executed in counterparts.

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.



County of Sacramento

By: _____
Illa Collin, Chair
Board of Supervisors

_____
Clerk of the Board of Supervisors

REVIEWED AND APPROVED BY
COUNTY COUNSEL

_____
Deputy County Counsel

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Citrus Heights

By: _____
Henry Tingle, City Manager

Attest:

_____
City Clerk

Approved as to form:

_____
City Attorney, City of Citrus Heights

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Elk Grove

By: _____
Rick Soares
Mayor

Attest:

_____
City Clerk

CITY OF ELK GROVE INCORPORATED July 1, 2000 STATE OF CALIFORNIA

Reviewed and Approved:

_____
City Attorney, City of Elk Grove

RES. 2003-76

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Folsom

By: _____
Stephen E. Miklos
Mayor

Attest:

_____ 5-8-03
Deputy City Clerk

Reviewed and Approved:

_____ 4/30/03
City Attorney, City of Folsom

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Galt

By: _____
Darryl Clare
Mayor

Attest:

_____
City Clerk

Reviewed and Approved:

_____
City Attorney, City of Galt

IN WITNESS WHEREOF, the parties hereto have caused this MOU to be duly executed as of the day and year first above written.

City of Sacramento

By: _____
Heather Fargo
Mayor

By: _____
Gary A. Reents
Director of Utilities

Attest:

_____
City Clerk

Reviewed and Approved:

_____
Deputy City Attorney

CITY
AGREEMENT NO. 2003-054

CITY
AGREEMENT NO. 2003-054

Exhibit A

Cost Share Percentages for Stormwater Permittee Joint Activities

Jurisdiction	2000 Population	2005 Population	2010 Population	Average Population 2000-2010	Percent of Average Population 2000-2010	**Cost Share Percentage, Based on Percent of Average Population, rounded to nearest 0.5%**
Citrus Heights	89,050	91,350	91,650	90,350	6.75%	**7.0%**
Elk Grove	72,685	98,110	122,600	97,643	7.30%	**7.0%**
Folsom	53,810	62,900	74,185	63,998	4.78%	**5.0%**
Galt	18,425	23,450	26,490	22,458	1.68%	**1.5%**
Rancho Cordova	46,642	53,234	65,143	55,893	4.18%	**4.0%**
Sacramento, City	409,610	446,960	485,420	447,515	33.44%	**33.5%**
County, Unincorp (less Rancho Cordova)	527,788	558,269	593,304	560,546	41.88%	**42.0%**
County total less Isleton	1,218,010	1,334,273	1,458,792	1,338,401	100.00%	**100.0%**

Sacramento Stormwater Quality Partnership

HYDROMODIFICATION MANAGEMENT WORK PLAN

Introduction

This work plan describes the proposed tasks and schedule to prepare the Sacramento Area Hydromodification Management Plan (HMP). This work plan and the eventual HMP are required compliance deliverables of the Sacramento Areawide Municipal Stormwater Permit (Sacramento Municipal Permit), Order R5-2008-0142, adopted by the Central Valley Regional Water Quality Control Board (Regional Water Board) on September 11, 2008. The work plan is due April 30, 2009 and the HMP is due one year following the approval of the work plan by the Regional Water Board.

This work plan was prepared by the Sacramento Stormwater Quality Partnership (Partnership or permittees); which includes the County of Sacramento and the Cities of Sacramento, Rancho Cordova, Galt, Folsom, Elk Grove, and Citrus Heights. The County of Sacramento, on behalf of the SSQP, will be the lead agency for the HMP development effort and will solicit and administer consultant services to produce the HMP. The cost of developing the HMP will be shared between the permittees per the latest *Memorandum of Understanding for the Sacramento Stormwater Quality Partnership.*

The permittees plan to adopt an HMP approach that promotes consistency across the county and equity for the development and landowner community, while building on others' experiences.

Background and Regulatory Requirements

Provision 15.c of the Sacramento Municipal Permit states: "The HMP shall require controls to manage the increases in the magnitude (e.g., flow control), frequency, volume and duration of runoff from development projects in order to protect receiving waters from increased potential for erosion and other adverse impacts with consideration towards maintaining (or reproducing) the pre-development hydrology".

The Sacramento Municipal Permit identifies exemptions from the HMP requirements for projects that discharge to waterways with low erosion potential. These exemptions include:

(a) Discharges into creeks that are concrete-lined or significantly armored;

(b)Underground storm drain systems discharging directly to the rivers;

(c) Construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal; and

(d) Projects that do not create an increase in impervious surfaces over pre-project conditions.

(e) A project within a transit oriented corridor or within ½ mile of a transit station and/or intermodal facility.

(f) Redevelopment projects that redevelop existing brownfield sites or creates affordable housing.

The HMP development effort will build upon the foundation created in past years by the permittees, including these work products:

- Development Standard Plan (DSP), December 2003
- Each Permittee's amended development standards, May 2006
- Stormwater Quality Design Manual for the Sacramento and South Placer Regions, May 2007.

The Partnership recently completed several tasks in order to develop this work plan:

1. **Review of Current and Past HMPs Statewide**

   The Partnership worked with Eric Berntsen of the State Water Board to advise his research of other HMP programs in California. The State Water Board produced a table (attached to the Partnership's pilot project report appendix A described below) describing and comparing the existing HMP efforts statewide. This information allows the Partnership to take advantage of lessons learned from other areas in the State; such as modeling criteria, development of design tools, schedule and cost.

2. **Coordination with Other Statewide Hydromodification Related Efforts and Technical Experts**

   The Partnership will be developing the HMP based on the findings of other HMPs around the state and is therefore actively engaged with several groups that are sharing information for the benefit of others. These include:

   - Hydromodification Planning Group – State Water Board initiative
   - Southern California Coastal Water Resources Project (SCCWRP) Regional Hydromodification Management Study
   - Riparian Buffers Research Initiative – State Water Board

The permittees have involved various technical experts in the process to provide technical and peer review of the Sacramento pilot project and help ensure that it is consistent with other statewide findings and recommendations. These professionals include:

- Brian Bledsoe, Colorado State University

- Eric Stein, Sothern California Coastal Water research Project
- Matt Yeager, San Bernardino County

3. Completion of the Sacramento Pilot Project

The permittees retained a consultant to conduct a pilot project in Sacramento County and prepare a report of findings and recommendations. This pilot project helps form the basis of this work plan and the eventual HMP. The pilot project is described in more detail below.

Technical Approach: The Sacramento Pilot Project

In 2008, the Partnership conducted a pilot project for a portion of a relatively small watershed that represents various development conditions (from undeveloped to fully developed) in Sacramento County (Elder Creek) to recommend/demonstrate the technical methodologies that could be used to evaluate the susceptibility of this creek and other local creeks to erosion and degradation. The findings of this pilot project are included in the attached memo (*Pilot Project to Access Decision Support Tools for Hydromodification Management in the Sacramento Area*) and form the basis for developing the areawide HMP.

The pilot project consisted of a three tiered approach:

Tier 1 - Development of an Applicability and Susceptibility Mapping Screening Tool

- Developed HMP criteria based on review of other related studies and factors pertinent to local area. Reviewed existing documents to synthesize example criteria and design standards (e.g. Alameda, Santa Clara, etc.).

- Developed GIS layers and information. This task included: Defining accurate creek alignments through a combination of terrain and aerial techniques; creating an overlay of community specific plans; defining creek types (i.e. lined, natural, etc.) through desktop analysis and input from Sacramento County about operation and maintenance and plans in progress; and defining creek ecology using readily available sources (e.g., existing bioassessments, habitat conservation plans, etc.) to include as a GIS layer, if available.

- Developed susceptibility mapping using an appropriate GIS-based alternative analysis. Determined appropriate stream power thresholds based on literature review and inspection of field conditions.

Tier 2 - Field verification of Screening Tool

- Conducted field geomorphic assessment and other assessment methodologies to verify GIS analysis, for representative accessible sites in the pilot watershed.

Tier 3 - Development of Preliminary Procedures for Hydromodification Mitigation

- Conducted research of other HMP efforts to gather data for relating a suitable stream power threshold with potential mitigation actions.
- Recommended various mitigation measure concepts for hydromodification management to meet the requirments of the Sacramento Municipal Permit, based on findings of the Sacramento pilot project:
    - Integrated On-site Low Impact Development (LID) design strategies
    - Flow-duration basins
    - In-stream restoration
    - Planning measures (e.g. natural buffers)

Anticipated HMP Components/Tasks

The permittees plan to retain consultant services in FY 2009-10 to assist with conducting all or some of the following work in order to prepare the Sacramento Area HMP:

- Characterize stream conditions and future development patterns using existing data and necessary field verification
- Select assessment method and produce an “Applicability and Susceptibility Map” based on the criteria identified (proposed) in the pilot project.
- Develop guidance for HMP mitigation measures.
- Use Continuous Simulation Modeling and hydrograph matching analysis to develop sizing criteria for HMP mitigation measures.
- Develop design tools for implementing HMP requirements.
- Adopt amendments as needed to local permitting agency codes, procedures and programs.
- Incorporate hydromodification management technical guidance into the *Stormwater Quality Design Manual for Sacramento and South Placer Regions*

(Stormwater Quality Design Manual). Develop an integrated approach for hydromodification and LID criteria that builds on the existing measures in the *Stormwater Quality Design Manual*.

- Conduct Outreach with the development community (likely via the Building Industry Association (BIA), Civil Engineers and Land Surveyors of California (CELSOC), and others), the environmental community and other interested parties.
- Implement or co-sponsor training for agency staff, the development community, and local engineers.
- Continue to collaborate and coordinate with the State Water Board and appropriate technical experts.

Please refer to Figure 1 for a draft HMP outline. Outline to be finalized as the HMP document is developed.

Anticipated HMP Adoption and Implementation Schedule

Activity	**Date**
Submit HMP work plan to Regional Water Board	April 30, 2009
Conduct informational workshop for development community and other interested parties	May/June 2009
Retain consultant services to assist with HMP development.	Summer 2009
Conduct work needed to prepare HMP.	Summer 2009-Summer 2010
Submit HMP to Regional Water Board for approval	Summer 2010 (1 year after regulatory approval of HMP work plan)
Amend individual permittee development standards as needed to implement the HMP	6 months after Regional Board approval of the HMP
Update technical guidance (*Stormwater Quality Design Manua*l) to include HMP design criteria	6 months after the amendment of the development standards
Conduct outreach to the development community	Summer 2009 & during update of technical guidance
Conduct training of agency staff	During and after update of technical guidance

Figure 1

HMP Outline (draft)

Chapter 1: Background

- Problem Statement
- Permit Requirements Overview
- Work Completed Previously
- Background on Sacramento County Watersheds

Chapter 2: Areas Subject to HMP

- Applicability Mapping
- Susceptibility Mapping

Chapter 3: HMP Design Criteria

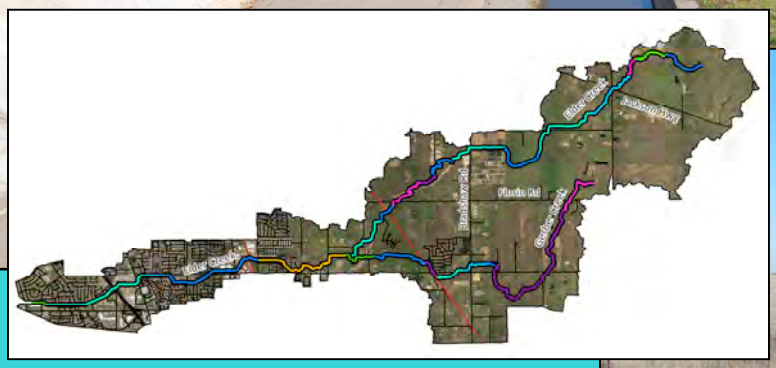
- Low Impact Measures
- Flow Duration Control Measures
- In-stream Measures

Chapter 4: HMP Implementation Process

- Incorporating HMP Requirements into Local Approval Process
- Implementation Timeline
- Outreach
- Inspection and Maintenance Requirements

PILOT PROJECT TO ASSESS DECISION SUPPORT TOOLS FOR HYDROMODIFICATION MANAGEMENT IN THE SACRAMENTO AREA







SACRAMENTO STORMWATER QUALITY PARTNERSHIP

Prepared for
The Sacramento Stormwater Quality Partnership

March 2009
by
cbec, inc.

cbec Project #: 07-1006

cbec eco engineering

PILOT PROJECT TO ASSESS DECISION TOOLS FOR HYDROMODIFICATION MANAGEMENT IN THE SACRAMENTO AREA

Prepared for
Sacramento Stormwater Quality Partnership

Prepared by
cbec, inc.

March 17, 2009

TABLE OF CONTENTS

1 BACKGROUND 1
1.1 CONTEXT 1
1.2 OVERVIEW 2
2 APPLICABILITY MAPPING AND CRITERIA 6
2.1 APPROACH USED BY OTHER CALIFORNIA REGIONS 6
2.2 APPLICABILITY CRITERIA USED IN THIS PILOT PROJECT 6
2.3 PILOT APPLICABILITY MAPPING 7
2.3.1 Data Used to Develop the Pilot Applicability Map 7
2.3.2 Draft Applicability Map and Considerations 10
3 SUSCEPTIBILITY MAPPING AND ASSESSMENT 20
3.1 TIER 1 – SCREENING LEVEL SUSCEPTIBILITY MAPPING 20
3.1.1 Specific Stream Power 21
3.1.2 Bankfull Discharge 22
3.1.3 Basin Development Factor 23
3.1.4 Channel Risk (or Susceptibility) 23
3.1.5 GIS-Based Approach 24
3.1.6 Draft Susceptibility Maps and Recommendations 25
3.2 TIER 2 – FIELD-BASED ASSESSMENTS 26
3.2.1 Methods 26
3.2.2 Preliminary Findings 27
3.2.3 Recommendations 27
3.3 TIER 3 – IDENTIFICATION OF KEY GEOMORPHIC THRESHOLDS 28
3.3.1 Discussion 28
3.3.2 Recommendations 28
4 CONCEPT FOR RISK-BASED DECISION SUPPORT TOOL (DST) 46
4.1 CONCEPTUAL DST PROCESS 46
4.2 APPLICATION OF THE DST 46
5 FINDINGS AND RECOMMENDATIONS 50
5.1 APPLICABILITY FINDINGS AND RECOMMENDATIONS 50
5.2 SUSCEPTIBILITY CONSIDERATIONS 50
5.2.1 Tier 1 Considerations 50
5.2.2 Tier 2 Considerations 51
5.2.3 Tier 3 Considerations 51
5.3 DECISION SUPPORT TOOL CONSIDERATIONS 52
5.4 OTHER RECOMMENDATIONS 52
6 REFERENCES 53
7 ACKNOWLEDGEMENTS 55
8 APPENDIX A 56

LIST OF FIGURES

Figure 1-1. Elder Creek location map 4
Figure 1-2. Elder Creek watershed map 5
Figure 2-1. Manually digitized creek alignments 12
Figure 2-2. Example County creek types on Elder Creek 13
Figure 2-3. "Improved" Elder Creek above Power Inn Rd 14
Figure 2-4. "Unimproved" Elder Creek below Elk Grove Florin Rd 15
Figure 2-5. "Natural" Elder Creek above Excelsior Rd 16
Figure 2-6. Draft 2005 existing land use 17
Figure 2-7a. Draft applicability map 18
Figure 2-7b. Draft applicability map with permitted drainage 19
Figure 3-1. BDF basin shapes and subdivision into thirds 30
Figure 3-2. Draft 2050 existing land use 31
Figure 3-3. Interim (planned) land use with permitted drainage 32
Figure 3-4. NOAA Atlas 2 isopluvials for 2-yr 6-hr precipitation 33
Figure 3-5. Existing conditions (2005) specific stream power 34
Figure 3-6a. Interim (planned) SSP ratio 35
Figure 3-6b. Interim (planned) SSP ratio with permitted drainage 36
Figure 3-7a. Future (2050) SSP ratio 37
Figure 3-7b. Future (2050) SSP ratio with permitted drainage 38
Figure 3-8. RGA channel stability ranking scheme 39
Figure 3-9. Simon's channel evolution model 40
Figure 3-10. Example channel stability index form 41
Figure 3-11. Rosgen BEHI scoring sheet 42
Figure 3-12. WLA geomorphic stability index and ULC results 43
Figure 3-13. Elder Creek RGA locations 44
Figure 3-14. Elder Creek RGA photos 45
Figure 4-1. Flow chart for Decision Support Tool 48
Figure 4-2. Conceptual diagram for implementation of DST 49

LIST OF TABLES

Table 2-1. OEHHA (2008) draft percent impervious cover (PIC) values 9
Table 3-1. Interpretation of RGA form channel stability index value (OME, 2003) 27
Table 3-2. Potential management strategies (version 1) 29
Table 3-3. Potential management strategies (version 2) 29

GLOSSARY OF ACRONYMS

Acronym	Meaning
BDF	Basin Development Factor
BEHI	Bank Erosion Hazard Index
BMP	Best Management Practice
CEM	Channel Evolution Model
CSI	Channel Stability Index
DEM	Digital Elevation Model
DST	Decision Support Tool
FDC	Flow Duration Control
GIS	Geographic Information System
GUI	Graphical User Interface
HMP	Hydromodification Management Plan
LID	Low Impact Development
LiDAR	Light Detection and Ranging
OEHHA	Office of Environmental Health Hazard Assessment
OME	Ontario Ministry of the Environment
PIC	Percent Impervious Cover
RGA	Rapid Geomorphic Assessment
SACOG	Sacramento Area Council of Governments
SMC	Stormwater Management Coalition
SSP	Specific Stream Power
SWRCB	State Water Resources Control Board
USGS	United States Geological Survey

1 BACKGROUND

1.1 CONTEXT

Historically, the County of Sacramento and other agencies have sought to control stormwater runoff from urban development[1] in order to protect property from flooding. The main flood control strategies included realigning, widening and armoring stream channels to reduce the floodplain and more efficiently convey water, and installing detention basins to control the peak flows of runoff released to the streams. Changes to the water regime caused by development, flood control, or other reasons (e.g., changes to the creeks for agricultural irrigation and construction of dams for water supply and power generation) are types of hydromodification[2]. In recent years, there has been a growing awareness that while flood control is still critical to protect life and property, historical flood-control methods do not protect creek habitat, and in some cases, may aggravate erosion problems and contribute to habitat degradation. Therefore, it is important to manage the water regime changes caused by new development in ways that protect environmental resources, not just prevent flooding.

The Sacramento Areawide Municipal Stormwater Permit (Permit)[3] requires the County of Sacramento and co-permittees[4] to develop a Hydromodification Management Plan (HMP). The HMP will describe the approach for locally mitigating the impacts of increased stormwater runoff from future new development and redevelopment where the runoff flowing to creeks can cause erosion or other harm. The following is an excerpt of the Permit describing those requirements (Provision 15c):

1. *The HMP shall require controls to manage the increases in the magnitude (e.g., flow control), frequency, volume and duration of runoff from development projects in order to protect receiving waters from increased potential for erosion and other adverse impacts with consideration towards maintaining (or reproducing) the pre-development hydrology. The HMP shall address, but not be limited to, the following:*
    a. *Requires incorporation of controls, including structural and nonstructural BMPs, to mitigate the projected increases in flows;*
    b. *Controls post-development runoff rates and velocities from a site to avoid adverse impact on downstream erosion, flooding and stream habitat;*

[1] Development increases the volume, duration, and frequency of stormwater runoff because it replaces pervious land with hard surfaces that prevent rain water from soaking into the ground, and because it reduces or eliminates vegetation (including trees), which intercepts rain and increases evapotranspiration.

[2] The US EPA defines hydromodification as: "Alteration of the hydrologic characteristics of coastal and noncoastal waters, which in turn could cause degradation of water resources. In the case of a stream channel this is the process whereby a stream bank is eroded by flowing water. This typically results in the suspension of sediments in the water course."

[3] Order R5-2008-0142 adopted by the Central Valley Regional Water Quality Control Board (Regional Water Board) on September 11, 2008.

[4] The 7 Permittees include Sacramento County and the Cities of Sacramento, Rancho Cordova, Galt, Folsom, Elk Grove and Citrus Heights (collectively known as the Sacramento Stormwater Quality Partnership, or SSQP.)

c. *Minimizes the quantity of storm water directed to impermeable surfaces and the MS4s (municipal storm drain);*
d. *Maximizes the percentage of permeable surfaces to allow more percolation of storm water into the ground;*
e. *Considers the full range of BMPs in the Stormwater Quality Design Manual; and*
f. *Considers various assessment methodologies designed to evaluate the existing geomorphic condition of receiving waters, along with the expected susceptibility of these receiving waters to erosion/change as a result of hydromodification from land development and other land uses.*

2. *This requirement does not apply to new development and redevelopment projects where the project discharges storm water runoff into creeks or storm drains where the potential for erosion, or other impacts to beneficial uses, is minimal. The HMP shall describe the criteria used in determining the site-specific conditions applied to this requirement. Such situations may include, but not limited to the following:*
    a. *Discharges into creeks that are concrete-lined or significantly armored;*
    b. *Underground storm drain systems discharging directly to the rivers;*
    c. *Construction of infill projects in highly developed watersheds, where the potential for single-project and/or cumulative impacts is minimal; and*
    d. *Projects that do not create an increase in impervious surfaces over pre-project conditions.*

The permit further specifies that a work plan to complete the HMP is due April 30, 2009, and the HMP is due one year after the Regional Water Board approves the work plan.

The goals for the Sacramento HMP process include:

- Develop a consistent approach across the County regarding when and how to impose runoff flow controls from new development and redevelopment, and what those controls should be.
- Develop an approach that works for all the permittees and is equitable for the development and landowner community.
- Build on others' experiences rather than duplicate prior efforts.
- Produce a relatively straightforward set of tools that can be used by permittees' planners and engineers and the development community.

1.2 OVERVIEW

As a first step toward developing the HMP, the County and co-permittees contracted with cbec, inc., to complete a pilot project to develop and test ideas that could be incorporated into the HMP. This report presents the results of that work. The County selected the Elder Creek watershed in south Sacramento County for the pilot project (see Figure 1-1). That watershed, to include Gerber Creek, was selected because it represents a range of development conditions, from arable and grazing land uses in the upper watershed, transitioning through partial development to fully developed areas in the lower watershed (see Figure 1-2). In the upper watershed Elder Creek is relatively undisturbed, while in the middle and

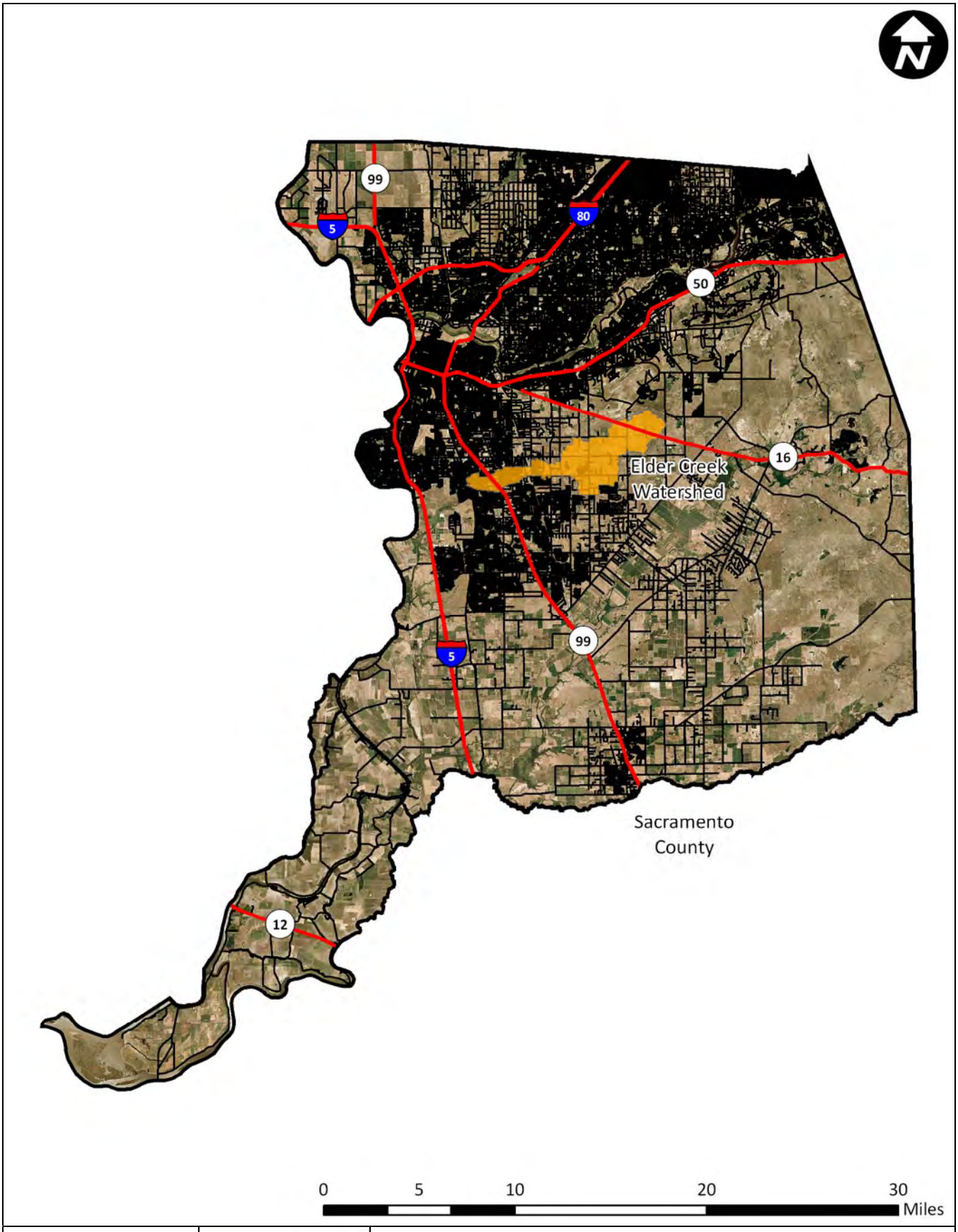
lower parts of the watershed the creek transitions to more relatively disturbed, including concrete-lined channel segments.

This report describes how tools that could be used in the HMP were developed and tested. This report focuses on three key tools:

1. Applicability criteria and mapping (Section 2), which is a way to identify where there is more than minimal potential for erosion or other harm from increased runoff from new development and therefore control measures are required (i.e. are not exempt per Permit provision 15c.2 quoted above). A sample applicability map was developed for the Elder Creek watershed, based on potential applicability criteria.
2. Susceptibility assessment (Section 3), which is a way to identify the susceptibility of receiving waters to erosion, as required by Permit provision 15c.1.f. previously quoted. A sample susceptibility map/approach was developed for the Elder Creek watershed.
3. A concept for a decision-support tool (Section 4) for applying the hydromodification management requirements to specific projects.

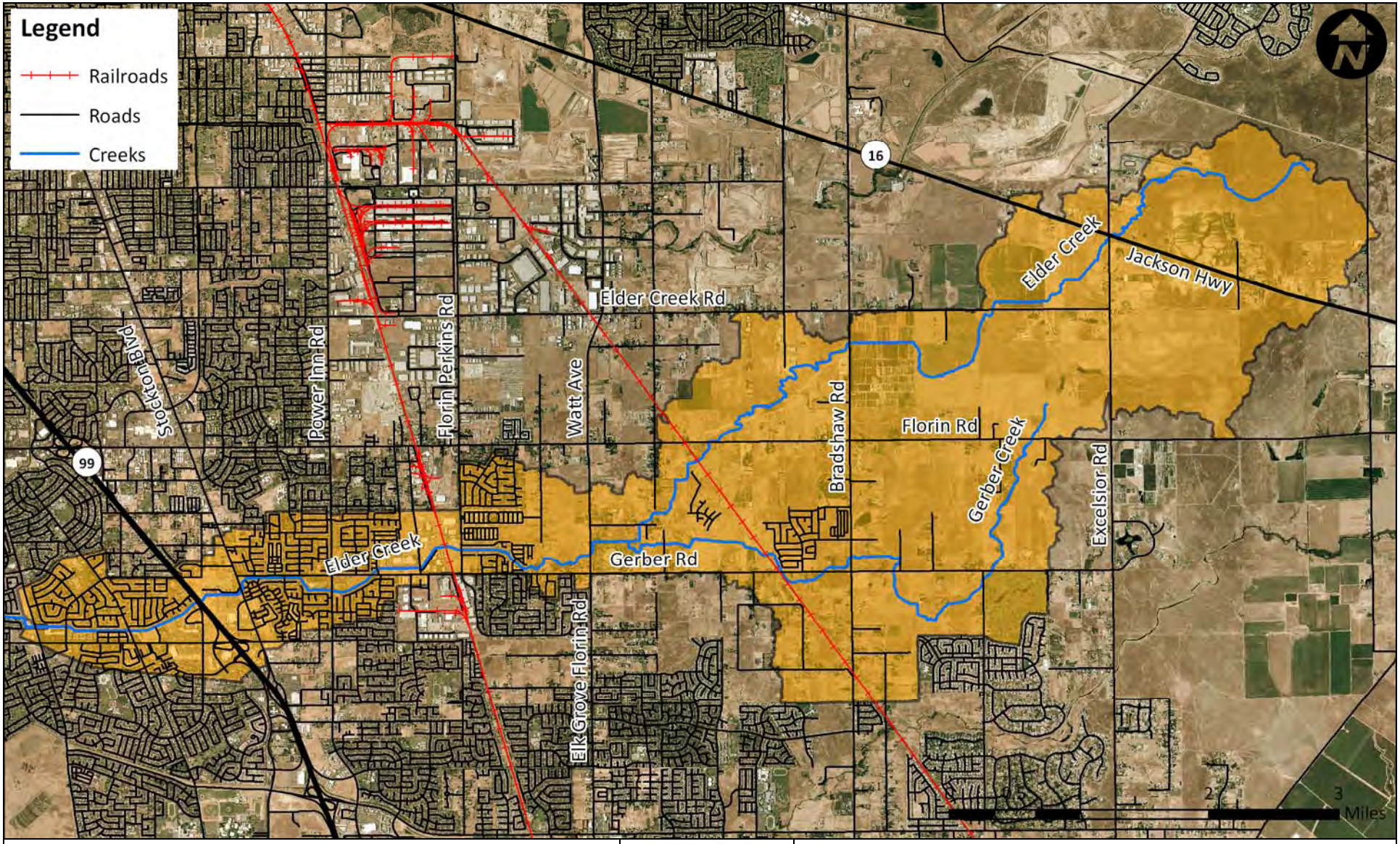
As a starting point to develop the tools, the project team worked with the State Water Resources Control Board (State Water Board) to review and summarize hydromodification plans and approaches from throughout California. A table summarizing other agencies' programs is attached as Appendix A. That table highlights hydromodification triggers and criteria, applicability mapping, and exemptions as well as tools to address and counter potential hydromodification impacts. Key findings from Appendix A were used to inform the pilot study and are described in the appropriate sections of this report.

The tools described in this report were developed and tested for preliminary demonstration purposes only and have not been adopted. In fact, as described later, the findings of this work indicate that some of the tools tested may not be appropriate for the Sacramento area. A workshop was held in December 2008 to discuss the tools and receive initial feedback by technical experts (who are listed in the acknowledgments). This report reflects that feedback. Section 5 of this report outlines key findings and conclusions and provides a discussion of potential next steps.



Notes:	cbec eco engineering	*Sacramento County HMP – Pilot Applicability and Susceptibility Mapping* **Elder Creek location map**		
		Project No. 07-1006	Created By: CRC	**Figure 1-1**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig1-1_v2.doc
3/6/2009



Notes:

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Elder Creek watershed map

Project No. 07-1006	Created By: CRC	**Figure 1-2**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig1-2.doc
3/6/2009

2 APPLICABILITY MAPPING AND CRITERIA

As explained in Section 1.1, the Permittees' HMP must describe criteria to determine site-specific conditions where it is/is not necessary for new development/redevelopment projects to control the increases in magnitude, frequency , volume, and duration of runoff because there is minimal potential for erosion and degradation in the receiving waters. As specified in the permit, this could include sites that discharge into concrete-lined channels or sites in already highly developed watersheds where the potential for impacts is low. Applicability mapping is one way to identify those areas of a jurisdiction where new development/redevelopment is subject to or exempt from hydromodification requirements.

2.1 APPROACH USED BY OTHER CALIFORNIA REGIONS

The table in Appendix A summarizing other agency HMPs includes triggers for when hydromodification controls may apply and it shows whether or not each HMP includes applicability mapping. As shown on the table, some but not all of the adopted HMPs in California include applicability mapping. Appendix A includes selected examples of applicability maps from other jurisdictions.

For the counties that have applicability maps, some are based on land use and habitat considerations (e.g. Alameda), existing percent impervious cover (e.g. Santa Clara), and/or the presence/absence of hardened channels (e.g. San Bernardino). Many of the adopted HMPs include exemptions for projects that discharge to fully hardened channels. Criteria that distinguish between developed and relatively undeveloped watersheds are less common. Regions that have adopted this methodology typically used metrics such as existing impervious thresholds less than 65 percent to delineate areas that are subject to hydromodification controls.

2.2 APPLICABILITY CRITERIA USED IN THIS PILOT PROJECT

For this pilot project, two applicability criteria were chosen for demonstration purposes only and to illustrate how they could be translated into an applicability map:

1. Subwatersheds with percent impervious cover less than 50 percent;
2. Subwatersheds not draining to hardened (namely "Type 1 improved" as defined by the County)[5] channels.

Using those applicability criteria, developments located in subwatersheds with percent impervious cover (PIC) greater than 50 or discharging to engineered (Type 1) channels would be exempt from hydromodification control requirements.

The two applicability criteria tested in the pilot project relate to the permit provisions 15c.ii(a) and (c), which provide examples for situations that could be exempt, including discharges into concrete-lined

[5] See Section 2.3.1.2 for description of Sacramento County's channel designation method.

channels or sites in already highly developed watersheds where the potential for impacts is minimal. Pertaining to the above criteria, note that:

- PIC is one measure that can be used to define how "highly developed" a watershed is. The 50 percent threshold for impervious cover was selected based on the practical consideration that existing impervious cover within the developed/urbanized lower end of Elder Creek watershed exceeded an aggregate value of 50 percent. This number may not work for other watersheds in the County. In fact, many watersheds in the Sacramento area already considered "highly developed" or "built out" have an average percent imperviousness of about 42 percent.
- The Type 1 hardened channels in the lower end of the Elder Creek watershed have been significantly altered over the years through straightening, confinement in a narrow corridor bounded closely by development, and use of concrete and riprap. These channels are therefore not good candidates for future restoration, and are much less susceptible to erosion.

2.3 PILOT APPLICABILITY MAPPING

2.3.1 Data Used to Develop the Pilot Applicability Map

The following data sets, readily available or created as part of this project, were used to create the draft applicability map.

2.3.1.1 Creek Alignments

A variety of existing maps show creek alignments. However, due to inconsistencies and inaccuracies in those maps, the project team digitized accurate creek alignments for the main stems of Elder and Gerber Creeks using a combination of contour mapping and aerial photography (see Figure 2-1).

2.3.1.2 Creek or Channel Types

Channel types were defined through a combination of City and County data and limited field verification for the main stems of Elder and Gerber Creeks. Figure 2-2 shows an example for Elder Creek in the vicinity of Elk Grove Florin Rd. Specifically, the County's Drainage Operations & Maintenance Section identifies five (5) channel types within their jurisdiction to distinguish the various levels of improved and unimproved channels and permissible maintenance activities (County DWR, 2006); channel types are briefly summarized below, along with examples of how they apply to Elder Creek. To clarify, "improved" as used here by the County refers to channels that have been modified through conventional means for the purposes of flood control and does not refer to channels that have been restored for ecological reasons.

- **Type 1 – Improved Channel without Significant Riparian Habitat**
  Significant alterations have occurred to improve the passage of irrigation and/or flood waters via straightening within constructed banks and hardened channels (e.g. concrete, riprap, earthen). Channels may be manually or mechanically cleaned as needed at any time throughout

the year; all other channel types are maintained according to regulatory scheduling restrictions for habitat protection. Figure 2-3 depicts a Type 1 channel along Elder Creek excavated into geologic control[6] with a concreted low flow channel.

- **Type 2 – Improved Channel with Significant Riparian Habitat**
  Significant alterations have occurred to improve the passage of irrigation and/or flood waters via straightening within constructed banks and hardened channels (e.g. concrete, riprap, earthen). Riparian habitat has established via volunteer vegetative growth. Type 2 channels on Elder Creek are typically straightened and not hardened with concrete or riprap, but that is not to say excavation or incision to bed control has not occurred.
- **Type 3 – Improved Mitigated Channel**
  Significant alterations have occurred to improve the passage of irrigation and/or flood waters via straightening within constructed banks and hardened channels (e.g. concrete, riprap, earthen). Riparian habitat has established following planting of vegetation/trees to mitigate for prior loss of riparian habitat.
- **Type 4 – Unimproved Channel without Significant Riparian Habitat**
  No significant alterations have occurred to improve the passage of irrigation and/or flood waters, but the channel lacks riparian habitat.
- **Type 5 – Unimproved Channel with Significant Riparian Habitat**
  No significant alterations have occurred to improve the passage of irrigation and/or flood waters and the channel includes significant habitat. Figure 2-4 depicts a Type 5 channel along Elder Creek that has incised down to bed control.

Within its maintenance jurisdiction, the County also designates natural stream channels, which typically contain significant riparian habitat; as appropriate, those stream channels are cross listed as one of the five channel types described above. Designated natural streams are typically segments of larger creeks (e.g. Arcade Creek from Auburn Blvd to Greenback Lane) and not the headwater creeks and tributaries upstream of maintained channels. For the purposes of this document, natural channels are either designated as such and maintained by the County or are headwater creeks and tributaries upstream of maintained channels (see Figure 2-5).

Due to inconsistencies and inaccuracies among creek mapping sources and channel types, channel types were manually assigned to the digitized creeks. A similar process combining desktop analysis and field verification may be needed to create County-wide maps for the HMP.

In addition to field checking existing channel conditions in the Elder Creek watershed, the project team incorporated information on planned (near future) development drainage modifications provided by the County.

[6] Geologic control as used here refers to the presence of an erosion resistant surface such as hardpan and/or indurated/hardened layer or parent material that inhibits degradation of the creek bed.

2.3.1.3 Percent Impervious Cover

The project team estimated percent impervious cover (PIC) for the Elder Creek Watershed using land use maps provided by the Sacramento Area Council of Governments (SACOG) combined with draft PIC values per land use category developed by the Office of Environmental Health Hazard Assessment (OEHHA). SACOG's land use maps consisted of a draft 2005 existing conditions map and the draft 2050 Blueprint map; only the draft 2005 map (see Figure 2-6) was used to develop the draft applicability map. There were several instances where the land use was defined as "vacant" or "blank", which was reclassified based on interpretation of aerial photography. At the County scale, it may be necessary to solicit SACOG to update the land use maps. In future iterations, the County propose to use the 2030 General Plan in lieu of the 2050 Blueprint. For this pilot study, the land use differences were minor.

For this pilot, the OEHHA percent imperviousness values shown in Table 2-1 were used to convert the draft 2005 existing land use map to a percent impervious cover (PIC) map. The OEHHA values differ slightly from the percent imperviousness values used by the County in their drainage manual. In future iterations, the County proposes to use the percent impervious values in the *Sacramento County/City Drainage Manual (Hydrology Standards)* due to familiarity by the local development community and to be consistent with the *Stormwater Quality Manual for Sacramento and South Placer Region*s.

Table 2-1. OEHHA (2008) draft percent impervious cover (PIC) values

SACOG Land Use	PIC	SACOG Land Use	PIC
High Density Residential	67	Heavy Industrial	91
Medium-High Density Residential	53	Light Industrial	81
Medium Density Residential	53	Agriculture	4
Low Density Residential	44	Open Space	2
Very Low Density Residential	30	Mixed Use	80
Rural Residential	6	Public/Quasi-Public	44
High-Intensity Office	86	Parking Lot	92
Moderate-Intensity Office	69	Urban Streets	92
Community/Neighborhood Commercial/Office	80	Suburban Streets	96
Regional Retail	82	Rural Residential Streets	47
Community/Neighborhood Retail	82	Highways	44

2.3.1.4 Subwatersheds

Subwatershed boundaries developed for the susceptibility mapping (see Section 3.1.5) were used for the applicability mapping.

2.3.2 Draft Applicability Map and Considerations

Based on the previously described draft applicability criteria and data, two versions of the applicability map were created for the Elder Creek Watershed (Figures 2-7a and 2-7b). Both use draft 2005 land use conditions as the basis, but one map uses existing channel conditions and the other incorporates permitted channel modifications related to planned (near future) development.

Figure 2-7a is a draft applicability map based on the draft 2005 land use condition, which depicts existing channel conditions. The red hatched subwatersheds represent existing urbanization with a PIC greater than 50 percent, and those areas coincidently are also directly tributary to hardened (Type 1) channels. All other subwatersheds above French Road and denoted in green have an aggregate PIC less than 50 percent and are tributary to improved Type 2 channels as well as unimproved and natural channel types. For the purposes of this pilot study, those areas would thus be designated as subwatersheds to which HMP regulations apply.

Figure 2-7b is a draft applicability map based on the draft 2005 land use condition but assuming implementation of the permitted drainage modifications associated with a planned (near future) development in this watershed (as depicted in Figure 3-3). The red and green hatched subwatersheds drain to hardened or engineered channels and would therefore be exempt, per the applicability criteria for this pilot study. As previously noted, the applicability criteria were chosen for demonstration purposes only. A higher or lower threshold, or alternative criteria, could be selected for the final Sacramento HMP.

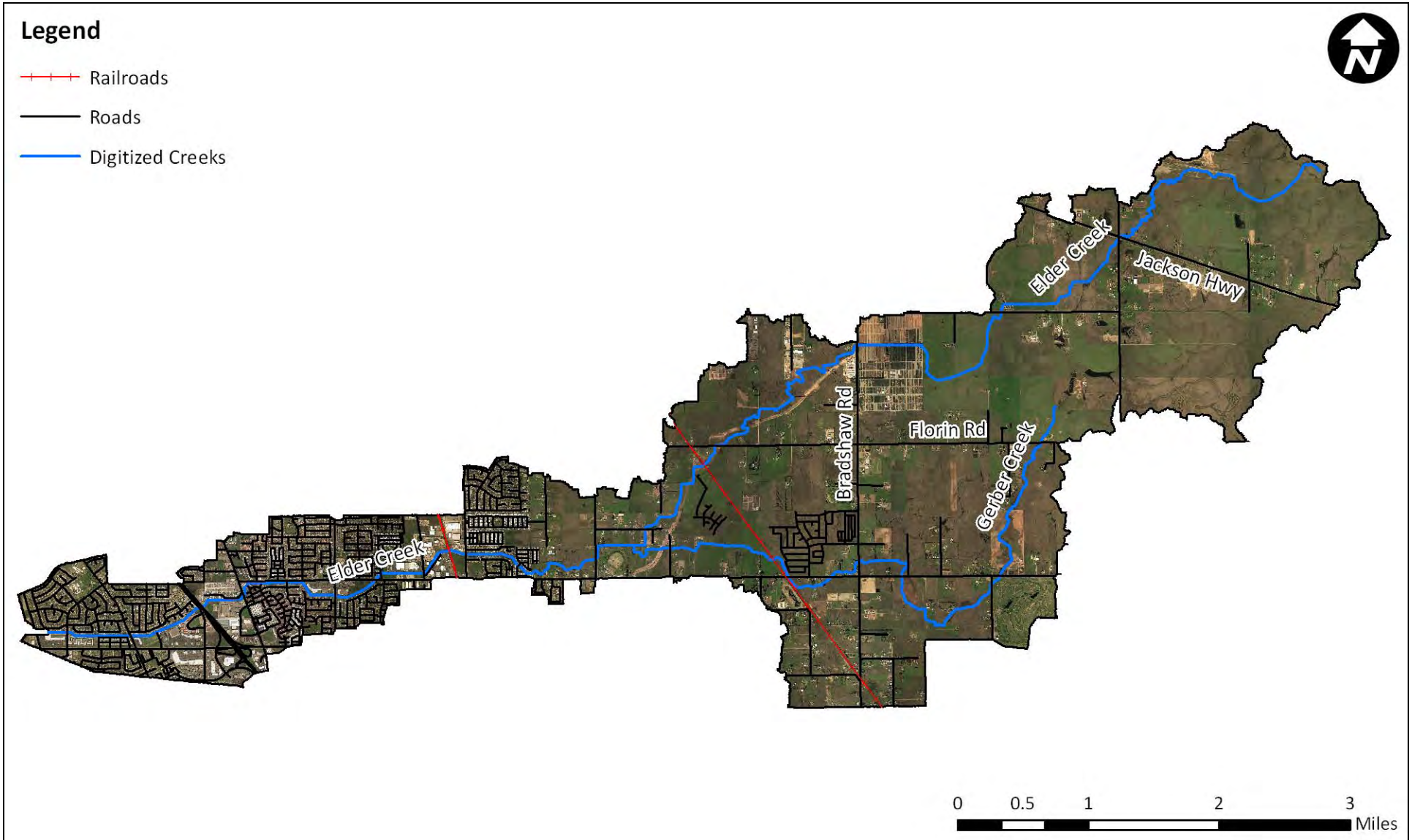
The criteria used to determine where hydromodification controls are/are not needed are important. If the criteria are not stringent enough, then creeks will not be adequately protected (in violation of the Permit). If the criteria are too stringent, then developers will be subject to the cost of controls that do not have a clear environmental benefit.

In addition, more stringent criteria may be needed for relatively undeveloped watersheds (e.g. areas less than 50 percent impervious cover) discharging to unstable Type 4 or Type 5 channels. Conversely, criteria may be less stringent in urban areas with no channel restoration options or in less-developed areas with stable Type 4 or Type 5 channels, where development could be required to match pre-project volumes only, for example. Definition of stable or unstable channels could be defined by the methods outlined in Section 3.2 (e.g. Table 3-1).

If applicability criteria and mapping are included as tools in the HMP, they could be refined based on the following outstanding questions:

1. Should the degree of existing channel degradation correspond to a degree of stringency in the criteria?
2. Should HMP standards still apply when downstream channels have already been modified in anticipation of future upstream developments?

3. When mapping channel types or defining exemptions based on channel type, should the potential for restoring concrete or degraded channels be considered on a case-by-case basis?
4. Should exemption criteria be considered based on factors other than PIC or channel type? For example, should exemption criteria be considered for transit oriented and smart growth development or using flow criteria for various discharge pipe diameters or using percent impervious per capita, etc?
5. Is the PIC criterion appropriate for Sacramento? PIC may not be an appropriate criterion due to the fact that many watersheds in the Sacramento area already considered "highly developed" or "built out" have an average percent imperviousness of about 42 percent. Also, even in undeveloped areas of Sacramento, soils tend to naturally have lower permeability and higher runoff rates due to hardpan conditions and historical grazing practices. Using a factor that relates the acreage developed to the acreage of potential development within each watershed may be a better indicator of how heavily developed that watershed is. This issue will be explored further as the HMP is developed.
6. Should the plan consider more restrictive criteria than generally used in other jurisdictions, if the restrictive criteria are based on the latest research findings and science?



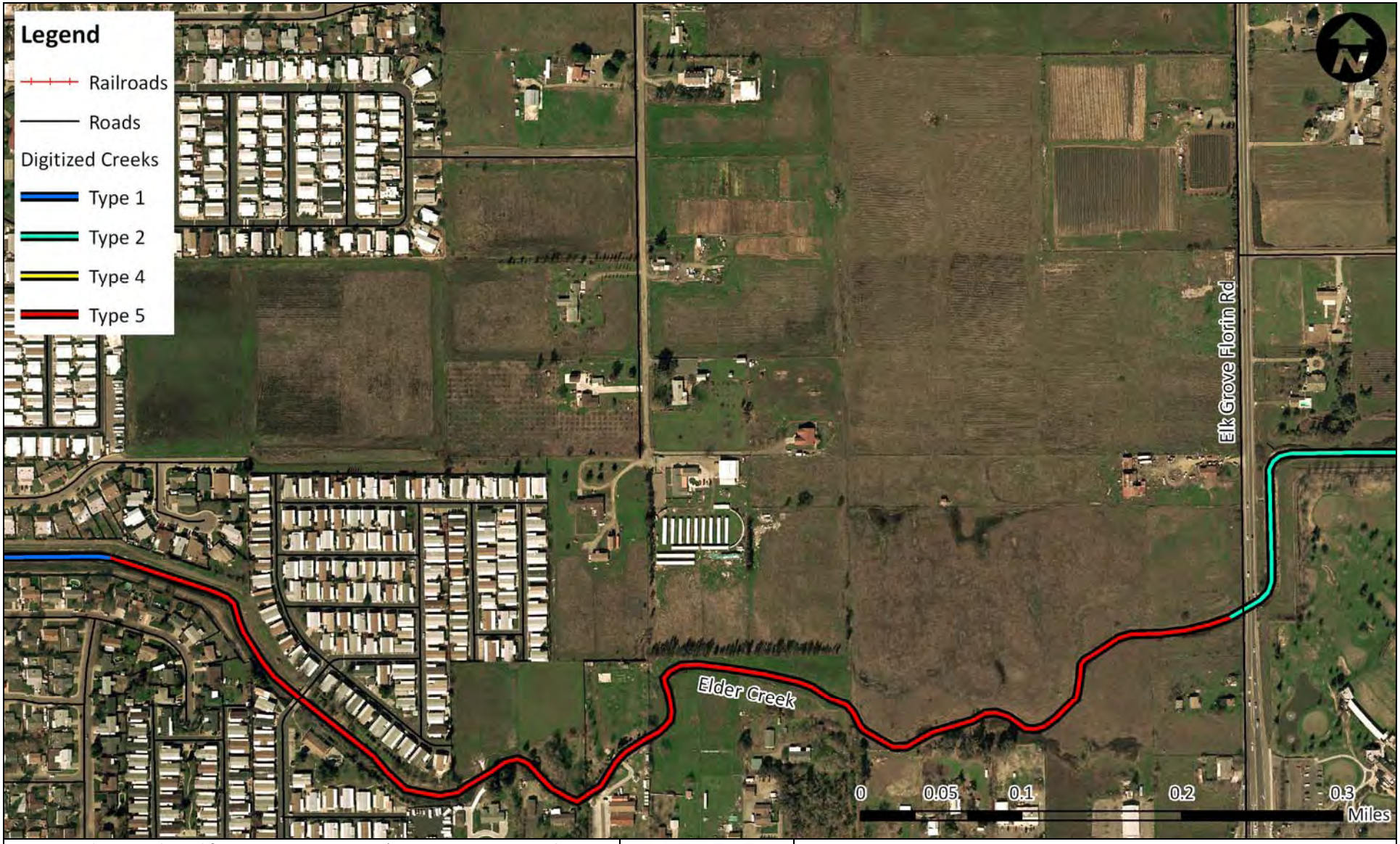
Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Manually digitized creek alignments

Project No. 07-1006	Created By: CRC	**Figure 2-1**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-1.doc
3/6/2009



Notes: creek types adapted from Sacramento County's Drainage Operations & Maintenance Section (DWR, 2006)

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Example County creek types on Elder Creek

Project No. 07-1006	Created By: CRC	**Figure 2-2**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-2.doc
3/9/2009



Notes: photograph taken on 11/07/08 by CBB looking upstream; "improved" as used here by the County refers to channels that have been modified through conventional means for the purposes of flood control and does not refer to channels that have been restored for ecological reasons.

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

"Improved" Elder Creek above Power Inn Rd

Project No. 07-1006	Created By: CRC	**Figure 2-3**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-3.doc
3/10/2009



Notes: photograph taken on 11/07/08 by CBB looking downstream

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

"Unimproved" Elder Creek blw Elk Grove Florin Rd

Project No. 07-1006	Created By: CRC	**Figure 2-4**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-4.doc
1/30/2009



Notes: photograph taken on 11/07/08 by CBB looking upstream

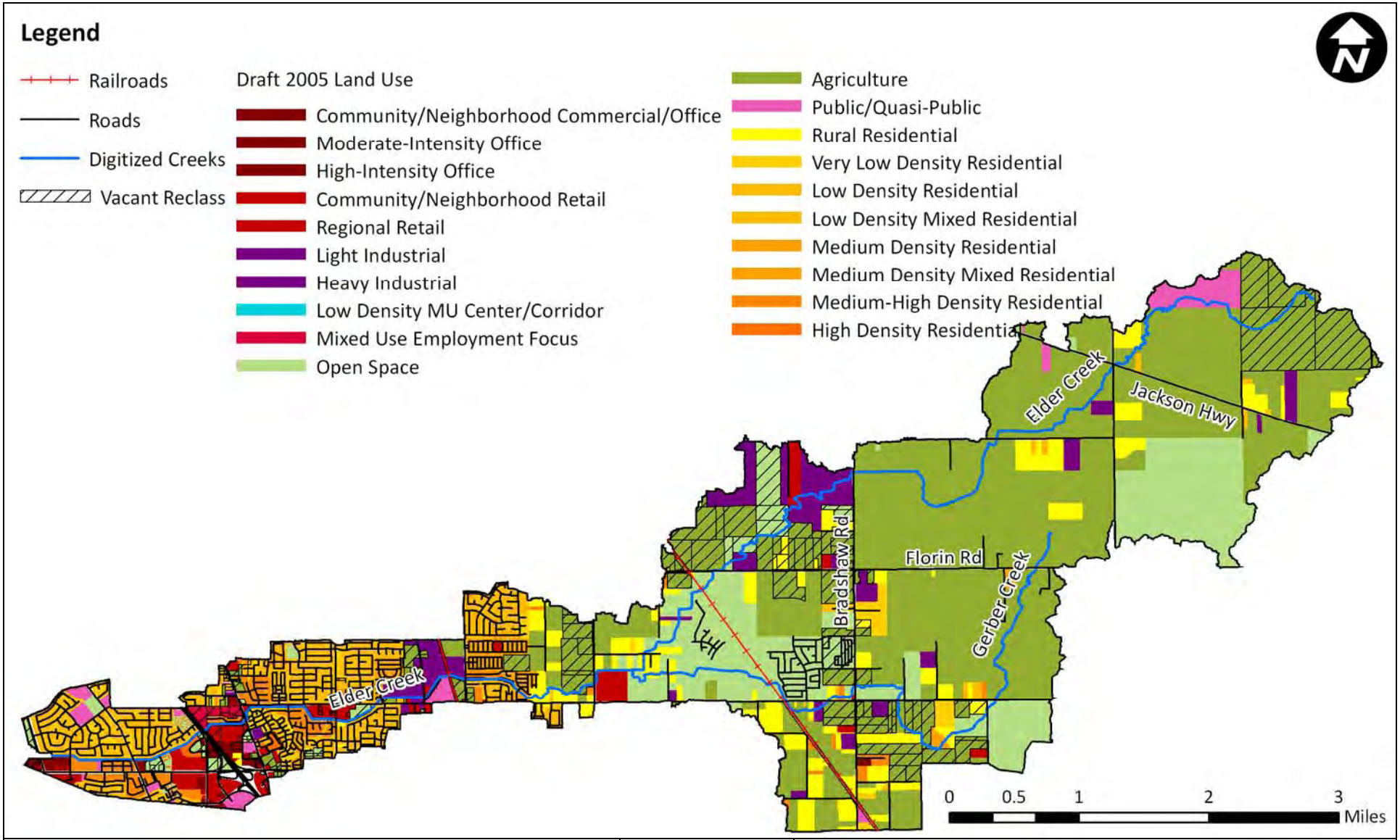
cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

"Natural" Elder Creek above Excelsior Rd

Project No. 07-1006	Created By: CRC	**Figure 2-5**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-5.doc
1/30/2009



Notes: SACOG draft 2005 existing land use with modifications to reclass vacant (or unknown) land uses

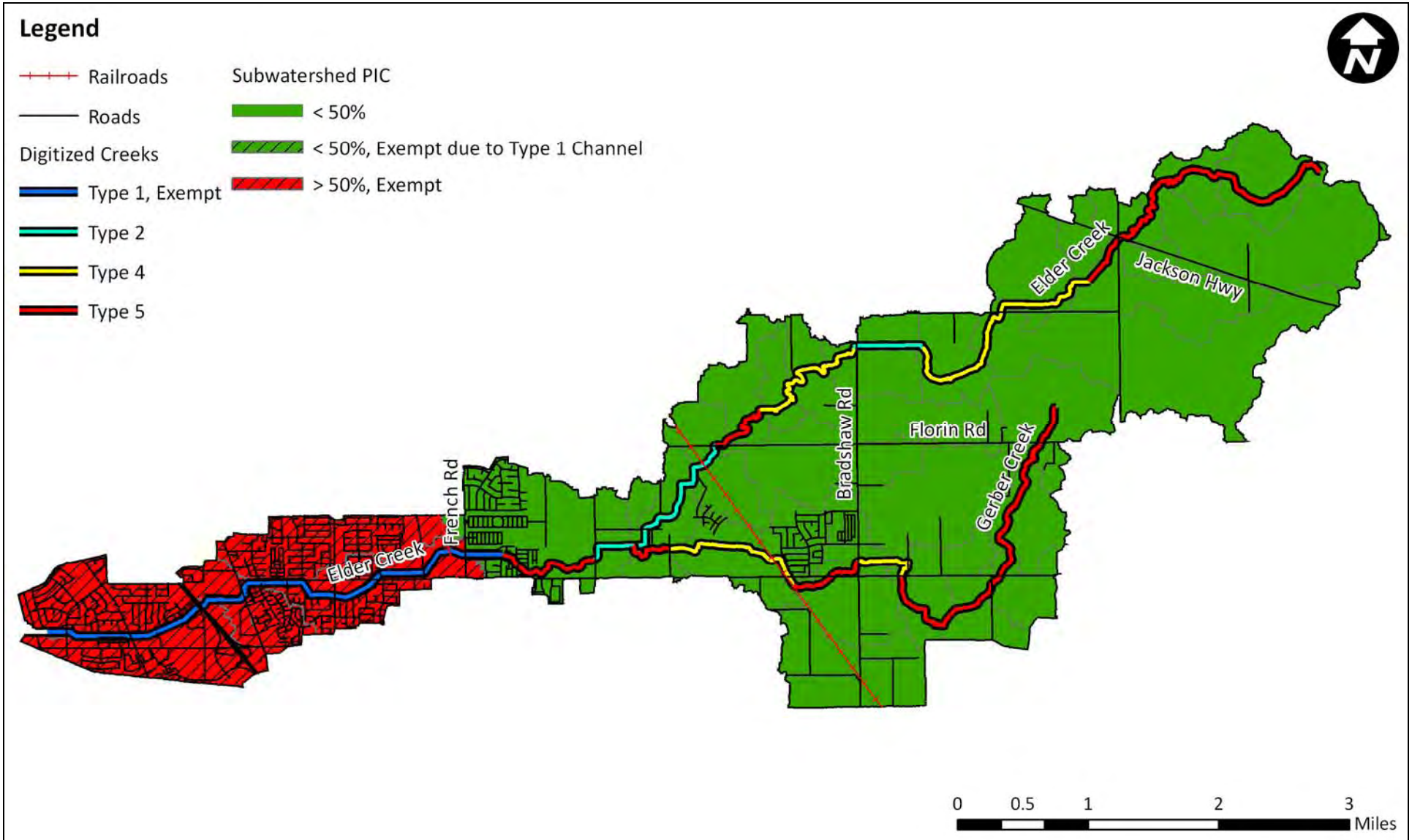
cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Draft 2005 existing land use

Project No. 07-1006	Created By: CRC	**Figure 2-6**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-6.doc
3/6/2009



Notes: for example, subwatersheds in Elder Creek not subject to HMP regulations would be those below French Road which have a percent impervious cover greater than 50 and coincidently drain to hardened or improved Type 1 channels; all others are subject to HMP regulations.

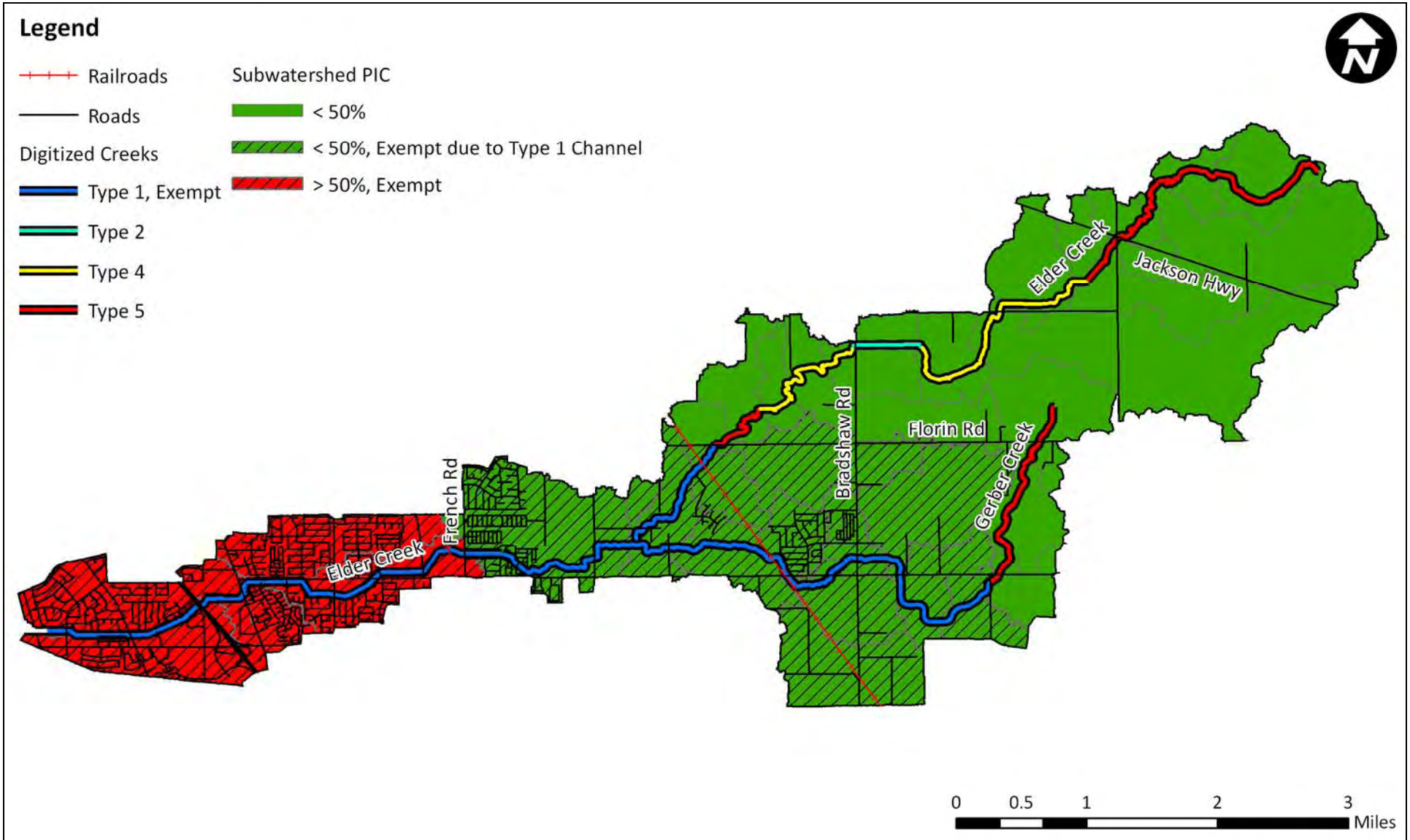
cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Draft applicability map

Project No. 07-1006	Created By: CRC	**Figure 2-7a**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-7_v3a.doc
3/17/2009



Notes: for example, subwatersheds in Elder Creek not subject to HMP regulations would be those draining to hardened or improved Type 1 channels; all others are subject to HMP regulations.

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Draft applicability map with permitted drainage

Project No. 07-1006 | Created By: CRC | **Figure 2-7b**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig2-7_v3b.doc
3/17/2009

3 SUSCEPTIBILITY MAPPING AND ASSESSMENT

As shown in the excerpted Permit requirements included in Section 1.1, the Permittees' HMP must consider various assessment methodologies to evaluate the existing geomorphic condition of local receiving waters[7], along with the expected susceptibility of those receiving waters to erosion/change as a result of hydromodification from land development and other land uses. This section evaluates how susceptibility mapping/assessment could be done and tests the approach in the Elder Creek watershed.

Susceptibility mapping is a technique to identify areas of creeks and rivers that could be susceptible to erosion and degradation due to anthropogenic disturbance. The technique has been academically developed (Simon & Downs, 1995; Hack, 1957; Bledsoe & Watson, 2004). Susceptibility mapping is frequently undertaken using Geographical Information Systems (GIS) and hydrologic techniques with field-based techniques used to calibrate or validate the GIS techniques. The pilot susceptibility mapping approach for the Elder Creek Watershed used a three-tiered approach:

Tier 1 – Map areas of high and low stream erosion potential using GIS- and hydrology-based techniques.

Tier 2 – Conduct field-based assessments for selected areas identified in Tier 1, to provide calibration and validation for the susceptibility mapping.

Tier 3 – Identify key geomorphic thresholds (e.g., relationship between channel slope, median particle size, drainage area, critical bank heights in various channel materials, channel response to changes in flow and sediment supply, etc) from a comparison of stable and unstable channels and identify potential hydromodification mitigation solutions based on the results. Tier 3 could also be used to specify potential additional analysis techniques recommended by the HMP for future permit applications.

3.1 TIER 1 – SCREENING LEVEL SUSCEPTIBILITY MAPPING

The project team evaluated two approaches to Tier 1 (screening level) erosion susceptibility mapping in order to select the most appropriate approach for this pilot study. The team compared Hack's methodology (Hack, 1957), which is a function of channel slope, grain size, and drainage area, to the specific stream power methodology (Simon & Downs, 1995). Specific stream power (SSP) is the power expended by moving water per unit area of the streambed. It is a parameter closely related to many basic factors used to describe the varying hydraulic and sedimentation processes in a stream, such as velocity, depth, energy slope, grain size, etc. (SCCWRP, 2008) The critical SSP is the threshold at which erosion of bed and/or bank begins to occur. [8]

[7] The geomorphic condition of a stream refers to its form and function as a result of environmental and anthropogenic factors such as the shape of its cross section.

[8] See Sections 3.1.1 and 3.1.4 for additional information on SSP.

The specific stream power methodology was chosen for this pilot project, because it did not rely upon field measurements of grain size (which may be difficult to quantify in a system, such as the Elder Creek watershed, that has been excavated and incised to geologic control). Subsequent iterations of the susceptibility mapping methodology could incorporate other methodologies that include characterization of bed and bank materials.[9]

Specific stream power, which has extensively been used to describe overall channel conditions and channel processes, can be used as an indicator of channel response to urbanization (Bledsoe, 1999). In this study, specific stream power has been applied to highlight the potential erosive impacts of urbanization on the receiving waters; however, the absolute severity of those impacts has not been addressed. To understand the severity of those potential impacts, specific stream power needs to be correlated to a range of measurable field conditions (e.g. erodibility of bed and bank materials, channel width, entrenchment, grade control, proximity to geomorphic thresholds and geologic control, etc.) within the County to adequately be used as an indicator of existing channel conditions and future channel responses; thus, the need for Tier 2 and Tier 3.

For this pilot project, specific stream power was assessed and compared for existing conditions and future urbanization for only the 2-year recurrence interval flood assuming no traditional flood control detention (as later detailed in the approach below). Other recurrence interval floods, such as the 5- and 10-year, also have geomorphic significance; however those were not integrated into the calculations due to the difficulty of readily quantifying the in-channel component responsible for in-channel processes. In order to do this, a routing model or at-a-station hydraulic calculations would be needed. This assumption should be addressed in future iterations of the methodology if applied at the County scale. This could be achieved through sensitivity analyses using a range of flows and identification of a range of flows with geomorphic significance.

The following sections further describe the components of screening level susceptibility mapping.

3.1.1 Specific Stream Power

Specific stream power (SSP), or the power expended per unit area of the streambed, can be described in various forms (i.e. function of drainage area or median grain size), but was applied to the pilot project according to the following equation:

$$SSP = \gamma \cdot (Q/w) \cdot S$$

where *SSP* is specific stream power in W/m^2, γ is the specific weight of water (9,807 N/m^3), *Q* is the bankfull discharge (m^3/s), *w* is the channel width (m) as approximated from a combination of field measurements and aerial photography, and *S* is the local channel slope derived from the County's terrain model.

[9] This and other recommendations are summarized in Section 5.

Derivation of bankfull discharge is further described below.

3.1.2 Bankfull Discharge

The study approximated bankfull conditions[10] for existing conditions and future urbanization by using the USGS regional regression equations, as described and implemented in the National Flood Frequency (NFF) program (Reis & Crouse, 2002). For California, the USGS developed a suite of equations for estimating the magnitude and recurrence interval for floods in rural settings in different regions (Waananen & Crippen, 1977). However, similar equations for urban settings have not been developed for California. As such, the national urban equations (Sauer et al., 1983; Sauer, 1985) were used to estimating the magnitude and recurrence interval for floods in urban settings. The national urban equations, which utilize the rural equations, were based on 269 gauged basins in 56 cities and 31 states; the data locations included a representative cross section of west coast metropolitan areas, including Sacramento.

The national urban equations do not account for detention storage. Since detention storage is common in the Sacramento area, the relative comparisons drawn in this report between existing conditions and future urbanization may be conservative by overestimating the impacts from urbanization.

For this demonstration, bankfull discharge was approximated as the magnitude of the 2-year recurrence interval flood. Using regional regression equations applicable to Elder and Gerber Creeks and the County, the 2-year flood peaks were computed by the following:

$$RQ2 = 0.24 \cdot A^{0.88} \cdot P^{1.58} \cdot H^{-0.8} \quad \text{(rural)}$$

$$UQ2 = 2.35 \cdot A^{0.41} \cdot SL^{0.17} \cdot (RI2 + 3)^{2.04} \cdot (ST + 8)^{-0.65} \cdot (13 - BDF)^{-0.32} \cdot IA^{0.15} \cdot RQ2^{0.47} \quad \text{(urban)}$$

where *RQ2* is the 2-year rural peak discharge (ft^3/s), *UQ2* is the 2-year urban peak discharge, *A* is the drainage area (mi^2), *P* is the mean annual precipitation (in), *H* is an elevation index (in 1000's of ft), *SL* is the channel slope derive from topographic data as measured between points that are 10% and 85% of the main channel length upstream of the point of interest, *RI2* is the 2-year 2-hour rainfall (in) from NOAA Atlas 2, *ST* is the percent basin storage of a permanent nature (i.e. lakes, reservoirs, wetlands) and not of a temporary nature (i.e. detention ponds), *BDF* is a basin development factor on a scale of 0 to 12, and *IA* is percent imperviousness.

If this methodology is applied at the County scale, it may be appropriate to 1) refine the regional regression equations to better reflect conditions in Sacramento County, 2) use the County's event-based rainfall-runoff model SacCalc to estimate a range of discharge conditions for various scenarios (which is

[10] The bankfull stage corresponds to the discharge at which channel maintenance is the most effective, that is, the discharge at which moving sediment, forming or removing bars, forming or changing bends and meanders, and generally doing work that results in the average morphologic characteristics of channels (Dunne & Leopold, 1978).

preferred by the County over regional regression in future iterations), and/or 3) integrate a range of discharge conditions (i.e. the 2-year through 100-year) to provide for a comparison of approximate flow duration curves (i.e. in lieu of continuous hydrologic simulation).

3.1.3 Basin Development Factor

The basin development factor (BDF) is typically computed as the summation of codes (0 or 1) assigned to four parameters describing the degree of urbanized drainage over three (3) approximately equal subareas upstream of the point of interest (see Figure 3-1). Codes are assigned to the four parameters as follows:

- *Channel improvements* (e.g. straightening, enlargening, deepening, clearing) occupying more than 50% of the length of the main channels and principal tributaries are assigned a value of 1.
- *Channel linings* (e.g. concrete) occupying more than 50% of the length of the main channels and principal tributaries are assigned a value of 1.
- *Storm drains* occupying more than 50% of the secondary tributaries are assigned a value of 1.
- *Curb-and-gutter* occupying more than 50% of the streets and highways are assigned a value of 1.

For this pilot project, the BDF parameters were manually implemented in GIS by assigning codes for existing conditions and future urbanization based on land use mapping.

3.1.4 Channel Risk (or Susceptibility)

For this pilot project demonstration, it was assumed that in the short-term, increased discharge due to urbanization would be conveyed within the existing channel (i.e. future channel width and slope remains unchanged from existing conditions). Alternatively, channel width and slope could be changed to assess how instream approaches (e.g. bank stabilization, habitat enhancement) would reduce SSP.

The risk of channel degradation due to hydromodification as a result of future urbanization was calculated as:

$$RISK = \frac{SSP_{future}}{SSP_{exist}} = \frac{Q_{future} \cdot \left(\gamma \cdot S_{future} / w_{future}\right)}{Q_{exist} \cdot \left(\gamma \cdot S_{exist} / w_{exist}\right)}$$

or alternatively:

$$RISK = \frac{\left(SSP - SSP_c\right)_{future}}{\left(SSP - SSP_c\right)_{exist}} = \frac{\left(Q - Q_c\right)_{future} \cdot \left(\gamma \cdot S_{future} / w_{future}\right)}{\left(Q - Q_c\right)_{exist} \cdot \left(\gamma \cdot S_{exist} / w_{exist}\right)}$$

where *RISK* is a ratio identifying the relative change from existing conditions, SSP_c is the critical specific stream power at which channel processes (e.g. bed or bank erosion) begin, *exist* is existing conditions, and *future* is anticipated urbanization.

Only the former equation was applied (assuming $S_{future} = S_{exist}$ and $w_{future} = w_{exist}$) since critical specific stream power has not been correlated with local field observations (i.e. Tier 3).

3.1.5 GIS-Based Approach

Arc Hydro was used within ESRI's ArcGIS to perform the specific stream power calculations due to its off-the-shelf functionality. Alternatively, raster algebra and some creative scripting could be used to perform the calculations.

3.1.5.1 GIS Inputs

The following existing data sets were used to implement the above approach within ArcGIS:

- County of Sacramento 2006 terrain model and contours from LiDAR
- County of Sacramento 2006 high resolution aerial photography
- County of Sacramento creek/channel alignments and types
- County and City of Sacramento storm drain networks
- SACOG 2005 draft existing land use map (see Figure 2-6)
- SACOG 2050 draft Blueprint land use map (see Figure 3-2)
- OEHHA percent impervious table (see Table 2-1)
- Land use map showing planned drainage modifications associated with development expected to occur in the near future in the Elder Creek Watershed (see Figure 3-3)
- Mean annual precipitation (Rantz, 1969)
- NOAA Atlas 2 (Miller et al., 1973) 2-year 6-hour precipitation map (see Figure 3-4)

3.1.5.2 GIS Data Processing and Calculations

The project team took the following steps to manipulate the existing data sets to calculate specific stream power for the existing condition (i.e. 2005), the interim condition (e.g. some intermediate level of urban growth such as the buildout of a single development or specific plan within the watershed being studied), and the future urbanized condition (i.e. 2050):

1. Converted the terrain model to a digital elevation model (DEM) to support spatial calculations
2. Digitized accurate creek alignments for the main stems of Elder and Gerber Creeks using a combination of contour mapping and aerial photography
3. Reconditioned the DEM in Arc Hydro by "burning" digitized creeks, defining "walls" based on storm drain networks, and "filling sinks" to create a hydrologically correct DEM
4. Preprocessed the DEM in Arc Hydro by calculating flow characteristics and defining creek/channel segments and aggregated subwatersheds
5. Calculated aggregate subwatershed characteristics and applied to creek/channel segments
    a. Arc Hydro/Spatial Analyst – *A*, *P*, *H*, *S*, *SL*, *RI2*, *ST*, *IA*
    b. Manually – *BDF*, *w*

c. Field Calculator – *RQ2*, *UQ2*, *SSP*, *RISK*

3.1.6 Draft Susceptibility Maps and Recommendations

Draft susceptibility maps for the existing condition (i.e. 2005), interim condition, and future urbanized condition (i.e. 2050) are presented in Figure 3-5, Figure 3-6 (a and b), and Figure 3-7 (a and b), respectively. Figure 3-5 shows the calculated specific stream power while Figure 3-6 (a and b) and Figure 3-7 (a and b) show the increase in specific stream power relative to existing conditions by means of a ratio. However, since specific stream power was not correlated to measurable field conditions for this pilot project, Figures 3-5, 3-6 (a and b), and 3-7 (a and b) should be used with a level of caution.

Figure 3-5 demonstrates that under existing conditions there is a reach of relatively higher specific stream power in the vicinity of Elk Grove Florin Rd (refer to Figure 2-4), which is a Type 5 channel that has incised down to bed control and is bounded by a Type 2 channel upstream and a Type 1 channel downstream (refer to Figure 2-2). The downstream Type 1 channel has been widened and excavated into geologic control to accommodate urbanized runoff, resulting in relatively lower specific stream power. Upstream of this reach, which is in an agricultural setting scattered with rural residential and industrial parcels (refer to Figure 2-6), the channel Types 2, 4, and 5 have consistent, but variable, specific stream power.

Although they do not reflect variations in field conditions and critical specific stream power, Figure 3-6 (a and b) and Figure 3-7 (a and b) demonstrate the increased susceptibility of the channels to erosive forces due to future levels of urbanization. Under the interim condition scenario for this pilot project, there is up to a 50 percent increase in specific stream power (see Figure 3-6a); however, when the planned drainage modifications are implemented (i.e. newer improved Type 1 channels) in this watershed, specific stream power through the planned development would decrease relative to existing conditions.

Under the future urbanization scenario for this pilot project, there would be up to a 200 percent increase in specific stream power, especially in the headwaters of Elder and Gerber Creeks (see Figure 3-7a); however, after planned drainage modifications are in place (Figure 3-7b), specific stream power through the planned drainage modifications would be reduced relative to existing conditions in some, but not all, sections.

Even though these findings are based only on the 2-year recurrence interval flood peak and assume no traditional flood detention, it is put forth as an approximate method for qualifying the susceptibility of channels to future urbanization due to a range of flows. Additional assumptions and limitations built into the susceptibility mapping include:

- Specific stream power was used to compare relative susceptibility of the channels from existing to urbanized conditions and calculated as a ratio;
- The discharge parameter in the specific stream power equation relied on the USGS regional regression equations for urban conditions;

- The basin development factor in the USGS regional regression equations was used to characterize the level of development of for existing and urbanized conditions;
- Readily available data from various organizations was used to perform the GIS calculations; and
- Rapid geomorphic assessments, restricted to access from road crossings, were conducted in a limited fashion using an adaptation of the method by Simon & Downs (1995).

Potential improvements to this method have been identified and are further summarized in Section 5. Specifically, recommendations to refine the susceptibility mapping approach include:

- Modify the channel subreaches to be more uniform and/or show delineations at distinct changes in channel type, geology, existing land use, etc;
- Use SacCalc rather than regional regression to generate the flows; and
- Customize and/or automate ArcHydro to better handle the needs of either a regional regression or SacCalc approach at the County scale.

3.2 TIER 2 – FIELD-BASED ASSESSMENTS

Tier 2 of the susceptibility mapping approach includes field assessments to validate and calibrate the Tier 1 tool. Typically, Rapid Geomorphic Assessment (RGA) techniques are used to characterize the existing geomorphic conditions of channels.

3.2.1 Methods

Various methods exist to perform RGA, which are aimed at assessing channel stability and sensitivity to alteration. Such methods can be used to identify active processes and rank the relative stability (or instability) of the channel or system through the use of diagnostic characteristics describing the site (index variables) and the channel (hydraulic, geomorphic, and riparian corridor variables). One such method culminates in the calculation of an objective stability index to classify the reach as stable, transitional, or unstable (Simon et al., 2007; Simon & Downs, 1995; see Figure 3-8). The form depicted in Figure 3-8 is an adaptation of Simon & Downs (1995), which originally included parameters to address instabilities at bridge crossings. This method also includes an assessment of the stage of channel evolution (see Figure 3-9) after Simon (1989), which is generally accepted by geomorphologists as the process by which a river will adjust to changes in hydrology and sediment supply.

Another RGA technique is that developed by the Ontario Ministry of the Environment (OME, 2003) as a simplified approach to assessing stream geomorphology (see Figure 3-10). Its derivation is based on geomorphic assessments carried out on over 40 streams in Ontario, British Columbia, Texas, and Vermont and culminates in the calculation of a channel stability index (CSI), as depicted in Table 3-1, based on evidence of degradation, aggradation, widening, and/or planform changes. The RGA method was recently used by the Southern California Coastal Water Research Project to document the impacts of urbanization on stream geomorphology in southern California (Coleman et al., 2005). The RGA method has also been adopted by various city and state agencies and their consultants (WLA, 2006).

Table 3-1. Interpretation of RGA form channel stability index value (OME, 2003)

Channel Stability Index (CSI)	Classification	Interpretation
CSI < 0.2	In regime (stable)	The channel morphology is within a range of variance for streams of similar hydrographic characteristics – evidence of instability is isolated or associated with normal river meander propagation processes
0.2 < CSI < 0.4	Transitional or stressed (potentially unstable)	Channel morphology is within the range of variance for streams of similar hydrographic characteristics but the evidence of instability is frequent
CSI > 0.4	In adjustment (unstable)	Channel morphology is not within the range of variance and evidence of instability is wide spread

Given the presence of geologic control in Elder Creek (and many other creeks within the County), which inhibits further degradation of the creek bed, but may exacerbate bank erosion, a specific assessment of bank erosion potential may be warranted. One such method (see Figure 3-11) is the empirically derived Bank Erosion Hazard Index (BEHI) developed by Rosgen (1996). The underlying principle of BEHI is that bank erosion occurs by fluvial scour at the bank toe as well as by mechanical failure of the bank material. An assessment of bank geometry, bank material, and bank vegetation are then used to classify the susceptibility of the banks to erosion.

The two previous methods (i.e. OME RGA and BEHI) were recently combined in a geomorphic study of Upper Laguna Creek (ULC) in Sacramento County between Bond Rd and Eagles Nest Rd (WLA, 2006; Geosyntec, 2007). WLA combined the two methods into a classification matrix (see Figure 3-12) to assess the overall geomorphic stability of Upper Laguna Creek. Such an approach could be applied at the County scale.

3.2.2 Preliminary Findings

Very limited RGA was performed (due to private property access limitations) of Elder Creek based on visual observations in the vicinity of road crossings using the method depicted in Figure 3-8. At all locations (see Figure 3-13), due to their proximity to Type 2 channels, the reaches exhibited bed control (i.e. geologic or hardpan) with varying degrees of bank erosion (see Figure 3-14) and could be generally be classified as transitional.

3.2.3 Recommendations

At the County scale, it will be important to select a RGA method with diagnostic characteristics well suited to the variability and underlying geology of the many creeks within the County. The method could be an adaptation of the methods listed above, or other methods not described, but the method selected

will need to produce reliable findings that result in a consistent and defensible stability and/or risk classification scheme or index, e.g. stable, transitional, and unstable or low, medium, and high. It is anticipated that the chosen classification index will need to be calibrated to a representative sample of creeks within the County to find the results meaningful when RGAs are performed County-wide to verify the existing condition findings in Tier 1.

3.3 TIER 3 – IDENTIFICATION OF KEY GEOMORPHIC THRESHOLDS

The purpose of Tier 3 is to identify key geomorphic thresholds (e.g., relationship between channel slope, median particle size, drainage area, critical bank heights in various channel materials, channel response to changes in flow and sediment supply, etc) from a comparison of stable and unstable channels and identify potential hydromodification mitigation solutions based on the results. Tier 3 could also be used to specify potential additional analysis techniques recommended by the HMP for future development applications.

3.3.1 Discussion

Based on the results of Tier 1 and Tier 2, potential management strategies could be formulated that could provide guidance to either mitigate for hydromodification, or provide interim stabilization solutions until a revised equilibrium is achieved. Table 3-2 outlines potential management strategies. This matrix uses results obtained from the SSP analysis (SSP Ratio obtained from Tier 1) and RGA results (Channel Evolution Model [CEM] type, Channel Stability Index [CSI] and Bank Erosion Hazard Index [BEHI] from Tier 2). Table 3-3 provides an alternative form to Table 3-2.

3.3.2 Recommendations

Table 3-2 provides an initial concept of how different mitigation measures could be required depending on the findings of the susceptibility analysis. Recommendations for how to develop the table include:

1. Conduct RGA sampling throughout the County on a range of creeks representing different types and degrees of degradation in order to characterize the range of CEM types.
2. Conduct County-wide sampling of a range of different bank conditions to characterize the range of BEHI values.
3. Create a County-wide susceptibility map in order to characterize the range of SSP ratios for a specified range of hydrology.
4. Provide a range of solutions to mitigate for the proposed hydromodifcation impacts given the results of 1, 2, and 3.
5. Potentially also recommend analysis tools for use in the HMP, from traditional empirical hydrologic approaches to continuous simulation modeling.

Table 3-2. Potential management strategies (version 1)

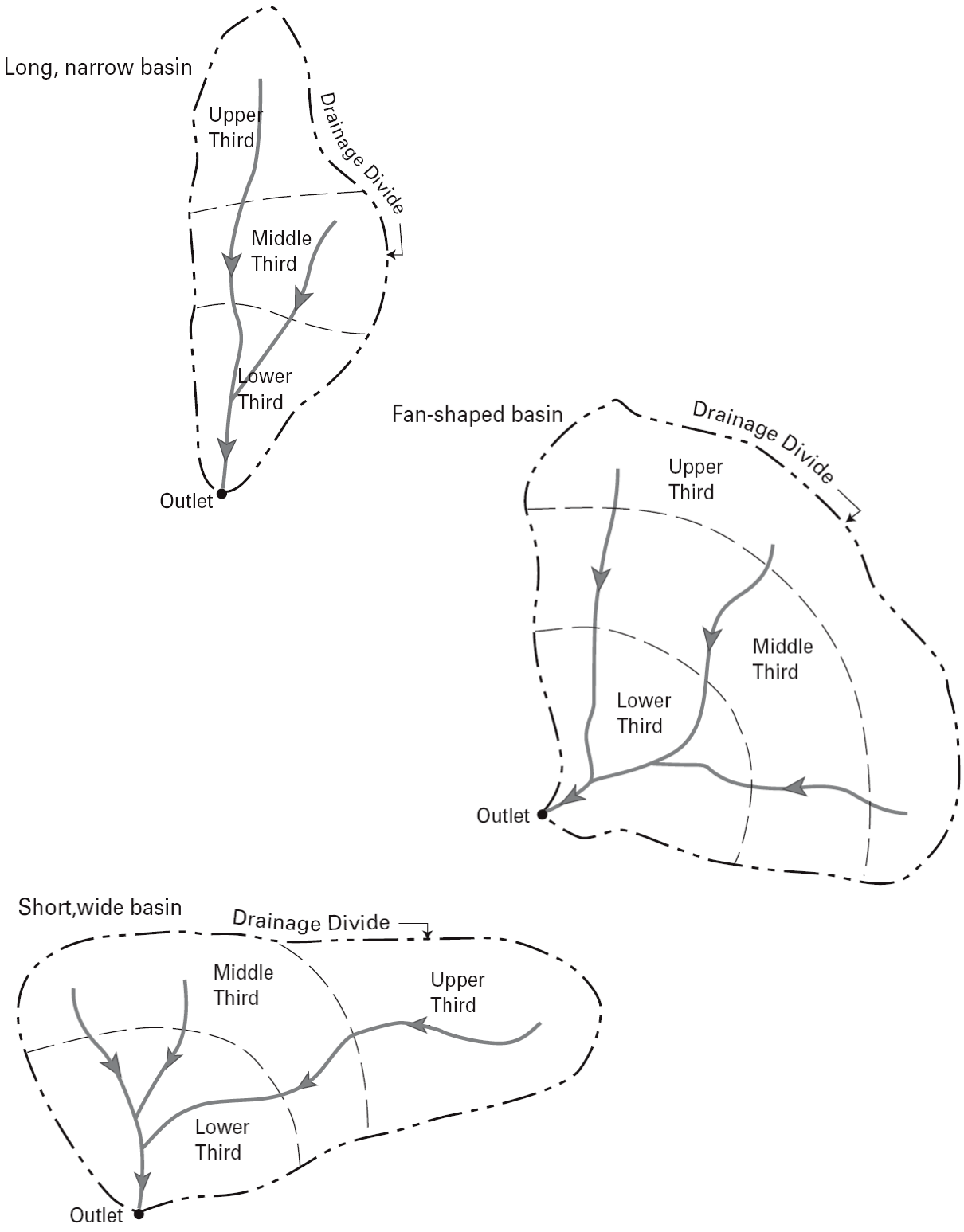
CEM Type[1]	CSI-BEHI Class[2]	SSP Ratio[3]	Management Strategy
I	Values to be determined through detailed assessments through HMP	Values to be determined through detailed assessments through HMP	1. Minimum runoff reduction and setback measures.
I & II			1. Grade control and/or local bank stabilization may be necessary to protect structures, riparian habitat as equilibrium slope is re-established.
III			1. Grade control and/or local bank stabilization may be necessary to protect structures, riparian habitat as equilibrium slope is re-established. 2. Flow duration control. 3. LID measures 4. Combination of 1 through 3.
III & IV			1. Grade control and/or local bank stabilization may be necessary to protect structures, riparian habitat as equilibrium slope is re-established. 2. Flow duration control. 3. LID measures 4. Combination of 1 through 3.
IV & V			1. Local bank stabilization. 2. Habitat enhancement features.

Notes: [1] channel evolution stage per Simon (1989); [2] combined CSI-BEHI classification; [3] for example, ratio of future to existing specific stream power as determined per Section 3.1.

Table 3-3. Potential management strategies (version 2)

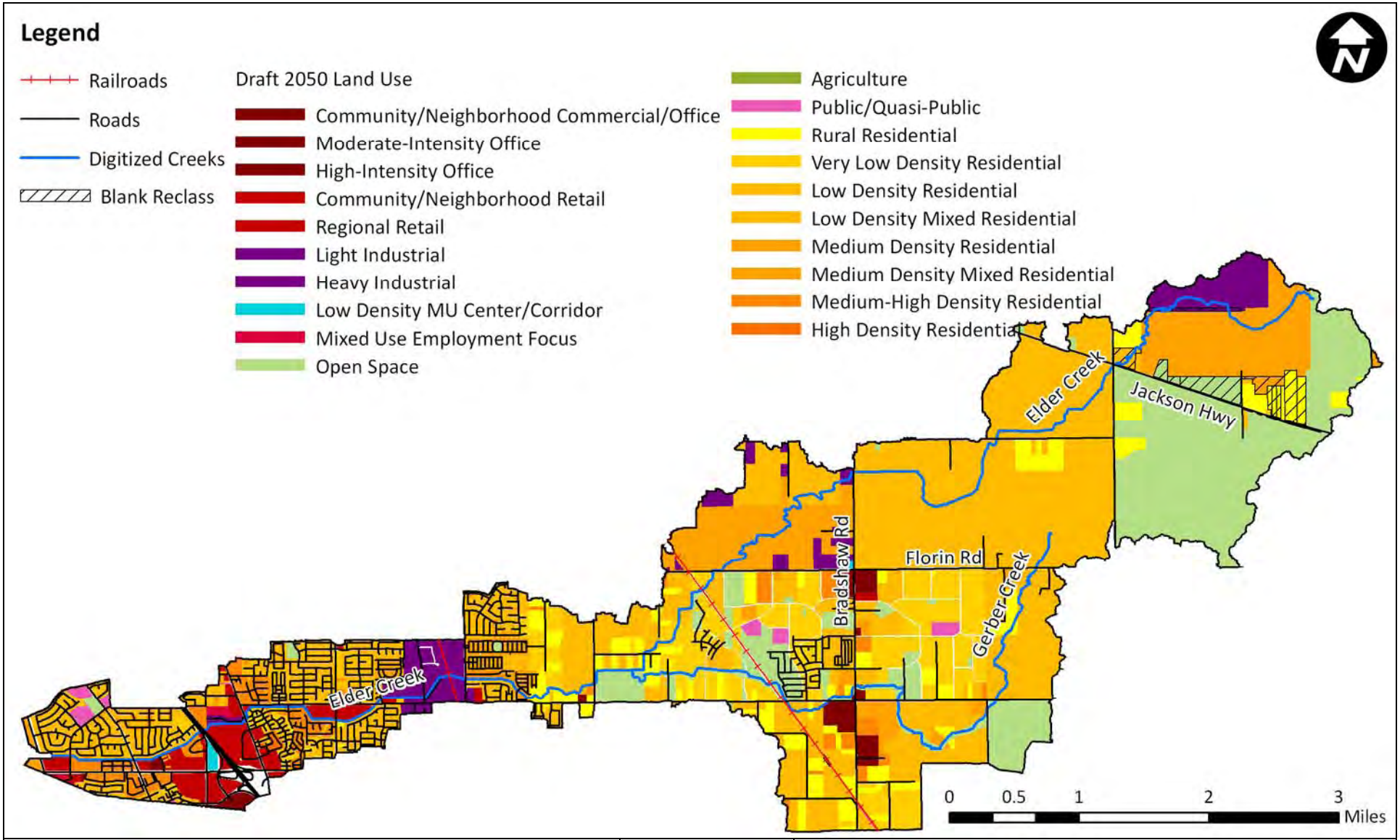
CSI Class	BEHI Class	SSP Ratio Continuum		
		Low	Moderate	High
Stable	Low	1	2,3	2,3,
	Moderate	1,5	2,3,5	2,3,5,6
	High	1,5	2,3,5	2,3,5,6
Transitional	Low	1,4	2,3,4	2,3,4
	Moderate	1,4,5	2,3,4,5	2,3,4,5,6
	High	1,4,5	2,3,4,5	2,3,4,5,6
Unstable	Low	1,4,6	2,3,4,6	2,3,4,6
	Moderate	1,4,5,6	2,3,4,5,6	2,3,4,5,6
	High	1,4,5,6	2,3,4,5,6	2,3,4,5,6

Notes: [1] minimum runoff reduction and setback measures; [2] flow duration control; [3] LID measures; [4] grade control; [5] bank stabilization; [6] habitat enhancement



Notes: adapted from Reis & Crouse (2002)	cbec eco engineering	*Sacramento County HMP – Pilot Applicability and Susceptibility Mapping* **BDF basin shapes and subdivision into thirds**		
		Project No. 07-1006	Created By: CRC	**Figure 3-1**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-1.doc
2/1/2009



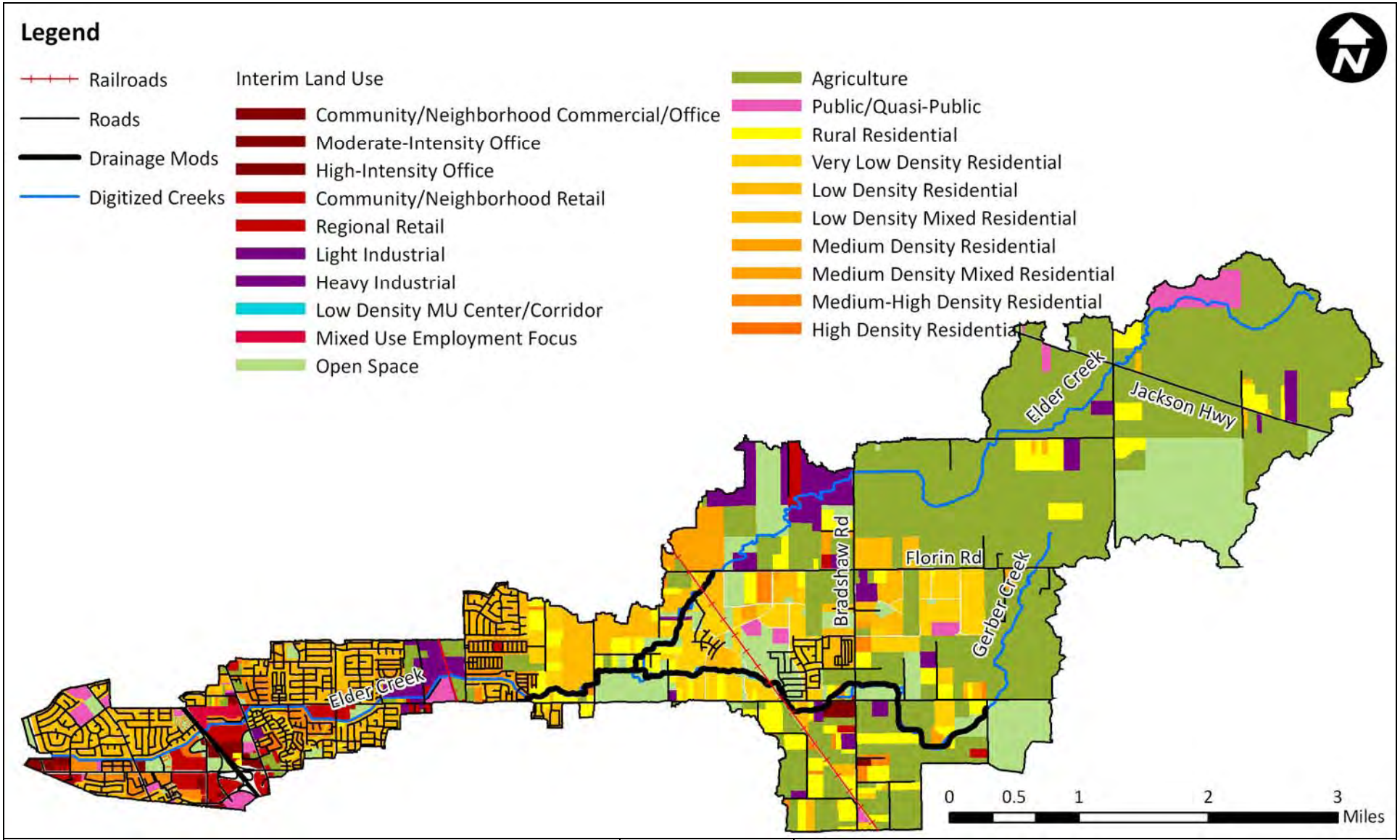
Notes: SACOG draft 2050 Blueprint land use with modifications to reclass blank (or unknown) land uses

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Draft 2050 future land use

Project No. 07-1006 | Created By: CRC | **Figure 3-2**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-2.doc
3/6/2009



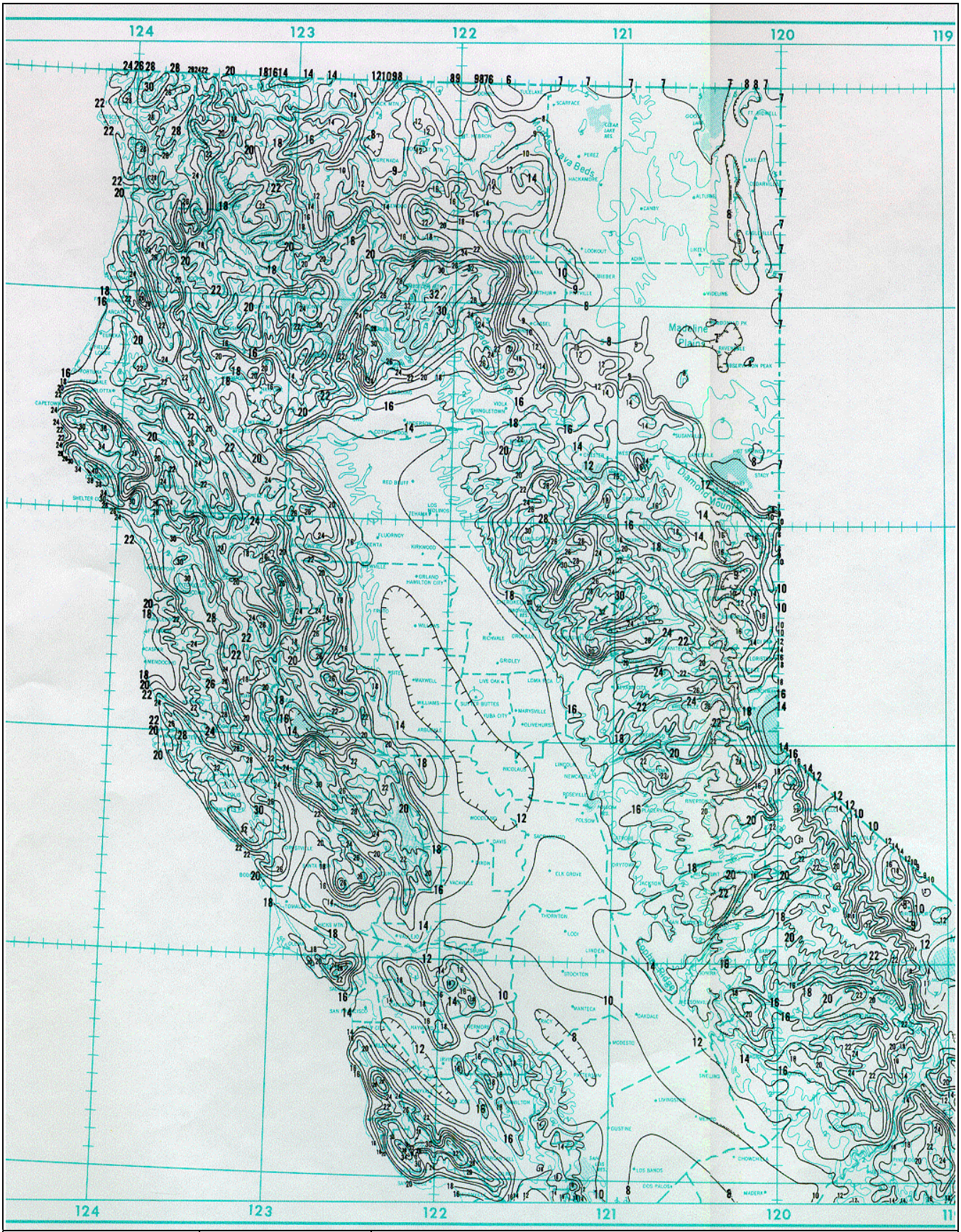
Notes: interim land use defined between 2005 and 2050; modeled after a planned community with permitted drainage modifications shown.

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Interim (planned) land use with permitted drainage

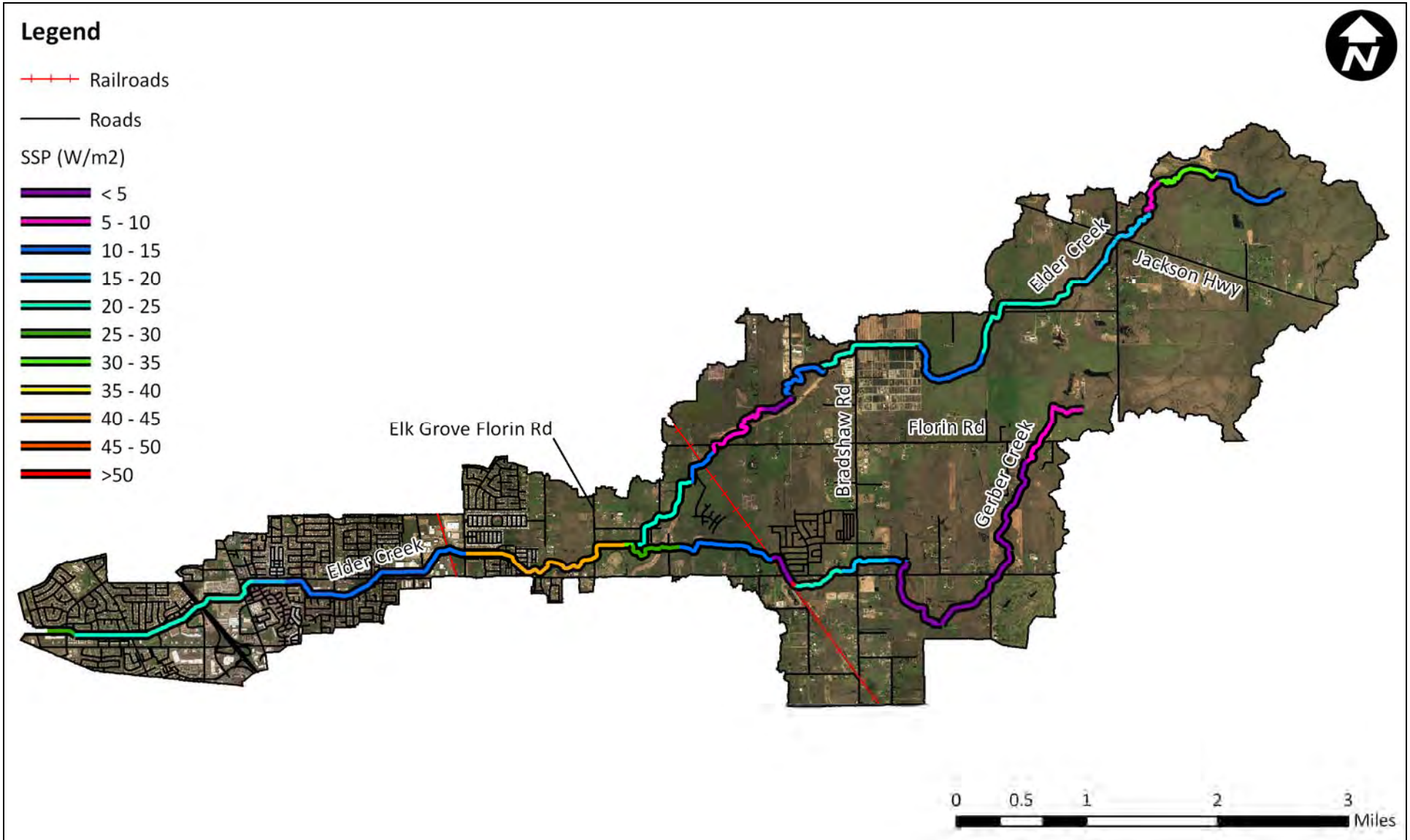
Project No. 07-1006	Created By: CRC	**Figure 3-3**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-3_v2.doc
3/10/2009



Notes: tenths of inches Source: NOAA Atlas 2, Volume 11 (Miller et al., 1973)	cbec eco engineering	*Sacramento County HMP – Pilot Applicability and Susceptibility Mapping* **NOAA Atlas 2 isopluvials for 2-yr 6-hr precipitation**		
		Project No. 07-1006	Created By: CRC	**Figure 3-4**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-4.doc
1/30/2009



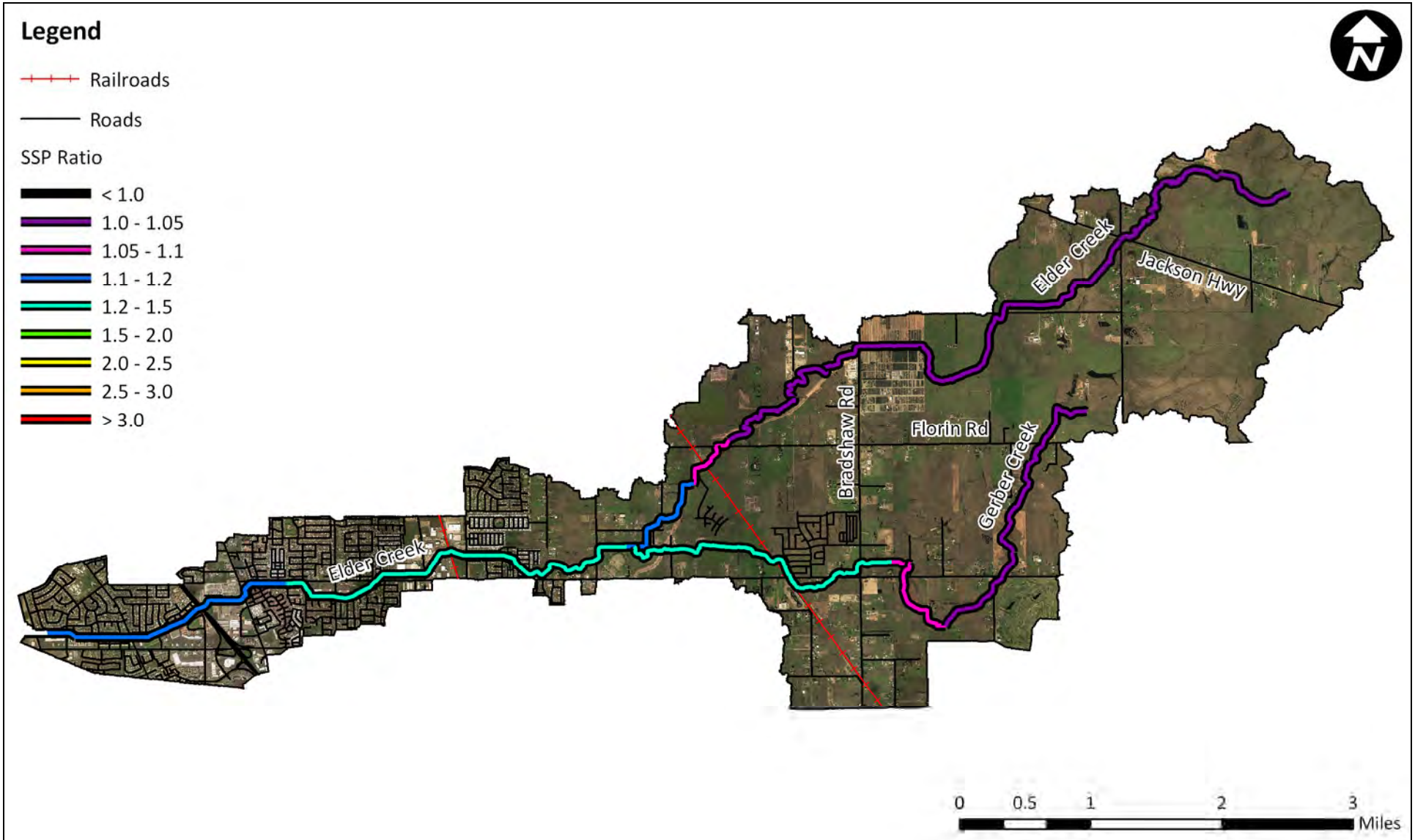
Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Existing conditions (2005) specific stream power

Project No. 07-1006	Created By: CRC	**Figure 3-5**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-5_v2.doc
3/6/2009



Notes:

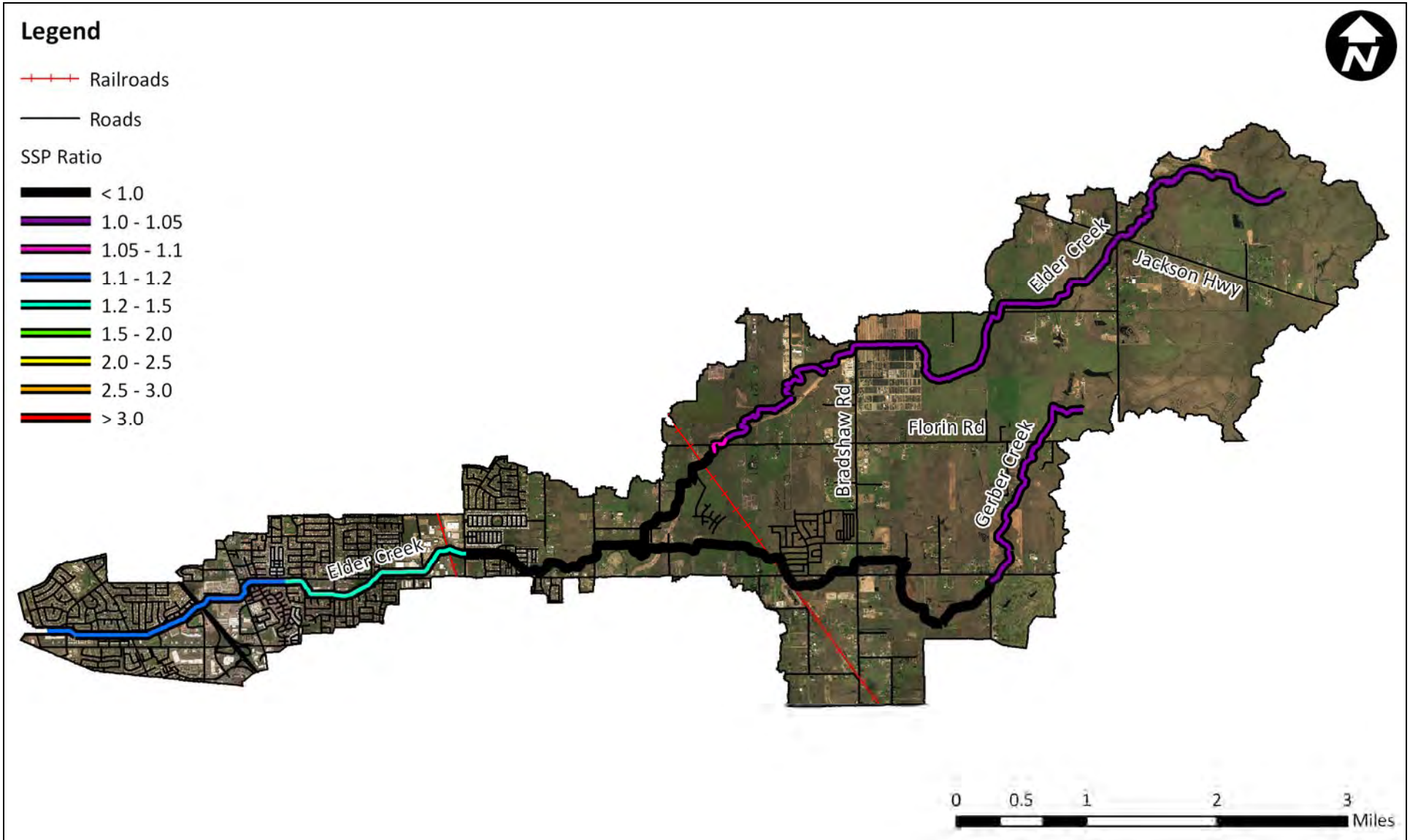
cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Interim (planned) SSP ratio

Project No. 07-1006	Created By: CRC	**Figure 3-6a**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-6_v2a.doc
3/10/2009



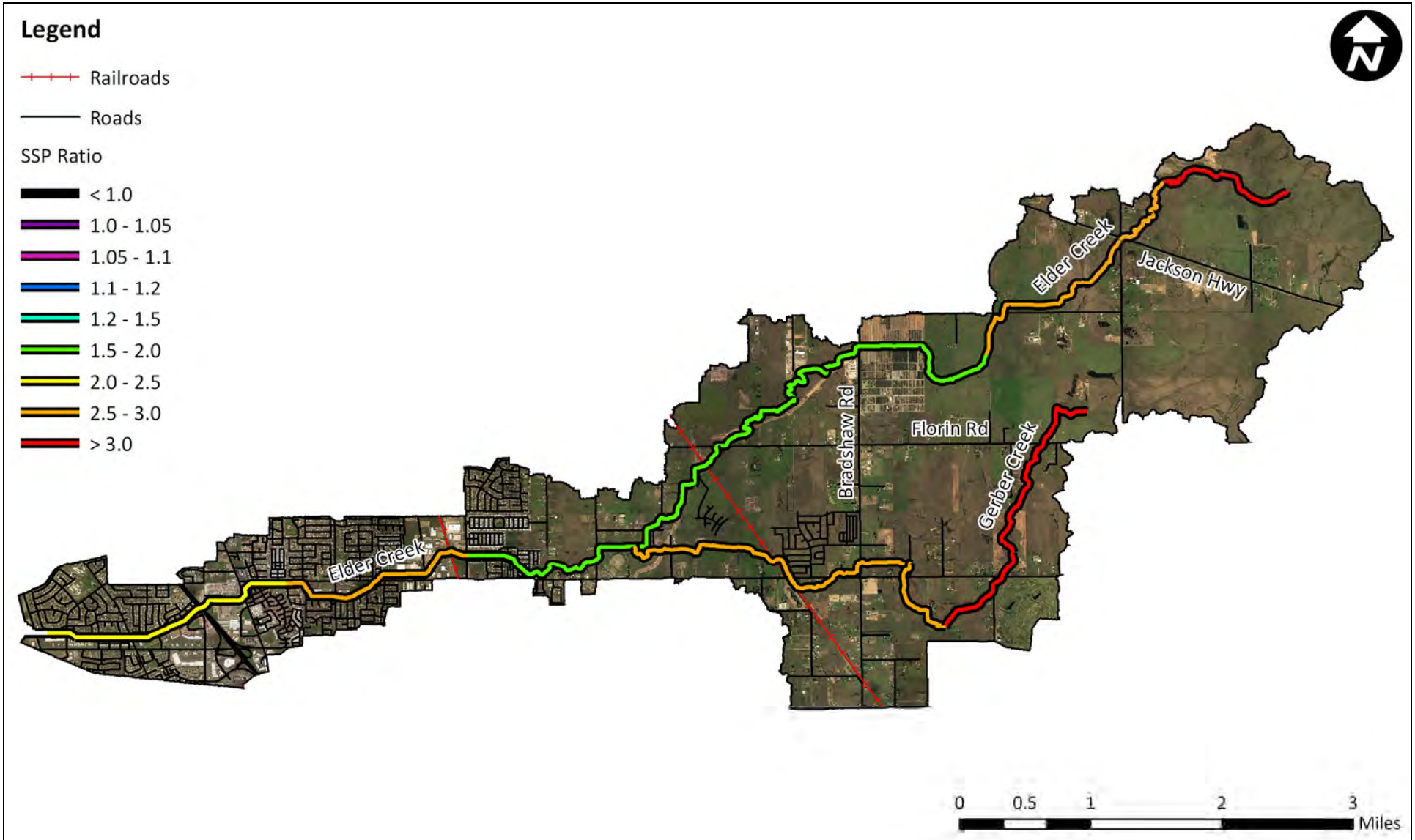
Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Interim (planned) SSP ratio with permitted drainage

Project No. 07-1006	Created By: CRC	**Figure 3-6b**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-6_v2b.doc
3/10/2009



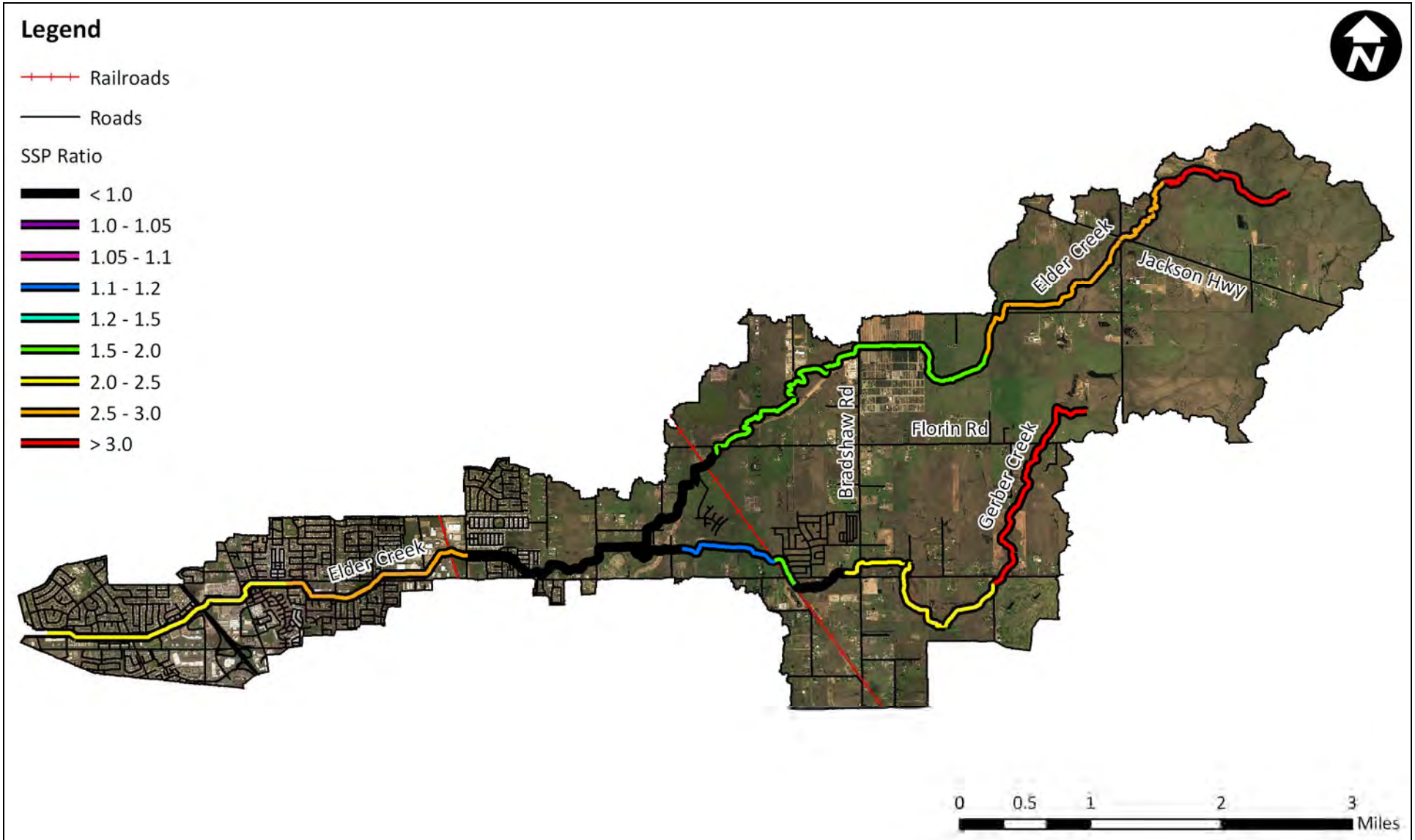
Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Future (2050) SSP ratio

Project No. 07-1006	Created By: CRC	**Figure 3-7a**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-7_v2a.doc
3/10/2009



Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Future (2050) SSP ratio with permitted drainage

Project No. 07-1006	Created By: CRC	**Figure 3-7b**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-7_v2b.doc
3/10/2009

Channel-stability ranking scheme

Station #_____ **Station Description**_____

Date _____ **Crew** _____ **Samples Taken**_____

Pictures (circle) U/S D/S X-section **Slope**_____ **Pattern:** Meandering Straight Braided

1. Primary bed material

Bedrock	Boulder/Cobble	Gravel	Sand	Silt Clay
0	1	2	3	4

2. Bed/bank protection

Yes	No	(with)	1 bank protected	2 banks
0	1		2	3

3. Degree of incision (Relative ele. Of "normal" low water; floodplain/terrace @ 100%)

0-10%	11-25%	26-50%	51-75%	76-100%
4	3	2	1	0

4. Degree of constriction (Relative decrease in top-bank width from up to downstream)

0-10%	11-25%	26-50%	51-75%	76-100%
0	1	2	3	4

5. Streambank erosion (Each bank)

	None	fluvial	mass wasting (failures)
Left	0	1	2
Right	0	1	2

6. Streambank instability (Percent of each bank failing)

	0-10%	11-25%	26-50%	51-75%	76-100%
Left	0	0.5	1	1.5	2
Right	0	0.5	1	1.5	2

7. Established ripirian woody-vegetative cover (Each bank)

	0-10%	11-25%	26-50%	51-75%	76-100%
Left	2	1.5	1	0.5	0
Right	2	1.5	1	0.5	0

8. Occurrence of bank accretion (Percent of each bank with fluvial deposition)

	0-10%	11-25%	26-50%	51-75%	76-100%
Left	2	1.5	1	0.5	0
Right	2	1.5	1	0.5	0

9. Stage of channel evolution

I	II	III	IV	V	VI
0	1	2	4	3	1.5

10. Composition of adjacent side slope (circle)

	N/A	Bedrock	Boulders	Gravel-SP	Fines
Left	0	0.5	1	1.5	2
Right	0	0.5	1	1.5	2

11. Percent of slope (length) contributing sediment

	0-10%	11-25%	26-50%	51-75%	76-100%
Left	0	0.5	1	1.5	2
Right	0	0.5	1	1.5	2

12. Severity of side-slope erosion

	None	Low	Moderate	High
Left	0	0.5	1.5	2
Right	0	0.5	1.5	2

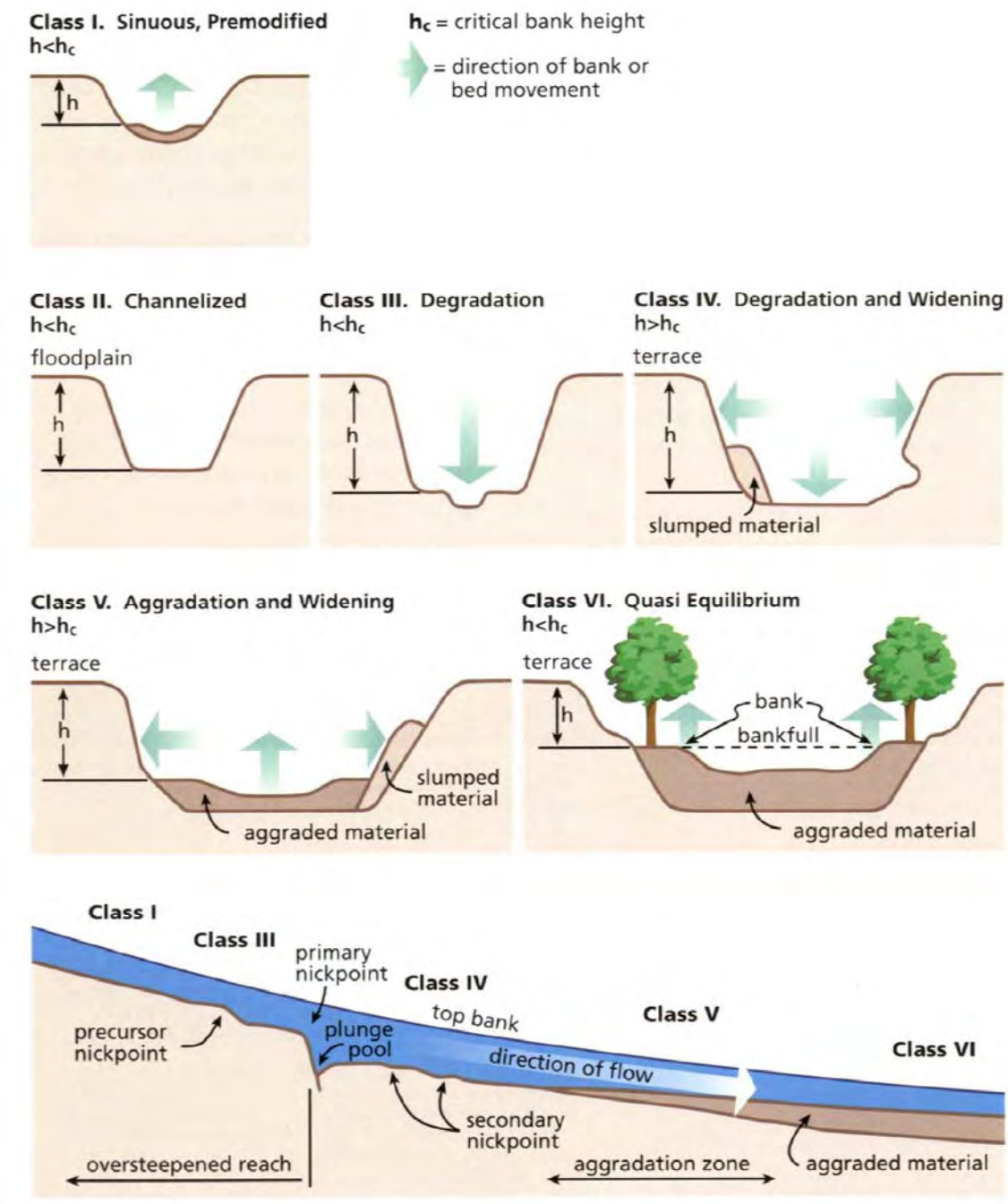
Notes: taken from Simon et al. (2007)

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

RGA channel stability ranking scheme

Project No. 07-1006 | Created By: CRC | **Figure 3-8**



Source: Simon (1989)	cbec eco engineering	*Sacramento County HMP – Pilot Applicability and Susceptibility Mapping* **Simon's channel evolution model**		
		Project No. 07-1006	Created By: CRC	**Figure 3-9**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-9.doc
2/1/2009

FORM/ PROCESS	GEOMORPHIC INDICATOR No.	Description	PRESENT No	Yes	FACTOR VALUE
Evidence of Aggradation (AI)	1	Lobate bar	1		1/7=0.143
	2	Coarse material in riffles embedded		1	
	3	Siltation in pools	1		
	4	Medial bars	1		
	5	Accretion on point bars	1		
	6	Poor longitudinal sorting of bed materials	1		
	7	Deposition in the overbank zone	1		
Evidence of Degradation (DI)	1	Exposed bridge footing(s)	-	-	2/6=0.333
	2	Exposed sanitary/storm sewer/pipeline/etc.	-	-	
	3	Elevated stormsewer outfall(s)	-	-	
	4	Undermined gabion baskets/concrete aprons/etc.	-	-	
	5	Scour pools d/s of culverts/stormsewer outlets	1		
	6	Cut face on bar forms	1		
	7	Head cutting due to knick point migration	1		
	8	Terrace cut through older bar material		1	
	9	Suspended armor layer visible in bank		1	
	10	Channel worn into undisturbed overburden/bedrock	1		
Evidence of Widening (WI)	1	Fallen/leaning trees/fence posts/etc.		1	3/10=0.30
	2	Occurrence of Large Organic Debris		1	
	3	Exposed tree roots		1	
	4	Basal scour on inside meander bends	1		
	5	Basal scour on both sides of channel through riffle	1		
	6	Gabion baskets/concrete walls/armor stone/etc. out flanked	1		
	7	Length of basal scour >50% through subject reach	1		
	8	Exposed length of previously buried pipe/cable/etc.	1		
	9	Fracture lines along top of bank	1		
	10	Exposed building foundation	1		
Evidence of Planimetric Form Adjustment (PI)	1	Formation of cute(s)	1		0/7=0
	2	Evolution of single thread channel to multiple channel	1		
	3	Evolution of pool-riffle form to low bed relief form	1		
	4	Cutoff channel(s)	1		
	5	Formation of island(s)	1		
	6	Thalweg alignment out of phase with meander geometry	1		
	7	Bar forms poorly formed/reworked/removed	1		
STABILITY INDEX (SI) = (AI+DI+WI+PI)/m				SI=	0.19

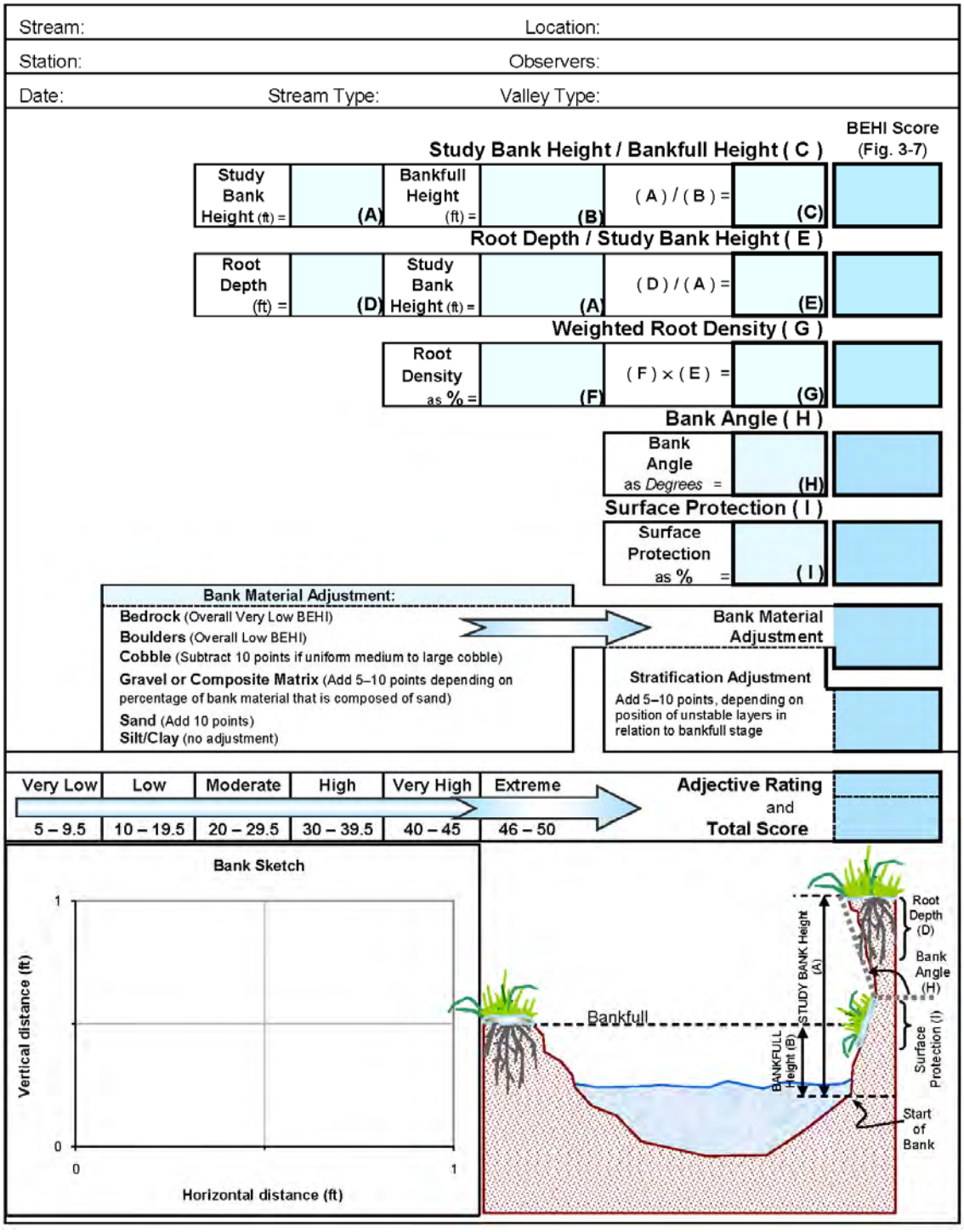
Source: New York State Dept. of Environmental Conservation as adapted from OME (2003)

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

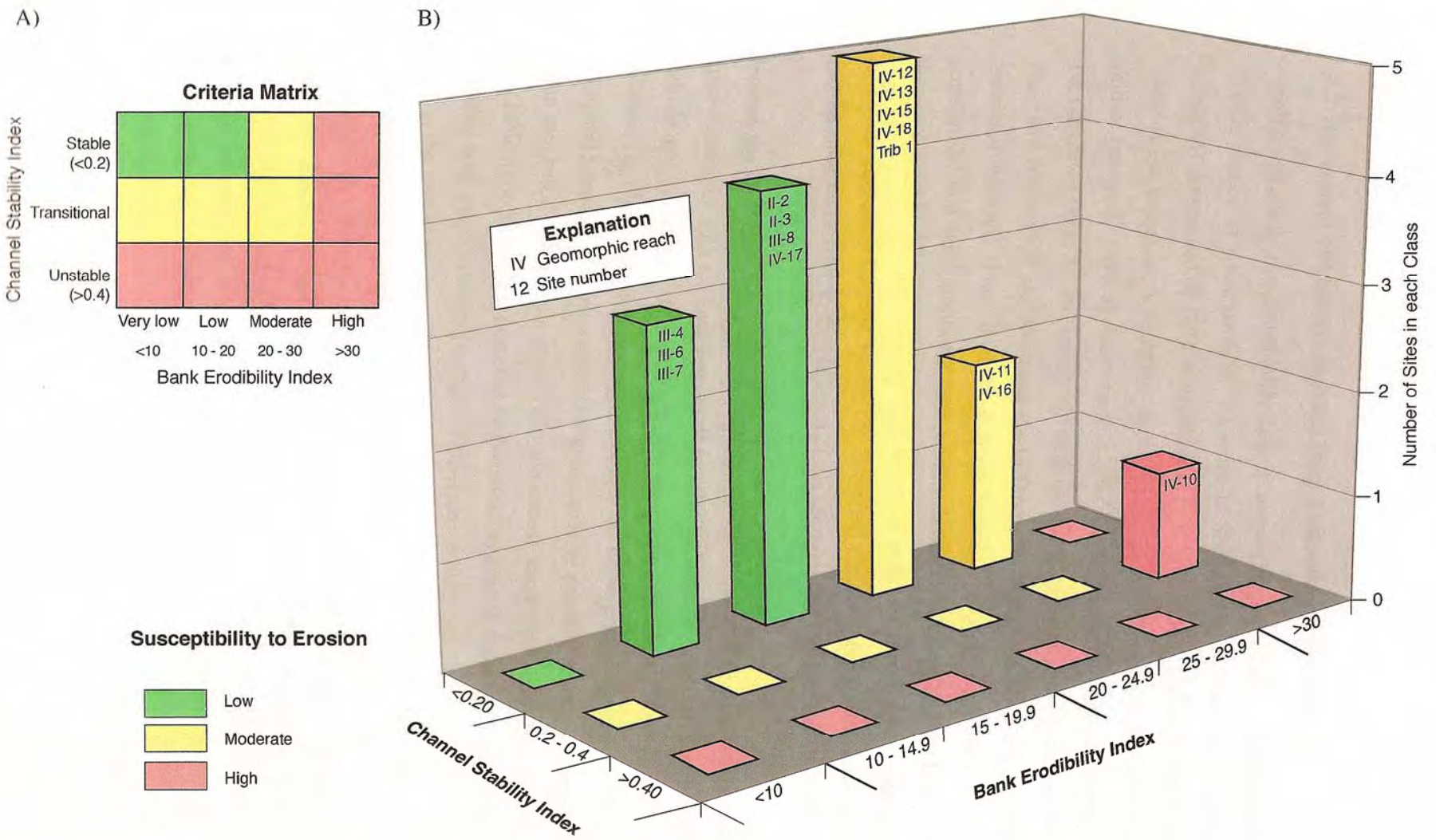
Example channel stability index form

Project No. 07-1006 | Created By: CRC | **Figure 3-10**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-10.doc
2/1/2009



Source: Rosgen (2008)	cbec eco engineering	*Sacramento County HMP – Pilot Applicability and Susceptibility Mapping* **Rosgen BEHI scoring sheet**		
		Project No. 07-1006	Created By: CRC	**Figure 3-11**



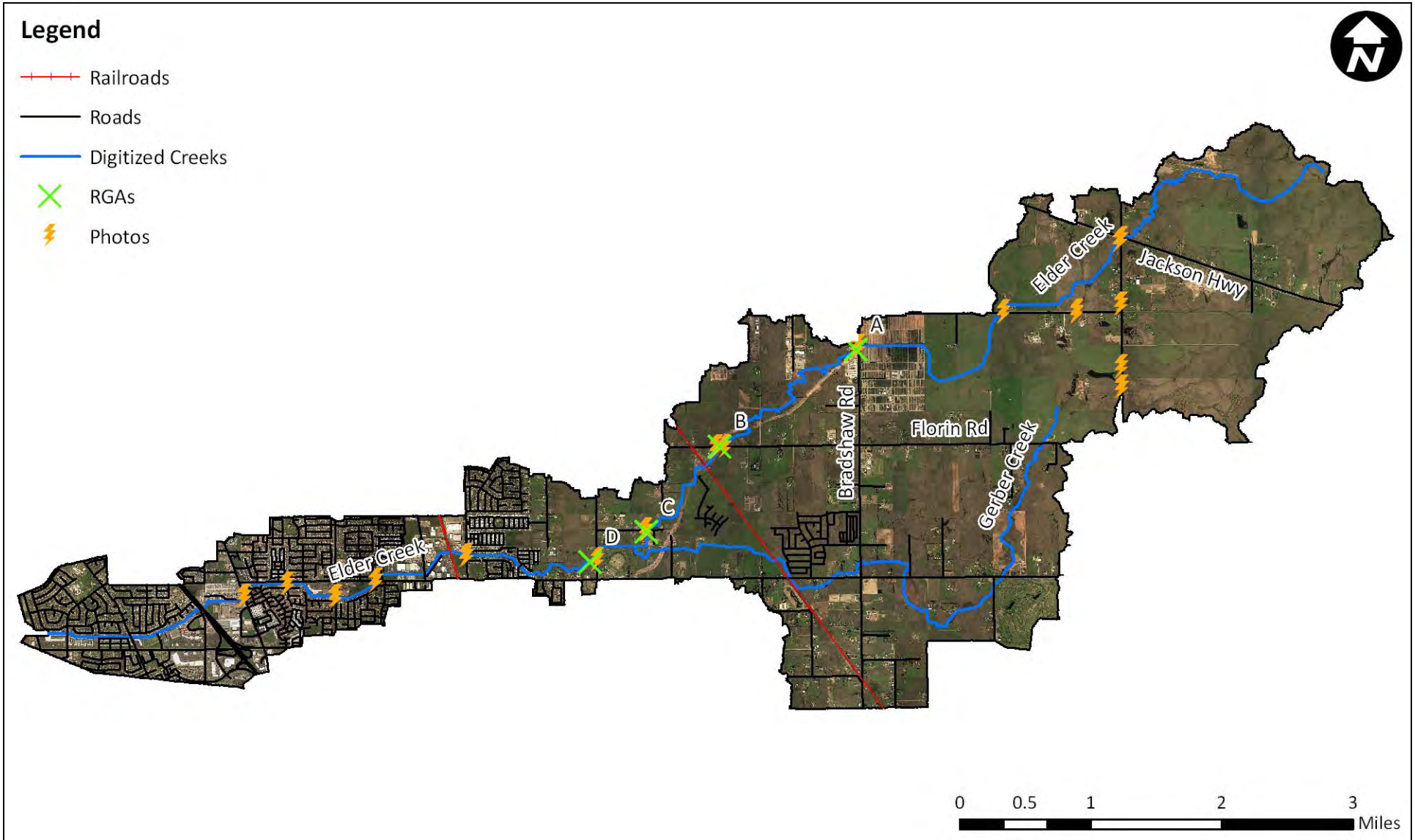
Source: WLA (2006)

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

WLA geomorphic stability index and ULC results

Project No. 07-1006 | Created By: CRC | **Figure 3-12**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-12.doc
2/1/2009



Notes: photos were taken 11/07/08; RGAs were performed on 11/11/08; RGA labels A, B, C, and D refer to Figure 3-14

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Elder Creek RGA locations

Project No. 07-1006 | Created By: CRC | **Figure 3-13**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-13.doc
1/31/2009



Notes: refer to Figure 3-13 for picture location; all photos taken by CBB on 11/07/08 looking downstream

cbec eco engineering

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Elder Creek RGA photos

Project No. 07-1006	Created By: CRC	**Figure 3-14**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig3-14.doc
1/31/2009

4 CONCEPT FOR RISK-BASED DECISION SUPPORT TOOL (DST)

This section describes a concept for a risk-based decision support tool (DST) based on the findings of the applicability and susceptibility work described in Sections 2 and 3. This concept is presented for discussion purposes only; like the rest of this report, it has not been formally adopted for use in the Sacramento HMP.

4.1 CONCEPTUAL DST PROCESS

Figure 4-1 shows a process flowchart which combines elements of the applicability mapping and susceptibility mapping/assessment into a GIS-based DST.

The user of the DST would enter the details of the proposed development (using a graphical user interface (GUI) or web-based interface) such as geographic location, area, density and percent impervious. The DST would then calculate various parameters for watershed conditions based on the proposed development, to compare to the existing conditions, which would already be incorporated into the DST (developed through the HMP). For example, a parameter that could be calculated is the SSP ratio (SSP of proposed development / existing SSP) as described in Section 3. Primarily the applicability mapping, and Tier 1 and Tier 2 of the susceptibility mapping, would be utilized by the DST for this purpose.

The GUI would then show the user whether, based on the results of the analysis, the project would be exempted from HMP requirements or not. If exempted, the user could then proceed directly to finalizing a development application based on other conditions. If not exempted, Tier 3 of the analysis would be implemented which would provide the user guidance about techniques that should be utilized for further analysis, and/or potential guidance on hydromodification mitigation measures. Further in-depth analysis tools could include the use of continuous simulation hydrologic modeling, or empirical hydrologic relationships.

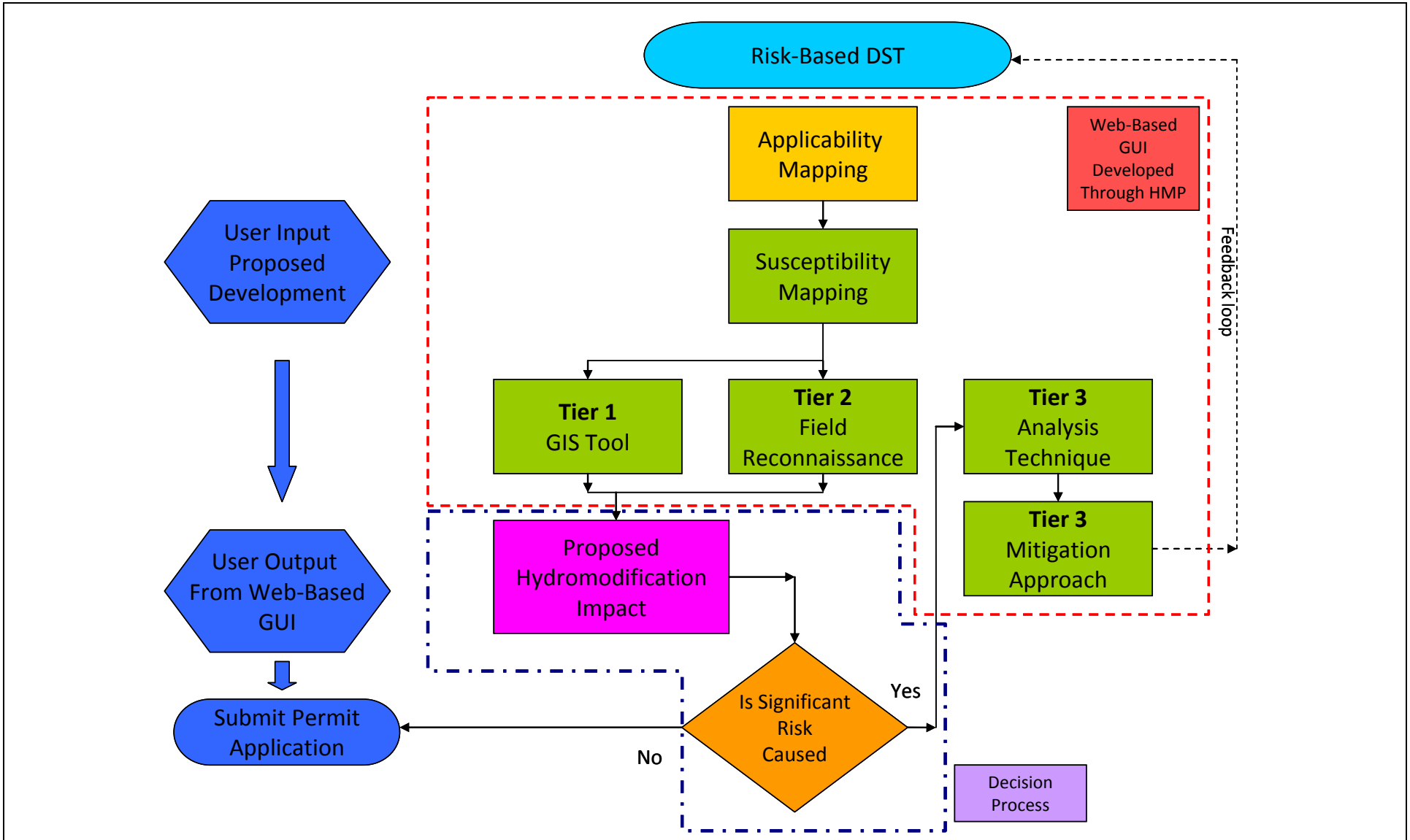
The corresponding reduction in impacts as a result of implementation of the mitigation measures could also be shown through the DST.

Ideally, the DST should be developed as a web-based tool connected to a detailed database housed at a Permittee's offices. This would facilitate readily available evaluation of areas subject to HMPs by planners, engineers and developers. It is anticipated that the DST would be a screening tool and would not be used for thorough analysis for ultimate permit application. The DST would be used in conjunction with additional planning and guidance provided by the permitting agency.

4.2 APPLICATION OF THE DST

Figure 4-2 is a conceptual diagram illustrating how the DST could be used. Insert A of Figure 4-2 shows a hypothetical watershed with a corresponding network of creeks. The color shading of the various creeks

could represent SSP or perhaps some combination of applicability and susceptibility mapping results. Insert B shows a hypothetical view of a new development within the watershed, an input by the user. The corresponding increase in a parameter such as the SSP ratio is also shown in Insert B. The user could then have the opportunity to insert potential conceptual hydromodification mitigation actions, and the DST could provide guidance on these, as shown by Inserts C, D, and E. Typical hydromodification mitigation methods include source control (e.g. LID), flow duration control (FDC), and in-stream controls (e.g., restoration/rehabilitation of the creek channel to improve/enhance environmental conditions). Insert F shows the corresponding reduction in the SSP ratio or the absolute SSP, for example. The objective would be to reduce the SSP to as close to the existing SSP as possible, or an SSP ratio of 1.



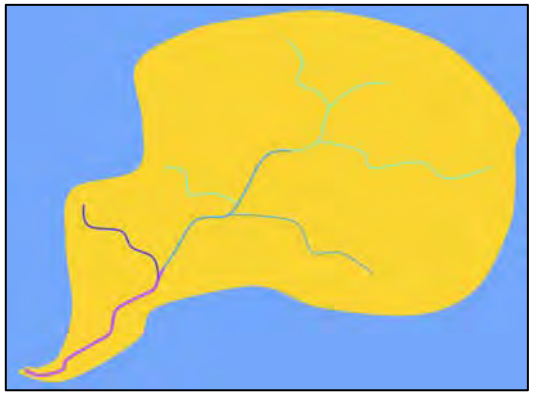
Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

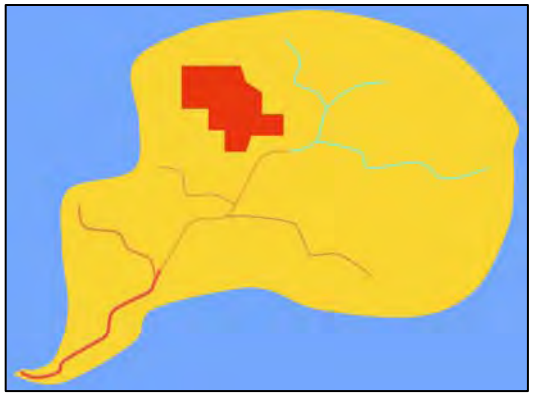
Flow chart for Decision Support Tool

Project No. 07-1006 | Created By: CBB | **Figure 4-1**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig4-1_v2.doc
3/10/2009



Existing watershed in various states of degradation with varying SSPs. Lighter blues = lower SSP, darker blues and purple = higher SSP



Proposed development located in watershed with a corresponding increase in SSP. Orange and red = increasing SSP



Potential options for hydromodification mitigation inserted into DST. Here the green lines represent some form of source control, such as LID / BMPs.



Other options for hydromodification mitigation inserted into DST. Here the blue square represents a flow duration control basin (detention basin modified for HMP).



Third typical option for hydromodification mitigation, in-stream control, inserted into DST. The blue sinuous dashed line represents in-stream control / rehabilitation.



Corresponding reduction in SSP, as a result of the implementation of combinations of hydromodification mitigation actions, calculated by DST.

Notes:

Sacramento County HMP – Pilot Applicability and Susceptibility Mapping

Conceptual diagram for implementation of DST

Project No. 07-1006 | Created By: CBB | **Figure 4-2**

C:\Work\Projects\07-1006_SacCntyHMP\Reporting\Fig4-2.doc
1/31/2009

5 FINDINGS AND RECOMMENDATIONS

The approaches outlined in this report are somewhat new and innovative. However, certain similarities and consistencies exist between the approaches described here and those being developed by the Southern California Coastal Water Research Project (SCCWRP) and Colorado State University. In summary, the following sections highlight key findings from the pilot project and recommendations for development of the Sacramento HMP.

5.1 APPLICABILITY FINDINGS AND RECOMMENDATIONS

Verify that an applicability map is needed as part of the HMP process and select criteria to be used to develop the applicability map (in addition to the criteria specified in the permit). The list of questions provided in Section 2.3.2, and the information summarized in Appendix A for other California programs should be used to guide the selection process. The following should also be considered:

- A reasonable amount of existing data are available for Sacramento County from which suitable GIS layers could be developed for use in applicability mapping (and susceptibility mapping). For some datasets (e.g. creek alignments, land use), additional data manipulation will be required to produce suitable GIS data for this analysis.
- Percent impervious cover (PIC) is not recommended as an applicability criterion for the Sacramento area because it is not a good predictor of urbanized versus undeveloped conditions for this area.

5.2 SUSCEPTIBILITY CONSIDERATIONS

Following the applicability mapping step, susceptibility mapping and assessments should be conducted for creeks in non-exempt areas of the County in order to determine the magnitude and type of mitigation that might be required to address potential hydromodification impacts from future development.

5.2.1 Tier 1 Considerations

As demonstrated here, the specific stream power approach within a GIS framework, based on regional regression techniques and limited to the 2-year recurrence interval flood, is one way to map creek susceptibility to future urbanization. Even though the findings are based only on the 2-year recurrence interval flood and assume no traditional flood detention (surrogate flow), it is put forth as an approximate method for qualifying the susceptibility of creeks to future urbanization due to a range of flows. It should be noted that additional field reconnaissance in the form of geomorphic assessments (Tier 2) will be required to calibrate and validate the GIS tools developed.

Other methodologies, or adaptations to this methodology, should be considered before applying County-wide. Such adaptations may include:

- Refining the regional regression equations to better reflect conditions in the County
- Using the County's event-based rainfall-runoff model SacCalc to provided the flow inputs (as preferred by the County)
- Considering a range of flows to provide for a comparison of approximate flow duration curves
- Quantifying the relationship between the surrogate flow and event-based runoff for adopted developments with traditional detention
- Refining the mapping to show delineations at distinct changes in channel type, geology, existing land use, etc.
- Reasonably limiting the analysis to 1st order streams (as preferred by the County)
- Limiting the study to the Urban Services Boundary (as preferred by the County)
- Using the 2030 General Plan (as preferred by the County)
- Automating or customizing tools to facilitate efficient application of the selected method at the County scale.

5.2.2 Tier 2 Considerations

At the County scale, it will be important to select a RGA method whose diagnostic characteristics are well suited to the variability and underlying geology of the many creeks within the County. The method could be an adaptation of the methods described, or other methods not described, but the method selected will need to produce reliable findings that result in a consistent and defensible stability and/or risk classification scheme, e.g. stable, transitional, and unstable or low, medium, and high. It is anticipated that the classification scheme chosen will need to be calibrated to a representative sample of creeks within the County to find the results meaningful when RGAs are performed County-wide to verify the existing condition findings in Tier 1. As such, careful consideration should be given to select the range of typical Sacramento urban creek conditions in order to bracket potential conditions for susceptibility mapping. However, the field reconnaissance associated with the susceptibility mapping could be relatively labor intensive and hence expensive.

5.2.3 Tier 3 Considerations

In Section 3.3.1, demonstration of Tier 3 was presented as a concept, which could be developed more rigorously through the HMP. Possible recommendations for how to develop the concept are reiterated here:

1. Conduct RGA sampling throughout the County on a range of creeks representing different types and degrees of degradation in order to characterize the range of CEM types.
2. Conduct County-wide sampling of a range of different bank conditions to characterize the range of BEHI values.
3. Create a County-wide susceptibility map in order to characterize the range of SSP ratios for a specified range of hydrology.

5.3 DECISION SUPPORT TOOL CONSIDERATIONS

A screening level decision support tool (DST), within a web-based GIS framework, could be developed for County-wide use by agency staff and the development community to assess the potential degradational risk of receiving waters by a particular proposed development and prescribe the most appropriate potential mitigation solutions for that project. One possible question that will need to be addressed is how the DST will consider the cumulative impact of multiple developments within any one watershed.

5.4 OTHER RECOMMENDATIONS

Development standards for hydromodification management should be effectively integrated with other requirements for flood protection, stormwater quality treatment and runoff reduction.

6 REFERENCES

Bledsoe, B.P., R. Hawley, & E.D. Stein. 2008. Stream Channel Classification and Mapping Systems: Implications for Assessing Susceptibility to Hydromodification Effects in Southern California. Technical Report 562, Southern California Coastal Water Research Project, Westminster, CA.

Bledsoe, B.P. & C.C. Watson. 2000. Regional Risk Analysis of Channel Instability. Proceedings from Watershed Management & Operations Management, American Society of Civil Engineers, Environmental and Water Resources Institute, June 20-24, 2004, Fort Collins, CO.

Coleman, D., C. MacRae, & E.D. Stein. 2005. Effect of Increases in Peak Flows and Imperviousness on the Morphology of Southern California Streams. Technical Report 450, Southern California Coastal Water Research Project, Westminster, CA.

County of Sacramento Department of Water Resources (Co. DWR). 2006. Guidelines for Operating and Maintaining Creek Channels. County of Sacramento, Department of Water Resources, Drainage Operations and Maintenance Section.

Dunne, T. & L.B. Leopold. 1978. Water in Environmental Planning. W.H. Freeman and Company, New York.

Geosyntec Consultants. 2007. A Technical Study of Hydrology, Geomorphology & Water Quality in the Laguna Creek Watershed. Final Report. Oakland, CA.

Hack, J.T. 1957. Studies of longitudinal stream profiles in Virginia and Maryland. U.S. Geological Survey Professional Paper 294B.

Miller, J.F., R.H. Frederick, & R.J. Tracey. 1973. NOAA Atlas 2, Precipitation-Frequency Atlas of the Western United States, Volume XI – California. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, Silver Spring, MD.

Office of Environmental Health Hazard Assessment (OEHHA). 2008. Impervious Surface Coefficients: A Tool for Environmental Analysis and Management. Cal/EPA, OEHHA, Ecotoxicology Program. Online at http://www.oehha.ca.gov/ecotox/isc072208.html.

Ontario Ministry of the Environment (OME). 2003. Stormwater Management Planning and Design Manual, Appendix C. Online at http://www.ene.gov.on.ca/envision/gp/4329e_c.htm.

Rantz, S.E. 1969. Mean Annual Precipitation in the California Region. U.S. Geological Survey Open-File Map (Reprinted 1972).

Reis, K.G. & M.Y. Crouse. 2002. The National Flood Frequency Program, Version 3: A Computer Program for Estimating Magnitude and Frequency of Floods for Ungaged Sites. U.S Geological Survey Water-Resources Investigations Report 02-4168. U.S. Geological Survey, Reston, VA.

Rosgen, D.L. 1996. Applied River Morphology. Wildland Hydrology, Pagosa Springs, CO.

Rosgen, D.L. 2008. River Stability Field Guide. Wildland Hydrology, Pagosa Springs, CO.

Sauer, V.B. 1985. New studies of urban flood frequency in the southeastern United States. In International Symposium Proceedings on Urban Hydrology, Hydraulic Infrastructures and Water Quality Control, July 22-25, 1985, University of Kentucky.

Sauer, V.B., W.O. Thomas Jr., V.A Stricker, & K.V. Wilson. 1983. Flood Characteristics of Urban Watersheds in the United States. U.S. Geological Survey Water-Supply Paper 2207.

Simon, A. 1989. A model of channel response in disturbed alluvial channels. Earth Surface Processes and Landforms 14:11-26.

Simon, A. & P.W. Downs. 1995. An interdisciplinary approach to evaluation of potential instability in alluvial channels. Geomorphology 12:215-232.

Simon, A., M. Doyle, M. Kondolf, F.D. Shields Jr., B. Rhoads, & M. McPhillips. 2007. Critical evaluation of how the Rosgen classification and associated “natural channel design” methods fail to integrate and quantify fluvial processes and channel response. Journal of the American Water Resources Association 43(5):1117-1131.

Southern California Coastal water Research Project (SCCWRP). April 2008. Technical report 562: Stream Channel Classification and Mapping Systems: Implications For Assessing Susceptibility To Hydromodification Effects In Southern California.

Waananen, A.O. & J.R. Crippen. 1977. Magnitude and Frequency of Floods in California. U.S. Geological Survey, Water-Resources Investigations 77-21.

William Lettis & Associates (WLA). 2006. Upper Laguna Creek Hydro-Geomorphic Stability Analysis. Prepared for County of Sacramento Department of Water Resources.

7 ACKNOWLEDGEMENTS

We acknowledge the vital support of the following people, in alphabetical order:

- Alison Tucker, Tucker and Associates – for document editing.
- Barbara Washburn, Office of Environmental Health Hazard Assessment – for assistance with the calculation of percent impervious coefficients.
- Brian Bledsoe, Colorado State University – for technical review of the applicability and susceptibility DST pilot.
- Carmel K. Brown, P.E., CKB Environmental Consulting, Inc. – for project oversight and direction.
- Dalia Fadl, Sacramento County DWR – for project management, and technical review of the applicability and susceptibility DST pilot.
- Eric Berntsen, Sacramento Water Resources Control Board – for technical review of the applicability and susceptibility DST pilot, and for the review of existing HMPs.
- Eric Stein, Southern California Coastal Water Research Project – for technical review of the applicability and susceptibility DST pilot.
- Kerry Schmitz, Sacramento County DWR – for project oversight and direction.
- Michael Johnson, Sacramento County DWR – for data support, and technical review of the applicability and susceptibility DST pilot.
- Matt Yaeger, San Bernadino County – for technical review of the applicability and susceptibility DST pilot.

8 APPENDIX A

- Select Hydromodification Plans/Permits
- Alameda County Applicability Map
- San Mateo County Applicability Map
- Santa Clara County Applicability Map

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
Alameda	10,000 square feet or more impervious surface (new development and re-development) When a re-development project results in an increase of more than 50% impervious surface, the entire project is subject to hydromodification criteria.	Range of flows to control: Post-project flow rates and durations = pre-project flow rates and durations from 10 % of the pre-project Q2 to the pre-project Q10 Goodness of fit: Post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of the length of the curve corresponding to the range of flows to control. Allowable flow rate (Qcp): Qcp ≥10 % Q2 if modified value is substantiated by analysis of actual channel resistance (cannot exceed 50% Q2)	Applicability map provided by county Applicable Projects:: - hilly areas, high slopes (>25%) - projects that discharge to channel reaches where there is concern of bank instability, sensitive habitat, or restoration - land area between the hills and the tidal zone where there are not direct discharges to tidally-influenced waterbodies	Bay Area Hydrology Model (BAHM)	Required to the "maximum extent practicable". LID is also referred to as hydrologic source controls	Required. Must use continuous simulation model to demonstrate compliance.	Cannot reconfigure stable stream channel to accommodate post-project flow regime. Must use flow duration control even if channel is degraded prior to development	Projects that result in no net increase in impervious surface Projects where runoff will flow through enclosed storm drains, existing concrete culverts, or fully hardened (with bed and banks continuously concrete-lined) channels to SF Bay Projects that discharge directly to channels that are tidally influenced or primarily depositional. Projects can be exempt from hydromod criteria if there is no alternative stormwater treatment retrofit, hydromod

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
								retrofit, regional hydromod control, or instream option. Projects must employ LID and storm water treatment controls, however.
Contra Costa	10,000 square feet or more impervious surface (new development and re-development) When a re-development project results in an increase of more than 50% impervious surface, the entire project is subject to hydromodification criteria.	Range of flows to control: Post-project flow rates and durations = pre-project flow rates and durations from 10 % of the pre-project Q2 to the pre-project Q10 Goodness of fit: Post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of the Length of the curve corresponding to the range of flows to control. For flow rates from	No applicability map. Risk based approach to determine whether projected increases in runoff peaks and durations will accelerate erosion of receiving stream reaches.	USEPA's Hydrograph Simulation Program—Fortran (HSPF)	Preferred approach. LID is also referred to as hydrologic source controls. LID is accounted for in the HSPF-based sizing calculators that are used to demonstrate compliance with the hydromod criteria. In addition, no net increase in impervious area demonstrates compliance with hydromod	Used in HSPF-based sizing calculators and necessary if developer does not use LID measures. May be used if developer will mitigate erosion through instream options	Can reconfigure stable stream channel to accommodate post-project flow regime. Medium and High risk projects may restore stream to fully mitigate potential risk.	Projects where runoff will flow through enclosed storm drains, existing concrete culverts, or fully hardened (with bed and banks continuously concrete-lined) channels to SF Bay Projects that discharge directly to channels that are tidally influenced or primarily depositional.

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
		0.5Q2 to Q2, the post-project peak flows shall not exceed pre-project peak flows. For flow rates from Q2 to Q10, post-project peak flows may exceed pre-project flows by up to 10% for a 1-year frequency interval. For example, post-project flows could exceed pre-project flows by up to 10% for the interval from Q9 to Q10 or from Q5.5 to Q6.5, but not from Q8 to Q10.			criteria			
San Diego	One acre or more impervious surface, 5000 square feet or more impervious surface for commercial, retail gas outlet, single family homes on steep slopes, etc.	Maintain magnitude and duration of post project flows to pre project flows: Interim Criteria: Match 5-year storm hydrograph-taking sediment supply into account	May be in HMP.	HSPF	Strongly encouraged. County has produced LID manual	Part of HMP	Part of HMP	Part of HMP
San Mateo	10,000 square feet or more impervious surface (new development and re-development) When a re-development project	An erosion potential (Ep) of up to 1.0 shall be maintained for creek segments downstream of the discharge point. Off-site control	Applicability map provided by county Shows exempt areas (areas with hardened channels to SF Bay, etc.)	BAHM	Required to the "maximum extent practicable". LID is also referred to as hydrologic source controls	Required. Must use continuous simulation model to demonstrate compliance.	Cannot reconfigure stable stream channel to accommodate post-project flow regime.	Projects that result in no net increase in impervious surface Projects where runoff will flow

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
	results in an increase of more than 50% impervious surface, the entire project is subject to hydromodification criteria.	measures E_p= 1.0 or less from the point of discharge to the creek. Use flow duration controls (FDC) Post-project flow rates and durations = pre-project flow rates and durations from 10 % of the pre-project Q2 to the pre-project Q10. Goodness of fit Post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of the length of the curve corresponding to the range of flows to control. Allowable flow rate (Qcp): Qcp ≥10 % Q2 if modified value is substantiated by analysis of actual channel resistance (cannot exceed 50%					Must use flow duration control even if channel is degraded prior to development	through enclosed storm drains, existing concrete culverts, or fully hardened (with bed and banks continuously concrete-lined) channels to SF Bay Projects that discharge directly to channels that are tidally influenced or primarily depositional. Projects can be exempt from hydromod criteria if there is no alternative stormwater treatment retrofit, hydromod retrofit, regional hydromod control, or instream option. Projects must employ LID and storm water treatment

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
		Q2)						controls, however.
Santa Clara	10,000 square feet or more impervious surface (new development and re-development) in applicable areas. When a re-development project results in an increase of more than 50% impervious surface, the entire project is subject to hydromodification criteria. Applicable areas: - area less than or equal to 65% impervious - catchments and subwatersheds that are less than 65% impervious	Range of flows to control Flow rates for pre-development and post-development = velocity, must maintain a minimum velocity for full and half full flow. Depending on the pipe diameter and the slope, percent. Post-project flow rates and durations = pre-project flow rates and durations from 10 % of the pre-project Q2 to the pre-project Q10. Goodness of fit Post-project flow duration curve shall not deviate above the pre-project flow duration curve by more than 10% over more than 10% of the length of the curve corresponding to the range of flows to control.	Projects found in areas of HM applicability; applicability map provided by county. Based on impervious area. Applicable areas: - area less than or equal to 65% impervious - catchments and subwatersheds that are less than 65% impervious	BAHM	Required to the "maximum extent practicable". LID is also referred to as hydrologic source controls	Required. Must use continuous simulation model to demonstrate compliance.	Cannot reconfigure stable stream channel to accommodate post-project flow regime. Must use flow duration control even if channel is degraded prior to development	Projects that result in no net increase in impervious surface Projects where runoff will flow through enclosed storm drains, existing concrete culverts, or fully hardened (with bed and banks continuously concrete-lined) channels to SF Bay Projects that discharge directly to channels that are tidally influenced or primarily depositional. Projects can be exempt from hydromod criteria if there is no alternative stormwater

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
		Allowable flow rate (Qcp): Qcp ≥10 % Q2 if modified value is substantiated by analysis of actual channel resistance (cannot exceed 50% Q2)						treatment retrofit, hydromod retrofit, regional hydromod control, or instream option. Projects must employ LID and storm water treatment controls, however.

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
San Bernardino	One acre or more impervious surface, 5000 square feet or more impervious surface for commercial, retail gas outlet, single family homes on steep slopes, etc.	Consider flows and volumes from 5, 2, and 1 year return period storms. Estimate pre-and post-project soil loss. Tiered, risk-based approach. More detailed analysis required if flow and sediment supply changes will lead to undesirable channel response.	Applicability Mapping based on presence/absence of hardened channels, etc.	Part of HMP. May be event-based for low risk projects, continuous simulation for high risk projects.	Strongly encouraged. County is developing LID manual	Part of HMP.	Part of HMP	Part of HMP

Selected Hydromodification Plans/Permits (prepared by State Water Resources Control Board Stormwater Section)

County	Hydromodification Triggers	Hydromodification Criteria	Applicability Mapping	Hydrology Model	LID	Flow Duration Control	Instream Options	Exemptions
Ventura	One acre or more impervious surface, 5000 square feet or more impervious surface for commercial, retail gas outlet, single family homes on steep slopes, etc.	Interim Criteria: Match 2 year, 24-hour storm within 1 % Permittee must determine range of flows to achieve Ep of 1.0 5% Effective Impervious Area Requirement	No applicability mapping	No model specified. Continuous simulation needed to determine range of erosive flows.	Requires preferential consideration Permittee must develop manual and design criteria	Part of HMP	Part of HMP	Less than 1 acre impervious, less than 5000 sf for commercial, retail gas outlet, single family homes not on steep slopes Ep can be greater than 1 if it can be demonstrated that there is no impact.
Santa Rosa	One acre or more impervious surface, 5000 square feet or more impervious surface for commercial, retail gas outlet, single family homes on steep slopes, etc.	Interim Criteria: Match 2 year, 24-hour storm within 1 % Permittee must determine range of flows to determine protective Ep	Part of HMP	No model specified. Continuous simulation needed to determine range of erosive flows.	Requires preferential consideration Permittee must develop manual and design criteria	Part of HMP	Part of HMP	Less than 1 acre impervious, less than 5000 sf for commercial, retail gas outlet, single family homes not on steep slopes

The areas of HM applicability in Alameda County are shown on the map[14] below. To assist location and evaluation of project applicability, the susceptibility map depicts a number of features including:

- hardened channels and culverts at least 24 inches in diameter (green solid or dashed lines);
- natural channels (red lines);
- boundaries of major watersheds (light blue lines); and
- surface streets and highways (gray or black ~~pink~~ lines).

These data are of varying age, precision and accuracy and are not intended for legal description or engineering design. Watersheds extending beyond the County boundaries are shown for illustration purposes only. Project proponents are responsible for verifying and describing actual conditions of site location and drainage.

The map is color-coded as follows:

Solid pink areas: Solid pink designates hilly areas, where high slopes (greater than 25%) occur. The HM Standard and all associated requirements apply in areas shown in solid pink on the map. In this area, the HM Standard does *not* apply if a project proponent demonstrates that all project runoff will flow through enclosed storm drains, existing concrete culverts, or fully hardened (with bed and banks continuously concrete-lined) channels to the tidal area shown in light gray.

Purple/red hatched areas: These are upstream of areas where hydromodification impacts are of concern due to factors such as bank instability, sensitive habitat, or restoration projects. The HM Standard and all associated requirements apply in areas shown in purple/red (printer-dependant) hatch marking on the map. Projects in these areas may be subject to additional agency reviews related to hydrologic, habitat or other watershed-specific concerns.

Solid white areas: Solid white designates the land area between the hills and the tidal zone. This area may be susceptible to hydromodification unless the site is connected to storm drains that discharge to the tidal area. The HM Standard and all associated requirements apply to projects in solid white areas ***unless*** a project proponent demonstrates that all project runoff will flow through fully hardened channels[15]. Short segments of engineered earthen channels (length less than 10 times the maximum width of trapezoidal cross-section) can be considered resistant to erosion if located downstream of a concrete channel of similar or greater length and comparable cross-sectional dimensions. Plans to restore a hardened channel may affect the HM Standard applicability in this area.

Solid gray areas: Solid gray designates areas where streams or channels are tidally influenced or primarily depositional near their outfall in San Francisco Bay. The HM Standard does not apply to projects in this area. Plans to restore a hardened channel may affect the HM Standard applicability in this area.

Dark gray, Eastern County area: Dark gray designates the portion of eastern Alameda County that lies outside of the discharge area of this NPDES permit. This area is in the Central Valley Regional Water Quality Control Board's jurisdiction.

[14] The watercourses potentially susceptible to hydromodification impacts are identified based on an assessment approach developed by Balance Hydrologics (2003).

[15] In this paragraph, "fully hardened channels" include enclosed storm drains, existing concrete culverts, or channels whose bed and banks are continuously concrete-lined to the tidal area shown in light gray on the map.

Potential Exceptions to Map Designations

The Program may choose to prepare a User Guide[16] to be used for evaluating individual receiving waterbodies using detailed methods to assess channel stability and watercourse critical flow. This User Guide would reiterate and collate established stream stability assessment methods that have been presented in the Program's HMP.[17] After the Program has collated its methods into User Guide format, received approval of the User Guide from the Executive Officer,[18] and informed the public through such process as an email list-serve, the User Guide may be used to guide preparation of technical reports for: implementing the HM standard using in-stream or regional measures as described in C.3.f.viii above; determining whether certain projects are discharging to a watercourse that is less susceptible (from point of discharge to the Bay) to hydromodification (e.g., would have a lower potential for erosion than set forth in these requirements); and/or determining if a watercourse has a higher critical flow and project(s) discharging to it are eligible for an alternative Qcp for the purpose of designing onsite or regional measures to control flows draining to these channels (i.e., the actual threshold of erosion-causing critical flow is higher than 10% of the 2-year pre-project flow). In no case shall the design value of Qcp exceed 50% of the 2-year pre-project flow.

[16] The User Guide may be offered under a different title.
[17] The Program's HMP has undergone Water Board staff review and been subject to public notice and comment.
[18] The User Guide will not introduce a new concept, but rather reformat existing methods; therefore, Executive Officer approval is appropriate. See also Finding 6.

Attachment A:
HMP susceptibility map

Alameda Countywide
Clean Water Program
November 13, 2006

LEGEND (see text also)

- Major highways
- Major watersheds
- County boundary
- Streets

Channel type

- Natural creek or stream (susceptible)
- Earthen channel or connector
- Engineered channel - materials unknown
- Engineered channel - concrete
- Enclosed pipe or culvert

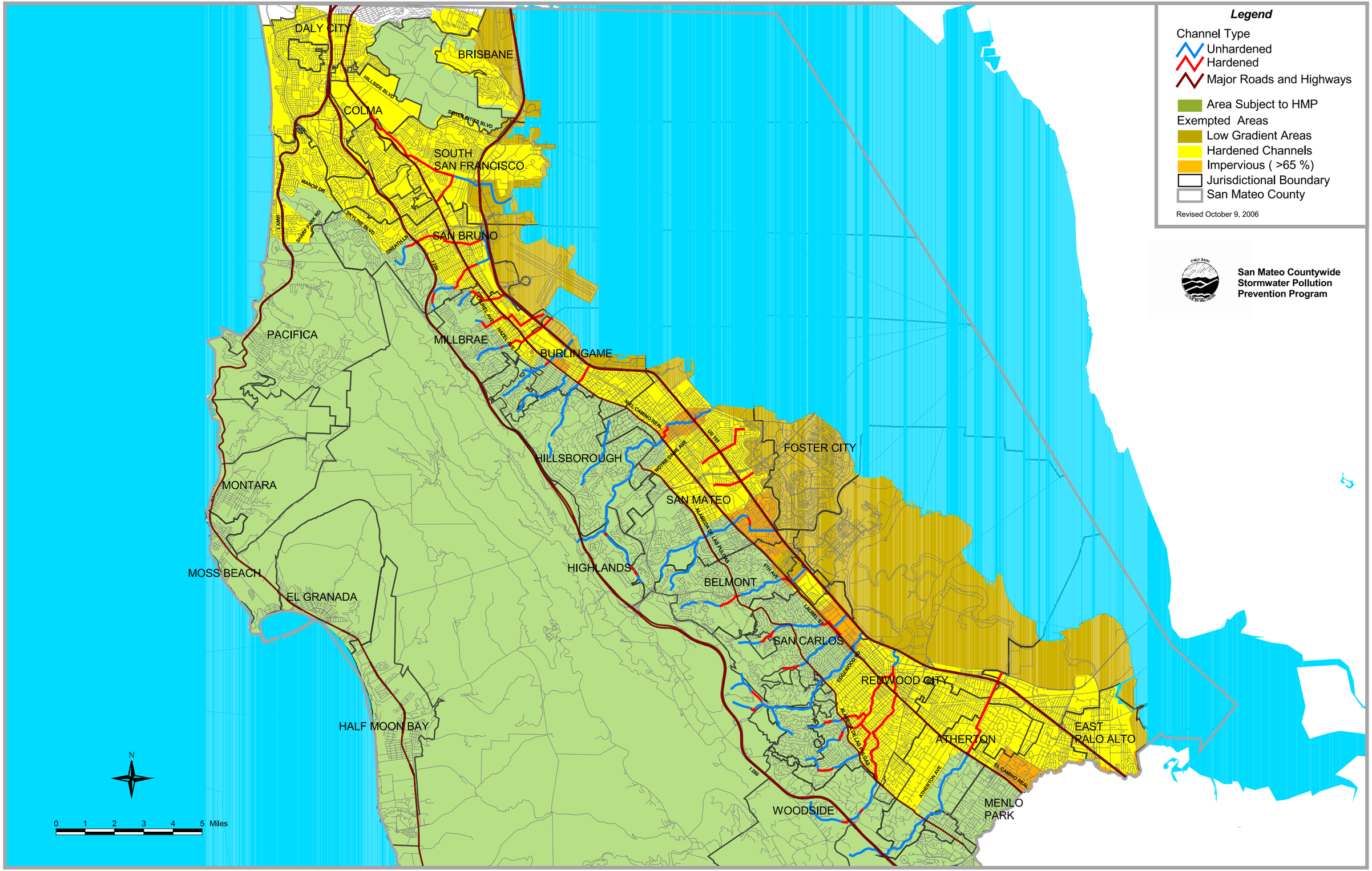
- Special consideration - San Lorenzo & Alameda Creeks
- Special consideration - Codornices Creek
- Hill or high slope region (susceptible)
- Tidally influenced / depositional - exempt
- Not included in HMP

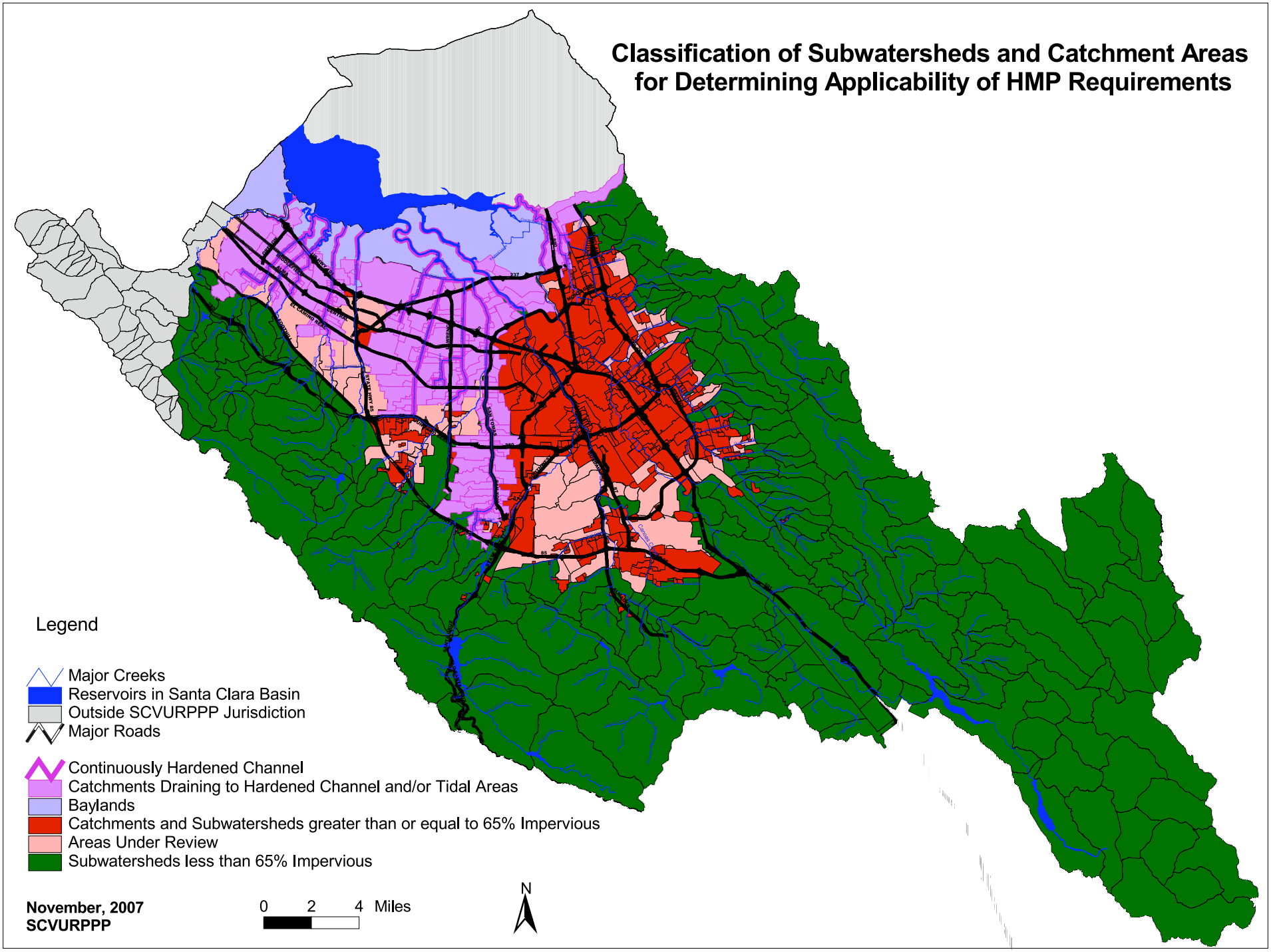
Data sources:
Alameda County Flood Control and Water Conservation District; ACCWP;
Zone 7 Water Agency; U.S. Census Bureau; U.S. Geological Survey;
William Lettis Associates (Oakland Museum creek and watershed mapping project);
Balance Hydrologics and EIP Associates (Proposed test of the approach for the ACCWP HMM Preliminary Map, July 2003)

N
W E
S

2 0 2 4 6 Miles

Contra Costa County
Alameda County
Contra Costa County
Alameda County
Alameda County
Santa Clara County
Alameda County
Santa Clara County
Alameda County
San Joaquin County


Legend
Channel Type
Unhardened
Hardened
Major Roads and Highways
Area Subject to HMP
Exempted Areas
Low Gradient Areas
Hardened Channels
Impervious (>65 %)
Jurisdictional Boundary
San Mateo County
Revised October 9, 2006
San Mateo Countywide Stormwater Pollution Prevention Program
DALY CITY
BRISBANE
COLMA
SOUTH SAN FRANCISCO
SAN BRUNO
PACIFICA
MILLBRAE
BURLINGAME
FOSTER CITY
HILLSBOROUGH
SAN MATEO
MONTARA
MOSS BEACH
EL GRANADA
HIGHLANDS
BELMONT
SAN CARLOS
REDWOOD CITY
HALF MOON BAY
ATHERTON
EAST PALO ALTO
MENLO PARK
WOODSIDE
HILLSIDE BLVD
SKYLINE BLVD
MANOR DR
SNEATH LN
I-280
EL CAMINO REAL
US 101
ALAMEDA DE LAS PULGAS
6TH AVE
LAUREL ST
EDGEWOOD RD
ATHERTON AVE
N
0 1 2 3 4 5 Miles


Classification of Subwatersheds and Catchment Areas for Determining Applicability of HMP Requirements
Legend
Major Creeks
Reservoirs in Santa Clara Basin
Outside SCVURPPP Jurisdiction
Major Roads
Continuously Hardened Channel
Catchments Draining to Hardened Channel and/or Tidal Areas
Baylands
Catchments and Subwatersheds greater than or equal to 65% Impervious
Areas Under Review
Subwatersheds less than 65% Impervious
November, 2007
SCVURPPP
0 2 4 Miles
N

Memorandum

LARRY WALKER ASSOCIATES

DATE:	April 16, 2009
TO:	Delia McGrath, City of Sacramento Ken Ballard, County of Sacramento
SUBJECT:	Pilot Watershed - New Development BMP Effectiveness Evaluation Work Plan
Cc:	Brian Laurenson, LWA

Rebecca Winer-Skonovd, Senior Scientist

707 Fourth Street
Suite 200
Davis, CA 95618
530.753.6400
530.753.7030 Fax
rebeccaw@lwa.com

This memorandum describes the Work Plan to be implemented by the City of Sacramento and the County of Sacramento for the New Development BMP Effectiveness Evaluation as prescribed under Permit No. R5-2008-0142.

The current National Pollutant Discharge Elimination System (NPDES) area-wide Municipal Separate Storm Sewer Systems (MS4) permit, Order No. R5-2008-0142, Monitoring and Reporting Program, Provision III.C., requires the permittees to conduct an evaluation of the effectiveness of new development best management practices (BMPs). The provision states:

1. The Permittees shall prepare and implement a work plan over the permit term for monitoring a receiving water site within the Upper Laguna Creek Collaborative project area. The work plan shall be submitted as part of the revised SQIP.

   The objective of the study shall include the following:

   a. Monitor the reduction of pollutants of concern in storm water including, but not limited to, pathogen indicators, nutrients, heavy metals (including total mercury and methylmercury), and pesticides from a minimum of one BMP (e.g., low impact development) to determine BMP effectiveness;
   b. Evaluate the requirements for and installation and maintenance cost of each BMP; and
   c. Develop recommendations for appropriate BMPs for the reduction of pollutants of concern in storm water in the Sacramento urbanized area.

Due to the current and uncertain nature of the housing market, the Permittees do not expect that a development project will be completed within the Upper Laguna Creek watershed within the Permit term. As a result, Permittees propose the following revisions to Provision III. C. Pilot Watershed – New Development BMP Effectiveness Evaluation:

> 1. The Permittees shall prepare and implement a work plan over the permit term for monitoring a receiving water site within the Upper Laguna Creek Collaborative project area. If there is insufficient new development in this study area prior to 2011, the study may be moved to an alternate location and/or be modified to consider a specific new development BMP. The work plan shall include three optional study elements. The work plan shall be submitted as part of the revised SQIP.

This document serves as the Work Plan for the proposed Permit modifications. The document is organized around the following sections:

- Potential Monitoring Locations and Approach
- Sampling Plan
- Technical Report
- Schedule
- References

POTENTIAL MONITORING LOCATIONS AND APPROACH

A BMP or receiving water site will be monitored within Permit years 4 and 5. If a BMP is selected, influent and effluent will be monitored during three storm events each year for a total of six storm events during the permit term. In addition, the ability of the BMP to reduce runoff volume will be monitored as this has an impact on the overall pollutant load. If a receiving water site is selected, the monitoring schedule will match that of the other Permittee receiving water monitoring sites (3 wet, 1 dry per year). As indicated above in the proposed permit modifications, 3 primary options exist:

1) Monitor a new development BMP within the Upper Laguna Creek watershed
2) Monitor a Low Impact Development (LID)-type BMP outside of the Upper Laguna Creek watershed
3) Monitor a receiving water site within the Upper Laguna Creek watershed to establish baseline

Monitor a New Development BMP within the Upper Laguna Creek Watershed

Permittees will track the progress of potential development projects within the Upper Laguna Creek watershed. In particular, the status of two proposed development projects will be tracked closely (Figure 1):

Arboretum (also known as the Waegell Property)

This proposed new development project consists of more than 1,300 acres of mixed use, including residential units, commercial sites, open space and two schools. Initial plans indicate that stormwater management will primarily consist of detention basins designed to prevent hydromodification. While the planning process for this project continues to move forward, completion is not expected within the Permit term.

Suncreek

This proposed new development project consists of approximately 1,300 acres of mixed use which primarily includes medium to high density residential units and small amount of commercial development. Initial plans indicate that stormwater management will primarily consist of detention basins designed to prevent hydromodification. Construction is currently delayed and it is anticipated that 2010 is the earliest possible construction start date which will allow little to no time for BMP monitoring within the Permit term.

In the event that an Upper Laguna Creek watershed development projects appears as though completion is feasible within the Permit term, the Permittees will select one of the detention basins designed to prevent hydromodification for monitoring. This BMP would provide new data regarding the effectiveness of hydromodification criteria with regard to water quality and runoff reduction. Monitoring will be conducted during Permit Years 4 and 5.

Monitor a Low Impact Development (LID)-Type BMP Outside of the Upper Laguna Creek Watershed

If a new development BMP in the Upper Laguna Creek watershed has not been identified for monitoring by the end of Permit Year 2, Permittees will identify a LID-type BMP within the Permittee area. BMP monitoring will be conducted during Permit Years 4 and 5. BMP selection will be prioritized based on data needs. Currently, the Permittees lack information on the ability of the following BMPs to remove Target Pollutants:

- Green Roof
- Infiltration Basin
- Infiltration Trench
- Porous Pavement
- Stormwater Planter
- Vegetated Filter Strip

Monitor a Receiving Water Site within the Upper Laguna Creek Watershed to Establish Baseline

In the event that a new development BMP within the Upper Laguna Creek watershed and a LID-like BMP within the Permittee area cannot be identified, Permittees will establish a receiving water monitoring site in the Upper Laguna Creek watershed to monitor baseline conditions. Receiving water monitoring will be conducted during Permit Years 4 and 5.

Monitoring the receiving water site will provide Permittees with valuable water quality data as the Upper Laguna Creek watershed develops over time. This data can also provide a baseline of water quality conditions for when development activity resumes within the watershed and may be used in conjunction with a BMP effectiveness monitoring site in future Permit terms.

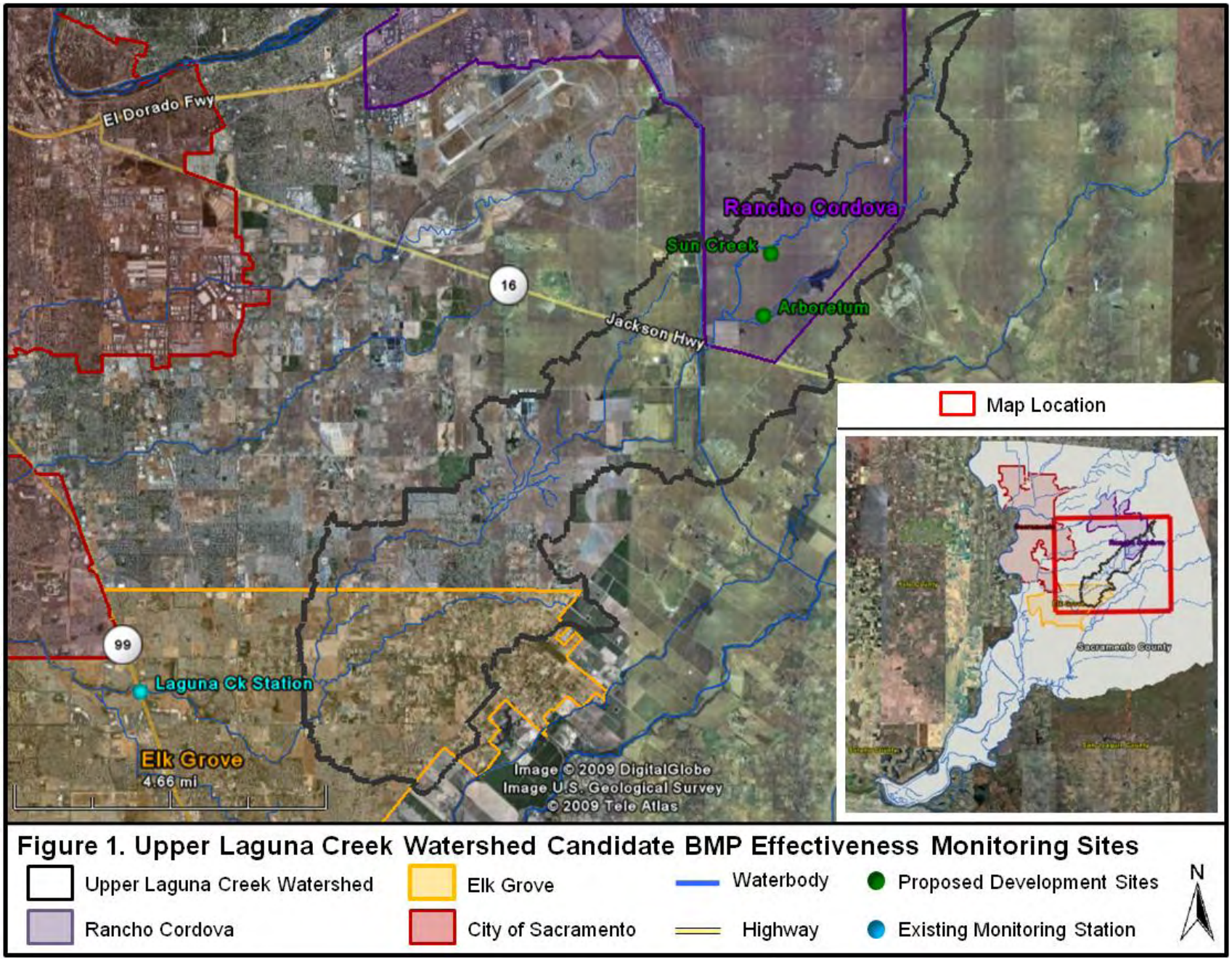


Figure 1. Upper Laguna Creek Watershed Candidate BMP Effectiveness Monitoring Sites

Stormwater Monitoring

If selected, the BMP and receiving water site will be monitored for the constituents outlined in Table 1.

Table 1. Pilot Watershed New Development BMP Effectiveness Evaluation - Monitoring Constituents

Constituent	Method	ML	Units	Lab
Dissolved Oxygen	Field	Sensitivity to 5 mg/l	mg/L	field
pH	Field	0 - 14	std. Units	field
Temperature	Field	None	˚C	field
E. coli	SM9221F	44	MPN/100mL	SCRCL
Fecal Coliform	SM9221E	49	MPN/100mL	SCRCL
Nitrate-Nitrite	EPA 353.2	0.1	mg/L	Caltest
Total Kjeldahl Nitrogen	EPA 351.3	0.1	mg/L	SCRCL
Total Hardness	EPA 130	2	mg/L	FGS
Total Phosphorus	EPA 365.2	0.05	mg/L	Caltest
Total Suspended Solids	EPA 160.2	2	mg/L	SCRCL
Mercury	CVAFS	0.5	ng/L	FGS
Methyl Mercury	CVAFS	0.05	ng/L	FGS
Pyrethroids	SW846 8270 (SIM)	0.01-0.05	µg/L	CRG
Total and Dissolved Copper, Lead, and Zinc	ICP/MS	0.1 to 5.0	µg/L	Caltest
Suspended Sediment Concentration (SSC)	ASTM 2000 D3977-Test Method C Wet Sieving Filtration	5.0	mg/L	CRG

Measuring BMP Effectiveness

BMP monitoring will be conducted at influent and effluent stations. Effectiveness of the BMP will be based on the following variables:

- Runoff volume reduction
- Volume of runoff treated (versus bypassed)
- Statistical difference in effluent quality compared to influent quality
- Distribution of effluent quality achieved

The Effluent Probability Method will be used to determine pollutant removal effectiveness. The Effluent Probability Method determines whether the influent and effluent mean EMCs are statistically different from one another and then examine either a cumulative distribution function of influent and effluent quality.

The entire BMP should be taken into account when measuring effectiveness. Overflow and bypassing of BMPs affect the long-term performance of the stormwater control measure. In order to accurately assess the efficiency of the BMP system, the bypass flow should be taken into

consideration. If possible, a third flow monitor may be installed to measure by-passed flow directly (ASCE, 2002).

SAMPLING PLAN

A sampling plan for compliance monitoring will be developed and submitted once a monitoring site has been selected. The plan will include specification of the following:

- Sampling Stations
- Sampling Protocols
- Event Preparation
- Personal Safety
- Quality Assurance/Quality Control
- Data Analysis and Reporting

TECHNICAL REPORT

A technical report will be submitted at the conclusion of the study describing the results of the water quality monitoring, BMP effectiveness and runoff reduction. The report will document installation and maintenance costs and make recommendations regarding future use and applicability of the BMP within the Sacramento Permittee area.

SCHEDULE

A schedule is provided in Table 2.

Table 2. Schedule for Pilot Watershed New Development BMP Effectiveness Evaluation

Task	Timeframe
Track development progress in Upper Laguna	Years 1 and 2
Identify an Upper Laguna BMP OR LID-type BMP outside of the Upper Laguna Creek watershed OR receiving water site	Year 3
Develop a SAP	Year 3
Monitor Effectiveness	Years 4 and 5
Develop summary Technical Report	Year 5

REFERENCES

American Society of Civil Engineers. 2002. Urban Stormwater BMP Performance Monitoring. Prepared for the US EPA. Available online: www.bmpdatabase.org.

MEMORANDUM

DATE: March 25, 2009

TO: Dave Tamayo, Sacramento County
Delia McGrath, City of Sacramento
Ken Ballard, Sacramento County

Brian M. Laurenson, P.E.
Steve Maricle
707 4th Street
Suite 200
Davis, CA 95616
530.753.6400 ext.230
530.753.7030 fax

BrianL@lwa.com

SUBJECT: **2009 TARGET POLLUTANT UPDATE**

The Sacramento Stormwater Quality Partnership (Partnership) identifies and prioritizes constituent-specific issues through a target pollutant evaluation process. The prioritized list of constituents is used by all Partnership agencies and Stormwater Program elements (e.g., Monitoring, Municipal, New Development, Public Outreach, etc.) to best focus their activities and resources.

This memorandum summarizes the procedure used in early 2009 to update the list according to the March 2001 guidance[1], and documents a program implementation processing step not included in the historic guidance. The purpose of the program implementation processing step is to organize the prioritized constituents for better implementation. In this final step, constituents with similar control or treatment approaches or those addressed through a regulatory or Partnership program are grouped together.

METHODS

The methodology for target pollutant identification and prioritization is presented in detail in the March 2001 guidance document. The four main tasks from that document can be summarized as:

1. Data preparation – compile organize and evaluate impairment listings, water quality, toxicity, and fish tissue data for Sacramento urban runoff and local receiving waters. Data compilation and analysis are summarized in the following attachments:
    a. Attachment A – summary statistics, water quality objectives for all constituents
    b. Attachment B – percent exceedance summaries for prioritized constituents

[1] Sacramento Stormwater Monitoring Program. *Target Pollutant Prioritization Procedure: Instructions and Year 2000 Update.* Prepared by Larry Walker Associates. Mach 2001.

c. Attachment C – 303(d) listing status

d. Attachment D – summary of local TIE identification evaluation data

e. Attachment E – was not prepared in this revision as bioaccumulant issues were scored based on findings from a recent statewide study[2]

2. Potential target pollutant identification – identify potential target pollutants by answering a series of questions regarding impairment of receiving waters and identification in urban runoff. This evaluation is summarized in **Table 1**.

3. Potential target pollutant scoring – score potential target pollutants based on numerical evaluation steps regarding exceedance of water quality objectives, listing status, etc. This evaluation is summarized in **Table 2.**

4. Potential target pollutant ranking – rank based on scores from previous steps. This evaluation is summarized in **Table 3**.

The program implementation processing step is the (new) fifth step in target prioritization. The following evaluation steps are discussed in detail in this memorandum because they are not documented in the March 2001 guidance. This evaluation is summarized in **Table 4**.

Constituent Grouping

Constituents are grouped based on type of constituent, existing control programs (regulatory and Partnership, and anticipated control/treatment programs. The intent is to optimize the target pollutant list into logical groups that can be addressed by the Partnership in a unified manner (e.g., Drinking Water Initiative, Source Identification, pesticide, etc) rather than a more "fractured" constituent-by-constituent basis.

Partnership Work Status

This informational column identifies any completed or ongoing effort that the Partnership initiated or actively contributes.

Initial Scoring

This is the carryover score from the target pollutant scoring step (No. 3).

Initial Ranking Scoring Priority (scoring category No. 1)

A ranking from 1 to 5 is "High" priority, from 5 to 10 is "Medium" priority and everything else is "Low" priority.

RWQE (scoring category No. 2)

A "Yes" or "No" whether it was listed in a previous report of water quality exceedance (RWQE).

---

[2] State Water Resources Control Board, Surface Water Ambient Monitoring Program, *Bioaccumulation of Pollutants in California Waters: A Review of Historic Data and Assessment of Impacts on Fishing and Aquatic Life,* October 24, 2007.

Source Controllability (scoring category No. 3)

This step assesses whether the constituent can be further controlled at the source. Human applied pesticides and sediment/solids were listed as “High” controllability. Nutrients, total Hg, hydrocarbons and unidentified sources were listed as “Medium” controllability. Legacy pollutants, dissolved inorganics, TOC, pathogen indicators and PAHs were listed as “Low” controllability.

Urban Runoff Treatability (scoring category No. 4)

This step assesses the treatability of the constituent with available technologies. The more advanced the treatment requirement, the lower the treatability. Solids based constituents that can be removed with physical settling (e.g., extended detention basins) were listed as high. TOC, hydrocarbons, pathogen indicators and nutrients that would require specialized processes such (GAC) filtration, disinfection or nutrient removal were listed as “Medium” treatability. Dissolved and organic constituents that would require advanced filtration or reverse osmosis were listed as “Low” treatability.

Urban Runoff Impact on Beneficial Use (scoring category No. 5)

This step assesses whether the urban runoff constituent concentration/load has an impact on an existing beneficial use. The assessment is twofold in that both the relative contribution of urban runoff to other sources and whether the constituent is a strong indicator of beneficial use protection. The pesticides and sediment indicators were all listed as “High” impacts because the contribution from urban runoff is known to be high, and a receiving water is impaired as a result. TDS/EC, pathogen indicators, PAHs and bis(2ethylhexyl)phthalate were listed as “Medium” impacts because either the contribution from urban runoff is moderate or a receiving water is impaired as a result of urban runoff. The remaining constituents are listed as “Low” impacts because the contribution from urban runoff is negligible.

Composite Constituent Score Number

From the previous five scoring categories there are a total of four low-medium-high (1-2-3) scoring categories and one yes-no (0.5-0.0) scoring category. For each constituent the low-medium-high scores were averaged and added to the yes-no score for a maximum score of 3.5.

Composite Constituent Priority

For each constituent the score was then translated to an overall priority indicator:

2.5-3.5 - High

1.50-2.49 - Medium

<1.49 - Low

Composite Constituent Grouping Score

The individual constituent scores were averaged for each grouping.

Composite Constituent Grouping Priority

For each grouping the score was converted to an overall priority indicator:

2.5-3.5 - High

1.50-2.49 - Medium

<1.49 - Low

The suggested target pollutant groupings and priority levels are in **Table 5.**

Table 1. Sacramento Stormwater Monitoring Program: Potential Target Pollutant Identification Matrix

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H
Constituent	Has constituent been detected in Sacramento urban runoff?	Is the constituent listed as a source of impairment on local 303(d) listings (2008 draft update highlighted yellow)? [Add other 303(d) listed constituents for local or statewide water bodies that do not already appear in Column A of this matrix]	Has the constituent been demonstrated to cause acute or chronic toxicity in Sacramento urban runoff or receiving waters? [Add other constituents that do not already appear in Column A of this matrix as needed.]	Does the constituent have the potential to cause or contribute to the exceedance of standards in receiving waters?	Has the constituent been demonstrated or implicated to cause or contribute to the impairment of beneficial uses in the permitted area or downstream, including the Sacramento-San Joaquin Delta? [Add other constituents that do not already appear in Column A of this matrix as needed.]	Has the constituent been identified as a significant public, regulatory or Permittee concern that has yet to be adequately or completely addressed by draft or adopted Federal, State, or local water quality criteria or regulations? [Add other constituents that do not already appear in Column A of this matrix as needed.]	Based on the answers contained in Columns B through G of Table 1, should the constituent be scored and ranked? (Alternately, should the constituent be placed directly on the Tracking List or the Considered for Additional Monitoring List?)
1,1,1,2-Tetrachloroethane	NA	no	no	no	no	no	no
1,1,1-Trichloroethane	NA	no	no	no	no	no	no
1,1,2,2-Tetrachloroethane	NA	no	no	no	no	no	no
1,1,2-Trichloro-1,2,2-Trifluoroethane	NA	no	no	no	no	no	no
1,1,2-Trichloroethane	NA	no	no	no	no	no	no
1,1-Dichloroethane	NA	no	no	no	no	no	no
1,1-Dichloroethene	NA	no	no	no	no	no	no
1,1-Dichloropropene	NA	no	no	no	no	no	no
1,2,3,4-Tetramethylbenzene	NA	no	no	no	no	no	no
1,2,3,5-Tetramethylbenzene	NA	no	no	no	no	no	no
1,2,3-Trichlorobenzene	NA	no	no	no	no	no	no
1,2,3-Trichloropropane	NA	no	no	no	no	no	no
1,2,3-Trimethylbenzene	NA	no	no	no	no	no	no
1,2,4-Trichlorobenzene	**YES**	no	no	no	no	no	no
1,2,4-Trimethylbenzene	NA	no	no	no	no	no	no
1,2-Dibromo-3-Chloropropane	NA	no	no	no	no	no	no
1,2-Dibromoethane	NA	no	no	no	no	no	no
1,2-Dichlorobenzene	no	no	no	no	no	no	no
1,2-Dichloroethane	NA	no	no	no	no	no	no
1,2-Dichloropropane	NA	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

1,2-Dimethylbenzene	NA	no	no	no	no	no	no
1,2-Diphenylhydrazine	**YES**	no	no	no	no	no	no
1,3,5-Trimethylbenzene	NA	no	no	no	no	no	no
1,3-Dichlorobenzene	no	no	no	no	no	no	no
1,3-Dichloropropane	NA	no	no	no	no	no	no
1,4-Dichlorobenzene	**YES**	no	no	no	no	no	no
1,4-Dimethylbenzene	NA	no	no	no	no	no	no
1-Methylnaphthalene	**YES**	no	no	no (nc)	no	no	**CAM**
1-Methylphenanthrene	**YES**	no	no	no (nc)	no	no	**CAM**
2,2-Dichloropropane	NA	no	no	no	no	no	no
2,3,5-Trimethylnaphthalene	**YES**	no	no	no (nc)	no	no	**CAM**
2,4,5-T	no	no	no	no	no	no	no
2,4,5-TP (Silvex)	NA	no	no	no	no	no	no
2,4,5-Trichlorophenol	NA	no	no	no	no	no	no
2,4,6-Trichlorophenol	no	no	no	no	no	no	no
2,4-D	**YES**	no	no	no	no	no	no
2,4-DB	**YES**	no	no	no	no	no	no
2,4'-DDD	no	no	no	no	no	no	no
2,4'-DDE	no	no	no	no	no	no	no
2,4'-DDT	**YES**	**YES**	no	no (nc)	**YES**	no	**YES**
2,4-Dichlorophenol	**YES**	no	no	no	no	no	no
2,4-Dimethylphenol	no	no	no	no	no	no	no
2,4-Dinitrophenol	**YES**	no	no	no	no	no	no
2,4-Dinitrotoluene	no	no	no	no	no	no	no
2,6-Diethylanaline	NA	no	no	no	no	no	no
2,6-Dimethylnaphthalene	**YES**	no	no	no (nc)	no	no	**CAM**
2,6-Dinitrotoluene	no	no	no	no	no	no	no
2-Butanone	NA	no	no	no	no	no	no
2-Chloronaphthalene	no	no	no	no	no	no	no
2-Chlorophenol	no	no	no	no	no	no	no
2-Chlorotoluene	NA	no	no	no	no	no	no
2-Ethyltoluene	NA	no	no	no	no	no	no
2-Hexanone	NA	no	no	no	no	no	no
2-Methyl-4,6-dinitrophenol	**YES**	no	no	no	no	no	no
2-Methylnaphthalene	**YES**	no	no	no (nc)	no	no	**CAM**
2-Methylphenol	NA	no	no	no	no	no	no
2-Nitroaniline	NA	no	no	no	no	no	no
2-Nitrophenol	**YES**	no	no	no	no	no	no
2-Propenenitrile	NA	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

3,3'-Dichlorobenzidine	no	no	no	no	no	no	no
3-Chloro-1-Propene	NA	no	no	no	no	no	no
3-Hydroxycarbofuran	NA	no	no	no	no	no	no
3-Nitroaniline	NA	no	no	no	no	no	no
4,4'-DDD	no	no	no	no	no	no	no
4,4'-DDE	**YES**	no	no	no	no	no	no
4,4'-DDT	**YES**	**YES**	no	**YES**	**YES**	no	**YES**
4,6-Dinitro-2-Methylphenol	NA	no	no	no	no	no	no
4-Bromophenyl Phenyl Ether	no	no	no	no	no	no	no
4-Chloro-3-Methylphenol	no	no	no	no	no	no	no
4-Chloroaniline	NA	no	no	no	no	no	no
4-Chlorophenyl Phenyl Ether	no	no	no	no	no	no	no
4-Chlorotoluene	NA	no	no	no	no	no	no
4-Methyl-2-Pentanone	NA	no	no	no	no	no	no
4-Methylphenol	NA	no	no	no	no	no	no
4-Nitroaniline	NA	no	no	no	no	no	no
4-Nitrophenol	no	no	no	no	no	no	no
Acenaphthene	**YES**	no	no	**YES**	no	no	**YES**
Acenaphthylene	**YES**	no	no	no (nc)	no	no	**CAM**
Acetochlor	NA	no	no	no	no	no	no
Acetone	NA	no	no	no	no	no	no
Acifluorfen	NA	no	no	no	no	no	no
Alachlor	NA	no	no	no	no	no	no
Aldicarb	no	no	no	no	no	no	no
Aldicarb Sulfone	NA	no	no	no	no	no	no
Aldicarb Sulfoxide	NA	no	no	no	no	no	no
Aldrin	**YES**	no	no	**YES**	**YES**	no	**YES**
Alkalinity as CaCO3	no	no	no	no	no	no	no
Aluminum, Dissolved	**YES**	no	no	no	no	no	no
Aluminum, Total Recoverable	**YES**	no	no	no	no	no	no
Ametryn	no	no	no	no	no	no	no
Aminocarb	no	no	no	no	no	no	no
Ammonia as N	**YES**	no	no	no	no	no	no
Anthracene	**YES**	no	no	**YES**	no	no	**YES**
Antimony, Dissolved	**YES**	no	no	no	no	no	no
Antimony, Total Recoverable	**YES**	no	no	no	no	no	no
Aroclor 1016	no	no	no	no	no	no	no
Aroclor 1221	no	no	no	no	no	no	no
Aroclor 1232	no	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Aroclor 1242	no	no	no	no	no	no	no
Aroclor 1248	no	no	no	no	no	no	no
Aroclor 1254	no	no	no	no	no	no	no
Aroclor 1260	no	no	no	no	no	no	no
Arsenic, Dissolved	**YES**	no	no	no	no	no	no
Arsenic, Total Recoverable	**YES**	no	no	no	no	no	no
Atraton	no	no	no	no	no	no	no
Atrazine	**YES**	no	no	no	no	no	no
Atrazine, Diethyl	NA	no	no	no	no	no	no
Azinphosmethyl	no	no	no	no	no	no	no
Azobenzene	no	no	no	no	no	no	no
Barban	no	no	no	no	no	no	no
Barium, Dissolved	NA	no	no	no	no	no	no
Benfluralin	NA	no	no	no	no	no	no
Benomyl (Carbendazim)	**YES**	no	no	no	no	no	no
Bentazon	NA	no	no	no	no	no	no
Benz(a)anthracene	**YES**	no	no	**YES**	no	no	**YES**
Benzene	no	no	no	no	no	no	no
Benzidine	no	no	no	no	no	no	no
Benzo(a)pyrene	**YES**	no	no	**YES**	no	no	**YES**
Benzo(b)fluoranthene	**YES**	no	no	**YES**	no	no	**YES**
Benzo(ghi)perylene	**YES**	no	no	**YES**	no	no	**YES**
Benzo(k)fluoranthene	**YES**	no	no	**YES**	no	no	**YES**
Benzoic acid	NA	no	no	no	no	no	no
Benzyl alcohol	NA	no	no	no	no	no	no
Beryllium, Dissolved	no	no	no	no	no	no	no
Beryllium, Total Recoverable	no	no	no	no	no	no	no
BHC, alpha	no	no	no	no	**YES**	no	no
BHC, beta	**YES**	no	no	no	**YES**	no	no [1]
BHC, delta	**YES**	no	no	no (nc)	**YES**	no	no [1]
BHC, gamma (Lindane)	no	no	no	**YES**	**YES**	no	**YES**
Biphenyl	**YES**	no	no	no (nc)	no	no	**CAM**
Bis(2-chloroethoxy)methane	**YES**	no	no	no	no	no	no
Bis(2-chloroethyl)ether	**YES**	no	no	no	no	no	no
Bis(2-chloroisopropyl)ether	no	no	no	no	no	no	no
Bis(2-ethylhexyl)phthalate	**YES**	**YES**	no	no	no	no	**YES**
BOD (5)	**YES**	no	no	no	no	no	no
Bolstar	no	no	no	no	no	no	no
Bromacil	**YES**	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Bromobenzene	NA	no	no	no	no	no	no
Bromochloromethane	NA	no	no	no	no	no	no
Bromoethene	NA	no	no	no	no	no	no
Bromomethane	NA	no	no	no	no	no	no
Bromoxynil	NA	no	no	no	no	no	no
Butyl Benzyl Phthalate	**YES**	no	no	no	no	no	no
Butylate	NA	no	no	no	no	no	no
Cadmium, Dissolved	**YES**	no	no	no	no	no	no
Cadmium, Total Recoverable	**YES**	no	no	no	no	no	no
Calcium	NA	no	no	no	no	no	no
Calcium, Total	**YES**	no	no	no	no	no	no
Carbaryl	**YES**	no	no	no	no	no	no
Carbazole	NA	no	no	no	no	no	no
Carbofuran	**YES**	no	no	no	no	no	no
Carbon Disulfide	NA	no	no	no	no	no	no
Carbon, Dissolved Organic	**YES**	no	no	no (nc)	no	**YES**	no [1]
Carbon, Total Organic	**YES**	no	no	no (nc)	no	**YES**	**YES**
Chemical Oxygen Demand	**YES**	no	no	no	no	no	no
Chloramben	NA	no	no	no	no	no	no
Chlordane	**YES**	no	no	no	**YES**	no	**YES**
Chlordane, alpha	**YES**	no	no	no	no	no	no
Chlordane, gamma	**YES**	no	no	no	no	no	no
Chloride	NA	no	no	no	no	no	no
Chlorobenzene	NA	no	no	no	no	no	no
Chlorodibromomethane	NA	no	no	no	no	no	no
Chloroethane	NA	no	no	no	no	no	no
Chloroethene	NA	no	no	no	no	no	no
Chloromethane	NA	no	no	no	no	no	no
Chloropropham	NA	no	no	no	no	no	no
Chlorothalonil	NA	no	no	no	no	no	no
Chloroxuron	no	no	no	no	no	no	no
Chlorpyrifos	**YES**	**YES**	no	**YES**	**YES**	no	**YES**
Chromium, Dissolved	**YES**	no	no	no	no	no	no
Chromium, Total Recoverable	**YES**	no	no	no	no	no	no
Chrysene	**YES**	no	no	**YES**	no	no	**YES**
cis-1,2-Dichloroethene	NA	no	no	no	no	no	no
cis-1,3-Dichloropropene	NA	no	no	no	no	no	no
cis-Nonachlor	**YES**	no	no	no	no	no	no
Clopyralid	NA	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Cobalt, Dissolved	NA	no	no	no	no	no	no
Copper, Dissolved	**YES**	**YES**	no	**YES**	no	no	**YES**
Copper, Total Recoverable	**YES**	**YES**	no	no	no	no	no [1]
Coumaphos	no	no	no	no	no	no	no
Cryptosporidium	NA	no	no	no	no	no	no
Cyanazine	no	no	no	no	no	no	no
Cyanide	no	no	no	no	no	no	no
Dalapon	no	no	no	no	no	no	no
DCPA (Dacthal)	no	no	no	no	no	no	no
Def	no	no	no	no	no	no	no
Def/Merphos	no	no	no	no	no	no	no
Demeton-O	NA	no	no	no	no	no	no
Demeton-S	NA	no	no	no	no	no	no
Detergents/Surfactants	NA	no	no	no	no	no	no
Diazinon	**YES**	**YES**	no	**YES**	**YES**	no	**YES**
Dibenz(a,h)anthracene	**YES**	no	no	**YES**	no	no	**YES**
Dibenzofuran	NA	no	no	no	no	no	no
Dibenzothiophene	**YES**	no	no	no (nc)	no	no	**CAM**
Dibromomethane	NA	no	no	no	no	no	no
Dicamba	**YES**	no	no	no	no	no	no
Dichlobenil	NA	no	no	no	no	no	no
Dichlorobromomethane	NA	no	no	no	no	no	no
Dichlorodifluoromethane	NA	no	no	no	no	no	no
Dichloromethane	NA	no	no	no	no	no	no
Dichloroprop	**YES**	no	no	no	no	no	no
Dichlorvos	**YES**	no	no	no	no	no	no
Dicofol	no	no	no	no	no	no	no
Dieldrin	**YES**	**YES**	no	no	**YES**	no	**YES**
Diethyl Ether	NA	no	no	no	no	no	no
Diethyl Phthalate	**YES**	no	no	no	no	no	no
Diisopropyl Ether	NA	no	no	no	no	no	no
Dimethoate	**YES**	no	no	no	no	no	no
Dimethyl Phthalate	**YES**	no	no	no	no	no	no
Di-n-butyl Phthalate	**YES**	no	no	no	no	no	no
Di-n-octyl Phthalate	**YES**	no	no	no	no	no	no
Dinoseb	no	no	no	no	no	no	no
Diphenamid	no	no	no	no	no	no	no
Dissolved Oxygen	no	no	no	no	no	no	no
Dissolved Oxygen (field)	**YES**	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Disulfoton	no	no	no	no	no	no	no
Diuron	**YES**	no	no	no	no	no	no
DNOC	NA	no	no	no	no	no	no
Endosulfan	NA	no	no	no	**YES**	no	**CAM**
Endosulfan sulfate	no	no	no	no	**YES**	no	no
Endrin	**YES**	no	no	no (nc)	**YES**	no	**YES**
Endrin aldehyde	no	no	no	no	no	no	no
Endrin ketone	no	no	no	no	no	no	no
EPN	no	no	no	no	no	no	no
EPTC/Eptam	NA	no	no	no	no	no	no
Escherichia Coli	**YES**	no	no	**YES**	no	**YES**	**YES**
Etazine	no	no	no	no	no	no	no
Ethalfluralin	NA	no	no	no	no	no	no
Ethion	no	no	no	no	no	no	no
Ethoprop	no	no	no	no	no	no	no
Ethyl Methacrylate	NA	no	no	no	no	no	no
Ethyl parathion	no	no	no	no	no	no	no
Ethyl Tert-butyl Ether	NA	no	no	no	no	no	no
Ethylbenzene	no	no	no	no	no	no	no
Fecal Coliform	**YES**	no	no	**YES**	no	**YES**	**YES**
Fecal *Streptococcus*	NA	no	no	no	no	no	no
Fensulfothion	no	no	no	no	no	no	no
Fenthion	no	no	no	no	no	no	no
Fenuron	no	no	no	no	no	no	no
Fluometuron	no	no	no	no	no	no	no
Fluoranthene	**YES**	no	no	**YES**	no	no	**YES**
Fluorene	**YES**	no	no	**YES**	no	no	**YES**
Fluoride, Total	**YES**	no	no	no	no	no	no
Fonofos	NA	no	no	no	no	no	no
Giardia	NA	no	no	no	no	no	no
Glyphosate	**YES**	no	no	no	no	no	no
Hardness as CaCO3	**YES**	no	no	no	no	no	no
Heptachlor	**YES**	no	no	no	**YES**	no	**YES**
Heptachlor Epoxide	no	no	no	no	**YES**	no	no
Hexachlorobenzene	**YES**	no	no	no	no	no	no
Hexachlorobutadiene	no	no	no	no	no	no	no
Hexachlorocyclopentadiene	no	no	no	no	no	no	no
Hexachloroethane	no	no	no	no	no	no	no
Indeno(1,2,3-cd)pyrene	**YES**	no	no	**YES**	no	no	**YES**

Table 1: Potential Target Pollutant Identification Matrix

Iodomethane	NA	no	no	no	no	no	no
Iron, Dissolved	**YES**	no	no	no	no	no	no
Iron, Total Recoverable	**YES**	no	no	no	no	no	no
Isophorone	**YES**	no	no	no	no	no	no
Isopropylbenzene	NA	no	no	no	no	no	no
Lead, Dissolved	**YES**	no	no	**YES**	no	no	**YES**
Lead, Total Recoverable	**YES**	no	no	**YES**	no	no	no [1]
Linuron	no	no	no	no	no	no	no
Magnesium, Total	**YES**	no	no	no	no	no	no
Malathion	**YES**	**YES**	no	no	no	no	**YES**
Manganese, Dissolved	NA	no	no	no	no	no	no
MBAS	**YES**	no	no	no	no	no	no
MCP	NA	no	no	no	no	no	no
MCPA	no	no	no	no	no	no	no
MCPP	no	no	no	no	no	no	no
Mercury, Dissolved	**YES**	no	no	no (nc)	no	**no**	**CAM**
Mercury, Total	**YES**	**YES**	no	**YES**	**YES**	**YES**	**YES**
Mercury, Total Methyl	**YES**	**YES**	no	no (nc)	**YES**	**YES**	**YES**
Merphos	no	no	no	no	no	no	no
Methidathion	**YES**	no	no	no	no	no	no
Methiocarb	no	no	no	no	no	no	no
Methomyl	no	no	no	no	no	no	no
Methoxychlor	no	no	no	no	no	no	no
Methyl Acrylate	NA	no	no	no	no	no	no
Methyl Acrylonitrile	NA	no	no	no	no	no	no
Methyl Methacrylate	NA	no	no	no	no	no	no
Methyl parathion	no	no	no	no	no	no	no
Methyl tert-butyl ether	no	no	no	no	no	no	no
Methyl Trithion	no	no	no	no	no	no	no
Methylbenzene	NA	no	no	no	no	no	no
Metolachlor	NA	no	no	no	no	no	no
Metribuzin	NA	no	no	no	no	no	no
Mevinphos	no	no	no	no	no	no	no
Mexacarbate	no	no	no	no	no	no	no
Mirex	no	no	no	no	no	no	no
Molinate	NA	no	no	no	no	no	no
Molybdenum, Dissolved	NA	no	no	no	no	no	no
Monuron	no	no	no	no	no	no	no
Naled	no	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Naphthalene	**YES**	no	no	**YES**	no	no	**YES**
Napropamide	NA	no	no	no	no	no	no
n-Butylbenzene	NA	no	no	no	no	no	no
Neburon	no	no	no	no	no	no	no
Nickel, Dissolved	**YES**	no	no	no	no	no	no
Nickel, Total Recoverable	**YES**	no	no	no	no	no	no
Nitrate as N	**YES**	no	no	no	no	no	no
Nitrate plus Nitrite as N	**YES**	no	no	no	no	**YES**	**YES**
Nitrite as N	no	no	no	no	no	no	no
Nitrobenzene	**YES**	no	no	no	no	no	no
N-Nitrosodimethylamine	no	no	no	no	no	no	no
N-Nitrosodi-n-Propylamine	**YES**	no	no	no	no	no	no
N-Nitrosodiphenylamine	no	no	no	no	no	no	no
Norfluorazon	NA	no	no	no	no	no	no
n-Propylbenzene	NA	no	no	no	no	no	no
Oryzalin	**YES**	no	no	no	no	no	no
Oxamyl	no	no	no	no	no	no	no
Oxychlordane	no	no	no	no	no	no	no
Parathion	NA	no	no	no	no	no	no
Parathion, Ethyl	NA	no	no	no	no	no	no
Parathion, Methyl	NA	no	no	no	no	no	no
PCBs	NA	**YES**	no	no	**YES**	no	**YES**
Pebultate	NA	no	no	no	no	no	no
Pendimethalin	NA	no	no	no	no	no	no
Pentachlorophenol	**YES**	**YES**	no	**YES**	no	no	**YES**
Permethrin	NA	no	no	no	no	no	no
Perthane	no	no	no	no	no	no	no
Perylene	**YES**	no	no	no (nc)	**YES**	no	**YES**
pH	**YES**	no	no	no	no	no	no
pH (field)	**YES**	no	no	no	no	no	no
Phenanthrene	**YES**	no	no	**YES**	no	no	**YES**
Phenol	**YES**	no	no	no	no	no	no
Phenolics, Total	no	no	no	no	no	no	no
Phorate	no	no	no	no	no	no	no
Phosalone	no	no	no	no	no	no	no
Phosmet	no	no	no	no	no	no	no
Phosphate, Ortho as P	**YES**	no	no	no	no	no	no
Phosphorus, Dissolved	NA	no	no	no	no	no	no
Phosphorus, Total	**YES**	no	no	no (nc)	no	**YES**	**YES**

Table 1: Potential Target Pollutant Identification Matrix

Picloram	NA	no	no	no	no	no	no
p-Isopropyltoluene	NA	no	no	no	no	no	no
Potassium	NA	no	no	no	no	no	no
Potassium, Total	no	no	no	no	no	no	no
Premetryn	no	no	no	no	no	no	no
Prometon	**YES**	no	no	no	no	no	no
Prometryn	no	no	no	no	no	no	no
Pronamide	NA	no	no	no	no	no	no
Propachlor	no	no	no	no	no	no	no
Propanil	NA	no	no	no	no	no	no
Propargite	NA	no	no	no	no	no	no
Propazine	**YES**	no	no	no	no	no	no
Propham	no	no	no	no	no	no	no
Propoxur	no	no	no	no	no	no	no
Prowl	**YES**	no	no	no	no	no	no
Pyrene	**YES**	no	no	**YES**	no	no	**YES**
Pyrethroids	**YES**	**YES**	**YES**	no	no	**YES**	**YES**
Ronnel	no	no	no	no	no	no	no
Secbumeton	no	no	no	no	no	no	no
sec-Butylbenzene	NA	no	no	no	no	no	no
Selenium, Dissolved	**YES**	no	no	no	no	no	no
Selenium, Total Recoverable	**YES**	no	no	no	no	no	no
Siduron	no	no	no	no	no	no	no
Silica as SiO2	NA	no	no	no	no	no	no
Silver, Dissolved	no	no	no	no	no	no	no
Silver, Total Recoverable	**YES**	no	no	no	no	no	no
Simazine	**YES**	no	no	no	no	no	no
Simetryn	no	no	no	no	no	no	no
Sodium, Dissolved	no	no	no	no	no	no	no
Sodium, Total	no	no	no	no	no	no	no
Solids, Total Dissolved	**YES**	no	no	**YES**	no	**YES**	**YES**
Solids, Total Suspended	**YES**	no	no	no (nc)	no	**YES**	**YES**
Specific Conductance	**YES**	no	no	**YES**	**YES**	**YES**	**YES**
Stirophos	no	no	no	no	no	no	no
Styrene	NA	no	no	no	no	no	no
Sulfate	NA	no	no	no	no	no	no
Sulfide	no	no	no	no	no	no	no
Sulfotepp	NA	no	no	no	no	no	no
Tebuthiuron	no	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Temperature (field)	**YES**	no	no	no	no	no	no
Tepp	NA	no	no	no	no	no	no
Terbacil	NA	no	no	no	no	no	no
Terbufos	NA	no	no	no	no	no	no
Terbuthylazine	no	no	no	no	no	no	no
Terbutryn	no	no	no	no	no	no	no
Tert-Amyl Methyl Ether	NA	no	no	no	no	no	no
Tert-Butylbenzene	NA	no	no	no	no	no	no
Tetrachloroethene	NA	no	no	no	no	no	no
Tetrachloromethane	NA	no	no	no	no	no	no
Tetrahydrofuran	NA	no	no	no	no	no	no
Thallium, Dissolved	no	no	no	no	no	no	no
Thallium, Total Recoverable	**YES**	no	no	no	no	no	no
Thiobencarb	NA	no	no	no	no	no	no
Tokuthion	no	no	no	no	no	no	no
Toluene	**YES**	no	no	no	no	no	no
Total Coliform	**YES**	no	no	**YES**	no	**YES**	no [1]
Total Detectable DDTs	**YES**	no	no	no	no	no	no
Total Detectable PAHs	no	no	no	no	**YES**	no	no
Total Detectable PCBs	**YES**	no	no	no	no	no	no
Total Kjeldahl Nitrogen as N	**YES**	no	no	no (nc)	no	**YES**	**YES**
Toxaphene	no	**YES**	no	no	**YES**	no	**YES**
TPH as Diesel	**YES**	**YES**	no	no (nc)	no	no	**YES**
TPH as Gasoline	**YES**	**YES**	no	no (nc)	no	no	**YES**
TPH as Motor Oil	**YES**	**YES**	no	no (nc)	no	no	**YES**
TPH-Diesel	no	**YES**	no	no	no	no	no
TPH-Gasoline	no	**YES**	no	no	no	no	no
TPH-Motor Oil	no	**YES**	no	no	no	no	no
trans-1,2-Dichloroethene	NA	no	no	no	no	no	no
trans-1,3-Dichloropropene	NA	no	no	no	no	no	no
trans-1,4-Dichloro-2-butene	NA	no	no	no	no	no	no
trans-Nonachlor	**YES**	no	no	no	no	no	no
Trash	NA	no	no	no	no	no	no
Triallate	NA	no	no	no	no	no	no
Tribromomethane	NA	no	no	no	no	no	no
Trichloroethene	NA	no	no	no	no	no	no
Trichlorofluoromethane	NA	no	no	no	no	no	no
Trichloromethane	NA	no	no	no	no	no	no
Trichloronate	no	no	no	no	no	no	no

Table 1: Potential Target Pollutant Identification Matrix

Triclopyr	NA	no	no	no	no	no	no
Trifluralin	no	no	no	no	no	no	no
Turbidity	**YES**	no	no	**YES**	no	no	**YES**
Uranium, Dissolved	NA	no	no	no	no	no	no
Xylenes	no	no	no	no	no	no	no
Zinc, Dissolved	**YES**	**YES**	no	**YES**	no	no	**YES**
Zinc, Total Recoverable	**YES**	**YES**	no	no	no	no	no [1]

Table 2. **Sacramento Stormwater Monitoring Program: Potential Target Pollutant Scoring/Ranking Matrix**

Column A	Question #1		Question #2		Question #3		Question #4		Question #5						Question #6		Question #7		Question #8		Question #9		Column T
Potential Target Pollutant	What is the TMDL priority schedule for the water body and pollutant/ stressor as specified on the 303(d) list? [In the case of multiple water bodies, use the highest priority schedule].	Weighted Score (wt. factor = 5)	Have TIE's found the target pollutant to be the cause of acute or chronic toxicity in Sacramento urban runoff from 2002-2008?	Weighted Score (wt. factor = 3)	Have TIE's tests found the target pollutant to be the cause of acute or chronic toxicity in receiving waters in the permitted area from 2002-2008?	Weighted Score (wt. factor = 3)	At what frequency has the target pollutant been found to exceed minimum relevant regulatory criteria in Sacramento urban runoff?	Weighted Score (wt. factor = 10)	At what frequency has the target pollutant been found to exceed minimum applicable criteria in receiving waters in the permitted area from 2002-2008?					Weighted Score (wt. factor = 10)	Has the target pollutant been demonstrated to bioaccumulate to detrimental levels in organisms living in receiving waters in the permitted area?	Weighted Score (wt. factor = 3)	Has the target pollutant been found to cause or contribute to the impairment of beneficial uses in the permitted area or downstream, including the Sacramento-San Joaquin Delta?	Weighted Score (wt. factor = 1)	Has the target pollutant been identified as a significant public, regulatory or Permittee concern that has yet to be adequately or completely addressed by draft or adopted Federal, State or local water quality criteria or regulations?	Weighted Score (wt. factor = 1)	Has source of constituent been banned, widely reduced or restricted, and have monitoring results decreased in recent years?	Weighted Score (wt. factor = 5)	**Target Pollutant Composite Ranking Value**
Max. Raw Score/Max. Weighted Score	**5**	**25**	**5**	**15**	**5**	**15**	**1**	**10**	**1**	**1**	**1**	**1**	**1**	**10**	**5**	**15**	**5**	**5**	**5**	**5**	**-15**	**100 Point Max.**
									Sac R.	Amer R.	Arcade Ck	Willow Ck.	Morrison Ck.										
2,4'-DDT	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	1	**3**	1	**1**	0	**0**	**0**	**0**	**9.0**
	[2008 draft]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[low]		[low]		[no known concern]				
4,4'-DDT	1	**5**	0	**0**	0	**0**	0.13	**1.33**	0.00	0.00	0.17	0.14	0.17	**0.64**	1	**3**	1	**1**	0	**0**	**0**	**0**	**11.0**
	[2008 draft]		[no data]		[no data]		[13.33%]		[0%]	[0%]	[16.67%]	[14.29%]	[16.67%]		[low]		[low]		[no known concern]				
Acenaphthene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Aldrin	0	**0**	0	**0**	0	**0**	0.03	**0.33**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	1	**1**	0	**0**	**0**	**0**	**1.3**
	[not listed]		[no data]		[no data]		[3.33%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[low]		[no known concern]				
Aluminum, Dissolved	0	**0**	0	**0**	0	**0**	0.00	**0**	0.02	0.00	0.00	0.00	0.00	**0.05**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[1.59%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Anthracene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Benz(a)anthracene	0	**0**	0	**0**	0	**0**	0.56	**5.59**	0.00	0.02	0.80	0.00	0.50	**1.79**	0	**0**	0	**0**	0	**0**	**0**	**0**	**7.4**
	[not listed]		[no data]		[no data]		[55.93%]		[0%]	[2.04%]	[80%]	[0%]	[50%]		[no data]		[not listed]		[no known concern]				
Benzo(a)pyrene	0	**0**	0	**0**	0	**0**	0.51	**5.09**	0.00	0.01	1.00	0.20	1.00	**2.96**	0	**0**	0	**0**	0	**0**	**0**	**0**	**8.0**
	[not listed]		[no data]		[no data]		[50.85%]		[0%]	[1.02%]	[100%]	[20%]	[100%]		[no data]		[not listed]		[no known concern]				
Benzo(b)fluoranthene	0	**0**	0	**0**	0	**0**	0.58	**5.76**	0.00	0.02	1.00	0.20	1.00	**2.99**	0	**0**	0	**0**	0	**0**	**0**	**0**	**8.8**
	[not listed]		[no data]		[no data]		[57.63%]		[0%]	[2.04%]	[100%]	[20%]	[100%]		[no data]		[not listed]		[no known concern]				
Benzo(ghi)perylene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Benzo(k)fluoranthene	0	**0**	0	**0**	0	**0**	0.54	**5.42**	0.00	0.02	1.00	0.00	1.00	**2.73**	0	**0**	0	**0**	0	**0**	**0**	**0**	**8.2**
	[not listed]		[no data]		[no data]		[54.24%]		[0%]	[2.04%]	[100%]	[0%]	[100%]		[no data]		[not listed]		[no known concern]				
BHC, gamma (Lindane)	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.14	0.00	**0.19**	0	**0**	1	**1**	0	**0**	**0**	**0**	**1.2**
	[not listed]		[no data]		[no data]		[no data]		[0%]	[0%]	[0%]	[14.29%]	[0%]		[no data]		[low]		[no known concern]				
Bis(2-ethylhexyl)phthalate	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	3	**9**	0	**0**	0	**0**	**0**	**0**	**14.0**
	[2008 draft]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[medium]		[not listed]		[no known concern]				
Carbon, Total Organic	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	3	**3**	**0**	**0**	**3.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[medium]				
Chlordane	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	1	**3**	1	**1**	0	**0**	**0**	**0**	**9.0**
	[2008 draft]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[low]		[low]		[no known concern]				
Chlorpyrifos	3	**15**	0	**0**	0	**0**	0.07	**0.68**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	5	**5**	0	**0**	**5**	**-15**	**5.7**
	[medium]		[no data]		[no data]		[6.76%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[high]		[no known concern]		[restricted]		
Chrysene	0	**0**	0	**0**	0	**0**	0.49	**4.92**	0.00	0.01	0.80	0.00	0.25	**1.43**	0	**0**	0	**0**	0	**0**	**0**	**0**	**6.3**
	[not listed]		[no data]		[no data]		[49.15%]		[0%]	[1.02%]	[80%]	[0%]	[25%]		[no data]		[not listed]		[no known concern]				
Copper, Dissolved	1	**5**	0	**0**	0	**0**	0.34	**3.39**	0.00	0.00	0.44	0.00	0.37	**1.08**	0	**0**	0	**0**	0	**0**	**0**	**0**	**9.5**
	[low]		[no data]		[no data]		[33.9%]		[0%]	[0%]	[43.9%]	[0%]	[36.8%]		[no data]		[not listed]		[no known concern]				
Diazinon	3	**15**	0	**0**	0	**0**	0.31	**3.11**	0.01	0.00	0.27	0.00	0.12	**0.56**	0	**0**	5	**5**	0	**0**	**5**	**-15**	**8.7**
	[medium]		[no data]		[no data]		[31.08%]		[1.43%]	[0%]	[26.67%]	[0%]	[11.9%]		[no data]		[high]		[no known concern]		[restricted]		
Dibenz(a,h)anthracene	0	**0**	0	**0**	0	**0**	0.20	**2.03**	0.00	0.00	0.40	0.00	0.00	**0.53**	0	**0**	0	**0**	0	**0**	**0**	**0**	**2.6**
	[not listed]		[no data]		[no data]		[20.34%]		[0%]	[0%]	[40%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Dieldrin	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	1	**1**	0	**0**	**0**	**0**	**6.0**
	[2008 draft]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[low]		[no known concern]				
Endrin	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	1	**1**	0	**0**	**0**	**0**	**1.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[low]		[no known concern]				
Escherichia Coli	0	**0**	0	**0**	0	**0**	0.93	**9.34**	0.13	0.16	0.92	0.76	0.79	**4.17**	0	**0**	0	**0**	3	**3**	**0**	**0**	**16.5**
	[not listed]		[no data]		[no data]		[93.4%]		[13.49%]	[15.75%]	[91.67%]	[76.19%]	[78.95%]		[no data]		[not listed]		[medium]				
Fecal Coliform	0	**0**	0	**0**	0	**0**	0.95	**9.51**	0.12	0.17	0.86	0.67	0.79	**3.94**	0	**0**	0	**0**	3	**3**	**0**	**0**	**16.4**
	[not listed]		[no data]		[no data]		[95.08%]		[11.9%]	[16.54%]	[85.71%]	[66.67%]	[78.95%]		[no data]		[not listed]		[medium]				
Fluoranthene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				

Table 2: Potential Target Pollutant Scoring/Ranking Matrix

Column A	Question #1		Question #2		Question #3		Question #4		Question #5						Question #6		Question #7		Question #8		Question #9		Column T
Potential Target Pollutant	What is the TMDL priority schedule for the water body and pollutant/ stressor as specified on the 303(d) list? [In the case of multiple water bodies, use the highest priority schedule].	Weighted Score (wt. factor = 5)	Have TIE's found the target pollutant to be the cause of acute or chronic toxicity in Sacramento urban runoff from 2002-2008?	Weighted Score (wt. factor = 3)	Have TIE's tests found the target pollutant to be the cause of acute or chronic toxicity in receiving waters in the permitted area from 2002-2008?	Weighted Score (wt. factor = 3)	At what frequency has the target pollutant been found to exceed minimum relevant regulatory criteria in Sacramento urban runoff?	Weighted Score (wt. factor = 10)	At what frequency has the target pollutant been found to exceed minimum applicable criteria in receiving waters in the permitted area from 2002-2008?					Weighted Score (wt. factor = 10)	Has the target pollutant been demonstrated to bioaccumulate to detrimental levels in organisms living in receiving waters in the permitted area?	Weighted Score (wt. factor = 3)	Has the target pollutant been found to cause or contribute to the impairment of beneficial uses in the permitted area or downstream, including the Sacramento-San Joaquin Delta?	Weighted Score (wt. factor = 1)	Has the target pollutant been identified as a significant public, regulatory or Permittee concern that has yet to be adequately or completely addressed by draft or adopted Federal, State or local water quality criteria or regulations?	Weighted Score (wt. factor = 1)	Has source of constituent been banned, widely reduced or restricted, and have monitoring results decreased in recent years?	Weighted Score (wt. factor = 5)	**Target Pollutant Composite Ranking Value**
Max. Raw Score/Max. Weighted Score	**5**	**25**	**5**	**15**	**5**	**15**	**1**	**10**	**1**	**1**	**1**	**1**	**1**	**10**	**5**	**15**	**5**	**5**	**5**	**5**	**5**	**-15**	**100 Point Max.**
									Sac R.	Amer R.	Arcade Ck	Willow Ck.	Morrison Ck.										
Fluorene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Heptachlor	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	1	**1**	0	**0**	**0**	**0**	**1.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[low]		[no known concern]				
Indeno(1,2,3-cd)pyrene	0	**0**	0	**0**	0	**0**	0.41	**4.07**	0.00	0.04	0.80	0.00	0.50	**1.86**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.9**
	[not listed]		[no data]		[no data]		[40.68%]		[0%]	[4.08%]	[80%]	[0%]	[50%]		[no data]		[not listed]		[no known concern]				
Lead, Dissolved	0	**0**	0	**0**	0	**0**	0.46	**4.56**	0.00	0.00	0.21	0.00	0.24	**0.59**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.2**
	[not listed]		[no data]		[no data]		[45.6%]		[0%]	[0%]	[21.1%]	[0%]	[23.5%]		[no data]		[not listed]		[no known concern]				
Malathion	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.0**
	[2008 draft]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Mercury, Total	5	**25**	0	**0**	0	**0**	0.11	**1.13**	0.00	0.01	0.50	0.50	0.00	**1.35**	0	**0**	0	**0**	5	**5**	**0**	**0**	**32.5**
	[high]		[no data]		[no data]		[11.29%]		[0%]	[0.71%]	[50%]	[50%]	[0%]		[no data]		[not listed]		[high]				
Mercury, Total Methyl	5	**25**	0	**0**	0	**0**	0.98	**9.84**	0.69	0.36	1.00	1.00	1.00	**7.17**	5	**15**	0	**0**	5	**5**	**0**	**0**	**62.0**
	[high]		[no data]		[no data]		[98.35%]		[69.39%]	[36.4%]	[100%]	[100%]	[100%]		[high]		[not listed]		[high]				
Naphthalene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Nitrate plus Nitrite as N	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	3	**3**	**0**	**0**	**3.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[medium]				
PCBs	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	3	**9**	1	**1**	0	**0**	**0**	**0**	**15.0**
	[low]		[no data]		[no data]		[no data]		[0%]	[0%]	[0%]	[0%]	[0%]		[medium]		[low]		[no known concern]				
Pentachlorophenol	1	**5**	0	**0**	0	**0**	0.12	**1.19**	0.00	0.00	0.20	0.00	0.75	**1.27**	1	**3**	0	**0**	0	**0**	**0**	**0**	**10.5**
	[2008 draft]		[no data]		[no data]		[11.86%]		[0%]	[0%]	[20%]	[0%]	[75%]		[low]		[not listed]		[no known concern]				
Perylene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Phenanthrene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Phosphorus, Total	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	3	**3**	**0**	**0**	**3.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[medium]				
Pyrene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**0.0**
	[not listed]		[no data]		[no data]		[0%]		[0%]	[0%]	[0%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Pyrethroids	1	**5**	5	**15**	5	**15**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	5	**5**	**0**	**0**	**40.0**
	[2008 draft]						[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[high]				
Solids, Total Dissolved	0	**0**	0	**0**	0	**0**	0.37	**3.73**	0.27	0.02	0.40	0.80	0.50	**3.13**	0	**0**	0	**0**	3	**3**	**0**	**0**	**9.9**
	[not listed]		[no data]		[no data]		[37.29%]		[27.33%]	[1.56%]	[40%]	[80%]	[50%]		[no data]		[not listed]		[medium]				
Solids, Total Suspended	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	3	**3**	**0**	**0**	**3.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[medium]				
Specific Conductance	0	**0**	0	**0**	0	**0**	0.35	**3.48**	0.04	0.00	0.19	0.42	0.19	**1.19**	0	**0**	1	**1**	3	**3**	**0**	**0**	**8.7**
	[not listed]		[no data]		[no data]		[34.78%]		[3.85%]	[0%]	[19.44%]	[42.11%]	[19.15%]		[no data]		[low]		[medium]				
Total Kjeldahl Nitrogen as N	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	3	**3**	**0**	**0**	**3.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[medium]				
Toxaphene	0	**0**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	1	**1**	0	**0**	**0**	**0**	**1.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[low]		[no known concern]				
TPH as Diesel	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
TPH as Gasoline	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
TPH as Motor Oil	1	**5**	0	**0**	0	**0**	0.00	**0**	0.00	0.00	0.00	0.00	0.00	**0**	0	**0**	0	**0**	0	**0**	**0**	**0**	**5.0**
	[not listed]		[no data]		[no data]		[no data]		[no data]	[no data]	[no data]	[no data]	[no data]		[no data]		[not listed]		[no known concern]				
Turbidity	0	**0**	0	**0**	0	**0**	0.09	**0.91**	0.03	0.00	0.80	0.00	0.00	**1.15**	0	**0**	0	**0**	0	**0**	**0**	**0**	**2.1**
	[not listed]		[no data]		[no data]		[9.09%]		[2.7%]	[0%]	[80%]	[0%]	[0%]		[no data]		[not listed]		[no known concern]				
Zinc, Dissolved	1	**5**	0	**0**	0	**0**	0.26	**2.56**	0.00	0.00	0.09	0.00	0.18	**0.35**	0	**0**	0	**0**	0	**0**	**0**	**0**	**7.9**
	[low]		[no data]		[no data]		[25.6%]		[0%]	[0%]	[8.8%]	[0%]	[17.6%]		[no data]		[not listed]		[no known concern]				

Table 2: Potential Target Pollutant Scoring/Ranking Matrix

Column A	Question #1		Question #2		Question #3		Question #4		Question #5						Question #6		Question #7		Question #8		Question #9		Column T
Potential Target Pollutant	What is the TMDL priority schedule for the water body and pollutant/ stressor as specified on the 303(d) list? [In the case of multiple water bodies, use the highest priority schedule].	Weighted Score (wt. factor = 5)	Have TIE's found the target pollutant to be the cause of acute or chronic toxicity in Sacramento urban runoff from 2002-2008?	Weighted Score (wt. factor = 3)	Have TIE's tests found the target pollutant to be the cause of acute or chronic toxicity in receiving waters in the permitted area from 2002-2008?	Weighted Score (wt. factor = 3)	At what frequency has the target pollutant been found to exceed minimum relevant regulatory criteria in Sacramento urban runoff?	Weighted Score (wt. factor = 10)	At what frequency has the target pollutant been found to exceed minimum applicable criteria in receiving waters in the permitted area from 2002-2008?					Weighted Score (wt. factor = 10)	Has the target pollutant been demonstrated to bioaccumulate to detrimental levels in organisms living in receiving waters in the permitted area?	Weighted Score (wt. factor = 3)	Has the target pollutant been found to cause or contribute to the impairment of beneficial uses in the permitted area or downstream, including the Sacramento-San Joaquin Delta?	Weighted Score (wt. factor = 1)	Has the target pollutant been identified as a significant public, regulatory or Permittee concern that has yet to be adequately or completely addressed by draft or adopted Federal, State or local water quality criteria or regulations?	Weighted Score (wt. factor = 1)	Has source of constituent been banned, widely reduced or restricted, and have monitoring results decreased in recent years?	Weighted Score (wt. factor = 5)	**Target Pollutant Composite Ranking Value**
Max. Raw Score/Max. Weighted Score	**5**	**25**	**5**	**15**	**5**	**15**	**1**	**10**	**1**	**1**	**1**	**1**	**1**	**10**	**5**	**15**	**5**	**5**	**5**	**5**	**5**	**-15**	**100 Point Max.**
									Sac R.	Amer R.	Arcade Ck	Willow Ck.	Morrison Ck.										

Notes:

Question #6 references attachment E from a 1995 aquatic tissue study and a 2007 study done for California Waterboards titled: Bioaccumulation of Pollutants in California Waters: *A Review of Historic Data and Assessment of Impacts on Fishing and Aquatic Life*

Table 3.

Sacramento Stormwater Monitoring Program
Target Pollutant Prioritization

Scored and Ranked Potential Target Pollutants

Rank	Constituent	Target Pollutant Composite Ranking Value
1	Mercury, Total Methyl	62.0
2	Pyrethroids	40.0
3	Mercury, Total	32.5
4	Escherichia Coli	16.5
5	Fecal Coliform	16.4
6	PCBs	15.0
7	Bis(2-ethylhexyl)phthalate	14.0
8	Pentachlorophenol	10.5
9	Solids, Total Dissolved	9.9
10	Copper, Dissolved	9.5
11	Chlordane	9.0
12	Diazinon	8.7
13	Specific Conductance	8.7
14	Benzo(k)fluoranthene	8.2
15	Zinc, Dissolved	7.9
16	Chrysene	6.3
17	Dieldrin	6.0
18	Indeno(1,2,3-cd)pyrene	5.9
19	Chlorpyrifos	5.7
20	Lead, Dissolved	5.2
21	Malathion	5.0
21	TPH as Diesel	5.0
21	TPH as Gasoline	5.0
21	TPH as Motor Oil	5.0
25	Carbon, Total Organic	3.0
25	Nitrate plus Nitrite as N	3.0
25	Phosphorus, Total	3.0
25	Total Kjeldahl Nitrogen as N	3.0
25	Solids, Total Suspended	3.0
30	Dibenz(a,h)anthracene	2.6
31	Turbidity	2.1
32	BHC, gamma (Lindane)	1.2
33	Endrin	1.0
33	Heptachlor	1.0
33	Toxaphene	1.0
36	Fluoranthene	0.0
36	Fluorene	0.0
36	Naphthalene	0.0
36	Perylene	0.0
36	Phenanthrene	0.0
36	Pyrene	0.0

Table 4.

Sacramento Stormwater Monitoring Program
Target Pollutant Prioritization

Potential Target Pollutant Groups Prioritization

Constituent	Constituent Grouping	Partnership Work Status	Initial Scoring	Initial Ranking	Scoring Priority	RWQE	Source Controllability	Urban Runoff Treatability	Urban Runoff Impact on Beneficial Use	Composite Constituent Score	Composite Constituent Priority	Composite Constituent Grouping Score	Composite Constituent Grouping Priority
Solids, Total Dissolved	Drinking Water Issue	DW Basin Plan Amendment Process	9.9	9	Medium	Yes	Low	Low	Medium	2	Medium	1.58	Medium
Specific Conductance	Drinking Water Issue	DW Basin Plan Amendment Process	8.7	13	Low	Yes	Low	Low	Medium	1.75	Medium		
Carbon, Total Organic	Drinking Water Issue	DW Basin Plan Amendment Process	3.0	25	Low	No	Low	Medium	Low	1.25	Low		
Nitrate plus Nitrite as N	Drinking Water Issue	DW Basin Plan Amendment Process	3.0	25	Low	No	Medium	Medium	Low	1.5	Low		
Phosphorus, Total	Drinking Water Issue	DW Basin Plan Amendment Process	3.0	25	Low	No	Medium	Medium	Low	1.5	Low		
Total Kjeldahl Nitrogen as N	Drinking Water Issue	DW Basin Plan Amendment Process	3.0	25	Low	No	Medium	Medium	Low	1.5	Low		
PCBs	Legacy Pollutant	Expected TMDL	15.0	6	Medium	No	Low	Low	Low	1.25	Low	1.13	Low
Chlordane	Legacy Pollutant	Expected TMDL	9.0	11	Low	No	Low	Low	Low	1	Low		
Dieldrin	Legacy Pollutant	Expected TMDL	6.0	17	Low	No	Low	Low	Low	1	Low		
BHC, gamma (Lindane)	Legacy Pollutant	Ongoing Characterization	1.2	32	Low	Yes	Low	Low	Low	1.5	Low		
Endrin	Legacy Pollutant	Ongoing Characterization	1.0	33	Low	No	Low	Low	Low	1	Low		
Heptachlor	Legacy Pollutant	Ongoing Characterization	1.0	33	Low	No	Low	Low	Low	1	Low		
Copper, Dissolved	Metal	Work Plan Complete	9.5	10	Medium	Yes	Low	Low	Low	1.75	Medium	1.58	Medium
Lead, Dissolved	Metal	Work Plan Complete	5.2	20	Low	Yes	Low	Low	Low	1.5	Low		
Zinc, Dissolved	Metal	Work Plan Complete	7.9	15	Low	Yes	Low	Low	Low	1.5	Low		
Mercury, Total Methyl	Mercury	Draft TMDL	62.0	1	High	No	Medium	Low	Low	1.75	Medium	2.25	Medium
Mercury, Total	Mercury	Draft TMDL	32.5	3	High	Yes	Medium	High	Low	2.75	High		
Benzo(k)fluoranthene	PAH	Ongoing Characterization	8.2	14	Low	Yes	Low	Low	Medium	1.75	Medium	1.75	Medium
Chrysene	PAH	Ongoing Characterization	6.3	16	Low	Yes	Low	Low	Medium	1.75	Medium		
Indeno(1,2,3-cd)pyrene	PAH	Ongoing Characterization	5.9	18	Low	Yes	Low	Low	Medium	1.75	Medium		
Dibenz(a,h)anthracene	PAH	Ongoing Characterization	2.6	30	Low	Yes	Low	Low	Medium	1.75	Medium		
Toxaphene	PAH	Ongoing Characterization	1.0	33	Low	Yes	Low	Low	Medium	1.75	Medium		
Fluoranthene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Fluorene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Naphthalene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Perylene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Phenanthrene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Pyrene	PAH	Ongoing Characterization	0.0	36	Low	Yes	Low	Low	Medium	1.75	Medium		
Escherichia Coli	Pathogen Indicator	Work Plan Complete	16.5	4	High	Yes	Low	Medium	Medium	2.5	Medium	2.50	Medium
Fecal Coliform	Pathogen Indicator	Work Plan Complete	16.4	5	High	Yes	Low	Medium	Medium	2.5	Medium		
Pyrethroids	Pesticide	Expected TMDL	40.0	2	High	No	High	Low	High	2.5	Medium	2.30	Medium
Malathion	Pesticide	Expected TMDL	5.0	21	Low	No	High	Low	High	2	Medium		
Diazinon	Pesticide	TMDL Complete	8.7	12	Low	Yes	High	Low	High	2.5	Medium		
Chlorpyrifos	Pesticide	TMDL Complete	5.7	19	Low	Yes	High	Low	High	2.5	Medium		
Pentachlorophenol	Pesticide	Ongoing Characterization	10.5	8	Medium	Yes	Medium	Low	Low	2	Medium		
Solids, Total Suspended	Sediment Erosion	Hydromodification program	3.0	25	Low	No	High	High	High	2.5	Medium	2.75	High
Turbidity	Sediment Erosion	Hydromodification program	2.1	31	Low	Yes	High	High	High	3	High		
Bis(2-ethylhexyl)phthalate	Unquantified Source	None	14.0	7	Medium	No	Medium	Low	Medium	1.75	Medium	1.75	Medium
TPH as Diesel	Petroleum Product	Ongoing Characterization	5.0	21	Low	No	Medium	Medium	Low	1.5	Low	1.50	Low
TPH as Gasoline	Petroleum Product	Ongoing Characterization	5.0	21	Low	No	Medium	Medium	Low	1.5	Low		
TPH as Motor Oil	Petroleum Product	Ongoing Characterization	5.0	21	Low	No	Medium	Medium	Low	1.5	Low		

Table 5.

Sacramento Stormwater Monitoring Program
Target Pollutant Prioritization

Prioritized Target Pollutant Groups

Target Pollutant Group	Priority
Sediment Erosion	High
Pathogen Indicator	Medium
Pesticide	Medium
Mercury	Medium
PAH	Medium
Unquantified Source	Medium
Drinking Water Issue	Medium
Metal	Medium
Petroleum Product	Low
Legacy Pollutant	Low

Attachment A. **Summary Statistics and Minimum Relevant Regulatory Criteria for Pollutants/Stressors Evaluated in Potential Target Pollutant Identification and Scoring/Ranking Matrices**

Constituent	Was the constituent specified in the most recent SMP Prioritized Target Pollutant List or Tracking List?	n	Frequency (%) of detection in Sacramento urban runoff (detection limit range)	Range of Sacramento Urban Runoff Reporting Limits	Range of Sacramento Urban Runoff Detected Values	Units	n	Frequency (%) of detection in Urban Tributaries (detection limit range)	Range of Urban Tributaries Reporting Limits	Range of Urban Tributaries Detected Values	Units	n	Frequency (%) of detection in American River (detection limit range)	Range of American River Reporting Limits	Range of American River Detected Values	n	Frequency (%) of detection in Sacramento River (detection limit range)	Range of Sacramento River Reporting Limits	Range of Sacramento River Detected Values	Minimum Water Quality Criterion	Source of Criterion	Are detection limits below criterion?
1,2,4-Trichlorobenzene	yes	59	5.08%	10-50	12.3-25	ng/L	14	ND	10-10	n/a	ng/L	98	3.06%	163	10-10	100	2.00%	163	10-11	5	SSQP	yes
1,2-Dichlorobenzene	yes	59	ND	10-50	n/a	ng/L	14	ND	10-10	n/a	ng/L	118	0.85%	0.17-62.5	89-89	142	ND	0.17-62.5	ND	600	SSQP	yes
1,2-Diphenylhydrazine	no	3	33.33%	5-5	11-11	ng/L	0	no data	0-0	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
1,3-Dichlorobenzene	yes	59	ND	10-50	n/a	ng/L	14	ND	10-10	n/a	ng/L	118	ND	0.11-62.5	ND	142	ND	0.11-62.5	ND	400	SSQP	yes
1,4-Dichlorobenzene	yes	59	1.69%	10-50	0.03-0.03	ng/L	14	ND	10-10	n/a	ng/L	118	0.85%	0.19-62.5	161-161	142	3.52%	0.19-62.5	11-44.7	5	SSQP	yes
1-Methylnaphthalene	no	59	72.88%	1-5	1.1-47	ng/L	14	85.71%	1-1	1.8-85.5	ng/L	90	28.89%	1-5	1-5.1	89	25.84%	1-5	1.2-9.8	none		no criterion
1-Methylphenanthrene	no	59	45.76%	1-5	2.7-56.5	ng/L	14	28.57%	1-1	5.9-35	ng/L	90	5.56%	1-5	1.5-3.6	89	4.49%	1-5	1.2-8.5	none		no criterion
2,3,5-Trimethylnaphthalene	no	59	16.95%	1-5	3.4-60.1	ng/L	14	35.71%	1-1	2.4-43.5	ng/L	90	8.89%	1-5	1.5-11	89	3.37%	1-5	1.4-6.4	none		no criterion
2,4,5-T	yes	45	ND	0.1-0.5	n/a	µg/L	15	ND	0.03-0.2	n/a	µg/L	52	ND	0.03-0.2	ND	34	ND	0.03-0.1	ND	50	SSQP	yes
2,4,5-TP	yes	45	ND	0.1-0.5	n/a	ng/L	15	ND	0.07-0.2	n/a	ng/L	62	ND	0.07-0.2	ND	42	ND	0.07-0.12	ND	none		no criterion
2,4,6-Trichlorophenol	yes	59	ND	50-100	n/a	ng/L	14	ND	0.05-50	n/a	ng/L	91	ND	0.37-100	ND	97	1.03%	0.34-100	2.8-2.8	2.1	SSQP	yes
2,4-D	yes	45	40.00%	0.02-2.5	0.24-4.2	ng/L	15	53.33%	0.15-1	0.14-0.68	ng/L	62	ND	0.15-1	ND	42	2.38%	0.15-0.6	0.29-0.29	70	SSQP	yes
2,4-DB	yes	45	2.22%	1-5	1.3-1.3	µg/L	15	33.33%	0.23-2	0.44-2.1	µg/L	52	ND	0.23-2	ND	34	ND	0.23-1	ND	none		no criterion
2,4'-DDD	no	14	ND	1-5	n/a	ng/L	10	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
2,4'-DDE	no	14	ND	1-5	n/a	ng/L	10	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
2,4'-DDT	no	14	ND	1-5	n/a	ng/L	10	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
2,4-Dichlorophenol	yes	59	5.08%	50-100	15-89	ng/L	14	ND	50-50	n/a	ng/L	95	ND	1100	ND	98	ND	1100	ND	93	SSQP	yes
2,4-Dimethylphenol	yes	59	ND	100-200	n/a	ng/L	14	ND	100-100	n/a	ng/L	95	ND	1200	ND	98	ND	1200	ND	540	SSQP	yes
2,4-Dinitrophenol	yes	59	11.86%	100-200	159-1618	ng/L	14	35.71%	100-100	125-1494	ng/L	95	ND	5200	ND	98	ND	5200	ND	70	SSQP	yes
2,4-Dinitrotoluene	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	98	ND	1100	ND	100	ND	1100	ND	none		no criterion
2,6-Dimethylnaphthalene	no	59	40.68%	1-5	2.1-79.9	ng/L	14	64.29%	1-1	2-82.8	ng/L	92	26.09%	1-5	1-9.9	91	21.98%	1-5	1-3.6	none		no criterion
2,6-Dinitrotoluene	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	98	ND	1100	ND	100	ND	1100	ND	none		no criterion
2-Chloronaphthalene	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	98	ND	1100	ND	100	ND	1100	ND	none		no criterion
2-Chlorophenol	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	95	ND	1100	ND	98	ND	1100	ND	120	SSQP	yes
2-Methyl-4,6-dinitrophenol	no	59	15.25%	100-500	104-355	ng/L	14	14.29%	100-100	185-295	ng/L	85	ND	10200	ND	84	ND	10200	ND	none		no criterion
2-Methylnaphthalene	yes	59	76.27%	1-5	1.9-85.1	ng/L	14	92.86%	1-1	1.4-129	ng/L	98	32.65%	1-20	1.1-7.5	100	27.00%	1-20	1.2-10.1	none		no criterion
2-Nitrophenol	yes	59	11.86%	100-200	137-1030	ng/L	14	28.57%	100-100	101-226	ng/L	93	ND	1200	ND	96	ND	1200	ND	none		no criterion
3,3'-Dichlorobenzidine	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	98	ND	2100	ND	100	ND	2100	ND	none		no criterion
4,4'-DDD	no	60	ND	1-50	n/a	ng/L	35	ND	1-10	n/a	ng/L	22	ND	no data	ND	12	ND	no data	ND	0.83	SSQP	yes
4,4'-DDE	yes	60	1.67%	1-50	34.2-34.2	ng/L	35	ND	1-10	n/a	ng/L	28	ND	1	ND	18	ND	1	ND	0.59	SSQP	yes
4,4'-DDT	yes	60	13.33%	1-50	14-30	ng/L	35	8.57%	1-10	10-50	ng/L	28	ND	1	ND	18	ND	1	ND	0.59	SSQP	yes
4-Bromophenyl phenyl ether	yes	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
4-Chloro-3-methylphenol	yes	59	ND	100-200	n/a	ng/L	14	ND	100-100	n/a	ng/L	95	ND	2200	ND	98	ND	2200	ND	none		no criterion
4-Chlorophenyl phenyl ether	yes	56	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
4-Nitrophenol	yes	59	ND	100-200	n/a	ng/L	14	7.14%	100-100	164-164	ng/L	95	ND	5200	ND	98	ND	5200	ND	none		no criterion
Acenaphthene	yes	59	35.59%	1-5	1.9-295	ng/L	14	35.71%	1-1	5.5-42.5	ng/L	98	7.14%	0.37-10.1	1.4-13.4	102	9.80%	0.32-20	0.39-71.5	none		no criterion
Acenaphthylene	yes	59	33.90%	1-5	2.6-16.4	ng/L	14	21.43%	1-1	2.3-25	ng/L	98	5.10%	1-20	1.4-2.1	100	5.00%	1-20	1-23.2	1200	SSQP	yes
Aldicarb	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	85	ND	0.2-1	ND	none		no criterion
Aldrin	yes	60	3.33%	1-50	4-36	ng/L	35	ND	1-10	n/a	ng/L	65	ND	1	ND	47	ND	1	ND	0.13	SSQP	yes
Alkalinity as CaCO3	no	0	no data	0-0	n/a	mg/L	21	100.00%	0-0	10-150	mg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Aluminum, Dissolved	yes	6	100.00%	0-0	30.8-77.5	ng/L	6	100.00%	0-0	19.1-195	ng/L	65	75.38%	2.8-12	1.2-119	63	80.95%	3.4-19.6	5.6-260	200	SSQP	yes
Aluminum, Total	no	6	100.00%	0-0	1160-6520	ng/L	6	100.00%	0-0	937-5640	ng/L	82	91.46%	1.28-143	18-2250	75	97.33%	4-4	4-9090	200	SSQP	yes
Ametryn	no	45	ND	5-500	n/a	ng/L	15	ND	5-500	n/a	ng/L	62	ND	0.09-0.5	ND	43	ND	0.09-0.5	ND	none		no criterion
Aminocarb	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	83	ND	0.2-1	ND	85	ND	0.2-1	ND	none		no criterion
Ammonia as N	yes	15	100.00%	0-0	0.2-1.2	µg/L	0	no data	0-0	n/a	µg/L	124	12.10%	0.04-0.14	0.02-0.24	141	29.08%	0.03-0.39	0.03-0.42	none		no criterion
Anthracene	yes	59	50.85%	1-5	2.02-303	µg/L	14	71.43%	1-1	3.3-35	µg/L	104	2.88%	0.13-20	1.2-1.6	108	4.63%	0.1-20	0.12-1.5	9600	SSQP	yes
Antimony, Dissolved	yes	6	100.00%	0-0	0.4-2.68	µg/L	6	100.00%	0-0	0.21-2.78	µg/L	4	75.00%	0.01-0.01	0.03-0.11	14	92.86%	0.05-0.05	0.05-0.09	6	SSQP	yes
Antimony, Total Recoverable	no	6	100.00%	0-0	0.86-2.66	µg/L	6	100.00%	0-0	0.24-2.53	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Aroclor 1016	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1221	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1232	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1242	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1248	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1254	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Aroclor 1260	no	6	ND	10-10	n/a	ng/L	8	ND	10-10	n/a	ng/L	4	ND	0.1-10	ND	4	ND	0.1-10	ND	none		no criterion
Arsenic, Dissolved	yes	60	98.33%	0.05-0.05	0.45-6.99	µg/L	12	100.00%	0-0	1.03-3.2	µg/L	82	87.80%	0.15-0.46	0.16-1.82	79	100.00%	no data	0.29-2.31	none		no criterion
Arsenic, Total	no	3	100.00%	0-0	1.16-4.33	µg/L	2	100.00%	0-0	3.16-3.42	µg/L	101	82.18%	0.04-1	0.21-2.9	97	92.78%	0.01-0.15	0.04-2.84	10	SSQP	yes
Arsenic, Total Recoverable	no	57	100.00%	0-0	0.68-11.1	µg/L	13	100.00%	0-0	1.4-4.67	µg/L	0	no data	no data	no data	0	no data	no data	no data	50	SSQP	yes
Atraton	no	45	ND	5-500	n/a	ng/L	15	ND	5-500	n/a	ng/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	none		no criterion
Atrazine	yes	45	4.44%	5-500	10-11	ng/L	15	ND	5-500	n/a	ng/L	62	ND	0.07-0.5	ND	42	ND	0.07-0.5	ND	3	SSQP	yes
Azinphosmethyl	yes	48	ND	0.1-2.5	n/a	µg/L	123	0.81%	0.49-2.5	0.72-0.72	µg/L	123	ND	0.02-2	ND	139	ND	0.02-1	ND	none		no criterion
Azobenzene	no	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	90	ND	5100	ND	88	ND	5100	ND	none		no criterion
Barban	yes	60	ND	3.5-3.5	n/a	µg/L	14	ND	1.75-3.5	n/a	µg/L	84	ND	1.75-5	ND	84	ND	1.75-5	ND	none		no criterion
Benomyl (Carbendazim)	yes	60	11.67%	0.4-0.4	0.1-0.4	µg/L	14	ND	0.2-0.4	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Benz(a)anthracene	yes	59	57.63%	1-5	3.3-587	ng/L	14	64.29%	0-1	0.03-51.4	ng/L	98	11.22%	0.1-5	0.11-22.5	100	8.00%	0.12-10	0.12-2	0.0044	SSQP	yes
Benzene	yes	9	ND	500-500	n/a	ng/L	0	no data	0-0	n/a	ng/L	49	ND	0.16-0.5	ND	66	ND	0.16-0.5	ND	none		no criterion
Benzidine	no	59	ND	50-100	n/a	ng/L	14	ND	50-50	n/a	ng/L	90	ND	5100	ND	88	ND	5100	ND	0.00012	SSQP	yes
Benzo(a)pyrene	yes	59	54.24%	1-5	2.8-642	ng/L	14	71.43%	1-1	6.1-71.6	ng/L	98	5.10%	0.22-5	1.4-5.2	100	1.00%	0.31-10	0.18-0.18	0.0044	SSQP	yes
Benzo(b)fluoranthene	yes	59	57.63%	1-5	5.4-622	ng/L	14	71.43%	1-1	7.1-120.5	ng/L	98	8.16%	1-20	2.3-37.8	99	4.04%	1-20	1.4-2.3	0.0044	SSQP	yes
Benzo(e)pyrene	yes	59	55.93%	1-5	5.4-438	ng/L	14	71.43%	1-1	7.3-94.2	ng/L	92	7.61%	1-5	2.3-19.5	90	3.33%	1-5	2.4-4.4	none		no criterion
Benzo(ghi)perylene	yes	59	44.07%	1-5	5-834	ng/L	14	71.43%	1-1	6.5-112.8	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Benzo(k)fluoranthene	yes	59	54.24%	1-5	9.91-440	ng/L	14	71.43%	1-1	2.2-80.9	ng/L	34	2.94%	1-20	4-4	41	4.88%	1-20	1.9-2.7	0.0044	SSQP	yes
Beryllium, Dissolved	yes	6	ND	0.02-0.12	n/a	µg/L	6	ND	0.02-0.12	n/a	µg/L	4	ND	0.02-0.02	ND	15	6.67%	0	0.05-0.05	none		no criterion
Beryllium, Total	no	0	no data	0-0	n/a	µg/L	3	33.33%	0.12-0.12	0.23-0.23	µg/L	6	16.67%	0	0.16-0.16	20	25.00%	0.01-0.06	0.01-0.1	none		no criterion
Beryllium, Total Recoverable	no	6	ND	0.1-0.3	n/a	µg/L	3	33.33%	0.1-0.1	0.12-0.12	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
BHC, alpha	no	60	ND	0-0.05	n/a	µg/L	34	2.94%	0-0.01	0.01-0.01	µg/L	65	ND	1	ND	46	ND	1	ND	3.9	SSQP	yes
BHC, beta	no	60	3.33%	0-0.05	0.02-0.03	µg/L	35	2.86%	0-0.01	0.02-0.02	µg/L	65	ND	1	ND	46	ND	1	ND	14	SSQP	yes
BHC, delta	no	60	8.33%	0-0.05	0.01-0.02	µg/L	35	5.71%	0-0.01	0.01-0.02	µg/L	65	ND	1	ND	46	ND	1	ND	none		no criterion
BHC, gamma (Lindane)	no	60	ND	0-0.05	n/a	µg/L	35	2.86%	0-0.01	0.02-0.02	µg/L	61	ND	1	ND	42	ND	1	ND	19	SSQP	yes
Biphenyl	no	59	54.24%	0-0.01	n/a.06	µg/L	14	85.71%	0-0	n/a.42	µg/L	92	21.74%	1-5	1-6.7	90	14.44%	1-5	1-4.2	none		no criterion
Bis(2-chloroethoxy)methane	yes	59	1.69%	0.05-0.1	0.34-0.34	µg/L	14	ND	0.05-0.05	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	none		no criterion

Bis(2-chloroethyl)ether	yes	59	3.39%	0.05-0.1	0.16-0.21	µg/L	14	ND	0.05-0.05	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	0.31	SSQP	yes
Bis(2-chloroisopropyl)ether	yes	59	ND	0.05-0.1	n/a	µg/L	14	ND	0.05-0.05	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	1400	SSQP	yes
Bis(2-ethylhexyl)phthalate	yes	59	100.00%	0-0	0.05-15.83	µg/L	12	100.00%	0-0	0.26-5.61	µg/L	0	no data	no data	no data	0	no data	no data	no data	1.8	SSQP	yes
BOD (5)	yes	59	83.05%	2-30	3-730	mg/L	15	86.67%	2-15	3-122	mg/L	65	12.31%	2-3	2-5	44	11.36%	2-2	2-2	none		no criterion
Bolstar	yes	72	ND	0-0.1	n/a	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.07-0.2	ND	139	ND	0.07-0.1	ND	none		no criterion
Bromacil	yes	60	3.33%	0.4-0.4	0.1-0.3	µg/L	14	7.14%	0.2-0.4	0.12-0.12	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Butyl benzyl phthalate	yes	59	96.61%	0.03-0.03	0.01-2.39	µg/L	12	100.00%	0-0	0.05-1	µg/L	0	no data	no data	no data	0	no data	no data	no data	3000	SSQP	yes
Cadmium, Dissolved	yes	60	90.00%	0.02-0.04	0.01-1.6	µg/L	48	56.25%	0.01-0.1	0.01-0.17	µg/L	85	15.29%	0	0-0.04	83	33.73%	0	0.01-0.03	none		no criterion
Cadmium, Total	no	3	100.00%	0-0	0.03-0.1	µg/L	2	50.00%	0.2-0.2	0.46-0.46	µg/L	102	33.33%	0	0.01-0.1	97	71.13%	0	0.01-0.13	none		no criterion
Cadmium, Total Recoverable	no	57	100.00%	0-0	0.02-2.5	µg/L	49	73.47%	0.01-0.04	0.02-0.99	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Calcium, Dissolved	yes	0	no data	0-0	n/a	µg/L	24	100.00%	0-0	5200-22600	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Calcium, Total	no	9	100.00%	0-0	6290-48000	µg/L	50	100.00%	0-0	6000-25300	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Carbaryl	yes	60	5.00%	0.07-0.1	0.07-0.23	µg/L	14	ND	0.05-0.1	n/a	µg/L	84	ND	0.05-1	ND	84	ND	0.05-1	ND	none		no criterion
Carbofuran	yes	60	5.00%	0.07-0.1	0.1-0.12	µg/L	14	ND	0.05-0.1	n/a	µg/L	84	ND	0.05-1	ND	84	ND	0.05-1	ND	18	SSQP	yes
Carbon, Dissolved Organic	yes	62	100.00%	0-0	2-300	mg/L	42	95.24%	0.5-1	2.4-120	mg/L	150	99.33%	1.4-1.4	1.1-5.5	168	98.81%	1-2.5	1.1-11	none		no criterion
Carbon, Total Organic	yes	62	100.00%	0-0	3-310	mg/L	42	100.00%	0-0	2-130	mg/L	146	97.26%	0.92-2.5	0.93-6.2	163	95.71%	1.3-2.5	0.52-5.9	none		no criterion
Chemical Oxygen Demand	no	15	93.33%	50-50	19-100	mg/L	7	71.43%	50-50	22-100	mg/L	22	95.45%	5-5	5-18	15	80.00%	5-5	6-20	none		no criterion
Chlordane	yes	3	100.00%	0-0	n/a	µg/L	2	50.00%	0-0	0.01-0.01	µg/L	59	8.47%	0.01-0.5	0.5-0.5	40	10.00%	0.01-0.5	0.5-0.5	0.57	SSQP	yes
Chlordane, alpha	no	60	8.33%	0-0.05	n/a.04	µg/L	35	2.86%	0-0.01	n/a	µg/L	37	ND	1	ND	25	ND	1	ND	0.57	SSQP	yes
Chlordane, gamma	no	60	8.33%	0-0.05	n/a.03	µg/L	35	5.71%	0-0.01	n/a.02	µg/L	37	ND	1	ND	25	ND	1	ND	none		no criterion
Chloride, Total	yes	42	76.19%	2-3	2.1-32	mg/L	30	96.67%	2-2	2.2-27	mg/L	0	no data	no data	no data	0	no data	no data	no data	250	SSQP	yes
Chloroxuron	yes	60	ND	0.4-2	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Chlorpropham	yes	60	ND	0.8-3.5	n/a	µg/L	14	ND	0.4-3.5	n/a	µg/L	84	ND	0.4-5	ND	84	ND	0.4-5	ND	none		no criterion
Chlorpyrifos	yes	74	9.46%	0.01-50	0.03-110	ng/L	173	4.62%	0-50	0.03-32	ng/L	123	ND	0	ND	140	1.43%	0	0.1-0.15	0.02/0.014	SSQP	mixed DLs
Chromium, Dissolved	yes	59	91.53%	0.07-0.1	0.17-5.68	µg/L	36	97.22%	0.07-0.07	0.26-3.31	µg/L	78	44.87%	0.02-0.19	0.02-0.3	75	54.67%	0.02-0.4	0.02-1.52	none		no criterion
Chromium, Total	no	12	100.00%	0-0	0.38-20.3	µg/L	2	100.00%	0-0	5.66-14.8	µg/L	102	75.49%	0.02-0.36	0.02-6.4	97	92.78%	0.04-0.67	0.02-19.2	none		no criterion
Chromium, Total Hexavalent	no	6	ND	0.5-10	n/a	µg/L	6	ND	0.5-10	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Chromium, Total Recoverable	no	48	100.00%	0-0	0.24-7.98	µg/L	37	100.00%	0-0	0.96-16	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Chrysene	yes	59	66.10%	1-5	3.1-602	ng/L	14	78.57%	1-1	4.3-113	ng/L	98	18.37%	0.13-5	0.29-39.9	100	15.00%	0.3-10	0.25-6	0.0044	SSQP	yes
cis-Nonachlor	no	15	6.67%	1-5	11.6-11.6	ng/L	10	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Copper, Dissolved	yes	60	100.00%	0-0	0.1-14.1	µg/L	62	100.00%	0-0	0.99-18.7	µg/L	83	97.59%	0.49-0.94	0.32-2.18	82	97.56%	0.5-1.48	0.55-3.36	10		yes
Copper, Total	no	3	100.00%	0-0	3.99-6.99	µg/L	10	100.00%	0-0	2.02-51	µg/L	102	94.12%	0.04-0.57	0.11-7.2	97	93.81%	0.01-0.1	0.01-20.2	1000		no criterion
Copper, Total Recoverable	no	57	100.00%	0-0	1.58-118	µg/L	56	100.00%	0-0	1.47-58.4	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no
Coumaphos	yes	42	ND	0.2-0.2	n/a	µg/L	122	ND	0.13-0.2	n/a	µg/L	123	ND	0.13-0.5	ND	139	ND	0.13-0.5	ND	none		no criterion
Cyanazine	yes	30	ND	0.01-0.5	n/a	µg/L	9	ND	0.01-0.5	n/a	µg/L	62	ND	0.09-0.5	ND	42	ND	0.09-0.5	ND	none		no criterion
Cyanide	yes	6	ND	3-3	n/a	µg/L	6	16.67%	3-3	7-7	µg/L	9	ND	0.8-5	ND	59	8.47%	0.8-5	0.93-5	none		no criterion
Dalapon	no	45	ND	1-5	n/a	µg/L	15	ND	0.59-2	n/a	µg/L	52	ND	0.59-2	ND	33	ND	0.59-1	ND	5.2	SSQP	yes
DCPA (Dacthal)	yes	15	ND	5-10	n/a	ng/L	10	ND	5-5	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Def	yes	42	ND	0.1-0.1	n/a	µg/L	121	ND	0.08-0.1	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Def/Merphos	no	0	no data	0-0	n/a	µg/L	1	100.00%	0-0	0.07-0.07	µg/L	21	ND	0.1-0.1	ND	31	ND	0.1-0.1	ND	none		no criterion
Demeton	yes	74	ND	0-0.5	n/a	µg/L	173	ND	0-0.5	n/a	µg/L	119	ND	0.08-0.4	ND	137	ND	0.08-0.2	ND	none		no criterion
Diazinon	yes	74	47.30%	0-0.05	0.01-0.56	µg/L	173	18.50%	0-0.05	0.01-6.5	µg/L	123	ND	0	ND	140	2.86%	0	0.01-0.06	0.08/0.05	SSQP	yes
Dibenz(a,h)anthracene	yes	59	20.34%	0-0.01	0.01-0.15	µg/L	14	14.29%	0-0	0.02-0.02	µg/L	98	ND	0.27-5	ND	100	ND	0.22-10	ND	0.0044	SSQP	no
Dibenzothiophene	no	30	56.67%	1-5	7.4-91.8	ng/L	8	100.00%	0-0	3.6-218	ng/L	23	ND	1-5	ND	20	ND	1-5	ND	none		no criterion
Dicamba	yes	45	15.56%	0.1-0.5	0.03-0.25	µg/L	15	46.67%	0.03-0.1	0.03-0.09	µg/L	52	ND	0.03-0.2	ND	33	ND	0.03-0.1	ND	none		no criterion
Dichloroprop	yes	45	4.44%	0.5-2.5	0.19-0.48	µg/L	15	ND	0.16-1	n/a	µg/L	52	ND	0.16-1	ND	33	ND	0.16-0.5	ND	none		no criterion
Dichlorvos	yes	72	1.39%	0-0.2	0.06-0.06	µg/L	171	ND	0-0.2	n/a	µg/L	123	ND	0.02-0.4	ND	139	ND	0.02-0.2	ND	none		no criterion
Dicofol	no	14	ND	50-100	n/a	ng/L	10	ND	50-50	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Dieldrin	yes	60	6.67%	0-0.05	0.01-0.05	µg/L	35	2.86%	0-0.01	0.01-0.01	µg/L	65	ND	1	ND	46	ND	1	ND	0.14	SSQP	yes
Diethyl phthalate	yes	59	96.61%	0.1-0.1	0.02-1.97	µg/L	12	100.00%	0-0	0.05-0.49	µg/L	98	5.10%	5-483	9.1-71.5	99	11.11%	5-312	7.5-533	23000	SSQP	yes
Dimethoate	yes	72	2.78%	0-0.1	0.05-0.1	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.08-0.2	ND	139	ND	0.08-0.1	ND	none		no criterion
Dimethyl phthalate	yes	59	91.53%	0.01-0.05	0.01-7.62	µg/L	12	91.67%	0.01-0.01	0.01-0.36	µg/L	98	2.04%	5-357	5.2-8	99	7.07%	5-314	5-75.2	31300	SSQP	yes
Di-n-butyl phthalate	yes	59	94.92%	0.08-0.08	0.02-1.98	µg/L	12	100.00%	0-0	0.04-0.37	µg/L	98	9.18%	5-201.5	10.6-162.8	99	13.13%	5-352.7	10.7-1280	2700	SSQP	yes
Di-n-octyl phthalate	yes	59	77.97%	0.01-0.01	0.01-8.2	µg/L	12	100.00%	0-0	0.01-0.56	µg/L	98	17.35%	5-20	7.8-335	99	3.03%	5-20	2.9-34.4	none		no criterion
Dinoseb	yes	45	ND	0.25-1.25	n/a	µg/L	15	ND	0.08-0.5	n/a	µg/L	52	3.85%	0.08-0.5	0.09-0.29	33	6.06%	0.25-0.25	0.08-0.23	none		no criterion
Diphenamid	yes	38	ND	0.1-0.1	n/a	µg/L	105	ND	0.1-0.2	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Dissolved Oxygen	no	0	no data	0-0	n/a	mg/L	18	94.44%	1-1	2.91-9	mg/L	109	100.00%	no data	6.3-19	129	100.00%	no data	8.3-17	7	SSQP	yes
Dissolved Oxygen (field)	no	19	100.00%	0-0	4.1-13.5	mg/L	143	100.00%	0-0	3.5-12	mg/L	0	no data	no data	no data	0	no data	no data	no data	7	SSQP	yes
Disulfoton	yes	74	ND	0-1	n/a	µg/L	173	ND	0-1	n/a	µg/L	119	ND	0.02-0.2	ND	137	ND	0.02-0.1	ND	none		no criterion
Diuron	yes	60	35.00%	0.4-0.4	0.1-20	µg/L	14	21.43%	0.2-0.4	0.4-7.4	µg/L	84	2.38%	0.2-1	0.3-1.3	84	7.14%	0.2-1	0.1-1.1	none		no criterion
Endosulfan I	yes	60	3.33%	0-0.05	0.01-0.03	µg/L	35	2.86%	0-0.01	0.01-0.01	µg/L	65	ND	1	ND	46	ND	1	ND	56	SSQP	yes
Endosulfan II	yes	60	1.67%	0-0.05	0.01-0.01	µg/L	35	ND	0-0.01	n/a	µg/L	65	ND	1	ND	46	ND	1	ND	56	SSQP	yes
Endosulfan sulfate	no	60	ND	0-0.05	n/a	µg/L	35	ND	0-0.01	n/a	µg/L	3	ND	0.01-1	ND	3	ND	0.01-1	ND	110000	SSQP	yes
Endrin	yes	60	1.67%	0-0.05	0.01-0.01	µg/L	35	ND	0-0.01	n/a	µg/L	65	ND	1	ND	46	ND	1	ND	86	SSQP	yes
Endrin aldehyde	no	60	ND	0-0.05	n/a	µg/L	35	ND	0-0.01	n/a	µg/L	65	ND	1	ND	46	ND	1	ND	760	SSQP	yes
Endrin ketone	no	60	ND	0-0.05	n/a	µg/L	35	ND	0-0.01	n/a	µg/L	63	ND	0	ND	44	ND	0	ND	none		no criterion
EPN	yes	42	ND	0.1-0.1	n/a	µg/L	122	ND	0.03-0.1	n/a	µg/L	21	ND	0.1-0.1	ND	31	ND	0.1-0.1	ND	none		no criterion
EPTC	yes	42	ND	0.1-0.1	n/a	µg/L	122	ND	0.03-0.1	n/a	µg/L	9	ND	0.03-0.1	ND	15	ND	0.03-0.1	ND	none		no criterion
Escherichia Coli	no	61	100.00%	0-0	20-1100000	MPN/100mL	61	96.72%	20-20	40-500000	MPN/100mL	127	100.00%	no data	2-16000	78	100.00%	no data	2-1100	235	SSQP	yes
Etazine	no	15	ND	5-5	n/a	µg/L	6	ND	5-5	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Ethion	yes	44	ND	0.1-0.5	n/a	µg/L	124	ND	0.03-0.5	n/a	µg/L	123	ND	0.03-0.2	ND	139	ND	0.03-0.1	ND	none		no criterion
Ethoprop	yes	72	ND	0-0.1	n/a	µg/L	171	0.58%	0-0.1	0.02-0.02	µg/L	123	ND	0.02-0.2	ND	139	ND	0.02-0.1	ND	none		no criterion
Ethyl parathion	no	47	ND	0.1-20	n/a	µg/L	124	ND	0.02-0.5	n/a	µg/L	123	ND	0.02-0.2	ND	139	ND	0.02-0.5	ND	none		no criterion
Ethylbenzene	yes	9	ND	0.5-0.5	n/a	µg/L	0	no data	0-0	n/a	µg/L	7	ND	0.23-0.5	ND	19	ND	0.23-0.5	ND	none		no criterion
Fecal Coliform	no	61	100.00%	0-0	80-1700000	MPN/100mL	61	98.36%	20-20	30-130000	MPN/100mL	127	100.00%	no data	4-16000	126	100.00%	no data	4-2400	400	SSQP	yes
Fensulfothion	yes	72	ND	0-0.5	n/a	µg/L	171	ND	0-0.5	n/a	µg/L	123	ND	0.16-1	ND	139	ND	0.16-0.5	ND	none		no criterion
Fenthion	yes	72	ND	0-0.1	n/a	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.02-0.2	ND	139	ND	0.02-0.1	ND	none		no criterion
Fenuron	no	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Fluometuron	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Fluoranthene	yes	59	81.36%	0-0.01	0-2.25	µg/L	14	85.71%	0-0	n/a.15	µg/L	98	33.67%	1-5	0.32-53.1	100	36.00%	1-10	0.67-12.1	300	SSQP	yes
Fluorene	yes	59	49.15%	0-0.01	n/a.29	µg/L	14	42.86%	0-0	n/a.04	µg/L	98	13.27%	0.27-5	0.22-2.9	100	13.00%	0.21-10	0.38-2.3	1300	SSQP	yes
Fluoride, Total	yes	7	14.29%	0.1-0.1	0.16-0.16	µg/L	6	16.67%	0.1-0.1	0.25-0.25	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Glyphosate	yes	39	28.21%	3-25	4-36.7	µg/L	14	21.43%	3-30	3.81-26.3	µg/L	62	ND	4.6-25	ND	40	ND	4.6-25	ND	700	SSQP	yes
Hardness as CaCO3	no	57	100.00%	0-0	8-260	mg/L	71	100.00%	0-0	22.8-127	mg/L	125	96.80%	18-28	14-66	141	97.16%	56-60	24-120	0	SSQP	yes
Hardness as CaCO3, Dissolve	no	0	no data	0-0	n/a	mg/L	3	100.00%	0-0	20.3-69	mg/L	0	no data	no data	no data	0	no data	no data	no data	0	SSQP	yes
Heptachlor	yes	60	3.33%	0-0.05	0.01-0.02	µg/L	35	5.71%	0-0.01	n/a.01	µg/L	64	ND	1	ND	46	ND	1	ND	0.21	SSQP	yes
Heptachlor epoxide	yes	60	ND	0-0.05	n/a	µg/L	35	ND	0-0.01	n/a	µg/L	65	ND	1	ND	46	ND	1	ND	0.1	SSQP	yes
Hexachlorobenzene	yes	59	1.69%	0-0.01	0.01-0.01	µg/L	14	7.14%	0-0	n/a	µg/L	98	2.04%	0.53-62.5	1.05-1.1	100	3.00%	0.71-62.5	1.11-2.11	0.00075	SSQP	no
Hexachlorobutadiene	yes	59	ND	0.05-0.1	n/a	µg/L	14	ND	0.05-0.1	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	0.44	SSQP	yes
Hexachlorocyclopentadiene	yes	59	ND	0.05-0.1	n/a	µg/L	14	ND	0.05-0.1	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	50	SSQP	yes
Hexachloroethane	yes	59	ND	0.05-0.1	n/a	µg/L	14	ND	0.05-0.1	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	1.9	SSQP	yes
Indeno(1,2,3-cd)pyrene	yes	59	42.37%	0-0.01	n/a.66	µg/L	14	42.86%	0-0	0.01-0.12	µg/L	0	no data	no data	no data	0	no data	no data	no data	0.0044	SSQP	yes
Iron, Dissolved	yes	60	100.00%	0-0	7.29-348	µg/L	12	100.00%	0-0	67.1-805	µg/L	64	87.50%	2.5-30.2	3.5-277.8	53	94.34%	7-37.1	7.3-87.5	300	SSQP	yes
Iron, Total	no	3	100.00%	0-0	119-249	µg/L	2	100.00%	0-0	3170-9790	µg/L	84	92.86%	2.5-10	6.2-2630	64	92.19%	2.5-837	20-8660	none		no criterion
Iron, Total Recoverable	no	57	100.00%	0-0	93.2-6340	µg/L	13	100.00%	0-0	1600-8650	µg/L	0	no data	no data	no data	0	no data	no data	no data	300	SSQP	yes

Isophorone	yes	59	13.56%	0.05-0.1	0.02-0.34	µg/L	14	ND	0.05-0.05	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	8.4	SSQP	mixed DLs
Lead, Dissolved	yes	60	96.67%	0.02-0.04	0.03-1.97	µg/L	56	94.64%	0-0.04	0.02-3.58	µg/L	85	38.82%	0.01-0.1	0.01-0.4	83	50.60%	0.01-0.1	0.02-0.45	none		no criterion
Lead, Total	no	3	100.00%	0-0	0.45-0.61	µg/L	10	100.00%	0-0	0.17-26	µg/L	102	83.33%	0.02-0.31	0.01-5.39	30	83.33%	0	0.02-2.41	15		no criterion
Lead, Total Recoverable	no	57	100.00%	0-0	0.28-90.4	µg/L	49	100.00%	0-0	0.17-54.8	µg/L	0	no data	no data	no data	0	no data	no data	no data	15		no criterion
Linuron	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Magnesium, Dissolved	yes	0	no data	0-0	n/a	µg/L	24	100.00%	0-0	1120-13400	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Magnesium, Total	no	9	100.00%	0-0	1280-20800	µg/L	50	100.00%	0-0	1690-14800	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Malathion	yes	74	20.27%	0-0.5	0.03-0.13	µg/L	173	15.61%	0-0.5	0.03-0.31	µg/L	123	ND	0.05-0.2	ND	139	ND	0.05-0.1	ND	none		no criterion
MBAS	no	45	71.11%	0.03-1	0.02-1.5	mg/L	14	57.14%	0.01-0.03	0.01-0.82	mg/L	61	26.23%	0.01-0.1	0.01-0.07	40	17.50%	0.01-0.1	0.01-0.05	0.5	SSQP	yes
MCPA	yes	45	ND	100-500	n/a	µg/L	15	ND	25.4-200	n/a	µg/L	52	ND	25.4-200	ND	33	ND	25.4-100	ND	none		no criterion
MCPP	no	45	ND	100-500	n/a	µg/L	15	ND	35.8-200	n/a	µg/L	52	ND	35.8-200	ND	33	ND	35.8-100	ND	none		no criterion
Mercury, Dissolved	no	61	100.00%	0-0	0.61-10.2	ng/L	13	100.00%	0-0	1.89-8.14	ng/L	120	67.50%	0.15-2.18	0.22-1.65	141	75.18%	0.47-2.21	0.32-2.7	none		no criterion
Mercury, Total	yes	62	100.00%	0-0	1.65-609	ng/L	11	100.00%	0-0	12.2-101	ng/L	141	85.11%	0.15-2.37	0.5-139	161	88.82%	0.15-2.13	0.19-31	50	SSQP	yes
Mercury, Total Methyl	no	60	100.00%	0-0	0.05-2.04	ng/L	14	100.00%	0-0	0.2-1.4	ng/L	129	61.24%	0.01-0.06	0.03-0.71	147	78.23%	0.03-0.12	0.04-0.39	none		no criterion
Mercury, Total Recoverable	no	72	ND	0-0.1	n/a	ng/L	3	100.00%	0-0	42.8-110	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Merphos	yes	3	ND	0.1-0.1	n/a	µg/L	170	0.59%	0-0.1	0.02-0.02	µg/L	102	ND	0.06-0.2	ND	108	ND	0.06-0.2	ND	none		no criterion
Methidathion	yes	41	2.44%	0.02-0.1	0.05-0.05	µg/L	105	ND	0.1-0.2	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Methiocarb	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Methomyl	yes	60	ND	0.07-0.1	n/a	µg/L	14	ND	0.05-0.1	n/a	µg/L	84	ND	0.05-1	ND	84	ND	0.05-1	ND	none		no criterion
Methoxychlor	no	60	ND	0-0.05	n/a	µg/L	35	ND	0-0.01	n/a	µg/L	65	ND	1	ND	46	ND	1	ND	40	SSQP	yes
Methyl parathion	no	74	ND	0-1	n/a	µg/L	173	0.58%	0-1	0.02-0.02	µg/L	123	ND	0.08-0.2	ND	139	ND	0.08-0.1	ND	none		no criterion
Methyl tert-butyl ether	yes	12	ND	1-5	n/a	µg/L	6	ND	1-10	n/a	µg/L	7	ND	0.19-0.5	ND	19	5.26%	0.19-0.5	0.51-0.51	none		no criterion
Methyl trithion	yes	38	ND	0.2-0.2	n/a	µg/L	105	ND	0.2-0.4	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Mevinphos	yes	72	ND	0.01-0.7	n/a	µg/L	171	ND	0.01-0.7	n/a	µg/L	122	ND	0.07-1.4	ND	139	ND	0.07-0.7	ND	none		no criterion
Mexacarbate	yes	60	ND	0.8-0.8	n/a	µg/L	14	ND	0.4-0.8	n/a	µg/L	84	ND	0.4-5	ND	84	ND	0.4-5	ND	none		no criterion
Mirex	no	15	ND	0-0.01	n/a	µg/L	10	ND	0-0	n/a	µg/L	2	ND	1-1	ND	1	ND	1-1	ND	none		no criterion
Monuron	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Naled	yes	42	ND	0.5-0.5	n/a	µg/L	122	ND	0.27-0.5	n/a	µg/L	123	ND	0.27-1	ND	139	ND	0.27-0.7	ND	none		no criterion
Naphthalene	yes	59	77.97%	0-0.01	n/a.11	µg/L	14	92.86%	0-0	n/a.11	µg/L	98	35.71%	1-20	1.2-26.9	99	28.28%	1-20.4	1-29.6	none		no criterion
Neburon	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.8	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Nickel, Dissolved	yes	60	98.33%	0.1-0.1	0.36-6.35	µg/L	56	100.00%	0-0	0.58-16.4	µg/L	86	89.53%	0.3-1.5	0.09-0.96	84	96.43%	1.22-1.85	0.18-2.47	none		no criterion
Nickel, Total	no	3	100.00%	0-0	1.33-1.91	µg/L	10	100.00%	0-0	1.26-19.6	µg/L	102	86.27%	0.04-0.6	0.09-7.31	97	91.75%	0.01-1.05	0.01-30.6	none		no criterion
Nickel, Total Recoverable	no	57	100.00%	0-0	0.62-28.2	µg/L	49	100.00%	0-0	1.02-22.1	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Nitrate as N	yes	8	87.50%	0.1-0.1	0.12-1.7	mg/L	1	100.00%	0-0	0.76-0.76	mg/L	127	35.43%	0.1-0.5	0-1.1	144	64.58%	0.1-0.47	0.03-2.6	45	SSQP	yes
Nitrate plus Nitrite as N	no	60	88.33%	0.1-1.7	0.02-5.2	mg/L	13	100.00%	0-0	0.36-3.3	mg/L	0	no data	no data	no data	0	no data	no data	no data	10	SSQP	yes
Nitrite as N	yes	8	ND	0.1-0.25	n/a	mg/L	1	ND	0.1-0.1	n/a	mg/L	127	17.32%	0	0-0.42	144	13.89%	0	0-0.22	1	SSQP	yes
Nitrobenzene	yes	59	1.69%	0.05-0.1	0.04-0.04	µg/L	14	ND	0.05-0.05	n/a	µg/L	98	ND	1100	ND	99	ND	1100	ND	none		no criterion
N-Nitrosodimethylamine	no	56	ND	0.05-0.1	n/a	µg/L	14	14.29%	0.05-0.05	0.2-0.23	µg/L	80	ND	1100	ND	69	ND	1100	ND	none		no criterion
N-Nitrosodi-N-propylamine	yes	59	1.69%	0.05-0.1	0.23-0.23	µg/L	14	ND	0.05-0.05	n/a	µg/L	18	ND	5100	ND	30	3.33%	3.1-100	48.2-48.2	none		no criterion
N-Nitrosodiphenylamine	yes	59	ND	0.05-0.1	n/a	µg/L	14	ND	0.05-0.05	n/a	µg/L	80	ND	1100	ND	69	ND	1100	ND	none		no criterion
Oryzalin	yes	60	45.00%	0.4-0.4	0.1-3.6	µg/L	14	50.00%	0.2-0.4	0.3-1.2	µg/L	82	3.66%	0.2-1	0.2-0.31	81	4.94%	0.2-1	0.1-0.23	200	SSQP	yes
Oxamyl	yes	60	ND	0.4-5	n/a	µg/L	14	ND	0.2-0.8	n/a	µg/L	84	ND	0.2-5	ND	84	ND	0.2-5	ND	none		no criterion
Oxychlordane	no	14	ND	1-5	n/a	ng/L	10	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 003	yes	0	no data	0-0	n/a	ng/L	4	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 008	yes	0	no data	0-0	n/a	ng/L	8	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 018	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 028	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 031	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 033	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 037	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 044	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 049	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 052	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 056/060	yes	0	no data	0-0	n/a	ng/L	4	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 066	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 070	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 074	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 077	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 081	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 087	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 095	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 097	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 099	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 101	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 1016	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.03-0.5	0.5-0.5	40	10.00%	0.03-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 105	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 110	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 114	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 118	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 119	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 1221	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.03-0.5	0.5-0.5	40	10.00%	0.03-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 123	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 1232	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.04-0.5	0.5-0.5	40	10.00%	0.04-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 1242	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.04-0.5	0.5-0.5	40	10.00%	0.04-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 1248	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.04-0.5	0.5-0.5	40	10.00%	0.04-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 1254	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.02-0.5	0.5-0.5	40	10.00%	0.02-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 126	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 1260	yes	53	ND	0.02-0.5	n/a	µg/L	36	ND	0.01-1	n/a	µg/L	59	8.47%	0.03-0.5	0.5-0.5	40	10.00%	0.03-0.5	0.5-0.5	0.17	SSQP	mixed DLs
PCB 128	yes	6	ND	1-1	n/a	ng/L	10	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 128+167	yes	3	ND	5-5	n/a	ng/L	3	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 138	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 141	yes	9	ND	1-5	n/a	ng/L	12	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 149	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 151	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 153	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 156	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 157	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 158	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 167	yes	6	ND	1-1	n/a	ng/L	10	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 168+132	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 169	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 170	yes	9	ND	1-5	n/a	ng/L	14	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 174	yes	0	no data	0-0	n/a	ng/L	6	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 177	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 180	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion

PCB 183	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 187	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 189	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 194	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 195	yes	0	no data	0-0	n/a	ng/L	8	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
PCB 200	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 201	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 206	yes	9	ND	1-5	n/a	ng/L	13	ND	1-1	n/a	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
PCB 209	yes	0	no data	0-0	n/a	ng/L	8	ND	1-1	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Pentachlorophenol	yes	59	50.85%	0.05-0.1	0.05-0.58	µg/L	14	78.57%	0.05-0.05	0.08-0.75	µg/L	95	3.16%	0.36-100	0.95-4.6	98	3.06%	0.4-100	1.9-4.3	0.28	SSQP	mixed DLs
Perthane	no	15	ND	5-10	n/a	ng/L	10	ND	5-5	n/a	ng/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Perylene	no	59	37.29%	0-0.01	n/a.21	µg/L	14	35.71%	0-0	n/a.05	µg/L	92	4.35%	1-5	2.7-3	90	2.22%	1-5	7-9.5	none		no criterion
pH	no	9	100.00%	0-0	6.3-8.8	std. units	36	100.00%	0-0	6.04-8.96	std. units	111	100.00%	no data	6.2-8.7	131	100.00%	no data	6.5-8.1	6.5-8.5	SSQP	yes
pH (field)	no	19	100.00%	0-0	6.4-8.6	std. units	149	100.00%	0-0	3.65-10.44	std. units	0	no data	no data	no data	0	no data	no data	no data	6.5-8.5	SSQP	yes
Phenanthrene	yes	59	74.58%	0-0.01	0-1.75	µg/L	14	92.86%	0-0	n/a.13	µg/L	98	24.49%	1-20	1-15.2	99	23.23%	1-20	1-15.1	none		no criterion
Phenol	yes	59	16.95%	0.1-0.2	0.04-0.37	µg/L	14	14.29%	0.1-0.1	0.28-0.75	µg/L	95	ND	1200	ND	97	ND	1200	ND	21000	SSQP	yes
Phenolics, Total	no	3	ND	5-5	n/a	µg/L	6	50.00%	5-5	6.6-12	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Phorate	yes	72	ND	0.01-0.1	n/a	µg/L	171	ND	0.01-0.1	n/a	µg/L	123	ND	0.07-0.2	ND	139	ND	0.07-0.1	ND	none		no criterion
Phosalone	yes	38	ND	0.1-0.1	n/a	µg/L	105	ND	0.1-0.2	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Phosmet	yes	41	ND	1-1	n/a	µg/L	105	0.95%	1-2	0.05-0.05	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Phosphate, Ortho as P	no	6	100.00%	0-0	0.13-0.51	mg/L	3	100.00%	0-0	0.07-0.14	mg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Phosphorus, Total	yes	19	100.00%	0-0	0.18-1.1	mg/L	0	no data	0-0	n/a	mg/L	119	25.21%	0.05-0.1	0.04-0.22	134	63.43%	0.05-0.11	0.03-2.5	none		no criterion
Potassium, Dissolved	yes	0	no data	0-0	n/a	µg/L	3	100.00%	0-0	763-3850	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Potassium, Total	no	0	no data	0-0	n/a	µg/L	15	100.00%	0-0	800-8230	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Prometryn	no	0	no data	0-0	n/a	µg/L	2	ND	5-5	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Prometon	yes	121	7.44%	0.01-0.5	0.01-0.19	µg/L	152	7.24%	0.01-0.5	0.05-0.82	µg/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	none		no criterion
Prometryn	no	45	ND	0.01-0.5	n/a	µg/L	13	ND	0.01-0.5	n/a	µg/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	none		no criterion
Propachlor	yes	60	ND	0.4-3.5	n/a	µg/L	14	ND	0.2-3.5	n/a	µg/L	84	ND	0.2-5	ND	84	ND	0.2-5	ND	none		no criterion
Propazine	no	45	6.67%	0.01-0.5	0.27-0.62	µg/L	15	ND	0.01-0.5	n/a	µg/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	none		no criterion
Propham	yes	60	ND	0.8-3.5	n/a	µg/L	14	ND	0.4-3.5	n/a	µg/L	84	ND	0.4-5	ND	84	ND	0.4-5	ND	none		no criterion
Propoxur	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Prowl	yes	42	54.76%	0.1-0.1	0.01-1	µg/L	122	23.77%	0.04-0.1	0.03-0.98	µg/L	21	ND	0.1-0.1	ND	31	ND	0.1-0.1	ND	none		no criterion
Pyrene	yes	59	83.05%	0-0.01	0-1.76	µg/L	14	92.86%	0-0	n/a.16	µg/L	98	32.65%	1-5	0.26-248	100	34.00%	1-10	0.66-7.7	960	SSQP	yes
Ronnel	yes	72	ND	0-0.1	n/a	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.03-0.2	ND	139	ND	0.03-0.1	ND	none		no criterion
Secbumeton	no	15	ND	5-10	n/a	µg/L	3	ND	5-5	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Selenium, Dissolved	yes	6	100.00%	0-0	0.08-0.24	µg/L	6	100.00%	0-0	0.09-0.42	µg/L	14	28.57%	0.07-0.3	0.1-0.22	27	40.74%	0.11-0.6	0.1-0.6	none		no criterion
Selenium, Total	no	3	100.00%	0-0	0.3-0.37	µg/L	3	100.00%	0-0	0.09-0.44	µg/L	18	50.00%	0.07-0.3	0.07-0.29	34	35.29%	0.07-0.6	0.14-0.6	none		no criterion
Selenium, Total Recoverable	no	3	100.00%	0-0	0.11-0.16	µg/L	3	100.00%	0-0	0.07-0.12	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Siduron	yes	60	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Silver, Dissolved	yes	6	ND	0.03-0.04	n/a	µg/L	18	16.67%	0-0.1	0.02-0.07	µg/L	78	12.82%	0	0-0.04	74	10.81%	0	0-0.05	none		no criterion
Silver, Total Recoverable	no	6	50.00%	0.03-0.1	0.04-0.34	µg/L	18	61.11%	0-0.04	0.03-1.1	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Simazine	yes	83	20.48%	0.01-0.5	0.04-3.7	µg/L	120	25.83%	0.01-0.5	0.08-8.5	µg/L	62	3.23%	0.08-0.5	0.11-0.17	42	4.76%	0.08-0.5	0.1-0.13	none		no criterion
Simetryn	no	45	ND	0.01-0.5	n/a	µg/L	15	ND	0.01-0.5	n/a	µg/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	4	SSQP	yes
Sodium, Dissolved	no	0	no data	0-0	n/a	µg/L	3	100.00%	0-0	8290-17300	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Sodium, Total	no	0	no data	0-0	n/a	µg/L	15	100.00%	0-0	2740-17500	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Solids, Total Dissolved	yes	59	98.31%	20-20	26-960	mg/L	14	100.00%	0-0	73-480	mg/L	128	92.97%	278	24-150	150	95.33%	35-100	33-190	125	SSQP	yes
Solids, Total Suspended	yes	59	91.53%	3-6	3-440	mg/L	17	94.12%	3-3	3-330	mg/L	127	52.76%	2-9	3-50.5	148	93.92%	6-13	3-150	none		no criterion
Specific Conductance	no	27	100.00%	0-0	26-1700	µmhos/cm	14	100.00%	0-0	69-513	µmhos/cm	112	100.00%	no data	41-180	130	100.00%	no data	58-260	240	SSQP	mixed DLs
Specific Conductance (field)	no	19	100.00%	0-0	41-461	µmhos/cm	169	100.00%	0-0	7-554	µmhos/cm	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Stirophos	yes	72	ND	0-0.1	n/a	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.06-0.2	ND	139	ND	0.06-0.2	ND	none		no criterion
Sulfate as SO4	yes	0	no data	0-0	n/a	mg/L	21	100.00%	0-0	6.6-49	mg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Sulfide	no	0	no data	0-0	n/a	mg/L	12	ND	0.1-0.1	n/a	mg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Sulfotep	yes	42	ND	0.1-0.1	n/a	µg/L	122	ND	0.02-0.1	n/a	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Tebuthiuron	yes	57	ND	0.4-0.4	n/a	µg/L	14	ND	0.2-0.4	n/a	µg/L	84	ND	0.2-1	ND	84	ND	0.2-1	ND	none		no criterion
Temperature (field)	no	21	100.00%	0-0	9.3-25	deg C	168	100.00%	0-0	7.6-30.4	deg C	0	no data	no data	no data	0	no data	no data	no data	20	SSQP	yes
Terbuthylazine	no	45	ND	0.01-0.5	n/a	µg/L	15	ND	0.01-0.5	n/a	µg/L	62	ND	0.05-0.5	ND	42	ND	0.05-0.5	ND	none		no criterion
Terbutryn	no	45	ND	0.01-0.5	n/a	µg/L	15	ND	0.01-0.5	n/a	µg/L	62	ND	0.07-0.5	ND	42	ND	0.07-0.5	ND	none		no criterion
Thallium, Dissolved	no	6	ND	0-0.01	n/a	µg/L	6	ND	0-0.01	n/a	µg/L	4	ND	no data	ND	15	26.67%	0	0-0.01	none		no criterion
Thallium, Total Recoverable	no	6	83.33%	0.02-0.02	0.02-0.06	µg/L	6	66.67%	0.01-0.02	0.02-0.07	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Tokuthion	yes	72	ND	0-0.1	n/a	µg/L	171	0.58%	0-0.1	0.03-0.03	µg/L	123	ND	0.02-0.2	ND	139	ND	0.02-0.1	ND	none		no criterion
Toluene	no	9	22.22%	0.5-0.5	0.8-1.4	µg/L	0	no data	0-0	n/a	µg/L	49	12.24%	0.17-1.3	0.22-2.2	66	10.61%	0.17-1.1	0.19-0.34	none		no criterion
Total Coliform	no	61	100.00%	0-0	1700-5000000	MPN/100mL	61	100.00%	0-0	30-1100000	MPN/100mL	127	99.21%	160016000	30-160000	126	100.00%	no data	80-30000	none		no criterion
Total Detectable DDTs	no	3	100.00%	0-0	n/a	ng/L	2	ND	1-1	n/a	ng/L	2	100.00%	no data	ND	2	100.00%	no data	ND	none		no criterion
Total Detectable PAHs	no	0	no data	0-0	n/a	µg/L	10	100.00%	0-0	0.03-1.05	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Total Detectable PCBs	no	3	100.00%	0-0	n/a	ng/L	6	ND	1-1	n/a	ng/L	2	100.00%	no data	ND	2	100.00%	no data	no data	none		no criterion
Total Kjeldahl Nitrogen as N	no	60	100.00%	0-0	0.25-8.2	µg/L	14	100.00%	0-0	0.54-9.1	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
Toxaphene	yes	60	ND	0.01-1	n/a	µg/L	35	ND	0.01-0.5	n/a	µg/L	65	7.69%	0.1-1	0.01-0.5	46	8.70%	0.1-1	0.5-0.5	0.2	SSQP	mixed DLs
TPH as Diesel	no	45	75.56%	50-50	60-5100	µg/L	14	78.57%	20-50	51-2300	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
TPH as Gasoline	no	39	2.56%	50-50	80-80	µg/L	11	9.09%	17-1000	170-170	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
TPH as Motor Oil	no	23	78.26%	200-200	300-2100	µg/L	5	80.00%	110-110	220-1600	µg/L	0	no data	no data	no data	0	no data	no data	no data	none		no criterion
TPH-Diesel	no	15	ND	50-50	n/a	µg/L	3	ND	50-50	n/a	µg/L	17	11.76%	5-50	15-110	18	5.56%	5-50	120-120	none		no criterion
TPH-Gasoline	no	6	ND	50-50	n/a	µg/L	5	ND	17-50	n/a	µg/L	17	ND	7.2-50	ND	18	ND	7.2-50	ND	none		no criterion
TPH-Motor Oil	no	15	ND	200-200	n/a	µg/L	0	no data	0-0	n/a	µg/L	12	16.67%	19-200	210-500	13	ND	19-200	ND	none		no criterion
trans-Nonachlor	no	15	33.33%	1-5	1.6-11.6	ng/L	10	10.00%	1-1	4.1-4.1	ng/L	2	ND	1-1	ND	2	ND	1-1	ND	none		no criterion
Trichloronate	yes	72	ND	0-0.1	n/a	µg/L	171	ND	0-0.1	n/a	µg/L	123	ND	0.05-0.2	ND	139	ND	0.05-0.1	ND	none		no criterion
Trifluralin	yes	41	ND	0.1-0.1	n/a	µg/L	122	ND	0.04-0.1	n/a	µg/L	123	ND	0.04-0.2	ND	139	ND	0.04-0.1	ND	none		no criterion
Turbidity	no	44	100.00%	0-0	1.9-260	NTU	15	100.00%	0-0	16-320	NTU	123	98.37%	1-1	0.2-33	148	100.00%	no data	3.2-260	150	SSQP	yes
Xylenes	no	9	ND	0.5-1.5	n/a	µg/L	0	no data	0-0	n/a	µg/L	6	ND	0.5-0.5	ND	9	ND	0.5-0.5	ND	none		no criterion
Zinc, Dissolved	yes	60	100.00%	0-0	1.33-133	µg/L	56	100.00%	0-0	0.66-294	µg/L	85	77.65%	0.1-1.7	0.13-10.7	0	no data	no data	no data	100		no criterion
Zinc, Total	no	3	100.00%	0-0	5.75-22.7	µg/L	13	100.00%	0-0	2.03-292	µg/L	0	no data	no data	no data	0	no data	no data	no data	5000		no criterion
Zinc, Total Recoverable	no	57	100.00%	0-0	6.13-829	µg/L	46	100.00%	0-0	1.63-2638	µg/L	0	no data	no data	no data	0	no data	no data	no data	5000		no criterion

Percent Exceedance Summary

Parameter	Benz(a)anthracene
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	4.4
n	98
n detected > WQO	2
% detected > WQO	2.04

Other Stats

% detected	11.22
n BDL	87
n DLs	7
max detected	22.5
min detected	0.11
max BDL	<5
min BDL	<0.1
n BDL > max detected	0
n BDL > WQO	57
n detected	11
n BDL < WQO	30
max/WQO	5.1136
detected < WQO	96
n < max DL	96

DATES	DATA
10/1/02	0.11
10/2/02	-0.77
2/5/03	-0.165
2/6/03	0.194
2/16/03	-1
2/16/03	-1
6/10/03	-0.1
6/11/03	-0.127
10/14/03	-1
10/15/03	-1
12/13/03	-2
12/14/03	-2
12/14/03	-2
12/14/03	-2
2/17/04	-2
2/18/04	-2
2/19/04	-2
4/13/04	-2
4/13/04	-2
4/14/04	-2
6/8/04	-5
6/8/04	-5
6/8/04	-5
6/9/04	-5
10/5/04	-5
10/5/04	-5
10/6/04	-5
10/19/04	22.5
10/19/04	-5
10/20/04	-5
10/20/04	-5
1/28/05	-5
1/28/05	-5
1/28/05	-5
1/28/05	-5
1/28/05	-5
2/15/05	-5
2/16/05	-5
4/12/05	-5
4/12/05	-5
4/13/05	-5
6/7/05	-5
6/8/05	-5
10/4/05	-5
10/5/05	-5
12/1/05	5
12/1/05	-5
12/2/05	-5
2/7/06	-5
2/7/06	-5
2/7/06	-5
2/7/06	-5
2/8/06	-5
2/27/06	2.2
2/27/06	-5

2/28/06	-5
2/28/06	-5
2/28/06	-5
2/28/06	-5
6/13/06	-5
6/13/06	-5
6/14/06	-5
10/10/06	-5
10/11/06	-5
11/3/06	3.5
11/3/06	1.5
12/9/06	2
12/9/06	3.2
12/10/06	2.4
2/7/07	-5
2/8/07	-5
4/3/07	-5
4/3/07	-5
4/3/07	-5
4/4/07	-5
4/4/07	-5
6/5/07	-5
6/6/07	-5
6/6/07	-5
10/9/07	-5
10/9/07	-5
10/9/07	-5
10/10/07	-5
10/10/07	-5
10/10/07	-5
1/4/08	-1
1/4/08	1.8
1/4/08	-1
1/4/08	-1
1/4/08	-1
2/5/08	-1
2/5/08	-1
2/5/08	-1
2/6/08	-1
2/6/08	-1
6/11/08	-1
6/11/08	-1
6/11/08	-1

Percent Exceedance Summary

Parameter	Benzo(b)fluoranthene
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	4.4
n	98
n detected > WQO	2
% detected > WQO	2.04

Other Stats

% detected	8.16
n BDL	90
n DLs	5
max detected	37.8
min detected	2.3
max BDL	<20
min BDL	<1
n BDL > max detected	0
n BDL > WQO	67
n detected	8
n BDL < WQO	23
max/WQO	8.5909
detected < WQO	96
n < max DL	97

DATES	DATA
10/1/2002	-10
10/2/2002	-10
2/5/2003	-20
2/6/2003	-20
2/16/2003	-1
2/16/2003	-1
6/10/2003	-10
6/11/2003	-10
10/14/2003	-1
10/15/2003	-1
12/13/2003	-2
12/14/2003	-2
12/14/2003	-2
12/14/2003	2.6
2/17/2004	-2
2/18/2004	-2
2/19/2004	-2
4/13/2004	-2
4/13/2004	-2
4/14/2004	-2
6/8/2004	-5
6/8/2004	-5
6/8/2004	-5
6/9/2004	-5
10/5/2004	-5
10/5/2004	-5
10/6/2004	-5
10/19/2004	37.8
10/19/2004	-5
10/20/2004	-5
10/20/2004	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
2/15/2005	-5
2/16/2005	-5
4/12/2005	-5
4/12/2005	-5
4/13/2005	-5
6/7/2005	-5
6/8/2005	-5
10/4/2005	-5
10/5/2005	-5
12/1/2005	9.2
12/1/2005	-5
12/2/2005	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/8/2006	-5

2/27/2006	-5
2/27/2006	-5
2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
6/13/2006	-5
6/13/2006	-5
6/14/2006	-5
10/10/2006	-5
10/11/2006	-5
11/3/2006	-5
11/3/2006	-5
12/9/2006	3.8
12/9/2006	3.4
12/10/2006	-5
2/7/2007	-5
2/8/2007	-5
4/3/2007	-5
4/3/2007	-5
4/3/2007	-5
4/4/2007	-5
04/04/2007	-5
6/5/2007	-5
6/6/2007	-5
06/06/2007	-5
10/9/2007	-5
10/9/2007	-5
10/09/2007	-5
10/10/2007	-5
10/10/2007	-5
10/10/2007	-5
1/4/2008	-1
1/4/2008	2.3
1/4/2008	4.3
1/4/2008	-1
01/04/2008	4.3
2/5/2008	-1
2/5/2008	-1
2/5/2008	-1
2/6/2008	-1
02/06/2008	-1
6/11/2008	-1
6/11/2008	-1
6/11/2008	-1

Percent Exceedance Summary

Parameter	Benzo(a)pyrene
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	4.4
n	98
n detected > WQO	1
% detected > WQO	1.02

Other Stats

% detected	5.10
n BDL	93
n DLs	9
max detected	5.2
min detected	1.4
max BDL	<5
min BDL	<0.222
n BDL > max detected	0
n BDL > WQO	62
n detected	5
n BDL < WQO	31
max/WQO	1.1818
detected < WQO	97
n < max DL	97

DATES	DATA
10/1/2002	-0.74
10/2/2002	-1.9
2/5/2003	-0.523
2/6/2003	-0.492
2/16/2003	-1
2/16/2003	-1
6/10/2003	-0.222
6/11/2003	-0.34
10/14/2003	-1
10/15/2003	-1
12/13/2003	-2
12/14/2003	-2
12/14/2003	-2
12/14/2003	-2
2/17/2004	-2
2/18/2004	-2
2/19/2004	-2
4/13/2004	-2
4/13/2004	-2
4/14/2004	-2
6/8/2004	-5
6/8/2004	-5
6/8/2004	-5
6/9/2004	-5
10/5/2004	-5
10/5/2004	-5
10/6/2004	-5
10/19/2004	-5
10/19/2004	-5
10/20/2004	-5
10/20/2004	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	1.4
1/28/2005	-5
2/15/2005	-5
2/16/2005	-5
4/12/2005	-5
4/12/2005	-5
4/13/2005	-5
6/7/2005	-5
6/8/2005	-5
10/4/2005	-5
10/5/2005	-5
12/1/2005	5.2
12/1/2005	-5
12/2/2005	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/8/2006	-5
2/27/2006	-5
2/27/2006	-5

2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
6/13/2006	-5
6/13/2006	-5
6/14/2006	-5
10/10/2006	-5
10/11/2006	-5
11/3/2006	-5
11/3/2006	-5
12/9/2006	-5
12/9/2006	3.4
12/10/2006	-5
2/7/2007	-5
2/8/2007	-5
4/3/2007	-5
4/3/2007	-5
4/3/2007	-5
4/4/2007	-5
4/4/2007	-5
6/5/2007	-5
6/6/2007	-5
6/6/2007	-5
10/9/2007	-5
10/9/2007	-5
10/9/2007	-5
10/10/2007	-5
10/10/2007	-5
10/10/2007	-5
1/4/2008	-1
1/4/2008	-1
1/4/2008	4
1/4/2008	-1
1/4/2008	4
2/5/2008	-1
2/5/2008	-1
2/5/2008	-1
2/6/2008	-1
2/6/2008	-1
6/11/2008	-1
6/11/2008	-1
6/11/2008	-1

Percent Exceedance Summary

Parameter	Solids, Total Dissolved
Location	American River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	125
n	256
n detected > WQO	4
% detected > WQO	1.56

Other Stats

% detected	92.97
n BDL	18
n DLs	8
max detected	150
min detected	24
max BDL	<78
min BDL	<20
n BDL > max detected	0
n BDL > WQO	0
n detected	238
n BDL < WQO	18
max/WQO	1.2000
detected < WQO	252
n < max DL	222

DATES	DATA
9/3/2002	52
9/3/2002	52
9/4/2002	74
9/4/2002	74
10/1/2002	40
10/1/2002	40
10/2/2002	31
10/2/2002	31
11/5/2002	90
11/5/2002	90
11/6/2002	66
11/6/2002	66
12/3/2002	50
12/3/2002	50
12/4/2002	51
12/4/2002	51
1/7/2003	77
1/7/2003	77
1/8/2003	56
1/8/2003	56
2/5/2003	47
2/5/2003	47
2/6/2003	34
2/6/2003	34
2/16/2003	44
2/16/2003	48
2/16/2003	44
2/16/2003	48
3/4/2003	48
3/4/2003	48
3/5/2003	84
3/5/2003	84
3/15/2003	39
3/15/2003	39
3/15/2003	39
3/15/2003	39
4/1/2003	39
4/1/2003	39
4/2/2003	31
4/2/2003	31
5/6/2003	37
5/6/2003	37
5/7/2003	47
5/7/2003	47
6/10/2003	140
6/10/2003	140
6/11/2003	53
6/11/2003	53
8/5/2003	42
8/5/2003	42
8/6/2003	43
8/6/2003	43
10/14/2003	48
10/14/2003	48
10/15/2003	29
10/15/2003	29
12/9/2003	44
12/9/2003	31
12/9/2003	44
12/9/2003	31
12/10/2003	45

12/10/2003	45
12/14/2003	48
12/14/2003	82
12/14/2003	48
12/14/2003	82
12/14/2003	89
12/14/2003	89
12/15/2003	89
12/15/2003	89
2/17/2004	32
2/17/2004	56
2/17/2004	32
2/17/2004	56
2/18/2004	65
2/18/2004	65
4/13/2004	69
4/13/2004	69
4/13/2004	24
4/13/2004	24
4/14/2004	40
4/14/2004	40
6/8/2004	68
6/8/2004	66
6/8/2004	68
6/8/2004	66
6/9/2004	56
6/9/2004	56
8/10/2004	79
8/10/2004	79
8/11/2004	66
8/11/2004	66
10/5/2004	-20
10/5/2004	-20
10/5/2004	32
10/5/2004	32
10/6/2004	50
10/6/2004	50
10/19/2004	79
10/19/2004	79
10/19/2004	80
10/19/2004	80
10/20/2004	56
10/20/2004	56
12/7/2004	67
12/7/2004	67
12/8/2004	69
12/8/2004	63
12/8/2004	69
12/8/2004	63
1/28/2005	83
1/28/2005	72
1/28/2005	83
1/28/2005	72
1/28/2005	68
1/28/2005	68
1/28/2005	50
1/28/2005	50
2/15/2005	76
2/15/2005	76
2/16/2005	71
2/16/2005	71
4/12/2005	44
4/12/2005	44
4/12/2005	110
4/12/2005	110
4/13/2005	89

4/13/2005	89
6/7/2005	58
6/7/2005	58
6/8/2005	58
6/8/2005	58
8/2/2005	71
8/2/2005	71
8/3/2005	64
8/3/2005	71
8/3/2005	64
8/3/2005	71
10/4/2005	75
10/4/2005	75
10/5/2005	62
10/5/2005	62
12/1/2005	52
12/1/2005	52
12/1/2005	74
12/1/2005	74
12/2/2005	52
12/2/2005	52
2/7/2006	52
2/7/2006	52
2/7/2006	47
2/7/2006	31
2/7/2006	47
2/7/2006	31
2/8/2006	49
2/8/2006	49
2/27/2006	65
2/27/2006	65
2/27/2006	61
2/27/2006	61
2/28/2006	54
2/28/2006	49
2/28/2006	54
2/28/2006	49
4/4/2006	61
4/4/2006	61
4/5/2006	150
4/5/2006	150
6/13/2006	52
6/13/2006	52
6/13/2006	87
6/13/2006	87
6/14/2006	47
6/14/2006	47
8/1/2006	47
8/1/2006	47
8/3/2006	40
8/3/2006	47
8/3/2006	40
8/3/2006	47
10/10/2006	-55
10/10/2006	-55
10/11/2006	-29
10/11/2006	-29
11/3/2006	-62
11/3/2006	-62
11/3/2006	-78
11/3/2006	-78
12/9/2006	-51
12/9/2006	-51
12/9/2006	-31
12/9/2006	-31
12/10/2006	-45

12/10/2006	-45
2/7/2007	44
2/7/2007	44
2/8/2007	-20
2/8/2007	-20
4/3/2007	74
4/3/2007	72
4/3/2007	74
4/3/2007	72
4/4/2007	62
4/4/2007	62
4/4/2007	65
4/4/2007	65
6/5/2007	54
6/5/2007	54
6/6/2007	90
6/6/2007	90
6/6/2007	67
6/6/2007	67
8/7/2007	60
8/7/2007	60
8/8/2007	48
8/8/2007	80
8/8/2007	48
8/8/2007	80
10/9/2007	49
10/9/2007	48
10/9/2007	49
10/9/2007	48
10/9/2007	62
10/9/2007	62
10/10/2007	56
10/10/2007	56
12/4/2007	38
12/4/2007	38
12/5/2007	26
12/5/2007	26
1/4/2008	70
1/4/2008	66
1/4/2008	70
1/4/2008	66
1/4/2008	58
1/4/2008	58
1/4/2008	90
1/4/2008	90
2/5/2008	68
2/5/2008	68
2/6/2008	76
2/6/2008	76
2/6/2008	77
2/6/2008	77
4/1/2008	65
4/1/2008	65
4/1/2008	57
4/1/2008	57
6/11/2008	61
6/11/2008	61
6/11/2008	63
6/11/2008	67
6/11/2008	70
6/11/2008	63
6/11/2008	67
6/11/2008	70

Percent Exceedance Summary

Parameter	Mercury, Total
Location	American River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	50
n	141
n detected > WQO	1
% detected > WQO	0.71

Other Stats

% detected	85.11
n BDL	21
n DLs	10
max detected	139
min detected	0.5
max BDL	<2.37
min BDL	<0.15
n BDL > max detected	0
n BDL > WQO	0
n detected	120
n BDL < WQO	21
max/WQO	2.7800
detected < WQO	140
n < max DL	104

DATES	DATA
9/3/2002	1
9/4/2002	0.8
10/1/2002	1.3
10/2/2002	0.7
11/5/2002	0.6
11/6/2002	0.9
12/3/2002	0.7
12/4/2002	1.3
1/7/2003	1.5
1/8/2003	1.2
2/5/2003	0.8
2/6/2003	0.9
2/16/2003	1.5
2/16/2003	0.8
3/4/2003	2.8
3/5/2003	2.4
3/15/2003	2.2
3/15/2003	0.8
4/1/2003	0.9
4/2/2003	0.6
5/6/2003	0.8
5/7/2003	1.1
6/10/2003	1.3
6/11/2003	0.8
8/5/2003	1.4
8/6/2003	1.3
10/15/2003	0.93
10/15/2003	0.75
12/13/2003	1.4
12/14/2003	0.95
12/14/2003	2.4
2/17/2004	0.92
2/18/2004	6.74
2/19/2004	3.1
4/13/2004	1.19
4/13/2004	4.38
4/13/2004	3.97
4/13/2004	3.97
4/14/2004	0.99
6/8/2004	1.18
6/8/2004	1.29
6/8/2004	0.7
6/8/2004	1.57
6/9/2004	1.33
8/10/2004	1.72
8/11/2004	-0.39
10/5/2004	0.95
10/5/2004	0.71
10/6/2004	0.91
10/6/2004	1.12
10/19/2004	11.7
10/19/2004	2.73
10/20/2004	0.83
10/20/2004	0.82
12/7/2004	139

12/8/2004	1.21
12/8/2004	0.91
1/28/2005	3.19
1/28/2005	3.28
1/28/2005	2.66
1/28/2005	-0.17
1/28/2005	4
1/28/2005	3.91
2/15/2005	1.18
2/16/2005	1.97
4/12/2005	1.97
4/12/2005	1.22
4/12/2005	1.62
6/7/2005	1
6/8/2005	1.44
8/2/2005	1.04
8/3/2005	-0.15
8/3/2005	0.95
8/3/2005	0.84
10/4/2005	-0.51
10/5/2005	0.66
12/1/2005	-0.74
12/1/2005	5.5
12/2/2005	-0.82
2/7/2006	-0.15
2/7/2006	2.79
2/7/2006	3.53
2/7/2006	2.6
2/8/2006	2.89
2/27/2006	4.19
2/27/2006	4.12
2/28/2006	-0.15
2/28/2006	2.96
2/28/2006	3.08
4/4/2006	3.63
4/5/2006	2.91
6/13/2006	4.97
6/13/2006	7.42
8/1/2006	7.67
8/3/2006	0.99
8/3/2006	0.97
8/3/2006	-0.5
10/10/2006	-0.7
10/11/2006	-0.9
11/3/2006	-1.25
11/3/2006	-2.37
12/9/2006	2.83
12/9/2006	4.88
12/9/2006	4.82
12/10/2006	-1.42
2/7/2007	1.16
2/8/2007	1.08
4/3/2007	-0.5
4/3/2007	1.01
4/4/2007	1.17
4/4/2007	1.18
6/5/2007	0.96
6/6/2007	1.13
6/6/2007	1.42
8/7/2007	0.78

8/8/2007	0.92
8/8/2007	1.17
10/9/2007	0.5
10/9/2007	0.67
10/9/2007	0.5
10/10/2007	-0.5
10/10/2007	-0.5
10/10/2007	0.56
10/10/2007	0.62
12/4/2007	1.12
12/5/2007	-0.5
12/5/2007	-0.5
1/4/2008	-0.5
1/4/2008	5.26
1/4/2008	2.33
1/4/2008	2.3
1/4/2008	4.88
2/5/2008	-0.2
2/5/2008	2.1
2/6/2008	5.7
2/6/2008	2.2
4/1/2008	1
4/1/2008	1.2
6/11/2008	0.82
6/11/2008	2.5
6/11/2008	2

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	American River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	0.06
n	129
n detected > WQO	47
% detected > WQO	36.43

Other Stats

% detected	61.24
n BDL	50
n DLs	0
max detected	0.714
min detected	0.027
max BDL	<0.059
min BDL	<0.01
n BDL > max detected	0
n BDL > WQO	0
n detected	79
n BDL < WQO	50
max/WQO	11.9000
detected < WQO	82
n < max DL	80

DATES	DATA
9/3/02	0.052
9/4/02	0.066
10/1/02	0.054
10/2/02	-0.025
11/5/02	-0.025
11/6/02	0.098
12/3/02	0.08
12/4/02	-0.025
1/7/03	0.058
1/8/03	-0.025
2/5/03	-0.025
2/6/03	0.034
2/16/03	-0.025
2/16/03	-0.025
3/4/03	0.042
3/5/03	0.039
3/15/03	0.05
3/15/03	-0.025
4/1/03	0.046
4/2/03	-0.025
5/6/03	0.039
5/7/03	-0.025
6/10/03	0.057
6/11/03	0.038
8/5/03	0.051
8/6/03	0.028
10/15/03	0.038
10/15/03	-0.025
12/13/03	-0.032
12/14/03	0.062
12/14/03	0.073
12/14/03	0.059
2/17/04	0.037
2/18/04	0.078
2/19/04	0.088
4/13/04	0.034
4/13/04	0.038
4/14/04	-0.025
6/8/04	0.063
6/8/04	0.083
6/9/04	-0.021
8/10/04	0.046
8/11/04	0.075
10/5/04	0.08
10/5/04	0.055
10/6/04	-0.019
10/19/04	0.236

10/19/04	0.091
10/20/04	-0.038
10/20/04	0.05
12/7/04	0.714
12/8/04	0.032
12/8/04	-0.029
1/28/05	0.063
1/28/05	0.065
1/28/05	0.047
1/28/05	0.081
1/28/05	0.115
2/15/05	0.027
2/16/05	-0.011
4/12/05	-0.029
4/12/05	-0.034
4/12/05	-0.014
6/7/05	-0.046
6/8/05	-0.026
8/2/05	-0.048
8/3/05	0.032
8/3/05	0.03
10/4/05	-0.033
10/5/05	0.04
12/1/05	0.069
12/1/05	0.122
12/2/05	-0.036
2/7/06	-0.025
2/7/06	-0.025
2/7/06	-0.025
2/7/06	-0.025
2/8/06	-0.025
2/27/06	-0.036
2/27/06	-0.044
2/27/06	0.049
2/28/06	-0.033
2/28/06	-0.025
4/4/06	0.059
4/5/06	-0.033
6/13/06	0.171
6/13/06	0.171
8/1/06	0.131
8/3/06	0.102
8/3/06	0.094
8/3/06	0.097
10/10/06	-0.05
10/11/06	0.129
10/11/06	0.068
11/3/06	-0.056
11/3/06	-0.059
12/9/06	0.074
12/9/06	0.093
12/10/06	0.406

2/7/07	-0.0347
2/8/07	0.125
4/3/07	-0.0528
4/3/07	-0.0482
4/4/07	-0.0268
4/4/07	-0.0581
6/5/07	0.137
6/6/07	0.0609
6/6/07	0.103
8/7/07	0.0564
8/8/07	-0.0428
8/8/07	-0.0487
10/9/07	0.0811
10/9/07	0.0334
10/9/07	0.101
10/10/07	0.0953
12/4/07	0.129
12/5/07	-0.01
1/4/08	0.0323
1/4/08	0.0601
1/4/08	0.0633
1/4/08	0.0839
2/5/08	0.0752
2/6/08	0.173
2/6/08	0.0613
4/1/08	0.0619
4/1/08	-0.0405
6/11/08	-0.0261
6/11/08	0.0882
6/11/08	-0.0366

Percent Exceedance Summary

Parameter	Indeno(1,2,3-cd)pyrene
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	4.4
n	98
n detected > WQO	4
% detected > WQO	4.08

Other Stats

% detected	6.12
n BDL	92
n DLs	9
max detected	6.9
min detected	1.9
max BDL	<5
min BDL	<0.256
n BDL > max detected	0
n BDL > WQO	61
n detected	6
n BDL < WQO	31
max/WQO	1.5682
detected < WQO	94
n < max DL	95

DATES	DATA
10/01/02	-0.26
10/02/02	-1.8
02/05/03	-0.453
02/06/03	-0.256
02/16/03	-1
02/16/03	-1
06/10/03	-0.325
06/11/03	-0.301
10/14/03	-1
10/15/03	-1
12/13/03	-2
12/14/03	-2
12/14/03	-2
12/14/03	-2
02/17/04	-2
02/18/04	-2
02/19/04	-2
04/13/04	-2
04/13/04	-2
04/14/04	-2
06/08/04	-5
06/08/04	-5
06/08/04	-5
06/09/04	-5
10/05/04	-5
10/05/04	-5
10/06/04	-5
10/19/04	-5
10/19/04	-5
10/20/04	-5
10/20/04	-5
01/28/05	-5
01/28/05	-5
01/28/05	-5
01/28/05	-5
01/28/05	-5
02/15/05	-5
02/16/05	-5
04/12/05	-5
04/12/05	-5
04/13/05	-5
06/07/05	-5
06/08/05	-5
10/04/05	-5
10/05/05	-5
12/01/05	6.9
12/01/05	-5
12/02/05	-5
02/07/06	-5
02/07/06	-5
02/07/06	-5
02/07/06	-5
02/08/06	-5

02/27/06	-5
02/27/06	-5
02/28/06	-5
02/28/06	-5
02/28/06	-5
02/28/06	-5
06/13/06	-5
06/13/06	-5
6/14/06	-5
10/10/06	-5
10/11/06	-5
11/3/06	-5
11/3/06	-5
12/9/06	4.4
12/9/06	1.9
12/10/06	2.3
2/7/07	-5
2/8/07	-5
4/3/07	-5
4/3/07	-5
4/3/07	-5
4/4/07	-5
4/4/07	-5
6/5/07	-5
6/6/07	-5
6/6/07	-5
10/9/07	-5
10/9/07	-5
10/9/07	-5
10/10/07	-5
10/10/07	-5
10/10/07	-5
1/4/08	-1
1/4/08	-1
1/4/08	5.3
1/4/08	-1
1/4/08	5.3
2/5/08	-1
2/5/08	-1
2/5/08	-1
2/6/08	-1
2/6/08	-1
6/11/08	-1
6/11/08	-1
6/11/08	-1

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	American River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	400
n	127
n detected > WQO	21
% detected > WQO	16.54

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	16000
min detected	4
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	127
n BDL < WQO	0
max/WQO	40.0000
detected < WQO	106
n < max DL	0

DATES	DATA
9/3/2002	50
9/4/2002	110
10/1/2002	70
10/2/2002	23
11/5/2002	13
11/6/2002	23
12/3/2002	11
12/4/2002	70
1/7/2003	8
1/8/2003	50
2/5/2003	50
2/6/2003	4
2/16/2003	9000
2/16/2003	70
3/4/2003	8
3/5/2003	11
3/15/2003	5000
3/15/2003	170
4/1/2003	30
4/2/2003	8
5/6/2003	110
5/7/2003	23
6/10/2003	23
6/11/2003	30
8/5/2003	2400
8/6/2003	50
10/14/2003	30
10/15/2003	50
12/9/2003	27
12/10/2003	80
12/14/2003	23
12/14/2003	30
12/14/2003	900
12/15/2003	70
2/17/2004	16000
2/17/2004	30
2/18/2004	280
4/13/2004	13
4/13/2004	30
4/14/2004	30
6/8/2004	30
6/8/2004	23
6/9/2004	26
8/10/2004	50
8/11/2004	50
10/5/2004	11
10/5/2004	8
10/6/2004	17
10/19/2004	16000
10/19/2004	70
10/20/2004	800
12/7/2004	800
12/8/2004	230
12/8/2004	170
1/28/2005	22
1/28/2005	11

1/28/2005	23
1/28/2005	22
2/15/2005	22
2/16/2005	50
4/12/2005	4
4/12/2005	11
4/13/2005	8
6/7/2005	4
6/8/2005	8
8/2/2005	80
8/3/2005	4
8/3/2005	17
10/4/2005	23
10/5/2005	30
12/1/2005	500
12/1/2005	170
12/2/2005	70
2/7/2006	80
2/7/2006	110
2/7/2006	500
2/8/2006	30
2/27/2006	220
2/27/2006	800
2/28/2006	300
2/28/2006	300
4/4/2006	140
4/5/2006	230
6/13/2006	17
6/13/2006	23
6/14/2006	170
8/1/2006	70
8/3/2006	23
8/3/2006	50
10/10/2006	500
10/11/2006	30
11/3/2006	2200
11/3/2006	800
11/3/2006	1300
12/9/2006	2300
12/9/2006	1700
12/10/2006	130
2/7/2007	23
2/8/2007	17
4/3/2007	22
4/3/2007	13
4/4/2007	50
4/4/2007	13
6/5/2007	8
6/6/2007	17
6/6/2007	21
8/7/2007	17
8/8/2007	50
8/8/2007	50
10/9/2007	13
10/9/2007	80
10/9/2007	13
10/10/2007	90
12/4/2007	110
12/5/2007	30
1/4/2008	2300
1/4/2008	1300

1/4/2008	800
1/4/2008	1300
2/5/2008	50
2/6/2008	22
2/6/2008	30
4/1/2008	22
4/1/2008	4
6/11/2008	17
6/11/2008	80
6/11/2008	130

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	American River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	235
n	127
n detected > WQO	20
% detected > WQO	15.75

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	16000
min detected	2
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	127
n BDL < WQO	0
max/WQO	68.0851
detected < WQO	107
n < max DL	0

DATES	DATA
9/3/2002	13
9/4/2002	110
10/1/2002	50
10/2/2002	23
11/5/2002	13
11/6/2002	23
12/3/2002	11
12/4/2002	70
1/7/2003	8
1/8/2003	50
2/5/2003	50
2/6/2003	4
2/16/2003	5000
2/16/2003	70
3/4/2003	4
3/5/2003	11
3/15/2003	2200
3/15/2003	80
4/1/2003	30
4/2/2003	8
5/6/2003	110
5/7/2003	23
6/10/2003	23
6/11/2003	30
8/5/2003	230
8/6/2003	50
10/14/2003	30
10/15/2003	23
12/9/2003	22
12/10/2003	80
12/14/2003	23
12/14/2003	17
12/14/2003	700
12/15/2003	70
2/17/2004	16000
2/17/2004	30
2/18/2004	280
4/13/2004	8
4/13/2004	30
4/14/2004	30
6/8/2004	30
6/8/2004	23
6/9/2004	26
8/10/2004	14
8/11/2004	30
10/5/2004	2
10/5/2004	4
10/6/2004	17
10/19/2004	16000
10/19/2004	70
10/20/2004	800
12/7/2004	280
12/8/2004	80
12/8/2004	110
1/28/2005	17

1/28/2005	8
1/28/2005	23
1/28/2005	17
2/15/2005	14
2/16/2005	50
4/12/2005	4
4/12/2005	7
4/13/2005	8
6/7/2005	2
6/8/2005	4
8/2/2005	27
8/3/2005	2
8/3/2005	11
10/4/2005	8
10/5/2005	30
12/1/2005	500
12/1/2005	170
12/2/2005	50
2/7/2006	80
2/7/2006	110
2/7/2006	220
2/8/2006	23
2/27/2006	170
2/27/2006	500
2/28/2006	300
2/28/2006	230
4/4/2006	110
4/5/2006	230
6/13/2006	17
6/13/2006	4
6/14/2006	170
8/1/2006	14
8/3/2006	8
8/3/2006	4
10/10/2006	50
10/11/2006	30
11/3/2006	500
11/3/2006	500
11/3/2006	300
12/9/2006	2300
12/9/2006	1700
12/10/2006	80
2/7/2007	13
2/8/2007	17
4/3/2007	22
4/3/2007	8
4/4/2007	50
4/4/2007	4
6/5/2007	8
6/6/2007	11
6/6/2007	21
8/7/2007	4
8/8/2007	50
8/8/2007	14
10/9/2007	13
10/9/2007	30
10/9/2007	8
10/10/2007	19
12/4/2007	110
12/5/2007	30

1/4/2008	1300
1/4/2008	1300
1/4/2008	800
1/4/2008	800
2/5/2008	50
2/6/2008	22
2/6/2008	13
4/1/2008	22
4/1/2008	4
6/11/2008	11
6/11/2008	80
6/11/2008	130

Percent Exceedance Summary

Parameter	Chlorpyrifos
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	14
n	98
n detected > WQO	1
% detected > WQO	1.02

Other Stats

% detected	18.37
n BDL	80
n DLs	5
max detected	39.9
min detected	0.29
max BDL	<5
min BDL	<0.132
n BDL > max detected	0
n BDL > WQO	0
n detected	18
n BDL < WQO	80
max/WQO	2.8500
detected < WQO	97
n < max DL	93

DATES	DATA
10/1/02	0.29
10/2/02	0.94
2/5/03	-0.202
2/6/03	0.562
2/16/03	-1
2/16/03	-1
6/10/03	0.407
6/11/03	-0.132
10/14/03	-1
10/15/03	-1
12/13/03	-2
12/14/03	-2
12/14/03	-2
12/14/03	1.7
2/17/04	-2
2/18/04	5
2/19/04	-2
4/13/04	-2
4/13/04	-2
4/14/04	-2
6/8/04	-5
6/8/04	-5
6/8/04	-5
6/9/04	-5
10/5/04	-5
10/5/04	-5
10/6/04	-5
10/19/04	39.9
10/19/04	-5
10/20/04	-5
10/20/04	-5
1/28/05	-5
1/28/05	-5
1/28/05	-5
1/28/05	3.6
1/28/05	-5
2/15/05	-5
2/16/05	-5
4/12/05	-5
4/12/05	-5
4/13/05	-5
6/7/05	-5
6/8/05	-5
10/4/05	-5
10/5/05	-5
12/1/05	13.5
12/1/05	-5
12/2/05	-5
2/7/06	-5
2/7/06	-5
2/7/06	-5
2/7/06	-5
2/8/06	-5

2/27/06	3.3
2/27/06	-5
2/28/06	-5
2/28/06	-5
2/28/06	-5
2/28/06	-5
6/13/06	-5
6/13/06	-5
6/14/06	-5
10/10/06	-5
10/11/06	-5
11/3/06	-5
11/3/06	3.1
12/9/06	3.2
12/9/06	3.7
12/10/06	1.8
2/7/07	-5
2/8/07	-5
4/3/07	-5
4/3/07	-5
4/3/07	-5
4/4/07	-5
4/4/07	-5
6/5/07	-5
6/6/07	-5
6/6/07	-5
10/9/07	-5
10/9/07	-5
10/9/07	-5
10/10/07	-5
10/10/07	1
10/10/07	-5
1/4/08	-1
1/4/08	4.6
1/4/08	5.4
1/4/08	-1
1/4/08	5.4
2/5/08	-1
2/5/08	-1
2/5/08	-1
2/6/08	-1
2/6/08	-1
6/11/08	-1
6/11/08	-1
6/11/08	-1

Percent Exceedance Summary

Parameter	Benzo(k)fluoranthene
Location	American River
Data Source	CMP
min date	10/1/2002
max date	6/11/2008

Percent Exceedance stats

WQO	4.4
n	98
n detected > WQO	2
% detected > WQO	2.04

Other Stats

% detected	7.14
n BDL	91
n DLs	5
max detected	29.2
min detected	2.6
max BDL	<20
min BDL	<1
n BDL > max detected	0
n BDL > WQO	67
n detected	7
n BDL < WQO	24
max/WQO	6.6364
detected < WQO	96
n < max DL	97

DATES	DATA
10/1/2002	-10
10/2/2002	-10
2/5/2003	-20
2/6/2003	-20
2/16/2003	-1
2/16/2003	-1
6/10/2003	-10
6/11/2003	-10
10/14/2003	-1
10/15/2003	-1
12/13/2003	-2
12/14/2003	-2
12/14/2003	-2
12/14/2003	2.6
2/17/2004	-2
2/18/2004	-2
2/19/2004	-2
4/13/2004	-2
4/13/2004	-2
4/14/2004	-2
6/8/2004	-5
6/8/2004	-5
6/8/2004	-5
6/9/2004	-5
10/5/2004	-5
10/5/2004	-5
10/6/2004	-5
10/19/2004	29.2
10/19/2004	-5
10/20/2004	-5
10/20/2004	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
1/28/2005	-5
2/15/2005	-5
2/16/2005	-5
4/12/2005	-5
4/12/2005	-5
4/13/2005	-5
6/7/2005	-5
6/8/2005	-5
10/4/2005	-5
10/5/2005	-5
12/1/2005	11
12/1/2005	-5
12/2/2005	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/7/2006	-5
2/8/2006	-5

2/27/2006	-5
2/27/2006	-5
2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
2/28/2006	-5
6/13/2006	-5
6/13/2006	-5
6/14/2006	-5
10/10/2006	-5
10/11/2006	-5
11/3/2006	-5
11/3/2006	-5
12/9/2006	3.5
12/9/2006	4
12/10/2006	-5
2/7/2007	-5
2/8/2007	-5
4/3/2007	-5
4/3/2007	-5
4/3/2007	-5
4/4/2007	-5
04/04/2007	-5
6/5/2007	-5
6/6/2007	-5
06/06/2007	-5
10/9/2007	-5
10/9/2007	-5
10/09/2007	-5
10/10/2007	-5
10/10/2007	-5
10/10/2007	-5
1/4/2008	-1
1/4/2008	-1
1/4/2008	2.8
1/4/2008	-1
01/04/2008	2.8
2/5/2008	-1
2/5/2008	-1
2/5/2008	-1
2/6/2008	-1
02/06/2008	-1
6/11/2008	-1
6/11/2008	-1
6/11/2008	-1

Percent Exceedance Summary

Parameter	Aluminum, Dissolved
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	200
n	63
n detected > WQO	1
% detected > WQO	1.59

Other Stats

% detected	80.95
n BDL	12
n DLs	0
max detected	260
min detected	5.6
max BDL	<19.6
min BDL	<3.4
n BDL > max detected	0
n BDL > WQO	0
n detected	51
n BDL < WQO	12
max/WQO	1.3000
detected < WQO	62
n < max DL	40

DATES	DATA
6/9/04	19.50
10/6/04	8.30
10/6/04	8.70
10/19/04	8.90
1/28/05	21.70
2/16/05	17.80
2/16/05	17.40
4/13/05	35.20
6/8/05	14.30
6/8/05	14.50
10/5/05	-18.00
12/1/05	10.60
2/8/06	55.10
2/27/06	42.00
6/14/06	48.00
6/14/06	54.20
10/11/06	20.20
10/11/06	-19.60
11/3/06	-11.50
12/9/06	-15.30
2/8/07	18.80
4/3/07	15.70
6/5/07	-4.00
6/5/07	13.90
10/10/07	10.70
1/4/08	10.10
6/9/04	139.00
10/6/04	11.10
2/16/05	15.90
6/8/05	21.40
10/5/05	15.00
2/8/06	52.50
6/14/06	40.60
10/11/06	-19.30
2/8/07	16.90
2/8/07	15.90
6/5/07	-4.00
10/10/07	7.60
2/6/08	52.00
2/6/08	260.00
6/11/08	13.00
6/11/08	38.00
2/5/08	35.00
2/16/05	16.40
10/20/04	-3.40
6/7/05	28.40
10/4/05	17.00

1/28/05	24.00
10/5/04	-12.90
4/13/05	27.70
6/8/04	21.10
12/1/05	12.00
2/7/06	59.90
12/9/06	-18.70
6/5/07	-4.00
11/3/06	-12.10
2/27/06	38.60
6/13/06	59.60
4/3/07	11.20
10/10/06	23.40
1/4/08	16.60
10/9/07	6.40
2/7/07	5.60

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	400
n	126
n detected > WQO	15
% detected > WQO	11.90

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	2400
min detected	4
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	126
n BDL < WQO	0
max/WQO	6.0000
detected < WQO	111
n < max DL	0

DATES	DATA
9/3/02	23.00
9/4/02	30.00
10/1/02	7.00
10/2/02	13.00
11/5/02	17.00
11/6/02	4.00
12/3/02	8.00
12/4/02	23.00
1/7/03	70.00
1/8/03	23.00
2/5/03	14.00
2/6/03	11.00
2/16/03	30.00
2/16/03	70.00
3/4/03	13.00
3/5/03	11.00
3/15/03	2400.00
3/15/03	27.00
4/1/03	17.00
4/2/03	30.00
5/6/03	50.00
5/7/03	500.00
6/10/03	22.00
6/11/03	17.00
8/5/03	50.00
8/6/03	170.00
10/14/03	13.00
10/15/03	11.00
10/15/03	13.00
12/10/03	300.00
12/11/03	500.00
12/14/03	300.00
12/14/03	500.00
2/17/04	500.00
2/18/04	190.00
2/18/04	700.00
2/18/04	700.00
4/13/04	17.00
4/13/04	8.00
6/8/04	50.00
6/9/04	70.00
6/9/04	23.00
8/10/04	50.00
8/11/04	50.00
8/11/04	23.00
10/5/04	4.00
10/6/04	13.00
10/6/04	4.00
10/6/04	13.00
10/19/04	30.00
10/20/04	50.00
12/7/04	17.00

12/8/04	80.00
12/8/04	130.00
1/28/05	50.00
1/28/05	50.00
2/15/05	14.00
2/16/05	500.00
2/16/05	700.00
4/13/05	80.00
4/13/05	50.00
6/7/05	30.00
6/8/05	80.00
6/8/05	23.00
8/2/05	130.00
8/3/05	50.00
8/3/05	50.00
10/4/05	17.00
10/5/05	30.00
10/5/05	30.00
12/1/05	13.00
12/1/05	130.00
2/7/06	130.00
2/8/06	80.00
2/8/06	30.00
2/27/06	7.00
2/27/06	800.00
4/4/06	500.00
4/5/06	300.00
4/5/06	800.00
4/5/06	700.00
6/13/06	23.00
6/14/06	23.00
6/14/06	13.00
6/14/06	23.00
8/1/06	50.00
8/3/06	130.00
8/3/06	140.00
10/10/06	4.00
10/11/06	130.00
10/11/06	80.00
10/11/06	130.00
11/3/06	17.00
11/3/06	300.00
12/9/06	50.00
12/9/06	110.00
12/9/06	170.00
2/7/07	11.00
2/8/07	17.00
2/8/07	26.00
2/8/07	23.00
4/3/07	7.00
4/3/07	13.00
4/3/07	7.00
6/5/07	7.00
6/5/07	4.00
6/5/07	50.00
6/5/07	11.00
8/7/07	170.00

8/8/07	90.00
8/8/07	80.00
10/9/07	11.00
10/10/07	230.00
10/10/07	130.00
12/4/07	11.00
12/5/07	8.00
12/5/07	8.00
12/5/07	11.00
1/4/08	17.00
2/5/08	500.00
2/6/08	300.00
2/6/08	1100.00
4/1/08	11.00
4/2/08	7.00
6/11/08	23.00
6/12/08	280.00

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	235
n	126
n detected > WQO	17
% detected > WQO	13.49

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	1100
min detected	2
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	126
n BDL < WQO	0
max/WQO	4.6809
detected < WQO	109
n < max DL	0

DATES	DATA
9/3/02	23.00
9/4/02	2.00
10/1/02	4.00
10/2/02	8.00
11/5/02	17.00
11/6/02	4.00
12/3/02	8.00
12/4/02	23.00
1/7/03	50.00
1/8/03	23.00
2/5/03	11.00
2/6/03	8.00
2/16/03	30.00
2/16/03	22.00
3/4/03	13.00
3/5/03	11.00
3/15/03	800.00
3/15/03	22.00
4/1/03	11.00
4/2/03	30.00
5/6/03	50.00
5/7/03	500.00
6/10/03	22.00
6/11/03	11.00
8/5/03	22.00
8/6/03	80.00
10/14/03	13.00
10/15/03	7.00
10/15/03	13.00
12/10/03	300.00
12/11/03	300.00
12/14/03	130.00
12/14/03	220.00
2/17/04	300.00
2/18/04	190.00
2/18/04	700.00
2/18/04	700.00
4/13/04	11.00
4/13/04	8.00
6/8/04	50.00
6/9/04	17.00
6/9/04	23.00
8/10/04	30.00
8/11/04	30.00
8/11/04	13.00
10/5/04	2.00
10/6/04	13.00
10/6/04	4.00
10/6/04	8.00
10/19/04	30.00
10/20/04	50.00
12/7/04	17.00

12/8/04	80.00
12/8/04	130.00
1/28/05	30.00
1/28/05	22.00
2/15/05	14.00
2/16/05	500.00
2/16/05	700.00
4/13/05	80.00
4/13/05	50.00
6/7/05	23.00
6/8/05	27.00
6/8/05	23.00
8/2/05	30.00
8/3/05	13.00
8/3/05	4.00
10/4/05	9.00
10/5/05	17.00
10/5/05	8.00
12/1/05	13.00
12/1/05	50.00
2/7/06	80.00
2/8/06	80.00
2/8/06	30.00
2/27/06	7.00
2/27/06	800.00
4/4/06	500.00
4/5/06	230.00
4/5/06	800.00
4/5/06	700.00
6/13/06	8.00
6/14/06	13.00
6/14/06	8.00
6/14/06	8.00
8/1/06	8.00
8/3/06	14.00
8/3/06	8.00
10/10/06	2.00
10/11/06	80.00
10/11/06	50.00
10/11/06	80.00
11/3/06	17.00
11/3/06	300.00
12/9/06	50.00
12/9/06	110.00
12/9/06	170.00
2/7/07	11.00
2/8/07	17.00
2/8/07	22.00
2/8/07	23.00
4/3/07	4.00
4/3/07	13.00
4/3/07	7.00
6/5/07	7.00
6/5/07	4.00
6/5/07	6.00
6/5/07	7.00
8/7/07	14.00

8/8/07	13.00
8/8/07	8.00
10/9/07	8.00
10/10/07	50.00
10/10/07	80.00
12/4/07	11.00
12/5/07	8.00
12/5/07	4.00
12/5/07	7.00
1/4/08	17.00
2/5/08	500.00
2/6/08	300.00
2/6/08	1100.00
4/1/08	11.00
4/2/08	4.00
6/11/08	13.00
6/12/08	14.00

Percent Exceedance Summary

Parameter	Diazinon
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	0.05
n	140
n detected > WQO	2
% detected > WQO	1.43

Other Stats

% detected	2.86
n BDL	136
n DLs	3
max detected	0.061
min detected	0.011
max BDL	<0.1
min BDL	<0.004
n BDL > max detected	1
n BDL > WQO	133
n detected	4
n BDL < WQO	3
max/WQO	1.2200
detected < WQO	138
n < max DL	140

DATES	DATA
9/3/02	-0.05
9/4/02	-0.05
9/4/02	-0.05
10/1/02	-0.05
10/1/02	-0.05
10/2/02	-0.05
11/5/02	-0.05
11/6/02	-0.05
11/6/02	-0.05
1/7/03	-0.05
1/8/03	-0.05
1/8/03	-0.05
2/5/03	-0.05
2/5/03	-0.05
2/6/03	-0.05
2/16/03	-0.05
2/16/03	-0.05
3/4/03	-0.05
3/5/03	-0.05
3/5/03	-0.05
3/15/03	0.06
3/15/03	-0.05
5/6/03	-0.05
5/7/03	-0.05
5/7/03	-0.05
6/10/03	-0.05
6/11/03	-0.05
6/11/03	-0.05
8/5/03	-0.05
8/6/03	-0.05
8/6/03	-0.05
10/14/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
12/11/03	-0.05
12/14/03	-0.05
12/14/03	-0.10
2/17/04	-0.05
2/18/04	-0.05
2/18/04	-0.05
2/18/04	0.06
2/18/04	-0.05
4/13/04	-0.05
4/13/04	-0.05
4/13/04	-0.05
6/8/04	-0.05
6/9/04	-0.05
6/9/04	-0.05
8/10/04	-0.05
8/11/04	-0.05
8/11/04	-0.05
8/11/04	-0.05
10/5/04	-0.05
10/6/04	-0.05

10/6/04	-0.05
10/6/04	-0.05
10/19/04	-0.05
10/20/04	-0.05
12/7/04	-0.05
12/8/04	-0.05
12/8/04	-0.05
1/28/05	-0.05
1/28/05	0.03
2/15/05	-0.05
2/16/05	-0.05
2/16/05	-0.05
2/16/05	-0.05
4/13/05	-0.05
4/13/05	-0.05
6/7/05	-0.05
6/8/05	-0.05
6/8/05	-0.05
6/8/05	-0.05
8/2/05	-0.05
8/3/05	-0.05
8/3/05	-0.05
10/4/05	-0.05
10/5/05	-0.05
10/5/05	-0.05
10/5/05	-0.05
12/1/05	-0.05
12/1/05	-0.05
12/1/05	-0.05
2/7/06	-0.05
2/8/06	-0.05
2/8/06	-0.05
2/27/06	-0.05
2/27/06	-0.05
3/7/06	-0.05
3/7/06	0.01
4/4/06	-0.05
4/5/06	-0.05
4/5/06	-0.05
4/5/06	-0.05
6/13/06	-0.05
6/14/06	-0.05
6/14/06	-0.05
6/14/06	-0.05
8/1/06	-0.05
8/3/06	-0.05
8/3/06	-0.05
10/10/06	-0.05
10/11/06	-0.05
10/11/06	-0.05
10/11/06	-0.05
11/3/06	-0.05
11/3/06	-0.05
12/9/06	-0.05
12/9/06	-0.05
12/9/06	-0.05
2/7/07	-0.05
2/8/07	-0.05
2/8/07	-0.05
2/8/07	-0.05

4/3/07	-0.05
4/3/07	-0.05
4/3/07	-0.05
6/5/07	-0.05
6/5/07	-0.05
6/5/07	-0.05
6/5/07	-0.05
8/7/07	-0.05
8/8/07	-0.05
8/8/07	-0.05
10/9/07	0.00
10/10/07	0.00
10/10/07	0.00
12/4/07	-0.05
12/5/07	-0.05
12/5/07	-0.05
12/5/07	-0.05
1/4/08	-0.05
2/5/08	-0.05
2/6/08	-0.05
2/6/08	-0.05
4/1/08	-0.05
4/2/08	-0.05
6/11/08	-0.05
6/12/08	-0.05

Percent Exceedance Summary

Parameter	Turbidity
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	150
n	296
n detected > WQO	8
% detected > WQO	2.70

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	260
min detected	3.2
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	296
n BDL < WQO	0
max/WQO	1.7333
detected < WQO	288
n < max DL	0

DATES	DATA
9/3/02	19.60
9/3/02	19.60
9/4/02	9.10
9/4/02	15.40
9/4/02	9.10
9/4/02	15.40
10/1/02	14.00
10/1/02	14.00
10/2/02	12.00
10/2/02	11.80
10/2/02	12.00
10/2/02	11.80
11/5/02	12.30
11/5/02	12.30
11/6/02	5.00
11/6/02	5.20
11/6/02	5.00
11/6/02	5.20
12/3/02	21.00
12/3/02	21.00
12/4/02	6.60
12/4/02	7.10
12/4/02	6.60
12/4/02	7.10
1/7/03	87.00
1/7/03	87.00
1/8/03	83.00
1/8/03	79.00
1/8/03	83.00
1/8/03	79.00
2/5/03	38.00
2/5/03	34.00
2/5/03	38.00
2/5/03	34.00
2/6/03	30.00
2/6/03	30.00
2/16/03	30.00
2/16/03	40.00
2/16/03	30.00
2/16/03	40.00
3/4/03	22.00
3/4/03	22.00
3/5/03	19.60
3/5/03	18.00
3/5/03	19.60
3/5/03	18.00
3/15/03	17.00
3/15/03	29.00
3/15/03	17.00
3/15/03	29.00
4/1/03	31.50
4/1/03	31.50

4/2/03	21.00
4/2/03	22.50
4/2/03	21.00
4/2/03	22.50
5/6/03	80.00
5/6/03	80.00
5/7/03	66.00
5/7/03	71.00
5/7/03	66.00
5/7/03	71.00
6/10/03	17.00
6/10/03	17.00
6/11/03	16.00
6/11/03	24.00
6/11/03	16.00
6/11/03	24.00
8/5/03	20.00
8/5/03	20.00
8/6/03	15.00
8/6/03	18.00
8/6/03	15.00
8/6/03	18.00
10/14/03	18.00
10/14/03	18.00
10/15/03	6.00
10/15/03	5.40
10/15/03	6.00
10/15/03	5.40
12/10/03	94.00
12/10/03	180.00
12/10/03	94.00
12/10/03	180.00
12/10/03	180.00
12/10/03	180.00
12/11/03	79.00
12/11/03	79.00
12/11/03	94.00
12/11/03	94.00
12/11/03	79.00
12/11/03	79.00
12/14/03	65.00
12/14/03	65.00
12/14/03	65.00
12/14/03	65.00
12/14/03	38.00
12/14/03	38.00
2/17/04	75.00
2/17/04	75.00
2/18/04	63.00
2/18/04	68.00
2/18/04	63.00
2/18/04	68.00
2/18/04	63.00
2/18/04	63.00
4/13/04	21.00
4/13/04	21.00
4/13/04	24.00

4/13/04	24.00
4/13/04	25.00
4/13/04	25.00
6/8/04	12.00
6/8/04	12.00
6/9/04	11.00
6/9/04	11.00
8/10/04	11.00
8/10/04	11.00
8/11/04	9.40
8/11/04	7.60
8/11/04	7.50
8/11/04	9.40
8/11/04	7.60
8/11/04	7.50
8/11/04	9.70
8/11/04	8.50
8/11/04	9.70
8/11/04	8.50
10/5/04	7.00
10/5/04	7.00
10/6/04	6.50
10/6/04	6.50
10/6/04	7.00
10/6/04	6.40
10/6/04	7.00
10/6/04	6.40
10/19/04	6.40
10/19/04	6.40
10/20/04	6.70
10/20/04	6.70
12/7/04	16.00
12/7/04	16.00
12/8/04	7.30
12/8/04	7.30
12/8/04	9.10
12/8/04	9.10
1/28/05	24.00
1/28/05	24.00
1/28/05	24.00
1/28/05	24.00
1/28/05	48.00
1/28/05	48.00
2/15/05	19.00
2/15/05	19.00
2/16/05	12.00
2/16/05	11.00
2/16/05	12.00
2/16/05	11.00
2/16/05	11.00
2/16/05	9.80
2/16/05	11.00
2/16/05	9.80
4/13/05	22.00
4/13/05	22.00
4/13/05	20.00
4/13/05	20.00

4/13/05	19.00
4/13/05	19.00
6/7/05	22.00
6/7/05	22.00
6/8/05	14.00
6/8/05	14.00
6/8/05	14.00
6/8/05	14.00
6/8/05	11.00
6/8/05	11.00
6/8/05	11.00
6/8/05	11.00
8/2/05	7.70
8/2/05	7.70
8/3/05	9.20
8/3/05	9.20
8/3/05	13.00
8/3/05	13.00
10/4/05	12.00
10/4/05	12.00
10/5/05	7.00
10/5/05	7.00
10/5/05	6.20
10/5/05	6.00
10/5/05	6.20
10/5/05	6.00
12/1/05	13.00
12/1/05	13.00
12/1/05	11.00
12/1/05	11.00
12/1/05	12.00
12/1/05	12.00
2/7/06	81.00
2/7/06	81.00
2/8/06	58.00
2/8/06	58.00
2/8/06	55.00
2/8/06	55.00
2/27/06	25.00
2/27/06	25.00
2/27/06	19.00
2/27/06	19.00
3/7/06	40.00
3/7/06	40.00
3/7/06	39.00
3/7/06	39.00
4/4/06	66.00
4/4/06	66.00
4/5/06	38.00
4/5/06	38.00
4/5/06	43.00
4/5/06	43.00
6/13/06	20.00
6/13/06	20.00
6/14/06	13.00
6/14/06	13.00
6/14/06	18.00

6/14/06	18.00
8/1/06	13.00
8/1/06	13.00
8/3/06	12.00
8/3/06	12.00
8/3/06	16.00
8/3/06	16.00
10/10/06	9.10
10/10/06	9.10
10/11/06	7.10
10/11/06	7.10
10/11/06	6.20
10/11/06	6.20
11/3/06	11.00
11/3/06	11.00
11/3/06	5.90
11/3/06	5.90
12/9/06	11.00
12/9/06	11.00
12/9/06	10.00
12/9/06	10.00
12/9/06	11.00
12/9/06	11.00
2/7/07	23.00
2/7/07	23.00
2/8/07	14.00
2/8/07	14.00
2/8/07	16.00
2/8/07	16.00
4/3/07	9.20
4/3/07	9.20
4/3/07	6.80
4/3/07	6.80
4/3/07	8.70
4/3/07	8.70
6/5/07	6.20
6/5/07	6.20
6/5/07	6.40
6/5/07	6.40
6/5/07	12.00
6/5/07	12.00
8/7/07	12.00
8/7/07	12.00
8/8/07	7.40
8/8/07	7.40
8/8/07	6.80
8/8/07	6.80
10/9/07	4.90
10/9/07	4.90
10/10/07	3.20
10/10/07	3.20
10/10/07	4.80
10/10/07	4.80
12/4/07	9.30
12/4/07	9.30
12/5/07	6.30
12/5/07	6.30

12/5/07	11.00
12/5/07	11.00
1/4/08	30.00
1/4/08	30.00
2/5/08	200.00
2/5/08	200.00
2/6/08	260.00
2/6/08	260.00
4/1/08	9.30
4/1/08	9.30
4/2/08	5.70
4/2/08	5.70
6/11/08	14.00
6/11/08	14.00
6/12/08	12.00
6/12/08	12.00

Percent Exceedance Summary

Parameter	Specific Conductance
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	240
n	260
n detected > WQO	10
% detected > WQO	3.85

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	260
min detected	58
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	260
n BDL < WQO	0
max/WQO	1.0833
detected < WQO	250
n < max DL	0

DATES	DATA
9/3/02	202.00
9/3/02	202.00
9/4/02	191.00
9/4/02	196.00
9/4/02	191.00
9/4/02	196.00
10/1/02	150.00
10/1/02	150.00
10/2/02	142.00
10/2/02	149.00
10/2/02	142.00
10/2/02	149.00
11/5/02	151.00
11/5/02	151.00
11/6/02	167.00
11/6/02	178.00
11/6/02	167.00
11/6/02	178.00
12/3/02	164.00
12/3/02	164.00
12/4/02	198.00
12/4/02	199.00
12/4/02	198.00
12/4/02	199.00
1/7/03	150.00
1/7/03	150.00
1/8/03	152.00
1/8/03	150.00
1/8/03	152.00
1/8/03	150.00
2/16/03	123.00
2/16/03	145.00
2/16/03	123.00
2/16/03	145.00
3/4/03	175.00
3/4/03	175.00
3/5/03	170.00
3/5/03	177.00
3/5/03	170.00
3/5/03	177.00
3/15/03	171.00
3/15/03	171.00
4/1/03	157.00
4/1/03	157.00
4/2/03	153.00
4/2/03	161.00
4/2/03	153.00
4/2/03	161.00
5/6/03	118.00
5/6/03	118.00
5/7/03	118.00

5/7/03	120.00
5/7/03	118.00
5/7/03	120.00
6/10/03	136.00
6/10/03	136.00
6/11/03	127.00
6/11/03	128.00
6/11/03	127.00
6/11/03	128.00
8/5/03	134.00
8/5/03	134.00
8/6/03	122.00
8/6/03	129.00
8/6/03	122.00
8/6/03	129.00
10/14/03	140.00
10/14/03	140.00
10/15/03	130.00
10/15/03	140.00
10/15/03	130.00
10/15/03	140.00
12/10/03	170.00
12/10/03	170.00
12/11/03	160.00
12/11/03	160.00
12/11/03	170.00
12/11/03	170.00
12/14/03	150.00
12/14/03	150.00
12/14/03	170.00
12/14/03	170.00
2/17/04	260.00
2/17/04	260.00
2/18/04	180.00
2/18/04	180.00
2/18/04	190.00
2/18/04	190.00
4/13/04	120.00
4/13/04	120.00
4/13/04	120.00
4/13/04	120.00
4/13/04	130.00
4/13/04	130.00
6/8/04	150.00
6/8/04	150.00
6/9/04	150.00
6/9/04	150.00
6/9/04	140.00
6/9/04	140.00
8/10/04	150.00
8/10/04	150.00
8/11/04	150.00
8/11/04	150.00
8/11/04	160.00
8/11/04	160.00
10/5/04	140.00

10/5/04	140.00
10/6/04	150.00
10/6/04	150.00
10/6/04	140.00
10/6/04	140.00
10/19/04	130.00
10/19/04	130.00
10/20/04	150.00
10/20/04	150.00
12/7/04	250.00
12/7/04	250.00
12/8/04	210.00
12/8/04	210.00
12/8/04	210.00
12/8/04	210.00
1/28/05	250.00
1/28/05	250.00
1/28/05	210.00
1/28/05	210.00
2/15/05	250.00
2/15/05	250.00
2/16/05	220.00
2/16/05	220.00
2/16/05	200.00
2/16/05	200.00
4/13/05	180.00
4/13/05	180.00
4/13/05	160.00
4/13/05	160.00
4/13/05	150.00
4/13/05	150.00
6/7/05	160.00
6/7/05	160.00
6/8/05	120.00
6/8/05	120.00
6/8/05	110.00
6/8/05	110.00
8/2/05	180.00
8/2/05	180.00
8/3/05	160.00
8/3/05	160.00
8/3/05	150.00
8/3/05	150.00
10/4/05	150.00
10/4/05	150.00
10/5/05	140.00
10/5/05	140.00
10/5/05	130.00
10/5/05	130.00
12/1/05	190.00
12/1/05	190.00
12/1/05	190.00
12/1/05	190.00
12/1/05	190.00
12/1/05	190.00
2/7/06	110.00

2/7/06	110.00
2/8/06	97.00
2/8/06	97.00
2/8/06	100.00
2/8/06	100.00
2/27/06	130.00
2/27/06	130.00
2/27/06	130.00
2/27/06	130.00
3/7/06	90.00
3/7/06	90.00
3/7/06	95.00
3/7/06	95.00
4/4/06	110.00
4/4/06	110.00
4/5/06	95.00
4/5/06	95.00
4/5/06	98.00
4/5/06	98.00
6/13/06	160.00
6/13/06	160.00
6/14/06	190.00
6/14/06	190.00
6/14/06	180.00
6/14/06	180.00
8/1/06	160.00
8/1/06	160.00
8/3/06	150.00
8/3/06	150.00
8/3/06	140.00
8/3/06	140.00
10/10/06	160.00
10/10/06	160.00
10/11/06	140.00
10/11/06	140.00
10/11/06	140.00
10/11/06	140.00
11/3/06	170.00
11/3/06	170.00
11/3/06	140.00
11/3/06	140.00
12/9/06	58.00
12/9/06	58.00
12/9/06	170.00
12/9/06	170.00
12/9/06	180.00
12/9/06	180.00
2/7/07	200.00
2/7/07	200.00
2/8/07	190.00
2/8/07	190.00
2/8/07	200.00
2/8/07	200.00
4/3/07	140.00
4/3/07	140.00
4/3/07	130.00

4/3/07	130.00
4/3/07	140.00
4/3/07	140.00
6/5/07	210.00
6/5/07	210.00
6/5/07	220.00
6/5/07	220.00
6/5/07	240.00
6/5/07	240.00
8/7/07	180.00
8/7/07	180.00
8/8/07	180.00
8/8/07	180.00
8/8/07	190.00
8/8/07	190.00
10/9/07	180.00
10/9/07	180.00
10/10/07	170.00
10/10/07	170.00
10/10/07	180.00
10/10/07	180.00
12/4/07	200.00
12/4/07	200.00
12/5/07	200.00
12/5/07	200.00
12/5/07	190.00
12/5/07	190.00
1/4/08	230.00
1/4/08	230.00
2/5/08	170.00
2/5/08	170.00
2/6/08	150.00
2/6/08	150.00
4/1/08	210.00
4/1/08	210.00
4/2/08	190.00
4/2/08	190.00
6/11/08	170.00
6/11/08	170.00
6/12/08	150.00
6/12/08	150.00

Percent Exceedance Summary

Parameter	Solids, Total Dissolved
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/12/2008

Percent Exceedance stats

WQO	125
n	300
n detected > WQO	82
% detected > WQO	27.33

Other Stats

% detected	95.33
n BDL	14
n DLs	7
max detected	190
min detected	33
max BDL	<100
min BDL	<35
n BDL > max detected	0
n BDL > WQO	0
n detected	286
n BDL < WQO	14
max/WQO	1.5200
detected < WQO	218
n < max DL	102

DATES	DATA
9/3/2002	120.00
9/3/2002	120.00
9/4/2002	110.00
9/4/2002	82.00
9/4/2002	110.00
9/4/2002	82.00
10/1/2002	93.00
10/1/2002	93.00
10/2/2002	110.00
10/2/2002	97.00
10/2/2002	110.00
10/2/2002	97.00
11/5/2002	120.00
11/5/2002	120.00
11/6/2002	130.00
11/6/2002	97.00
11/6/2002	130.00
11/6/2002	97.00
12/3/2002	130.00
12/3/2002	130.00
12/4/2002	120.00
12/4/2002	120.00
12/4/2002	120.00
12/4/2002	120.00
1/7/2003	120.00
1/7/2003	120.00
1/8/2003	120.00
1/8/2003	130.00
1/8/2003	120.00
1/8/2003	130.00
2/5/2003	120.00
2/5/2003	110.00
2/5/2003	120.00
2/5/2003	110.00
2/6/2003	120.00
2/6/2003	120.00
2/16/2003	89.00
2/16/2003	140.00
2/16/2003	89.00
2/16/2003	140.00
3/4/2003	120.00
3/4/2003	120.00
3/5/2003	140.00
3/5/2003	140.00
3/5/2003	140.00
3/5/2003	140.00
3/15/2003	78.00
3/15/2003	120.00
3/15/2003	78.00
3/15/2003	120.00
4/1/2003	100.00
4/1/2003	100.00
4/2/2003	99.00

4/2/2003	91.00
4/2/2003	99.00
4/2/2003	91.00
5/6/2003	81.00
5/6/2003	81.00
5/7/2003	89.00
5/7/2003	64.00
5/7/2003	89.00
5/7/2003	64.00
6/10/2003	180.00
6/10/2003	180.00
6/11/2003	130.00
6/11/2003	91.00
6/11/2003	130.00
6/11/2003	91.00
8/5/2003	86.00
8/5/2003	86.00
8/6/2003	76.00
8/6/2003	83.00
8/6/2003	76.00
8/6/2003	83.00
10/14/2003	91.00
10/14/2003	91.00
10/15/2003	100.00
10/15/2003	90.00
10/15/2003	100.00
10/15/2003	90.00
12/10/2003	120.00
12/10/2003	120.00
12/11/2003	100.00
12/11/2003	100.00
12/11/2003	110.00
12/11/2003	110.00
12/14/2003	110.00
12/14/2003	110.00
12/14/2003	160.00
12/14/2003	160.00
2/17/2004	180.00
2/17/2004	180.00
2/18/2004	110.00
2/18/2004	120.00
2/18/2004	110.00
2/18/2004	120.00
2/18/2004	95.00
2/18/2004	95.00
4/13/2004	81.00
4/13/2004	81.00
4/13/2004	73.00
4/13/2004	73.00
4/13/2004	110.00
4/13/2004	110.00
6/8/2004	110.00
6/8/2004	110.00
6/9/2004	110.00
6/9/2004	110.00
8/10/2004	140.00
8/10/2004	140.00
8/11/2004	140.00

8/11/2004	140.00
8/11/2004	150.00
8/11/2004	120.00
8/11/2004	150.00
8/11/2004	120.00
10/5/2004	67.00
10/5/2004	67.00
10/6/2004	98.00
10/6/2004	98.00
10/6/2004	79.00
10/6/2004	90.00
10/6/2004	99.00
10/6/2004	79.00
10/6/2004	90.00
10/6/2004	99.00
10/19/2004	120.00
10/19/2004	120.00
10/20/2004	110.00
10/20/2004	110.00
12/7/2004	190.00
12/7/2004	190.00
12/8/2004	150.00
12/8/2004	150.00
12/8/2004	150.00
12/8/2004	150.00
12/8/2004	160.00
12/8/2004	160.00
1/28/2005	180.00
1/28/2005	180.00
1/28/2005	180.00
1/28/2005	180.00
1/28/2005	140.00
1/28/2005	140.00
2/15/2005	170.00
2/15/2005	170.00
2/16/2005	170.00
2/16/2005	170.00
2/16/2005	150.00
2/16/2005	170.00
2/16/2005	150.00
2/16/2005	170.00
4/13/2005	140.00
4/13/2005	140.00
4/13/2005	140.00
4/13/2005	140.00
4/13/2005	120.00
4/13/2005	120.00
6/7/2005	110.00
6/7/2005	110.00
6/8/2005	98.00
6/8/2005	98.00
6/8/2005	90.00
6/8/2005	96.00
6/8/2005	90.00
6/8/2005	96.00
8/2/2005	170.00
8/2/2005	170.00
8/3/2005	120.00

8/3/2005	120.00
8/3/2005	110.00
8/3/2005	110.00
10/4/2005	110.00
10/4/2005	110.00
10/5/2005	120.00
10/5/2005	120.00
10/5/2005	110.00
10/5/2005	94.00
10/5/2005	110.00
10/5/2005	94.00
12/1/2005	130.00
12/1/2005	130.00
12/1/2005	120.00
12/1/2005	120.00
12/1/2005	140.00
12/1/2005	140.00
2/7/2006	63.00
2/7/2006	63.00
2/8/2006	33.00
2/8/2006	33.00
2/8/2006	81.00
2/8/2006	81.00
2/27/2006	110.00
2/27/2006	110.00
2/27/2006	92.00
2/27/2006	92.00
4/4/2006	87.00
4/4/2006	87.00
4/5/2006	89.00
4/5/2006	89.00
4/5/2006	110.00
4/5/2006	38.00
4/5/2006	110.00
4/5/2006	38.00
6/13/2006	110.00
6/13/2006	110.00
6/14/2006	110.00
6/14/2006	110.00
6/14/2006	75.00
6/14/2006	68.00
6/14/2006	75.00
6/14/2006	68.00
8/1/2006	120.00
8/1/2006	120.00
8/3/2006	120.00
8/3/2006	120.00
8/3/2006	99.00
8/3/2006	99.00
10/10/2006	-77.00
10/10/2006	-77.00
10/11/2006	-96.00
10/11/2006	-96.00
10/11/2006	-88.00
10/11/2006	-97.00
10/11/2006	-88.00
10/11/2006	-97.00
11/3/2006	120.00

11/3/2006	120.00
11/3/2006	110.00
11/3/2006	110.00
12/9/2006	-50.00
12/9/2006	-50.00
12/9/2006	-35.00
12/9/2006	-35.00
12/9/2006	-100.00
12/9/2006	-100.00
2/7/2007	140.00
2/7/2007	140.00
2/8/2007	120.00
2/8/2007	120.00
2/8/2007	120.00
2/8/2007	120.00
2/8/2007	120.00
2/8/2007	120.00
4/3/2007	110.00
4/3/2007	110.00
4/3/2007	110.00
4/3/2007	110.00
4/3/2007	120.00
4/3/2007	120.00
6/5/2007	130.00
6/5/2007	130.00
6/5/2007	130.00
6/5/2007	130.00
6/5/2007	120.00
6/5/2007	120.00
6/5/2007	110.00
6/5/2007	110.00
8/7/2007	150.00
8/7/2007	150.00
8/8/2007	110.00
8/8/2007	110.00
8/8/2007	98.00
8/8/2007	98.00
10/09/2007 1	110.00
10/09/2007 1	110.00
10/10/2007	89.00
10/10/2007	89.00
10/10/2007	89.00
10/10/2007	89.00
12/4/2007	90.00
12/4/2007	90.00
12/5/2007	100.00
12/5/2007	100.00
12/5/2007	100.00
12/5/2007	100.00
12/5/2007	49.00
12/5/2007	100.00
12/5/2007	49.00
12/5/2007	100.00
1/4/2008	160.00
1/4/2008	160.00
2/5/2008	160.00
2/5/2008	160.00
2/6/2008	160.00

2/6/2008	160.00
2/6/2008	140.00
2/6/2008	160.00
2/6/2008	160.00
2/6/2008	140.00
4/1/2008	150.00
4/1/2008	150.00
4/2/2008	120.00
4/2/2008	130.00
4/2/2008	120.00
4/2/2008	130.00
6/11/2008	150.00
6/11/2008	150.00
6/12/2008	100.00
6/12/2008	100.00

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	Sacramento River
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	0.06
n	147
n detected > WQO	102
% detected > WQO	69.39

Other Stats

% detected	78.23
n BDL	32
n DLs	0
max detected	0.39
min detected	0.038
max BDL	<0.118
min BDL	<0.025
n BDL > max detected	0
n BDL > WQO	17
n detected	115
n BDL < WQO	15
max/WQO	6.5000
detected < WQO	45
n < max DL	117

DATES	DATA
9/3/02	0.08
9/4/02	0.07
9/4/02	0.08
10/1/02	0.09
10/2/02	0.08
10/2/02	0.10
11/5/02	0.08
11/6/02	0.06
11/6/02	0.08
12/3/02	-0.03
12/4/02	0.10
12/4/02	0.12
1/7/03	0.14
1/8/03	0.11
1/8/03	0.14
2/5/03	0.24
2/5/03	0.25
2/6/03	0.18
2/16/03	0.09
2/16/03	0.10
3/4/03	0.12
3/5/03	0.09
3/5/03	0.08
3/15/03	0.07
3/15/03	0.07
4/1/03	0.09
4/2/03	0.09
4/2/03	0.09
5/6/03	0.12
5/7/03	0.12
5/7/03	0.13
6/10/03	0.10
6/11/03	0.10
6/11/03	0.10
8/5/03	0.08
8/6/03	0.07
8/6/03	0.06
10/15/03	0.05
10/15/03	0.05
10/15/03	0.07
12/11/03	-0.04
12/14/03	0.14
2/17/04	0.16
2/18/04	0.15
2/18/04	-0.03
2/18/04	0.16
2/18/04	0.18

4/13/04	0.07
4/13/04	0.07
4/14/04	0.04
6/8/04	0.10
6/9/04	0.10
6/9/04	0.10
8/10/04	0.05
8/11/04	0.06
8/11/04	0.06
8/11/04	0.05
8/11/04	-0.03
10/5/04	0.09
10/6/04	0.10
10/6/04	0.08
10/6/04	0.08
10/19/04	-0.04
10/20/04	-0.04
12/7/04	0.09
12/8/04	0.09
12/8/04	0.08
1/28/05	0.15
1/28/05	0.17
2/16/05	-0.08
2/16/05	-0.08
2/16/05	-0.03
2/16/05	0.10
4/13/05	-0.07
4/13/05	0.09
4/13/05	-0.07
6/7/05	-0.08
6/8/05	-0.09
6/8/05	-0.06
6/8/05	-0.07
8/2/05	-0.08
8/3/05	0.07
8/3/05	0.06
10/4/05	-0.04
10/5/05	0.07
10/5/05	0.06
10/5/05	0.04
10/5/05	0.04
12/1/05	0.10
12/1/05	0.11
12/1/05	0.12
2/7/06	-0.03
2/8/06	-0.03
2/8/06	-0.03
2/27/06	-0.06
2/27/06	-0.12
4/4/06	0.17
4/5/06	0.11

4/5/06	0.08
4/5/06	0.09
6/13/06	0.13
6/14/06	0.11
6/14/06	0.32
6/14/06	0.32
6/14/06	0.39
8/1/06	0.17
8/3/06	0.09
8/3/06	0.07
10/10/06	-0.07
10/11/06	-0.06
10/11/06	-0.08
10/11/06	0.09
10/11/06	0.09
11/3/06	-0.10
11/3/06	-0.06
12/9/06	0.12
12/9/06	0.10
12/9/06	0.11
2/7/07	0.10
2/8/07	0.19
2/8/07	-0.06
2/8/07	-0.07
4/3/07	0.11
4/3/07	-0.07
4/3/07	-0.08
6/5/07	0.06
6/5/07	0.10
6/5/07	0.17
6/5/07	0.18
8/7/07	0.08
8/8/07	0.10
8/8/07	0.09
10/9/07	0.06
10/10/07	0.09
10/10/07	0.05
12/4/07	0.07
12/5/07	0.08
12/5/07	0.28
12/5/07	0.05
1/4/08	0.08
2/5/08	0.18
2/6/08	0.32
2/6/08	0.31
4/1/08	0.07
4/2/08	0.07
6/11/08	-0.05
6/11/08	0.11

Percent Exceedance Summary

Parameter	Indeno(1,2,3-cd)pyrene
Location	Sacramento River
Data Source	CMP
min date	10/1/2002
max date	6/12/2008

Percent Exceedance stats

WQO	4.4
n	100
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	4.00
n BDL	96
n DLs	9
max detected	1.05
min detected	0.39
max BDL	<10
min BDL	<0.27
n BDL > max detected	80
n BDL > WQO	71
n detected	4
n BDL < WQO	25
max/WQO	0.2386
detected < WQO	100
n < max DL	100

DATES	DATA
10/1/02	-10.00
10/1/02	0.39
10/2/02	-0.88
10/2/02	-0.27
2/5/03	0.41
2/5/03	1.05
2/6/03	-0.28
2/16/03	-1.00
2/16/03	-1.00
6/10/03	0.46
6/11/03	-0.35
6/11/03	-0.45
10/14/03	-1.00
10/15/03	-1.00
10/15/03	-1.00
12/14/03	-2.00
12/14/03	-2.00
2/17/04	-2.00
2/18/04	-2.00
2/18/04	-2.00
2/18/04	-2.00
2/18/04	-2.00
4/13/04	-2.00
4/13/04	-2.00
6/8/04	-5.00
6/9/04	-5.00
6/9/04	-5.00
10/5/04	-5.00
10/6/04	-5.00
10/6/04	-5.00
10/6/04	-5.00
10/19/04	-5.00
10/20/04	-5.00
1/28/05	-5.00
1/28/05	-5.00
2/15/05	-5.00
2/16/05	-5.00
2/16/05	-5.00
2/16/05	-5.00
2/16/05	-5.00
4/13/05	-5.00
4/13/05	-5.00
6/7/05	-5.00
6/8/05	-5.00
6/8/05	-5.00
6/8/05	-5.00
6/8/05	-5.00
6/8/05	-5.00
10/4/05	-5.00
10/5/05	-5.00
10/5/05	-5.00
10/5/05	-5.00

10/5/05	-5.00
10/5/05	-5.00
12/1/05	-5.00
12/1/05	-5.00
2/7/06	-5.00
2/8/06	-5.00
2/8/06	-5.00
2/27/06	-5.00
2/27/06	-5.00
6/13/06	-5.00
6/14/06	-5.00
6/14/06	-5.00
6/14/06	-5.00
6/14/06	-5.00
6/14/06	-5.00
10/10/06	-5.00
10/11/06	-5.00
10/11/06	-5.00
10/11/06	-5.00
10/11/06	-5.00
10/11/06	-5.00
11/3/06	-5.00
11/3/06	-5.00
12/9/06	-5.00
12/9/06	-5.00
2/7/07	-5.00
2/8/07	-5.00
2/8/07	-5.00
2/8/07	-5.00
2/8/07	-5.00
2/8/07	-5.00
4/3/07	-5.00
4/3/07	-5.00
6/5/07	-5.00
6/5/07	-5.00
6/5/07	-5.00
6/5/07	-5.00
6/5/07	-5.00
6/5/07	-5.00
10/9/07	-5.00
10/10/07	-5.00
10/10/07	-5.00
1/4/08	-1.00
2/5/08	-1.00
2/6/08	-1.00
2/6/08	-1.00
6/11/08	-1.00
6/12/08	-1.00

Percent Exceedance Summary

Parameter	4,4'-DDT
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.59
n	60
n detected > WQO	8
% detected > WQO	13.33

Other Stats

% detected	13.33
n BDL	52
n DLs	5
max detected	30
min detected	14
max BDL	<50
min BDL	<5
n BDL > max detected	6
n BDL > WQO	52
n detected	8
n BDL < WQO	0
max/WQO	50.8475
detected < WQO	52
n < max DL	60

DATES	DATA
12/13/02	-50
12/13/02	-50
12/13/02	-50
2/15/03	-10
2/15/03	-10
2/15/03	-10
3/14/03	-50
3/14/03	-50
3/14/03	-50
5/14/03	-10
5/14/03	-10
5/14/03	-10
6/11/03	-10
6/11/03	-10
6/11/03	-10
10/15/03	-10
10/15/03	-10
10/15/03	-10
12/14/03	30
12/14/03	30
12/14/03	20
2/2/04	20
2/2/04	20
2/2/04	-10
2/17/04	-10
2/17/04	-10
2/17/04	-10
4/13/04	-10
4/13/04	30
4/13/04	-10
12/1/05	-10
12/1/05	-10
12/1/05	-10
2/6/06	-10
2/6/06	-10
2/8/06	-10
2/26/06	-20
2/26/06	-20
2/26/06	17
3/5/06	-20
3/5/06	14
3/5/06	-20
6/12/06	-10
6/12/06	-10
6/12/06	-10
11/2/06	-5
11/2/06	-5
11/3/06	-5
12/8/06	-5
12/9/06	-5
12/9/06	-10

2/9/07	-5
2/9/07	-5
2/9/07	-5
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Chlorpyrifos
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	10
n	60
n detected > WQO	3
% detected > WQO	5.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	14.1
min detected	1.01
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	60
n BDL < WQO	0
max/WQO	1.4100
detected < WQO	57
n < max DL	0

DATES	DATA
12/13/02	4.04
12/13/02	4.34
12/13/02	3.91
2/15/03	4.37
2/15/03	3.38
2/15/03	3.13
3/14/03	3.28
3/14/03	4.28
3/14/03	3.16
5/14/03	6.18
5/14/03	8.01
5/14/03	1.62
6/11/03	5.16
6/11/03	3.65
6/11/03	3.12
10/15/03	2.91
10/15/03	3.37
10/15/03	3.09
12/14/03	3.3
12/14/03	2.83
12/14/03	3.18
2/2/04	2.97
2/2/04	2.99
2/2/04	3.4
2/17/04	1.98
2/17/04	2.92
2/17/04	3.14
4/13/04	5.74
4/13/04	6.49
4/13/04	1.57
12/1/05	7.086451
12/1/05	5.002714
12/1/05	4.908569
2/6/06	8.06
2/6/06	1.01
2/8/06	4.23
2/26/06	5.153514
2/26/06	4.284563
2/26/06	6.389367
3/5/06	3.24229
3/5/06	4.5424
3/5/06	3.269269
6/12/06	4.67
6/12/06	3.18
6/12/06	1.96
11/2/06	9.56
11/2/06	7.76
11/3/06	14.1
12/8/06	10.9
12/9/06	10.2
12/9/06	7.29
2/9/07	8.2
2/9/07	4.6

2/9/07	6.82
4/4/07	6.38
4/4/07	1.72
4/4/07	0.1
6/5/07	5.26
6/5/07	5.67
6/6/07	3.24

Percent Exceedance Summary

Parameter	Chrysene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	44
n	59
n detected > WQO	29
% detected > WQO	49.15

Other Stats

% detected	66.10
n BDL	20
n DLs	3
max detected	602
min detected	3.099999905
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	39
n BDL < WQO	20
max/WQO	13.6818
detected < WQO	30
n < max DL	21

DATES	DATA
12/13/02	47.7
12/13/02	36.1
12/13/02	59.7
2/15/03	141
2/15/03	134
2/15/03	118
3/14/03	93.6
3/14/03	132
3/14/03	54.3
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	9
12/14/03	73.5
2/2/04	81.7
2/2/04	602
2/2/04	112
2/17/04	49.9
2/17/04	16.2
2/17/04	45.5
4/13/04	-1
4/13/04	8.6
4/13/04	5.8
12/1/05	139
12/1/05	152
12/1/05	64.3
2/6/06	10.1
2/6/06	3.1
2/8/06	-1
2/26/06	68.2
2/26/06	56
2/26/06	71.4
3/5/06	16.6
3/5/06	88.3
3/5/06	68.5
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	391.4
11/2/06	325.7
11/3/06	252.1
12/8/06	75.2
12/9/06	210.6
12/9/06	48.3
2/9/07	-5
2/9/07	39.3
2/9/07	61.1

4/4/07	-1
4/4/07	9.3
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Chlorpyrifos
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	14
n	74
n detected > WQO	5
% detected > WQO	6.76

Other Stats

% detected	9.46
n BDL	67
n DLs	7
max detected	110
min detected	0.03
max BDL	<50
min BDL	<0.01
n BDL > max detected	0
n BDL > WQO	4
n detected	7
n BDL < WQO	63
max/WQO	7.8571
detected < WQO	69
n < max DL	73

DATES	DATA
12/13/02	-0.05
12/13/02	-0.05
12/13/02	-0.05
2/15/03	-0.05
2/15/03	-0.05
2/15/03	-0.05
3/14/03	-0.05
3/14/03	-0.05
3/14/03	-0.05
5/14/03	-0.05
5/14/03	-0.05
5/14/03	-0.05
6/11/03	-0.05
6/11/03	-0.05
6/11/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
12/14/03	-0.05
12/14/03	-0.05
12/14/03	-0.05
2/2/04	0.03
2/2/04	0.04
2/2/04	-0.05
2/17/04	-0.01
2/17/04	-0.01
2/17/04	-0.01
2/17/04	-0.01
2/25/04	-0.05
3/1/04	-0.05
3/25/04	-0.05
4/13/04	-0.012
4/13/04	-0.012
4/13/04	-0.012
4/18/04	-0.05
1/26/05	45
1/27/05	110
2/16/05	-50
2/20/05	-50
2/28/05	15
3/4/05	-50
3/18/05	35
3/21/05	33
4/3/05	-50
12/1/05	-5
12/1/05	-5
12/1/05	-5
2/6/06	-5
2/6/06	-5
2/8/06	-5
2/26/06	-5
2/26/06	-5
2/26/06	-5

3/5/06	-1
3/5/06	-1
3/5/06	-1
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	-2
11/2/06	-2
11/3/06	-2
12/8/06	-2
12/9/06	-2
12/9/06	-2
2/9/07	-2
2/9/07	-2
2/9/07	-2
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	BHC, gamma (Lindane)
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	19
n	60
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	0.00
n BDL	60
n DLs	5
max detected	all non-detects
min detected	all non-detects
max BDL	<0.05
min BDL	<0.005
n BDL > max detected	0
n BDL > WQO	0
n detected	0
n BDL < WQO	60
max/WQO	all non-detects
detected < WQO	60
n < max DL	60

DATES	DATA
12/13/02	-0.05
12/13/02	-0.05
12/13/02	-0.05
2/15/03	-0.01
2/15/03	-0.01
2/15/03	-0.01
3/14/03	-0.05
3/14/03	-0.05
3/14/03	-0.05
5/14/03	-0.01
5/14/03	-0.01
5/14/03	-0.01
6/11/03	-0.01
6/11/03	-0.01
6/11/03	-0.01
10/15/03	-0.01
10/15/03	-0.01
10/15/03	-0.01
12/14/03	-0.01
12/14/03	-0.01
12/14/03	-0.01
2/2/04	-0.01
2/2/04	-0.01
2/2/04	-0.01
2/17/04	-0.01
2/17/04	-0.01
2/17/04	-0.01
4/13/04	-0.01
4/13/04	-0.01
4/13/04	-0.01
12/1/05	-0.01
12/1/05	-0.01
12/1/05	-0.01
2/6/06	-0.01
2/6/06	-0.01
2/8/06	-0.01
2/26/06	-0.02
2/26/06	-0.02
2/26/06	-0.02
3/5/06	-0.02
3/5/06	-0.02
3/5/06	-0.02
6/12/06	-0.01
6/12/06	-0.01
6/12/06	-0.01
11/2/06	-0.005
11/2/06	-0.005
11/3/06	-0.005
12/8/06	-0.005
12/9/06	-0.005
12/9/06	-0.01
2/9/07	-0.005
2/9/07	-0.005

2/9/07	-0.005
4/4/07	-0.001
4/4/07	-0.001
4/4/07	-0.001
6/5/07	-0.001
6/6/07	-0.001
6/6/07	-0.001

Percent Exceedance Summary

Parameter	Benzo(k)fluoranthene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	4.4
n	59
n detected > WQO	32
% detected > WQO	54.24

Other Stats

% detected	54.24
n BDL	27
n DLs	3
max detected	440
min detected	9.91
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	1
n detected	32
n BDL < WQO	26
max/WQO	100.0000
detected < WQO	27
n < max DL	27

DATES	DATA
12/13/02	20.4
12/13/02	24.5
12/13/02	21
2/15/03	92.4
2/15/03	53.9
2/15/03	16.1
3/14/03	19.7
3/14/03	39.8
3/14/03	-2
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	-1
12/14/03	59.6
2/2/04	42.5
2/2/04	440
2/2/04	83.1
2/17/04	33.1
2/17/04	9.91
2/17/04	24.3
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	65.5
12/1/05	119
12/1/05	30.8
2/6/06	-1
2/6/06	-1
2/8/06	-1
2/26/06	43.8
2/26/06	43.6
2/26/06	51.7
3/5/06	10.2
3/5/06	50.6
3/5/06	34.5
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	211.1
11/2/06	179.1
11/3/06	198.4
12/8/06	49
12/9/06	163.1
12/9/06	39
2/9/07	-5
2/9/07	20.5
2/9/07	40.2

4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Benzo(ghi)perylene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	-
n	59
n detected > WQO	1
% detected > WQO	1.69

Other Stats

% detected	44.07
n BDL	33
n DLs	3
max detected	834
min detected	5
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	26
n BDL < WQO	33
max/WQO	#VALUE!
detected < WQO	0
n < max DL	33

DATES	DATA
12/13/02	-2
12/13/02	-2
12/13/02	10.4
2/15/03	-2
2/15/03	-2
2/15/03	-2
3/14/03	-2
3/14/03	-2
3/14/03	-2
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	5
12/14/03	40.7
2/2/04	146
2/2/04	834
2/2/04	167
2/17/04	65.7
2/17/04	22.4
2/17/04	51.8
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	109
12/1/05	157
12/1/05	58.1
2/6/06	-1
2/6/06	-1
2/8/06	-1
2/26/06	63.7
2/26/06	46.8
2/26/06	50.5
3/5/06	20.1
3/5/06	55.6
3/5/06	52.9
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	288.5
11/2/06	238.6
11/3/06	323.9
12/8/06	56.9
12/9/06	185.4
12/9/06	28.8
2/9/07	-5

2/9/07	43.2
2/9/07	63.1
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Benzo(b)fluoranthene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	4.4
n	59
n detected > WQO	34
% detected > WQO	57.63

Other Stats

% detected	57.63
n BDL	25
n DLs	3
max detected	622
min detected	5.4
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	1
n detected	34
n BDL < WQO	24
max/WQO	141.3636
detected < WQO	25
n < max DL	25

DATES	DATA
12/13/02	33.8
12/13/02	31.5
12/13/02	28.8
2/15/03	79.8
2/15/03	48.3
2/15/03	45.7
3/14/03	27.8
3/14/03	88.1
3/14/03	-2
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	5.4
12/14/03	65.3
2/2/04	59.3
2/2/04	622
2/2/04	101
2/17/04	50.9
2/17/04	10.9
2/17/04	32.6
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	101
12/1/05	135
12/1/05	47.7
2/6/06	6.5
2/6/06	-1
2/8/06	-1
2/26/06	64.7
2/26/06	48.5
2/26/06	57.7
3/5/06	11.9
3/5/06	54.8
3/5/06	47.1
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	246
11/2/06	222.6
11/3/06	234.4
12/8/06	62.7
12/9/06	171.6
12/9/06	37.9
2/9/07	-5

2/9/07	21.1
2/9/07	51.9
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Benzo(a)pyrene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	4.4
n	59
n detected > WQO	30
% detected > WQO	50.85

Other Stats

% detected	54.24
n BDL	27
n DLs	3
max detected	642
min detected	2.8
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	1
n detected	32
n BDL < WQO	26
max/WQO	145.9091
detected < WQO	29
n < max DL	29

DATES	DATA
12/13/02	26
12/13/02	21.3
12/13/02	28.6
2/15/03	63.4
2/15/03	32
2/15/03	-2
3/14/03	26.8
3/14/03	11.8
3/14/03	-2
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	2.8
12/14/03	35.8
2/2/04	39
2/2/04	642
2/2/04	112
2/17/04	32.5
2/17/04	-1
2/17/04	31.8
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	55.6
12/1/05	108
12/1/05	44.8
2/6/06	4
2/6/06	-1
2/8/06	-1
2/26/06	30.1
2/26/06	29.6
2/26/06	40.9
3/5/06	6.5
3/5/06	44.5
3/5/06	44.8
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	154.5
11/2/06	166.2
11/3/06	166.6
12/8/06	25.2
12/9/06	56.6
12/9/06	32.6
2/9/07	-5

2/9/07	17
2/9/07	26.6
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Benz(a)anthracene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	4.4
n	59
n detected > WQO	33
% detected > WQO	55.93

Other Stats

% detected	57.63
n BDL	25
n DLs	3
max detected	587
min detected	3.3
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	1
n detected	34
n BDL < WQO	24
max/WQO	133.4091
detected < WQO	26
n < max DL	26

DATES	DATA
12/13/02	12.3
12/13/02	16.9
12/13/02	21.7
2/15/03	55.2
2/15/03	40.9
2/15/03	61.5
3/14/03	59.1
3/14/03	54.4
3/14/03	5.88
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	3.3
12/14/03	32.2
2/2/04	29.7
2/2/04	587
2/2/04	45.8
2/17/04	25.6
2/17/04	6.05
2/17/04	25.9
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	42.9
12/1/05	72.7
12/1/05	38.1
2/6/06	-1
2/6/06	-1
2/8/06	-1
2/26/06	25.2
2/26/06	21.6
2/26/06	28.3
3/5/06	6.5
3/5/06	39.4
3/5/06	33.6
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	123.5
11/2/06	187.2
11/3/06	126.4
12/8/06	26.1
12/9/06	93.9
12/9/06	28.8
2/9/07	-5

2/9/07	16.4
2/9/07	26
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Anthracene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	9600
n	59
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	50.85
n BDL	29
n DLs	3
max detected	303
min detected	2.02
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	30
n BDL < WQO	29
max/WQO	0.0316
detected < WQO	59
n < max DL	33

DATES	DATA
12/13/02	-2
12/13/02	5.7
12/13/02	-2
2/15/03	8.9
2/15/03	14.4
2/15/03	-2
3/14/03	21.6
3/14/03	10.5
3/14/03	2.02
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	2.2
12/14/03	10
2/2/04	10.4
2/2/04	303
2/2/04	14.1
2/17/04	13.2
2/17/04	-1
2/17/04	8.07
4/13/04	-1
4/13/04	-1
4/13/04	-1
12/1/05	35.8
12/1/05	29.7
12/1/05	54.3
2/6/06	6.2
2/6/06	-1
2/8/06	-1
2/26/06	6.1
2/26/06	4.8
2/26/06	7.4
3/5/06	3.6
3/5/06	10.2
3/5/06	8.1
6/12/06	-1
6/12/06	-1
6/12/06	-1
11/2/06	39.6
11/2/06	55.3
11/3/06	44.3
12/8/06	-5
12/9/06	26.7
12/9/06	14.2
2/9/07	-5

2/9/07	9
2/9/07	8.2
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Aldrin
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.13
n	60
n detected > WQO	2
% detected > WQO	3.33

Other Stats

% detected	3.33
n BDL	58
n DLs	5
max detected	36
min detected	4
max BDL	<50
min BDL	<5
n BDL > max detected	5
n BDL > WQO	58
n detected	2
n BDL < WQO	0
max/WQO	276.9231
detected < WQO	58
n < max DL	60

DATES	DATA
12/13/02	-50
12/13/02	-50
12/13/02	-50
2/15/03	-10
2/15/03	-10
2/15/03	-10
3/14/03	-50
3/14/03	4
3/14/03	-50
5/14/03	-10
5/14/03	-10
5/14/03	-10
6/11/03	-10
6/11/03	-10
6/11/03	-10
10/15/03	-10
10/15/03	-10
10/15/03	-10
12/14/03	-10
12/14/03	-10
12/14/03	-10
2/2/04	-10
2/2/04	-10
2/2/04	-10
2/17/04	-5
2/17/04	-5
2/17/04	-5
4/13/04	-5
4/13/04	-5
4/13/04	-5
12/1/05	-5
12/1/05	36
12/1/05	-5
2/6/06	-5
2/6/06	-5
2/8/06	-5
2/26/06	-20
2/26/06	-20
2/26/06	-20
3/5/06	-20
3/5/06	-20
3/5/06	-20
6/12/06	-5
6/12/06	-5
6/12/06	-5
11/2/06	-5
11/2/06	-5
11/3/06	-5
12/8/06	-5
12/9/06	-5
12/9/06	-10

2/9/07	-5
2/9/07	-5
2/9/07	-5
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Acenaphthene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	1200
n	59
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	35.59
n BDL	38
n DLs	3
max detected	295
min detected	1.899999976
max BDL	<5
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	21
n BDL < WQO	38
max/WQO	0.2458
detected < WQO	59
n < max DL	46

DATES	DATA
12/13/02	-2
12/13/02	-2
12/13/02	-2
2/15/03	-2
2/15/03	2.4
2/15/03	40.8
3/14/03	57.8
3/14/03	-2
3/14/03	-2
5/14/03	-2
5/14/03	-2
5/14/03	-2
6/11/03	-2
6/11/03	-2
6/11/03	-2
10/15/03	-1
10/15/03	-1
10/15/03	-1
12/14/03	-1
12/14/03	-1
2/2/04	-1
2/2/04	295
2/2/04	7.4
2/17/04	6.25
2/17/04	-1
2/17/04	4.02
4/13/04	-1
4/13/04	4.1
4/13/04	-1
12/1/05	10.4
12/1/05	7.5
12/1/05	4.2
2/6/06	-1
2/6/06	-1
2/8/06	3.3
2/26/06	-1
2/26/06	-1
2/26/06	5.8
3/5/06	-1
3/5/06	3.5
3/5/06	1.9
6/12/06	-1
6/12/06	-1
6/12/06	3.9
11/2/06	10.2
11/2/06	16.5
11/3/06	18
12/8/06	-5
12/9/06	12.1
12/9/06	12.3
2/9/07	-5

2/9/07	-5
2/9/07	-5
4/4/07	-1
4/4/07	-1
4/4/07	-1
6/5/07	-1
6/6/07	-1
6/6/07	-1

Percent Exceedance Summary

Parameter	Zinc, Dissolved
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	100
n	60
n detected > WQO	2
% detected > WQO	3.33

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	133
min detected	1.33
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	60
n BDL < WQO	0
max/WQO	1.3300
detected < WQO	58
n < max DL	0

DATES	DATA
12/13/02	42.1
12/13/02	32.2
12/13/02	27.7
02/15/03	36.9
02/15/03	19.6
02/15/03	19.8
03/14/03	17.2
03/14/03	22.9
03/14/03	27.4
05/14/03	11.4
05/14/03	133
05/14/03	9.48
06/11/03	5.63
06/11/03	21.3
06/11/03	15.3
10/15/03	4.81
10/15/03	13.5
10/15/03	16
12/14/03	33.6
12/14/03	20
12/14/03	16.9
02/02/04	18.5
02/02/04	25
02/02/04	22.3
02/17/04	23.2
02/17/04	18.5
02/17/04	16.1
04/13/04	10.4
04/13/04	67.4
04/13/04	4.28
12/01/05	61.46725
12/01/05	30.54942
12/01/05	48.91505
02/06/06	80.6
02/06/06	2.44
02/08/06	3.96
02/26/06	31.99598
02/26/06	29.26519
02/26/06	42.85653
03/05/06	21.84857
03/05/06	36.98523
03/05/06	18.67167
06/12/06	5.13
06/12/06	24.2
06/12/06	4.18
11/02/06	132
11/02/06	53.8
11/03/06	47.6
12/08/06	88
12/09/06	45.4
12/09/06	55.2
02/09/07	61.9
02/09/07	32.1

02/09/07	30.4
04/04/07	10.8
04/04/07	23.8
04/04/07	1.33
06/05/07	4.66
06/05/07	16.7
06/06/07	20.4

Percent Exceedance Summary

Parameter	Turbidity
Location	UR
Data Source	CMP
min date	10/15/2003
max date	6/6/2007

Percent Exceedance stats

WQO	150
n	44
n detected > WQO	4
% detected > WQO	9.09

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	260
min detected	1.9
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	44
n BDL < WQO	0
max/WQO	1.7333
detected < WQO	40
n < max DL	0

DATES	DATA
10/15/03	4.8
10/15/03	12
10/15/03	3.2
12/14/03	33
12/14/03	96
12/14/03	49
02/02/04	100
02/02/04	100
02/02/04	110
02/17/04	43
02/17/04	84
04/13/04	3.4
04/13/04	6
04/13/04	5.2
12/01/05	120
12/01/05	46
12/01/05	46
02/06/06	12
02/06/06	3.2
02/08/06	2.7
02/26/06	28
02/26/06	36
02/26/06	48
03/05/06	59
03/05/06	27
03/05/06	40
06/12/06	1.9
06/12/06	4.7
06/12/06	7
11/02/06	210
11/02/06	210
11/03/06	260
12/08/06	55
12/09/06	150
12/09/06	52
02/09/07	45
02/09/07	27
02/09/07	35
04/04/07	2.1
04/04/07	6.3
04/04/07	3.4
06/05/07	3.9
06/05/07	6
06/06/07	3.3

Percent Exceedance Summary

Parameter	Specific Conductance
Location	UR
Data Source	CMP
min date	2/2/2004
max date	6/6/2007

Percent Exceedance stats

WQO	240
n	46
n detected > WQO	16
% detected > WQO	34.78

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	1700
min detected	26
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	46
n BDL < WQO	0
max/WQO	7.0833
detected < WQO	30
n < max DL	0

DATES	DATA
2/2/04	67.5
2/2/04	68.5
2/2/04	62.7
2/17/04	26
2/17/04	1700
2/17/04	69
2/17/04	41
4/13/04	300
4/13/04	190
4/13/04	490
4/14/04	415.7
4/14/04	160.6
4/14/04	296
3/6/05	141.8
12/1/05	52
12/1/05	69
12/1/05	54
2/6/06	140
2/6/06	410
2/7/06	461
2/7/06	202
2/7/06	285
2/8/06	130
2/26/06	72
2/26/06	57
2/26/06	49
2/27/06	98
2/27/06	47.6
2/27/06	58.8
3/6/06	264
3/6/06	212
6/13/06	415
6/13/06	296
6/13/06	374
11/2/06	70
11/2/06	120
11/3/06	120
12/8/06	71
12/9/06	94
12/9/06	92
4/4/07	370
4/4/07	210
4/4/07	500
6/5/07	320
6/5/07	400
6/6/07	230

Percent Exceedance Summary

Parameter	Solids, Total Dissolved
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	125
n	59
n detected > WQO	22
% detected > WQO	37.29

Other Stats

% detected	98.31
n BDL	1
n DLs	1
max detected	960
min detected	26
max BDL	<20
min BDL	<20
n BDL > max detected	0
n BDL > WQO	0
n detected	58
n BDL < WQO	1
max/WQO	7.6800
detected < WQO	37
n < max DL	1

DATES	DATA
12/13/02	37
12/13/02	72
12/13/02	45
02/15/03	33
02/15/03	58
02/15/03	26
03/14/03	29
03/14/03	29
05/14/03	240
05/14/03	60
05/14/03	350
06/11/03	960
06/11/03	260
06/11/03	560
10/15/03	200
10/15/03	120
10/15/03	250
12/14/03	67
12/14/03	110
12/14/03	100
02/02/04	72
02/02/04	28
02/02/04	35
02/17/04	-20
02/17/04	30
02/17/04	53
04/13/04	170
04/13/04	150
04/13/04	320
12/01/05	74
12/01/05	81
12/01/05	71
02/06/06	48
02/06/06	190
02/08/06	120
02/26/06	61
02/26/06	58
02/26/06	44
03/05/06	87
03/05/06	69
03/05/06	58
06/12/06	260
06/12/06	260
06/12/06	350
11/02/06	92
11/02/06	130
11/03/06	160
12/08/06	39
12/09/06	92
12/09/06	82
02/09/07	40
02/09/07	120

02/09/07	55
04/04/07	260
04/04/07	170
04/04/07	310
06/05/07	300
06/05/07	310
06/06/07	190

Percent Exceedance Summary

Parameter	Pyrene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	960
n	59
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	83.05
n BDL	10
n DLs	3
max detected	1.76
min detected	0.0022
max BDL	<0.005
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	49
n BDL < WQO	10
max/WQO	0.0018
detected < WQO	59
n < max DL	18

DATES	DATA
12/13/02	0.0582
12/13/02	0.0397
12/13/02	0.055
02/15/03	0.169
02/15/03	0.144
02/15/03	0.161
03/14/03	0.168
03/14/03	0.202
03/14/03	0.0811
05/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
10/15/03	-0.001
10/15/03	-0.001
10/15/03	-0.001
12/14/03	0.0129
12/14/03	0.0997
02/02/04	0.122
02/02/04	1.76
02/02/04	0.178
02/17/04	0.117
02/17/04	0.032
02/17/04	0.0775
04/13/04	0.004
04/13/04	0.0156
04/13/04	0.01
12/01/05	0.224
12/01/05	0.205
12/01/05	0.095
02/06/06	0.0234
02/06/06	0.0058
02/08/06	0.0027
02/26/06	0.0893
02/26/06	0.0731
02/26/06	0.0985
03/05/06	0.0235
03/05/06	0.107
03/05/06	0.0853
06/12/06	0.0022
06/12/06	0.0054
06/12/06	0.0033
11/02/06	0.3246
11/02/06	0.3092
11/03/06	0.2454
12/08/06	0.0744
12/09/06	0.2413
12/09/06	0.0565
02/09/07	-0.005
02/09/07	0.0506

02/09/07	0.0744
04/04/07	0.0035
04/04/07	0.0093
04/04/07	0.0045
06/05/07	0.0038
06/06/07	0.0077
06/06/07	0.0033

Percent Exceedance Summary

Parameter	Pentachlorophenol
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.28
n	59
n detected > WQO	7
% detected > WQO	11.86

Other Stats

% detected	50.85
n BDL	29
n DLs	2
max detected	0.583
min detected	0.0561
max BDL	<0.1
min BDL	<0.05
n BDL > max detected	0
n BDL > WQO	0
n detected	30
n BDL < WQO	29
max/WQO	2.0821
detected < WQO	52
n < max DL	37

DATES	DATA
12/13/02	0.583
12/13/02	0.552
12/13/02	0.236
02/15/03	-0.05
02/15/03	-0.05
02/15/03	-0.05
03/14/03	0.194
03/14/03	0.0865
03/14/03	0.399
05/14/03	-0.05
05/14/03	-0.05
05/14/03	-0.05
06/11/03	-0.05
06/11/03	-0.05
06/11/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
12/14/03	0.0678
12/14/03	0.232
02/02/04	-0.05
02/02/04	0.0561
02/02/04	-0.05
02/17/04	-0.05
02/17/04	-0.05
02/17/04	-0.05
04/13/04	-0.05
04/13/04	-0.05
04/13/04	-0.05
12/01/05	0.484
12/01/05	0.339
12/01/05	0.26
02/06/06	0.225
02/06/06	-0.05
02/08/06	-0.05
02/26/06	0.166
02/26/06	0.148
02/26/06	0.379
03/05/06	0.0733
03/05/06	0.118
03/05/06	0.0618
06/12/06	-0.05
06/12/06	-0.05
06/12/06	-0.05
11/02/06	0.155
11/02/06	0.159
11/03/06	0.151
12/08/06	0.313
12/09/06	0.135
12/09/06	0.187
02/09/07	-0.1
02/09/07	0.128

02/09/07	0.14
04/04/07	-0.05
04/04/07	0.081
04/04/07	-0.05
06/05/07	-0.05
06/06/07	0.084
06/06/07	0.051

Percent Exceedance Summary

Parameter	Mercury, Total
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/5/2007

Percent Exceedance stats

WQO	50
n	62
n detected > WQO	7
% detected > WQO	11.29

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	609
min detected	1.65
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	62
n BDL < WQO	0
max/WQO	12.1800
detected < WQO	55
n < max DL	0

DATES	DATA
12/13/02	17.3
12/13/02	22.7
12/13/02	30.8
02/16/03	10.1
02/16/03	18.8
02/16/03	27.4
03/15/03	15.3
03/15/03	28.1
03/15/03	30.1
05/14/03	84
05/14/03	11.8
05/14/03	2.07
06/11/03	3.01
06/11/03	3.78
06/11/03	2.52
10/15/03	5.64
10/15/03	10.89
10/15/03	2.55
12/14/03	24.4
12/14/03	10.9
12/14/03	17.5
02/02/04	18.7
02/02/04	24.8
02/02/04	24.1
02/17/04	609
02/17/04	24.3
02/18/04	12
04/13/04	3.82
04/13/04	4.44
04/13/04	3.92
12/01/05	54.43889
12/01/05	19.80466
12/01/05	47.07194
02/07/06	1.65
02/07/06	6.88
02/08/06	3.87
02/26/06	17.87042
02/26/06	22.86792
02/27/06	16.47651
02/27/06	20.09181
02/27/06	14.40062
03/06/06	13.00593
03/06/06	13.84752
03/06/06	34.84812
06/13/06	2.1
06/13/06	3.52
06/13/06	2.88
11/02/06	66.3
11/02/06	41.1
11/02/06	53.4
12/08/06	70.9
12/08/06	53.2

12/08/06	32.9
02/09/07	26.7
02/09/07	9.68
02/09/07	10.6
04/03/07	4.37
04/03/07	2.7
04/03/07	2.68
06/05/07	3.23
06/05/07	3.02
06/05/07	2.69

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	Urban Runoff
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

Percent Exceedance stats

WQO	0.06
n	60
n detected > WQO	59
% detected > WQO	98.33

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	2.04
min detected	0.053
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	60
n BDL < WQO	0
max/WQO	34.0000
detected < WQO	1
n < max DL	0

DATES	DATA
12/13/02	0.61
12/13/02	0.42
12/13/02	0.878
2/16/03	0.153
2/16/03	0.137
2/16/03	0.619
3/15/03	0.216
3/15/03	0.254
3/15/03	0.355
5/14/03	2.04
5/14/03	0.217
5/14/03	0.097
6/11/03	0.135
6/11/03	0.158
6/11/03	0.088
10/15/03	0.067
10/15/03	0.175
10/15/03	0.111
12/14/03	0.325
12/14/03	0.112
12/14/03	0.199
2/2/04	0.275
2/2/04	0.193
2/2/04	0.395
2/17/04	0.31
2/17/04	0.269
2/18/04	0.114
4/13/04	0.248
4/13/04	0.127
4/13/04	0.147
12/1/05	0.420506
12/1/05	0.231433
12/1/05	0.931932
2/7/06	0.053
2/7/06	0.104
2/8/06	0.108
2/27/06	0.215945
2/27/06	0.236378
2/27/06	0.161959
3/6/06	0.1751
3/6/06	0.165802
3/6/06	0.278532
6/13/06	0.09
6/13/06	0.159
6/13/06	0.094
11/2/06	0.461
11/2/06	0.508

11/2/06	0.671
12/8/06	0.915
12/8/06	0.843
12/8/06	0.593
2/9/07	0.309
2/9/07	0.208
2/9/07	0.206
4/4/07	0.089
4/4/07	0.17
4/4/07	0.07
6/5/07	0.069
6/5/07	0.136
6/5/07	0.067

Percent Exceedance Summary

Parameter	Indeno(1,2,3-cd)pyrene
Location	UR
Data Source	CMP

min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.0044
n	59
n detected > WQO	24
% detected > WQO	40.68

Other Stats

% detected	42.37
n BDL	34
n DLs	3
max detected	0.657
min detected	0.0029
max BDL	<0.005
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	2
n detected	25
n BDL < WQO	32
max/WQO	149.3182
detected < WQO	35
n < max DL	35

DATES	DATA
12/13/02	0.0131
12/13/02	-0.002
12/13/02	-0.002
02/15/03	-0.002
02/15/03	-0.002
02/15/03	-0.002
03/14/03	-0.002
03/14/03	-0.002
03/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
10/15/03	-0.001
10/15/03	-0.001
10/15/03	-0.001
12/14/03	0.0029
12/14/03	0.0243
02/02/04	0.0446
02/02/04	0.657
02/02/04	0.114
02/17/04	0.0421
02/17/04	-0.001
02/17/04	0.0295
04/13/04	-0.001
04/13/04	-0.001
04/13/04	-0.001
12/01/05	0.0644
12/01/05	0.108
12/01/05	0.0304
02/06/06	-0.001
02/06/06	-0.001
02/08/06	-0.001
02/26/06	0.0266
02/26/06	0.0306
02/26/06	0.034
03/05/06	0.0114
03/05/06	0.0419
03/05/06	0.0329
06/12/06	-0.001
06/12/06	-0.001
06/12/06	-0.001
11/02/06	0.1821
11/02/06	0.1592
11/03/06	0.2183
12/08/06	0.035
12/09/06	0.0225
12/09/06	-0.005
02/09/07	-0.005
02/09/07	0.0175

02/09/07	0.0387
04/04/07	-0.001
04/04/07	-0.001
04/04/07	0.0075
06/05/07	-0.001
06/06/07	-0.001
06/06/07	-0.001

Percent Exceedance Summary

Parameter	Fluorene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	1300
n	59
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	49.15
n BDL	30
n DLs	3
max detected	0.291
min detected	0.0031
max BDL	<0.005
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	29
n BDL < WQO	30
max/WQO	0.0002
detected < WQO	59
n < max DL	38

DATES	DATA
12/13/02	0.0092
12/13/02	0.0031
12/13/02	0.0062
02/15/03	0.0033
02/15/03	0.0056
02/15/03	0.0342
03/14/03	0.0452
03/14/03	-0.002
03/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
10/15/03	-0.001
10/15/03	-0.001
10/15/03	-0.001
12/14/03	0.0031
12/14/03	-0.001
02/02/04	0.0113
02/02/04	0.291
02/02/04	-0.001
02/17/04	0.00786
02/17/04	-0.001
02/17/04	0.00651
04/13/04	-0.001
04/13/04	-0.001
04/13/04	-0.001
12/01/05	0.026
12/01/05	0.0115
12/01/05	0.008
02/06/06	-0.001
02/06/06	0.0031
02/08/06	-0.001
02/26/06	0.0047
02/26/06	0.0037
02/26/06	0.013
03/05/06	0.0046
03/05/06	0.008
03/05/06	0.0046
06/12/06	-0.001
06/12/06	-0.001
06/12/06	-0.001
11/02/06	0.0165
11/02/06	0.0223
11/03/06	0.0218
12/08/06	-0.005
12/09/06	0.0127
12/09/06	0.0117
02/09/07	-0.005
02/09/07	0.0086

02/09/07	0.0084
04/04/07	-0.001
04/04/07	-0.001
04/04/07	-0.001
06/05/07	-0.001
06/06/07	-0.001
06/06/07	-0.001

Percent Exceedance Summary

Parameter	Fluoranthene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	300
n	59
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	81.36
n BDL	11
n DLs	3
max detected	2.25
min detected	0.0019
max BDL	<0.005
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	48
n BDL < WQO	11
max/WQO	0.0075
detected < WQO	59
n < max DL	18

DATES	DATA
12/13/02	0.0454
12/13/02	0.0349
12/13/02	0.0733
02/15/03	0.159
02/15/03	0.118
02/15/03	0.183
03/14/03	0.205
03/14/03	0.221
03/14/03	0.0676
05/14/03	-0.002
05/14/03	-0.002
05/14/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
06/11/03	-0.002
10/15/03	-0.001
10/15/03	-0.001
10/15/03	-0.001
12/14/03	0.0121
12/14/03	0.0979
02/02/04	0.0893
02/02/04	2.25
02/02/04	0.185
02/17/04	0.132
02/17/04	0.0229
02/17/04	0.0899
04/13/04	0.0028
04/13/04	0.0071
04/13/04	0.0094
12/01/05	0.145
12/01/05	0.223
12/01/05	0.0871
02/06/06	0.0148
02/06/06	0.0039
02/08/06	-0.001
02/26/06	0.093
02/26/06	0.0749
02/26/06	0.0895
03/05/06	0.0222
03/05/06	0.0964
03/05/06	0.0845
06/12/06	0.0019
06/12/06	0.0026
06/12/06	0.0041
11/02/06	0.3724
11/02/06	0.3864
11/03/06	0.3268
12/08/06	0.0807
12/09/06	0.3192
12/09/06	0.0667
02/09/07	-0.005
02/09/07	0.0533

02/09/07	0.0879
04/04/07	0.0059
04/04/07	0.008
04/04/07	0.0052
06/05/07	0.0042
06/06/07	0.006
06/06/07	0.0033

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/5/2007

Percent Exceedance stats

WQO	400
n	61
n detected > WQO	58
% detected > WQO	95.08

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	1700000
min detected	80
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	61
n BDL < WQO	0
max/WQO	4250.0000
detected < WQO	3
n < max DL	0

DATES	DATA
12/13/02	50000
12/13/02	8000
12/13/02	5000
02/16/03	22000
02/16/03	5000
02/16/03	50000
03/15/03	70000
03/15/03	800
03/15/03	6000
05/14/03	30000
05/14/03	300
05/14/03	1700
06/11/03	5000
06/11/03	8000
06/11/03	7000
10/15/03	5000
10/15/03	1300
10/15/03	80000
12/14/03	30000
12/14/03	5000
12/14/03	30000
02/02/04	1300
02/02/04	30000
02/02/04	14000
02/17/04	22000
02/17/04	5000
02/18/04	750
04/13/04	1100
04/13/04	5000
04/13/04	500
02/15/05	7000
12/01/05	80000
12/01/05	13000
12/01/05	30000
02/07/06	3000
02/07/06	80
02/07/06	1300
02/27/06	13000
02/27/06	8000
02/27/06	14000
03/06/06	30000
03/06/06	2300
03/06/06	17000
06/13/06	9000
06/13/06	230
06/13/06	7000
11/02/06	3000
11/02/06	170000
11/02/06	17000
12/08/06	1700000
12/08/06	2200
12/09/06	80000
02/09/07	17000

02/09/07	7000
02/09/07	17000
04/03/07	1100
04/03/07	3000
04/03/07	5000
06/05/07	5000
06/05/07	11000
06/05/07	17000

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	235
n	61
n detected > WQO	57
% detected > WQO	93.44

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	1100000
min detected	20
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	61
n BDL < WQO	0
max/WQO	4680.8511
detected < WQO	4
n < max DL	0

DATES	DATA
12/13/02	50000
12/13/02	8000
12/13/02	3000
2/16/03	22000
2/16/03	3000
2/16/03	50000
3/15/03	70000
3/15/03	800
3/15/03	6000
5/14/03	30000
5/14/03	300
5/14/03	1700
6/11/03	700
6/11/03	2300
6/11/03	3000
10/15/03	800
10/15/03	800
10/15/03	17000
12/14/03	23000
12/14/03	5000
12/14/03	17000
2/2/04	1300
2/2/04	17000
2/2/04	11000
2/17/04	22000
2/17/04	5000
2/18/04	750
4/13/04	700
4/13/04	3000
4/13/04	500
2/15/05	7000
12/1/05	7000
12/1/05	8000
12/1/05	8000
2/7/06	3000
2/7/06	20
2/7/06	140
2/27/06	8000
2/27/06	1700
2/27/06	14000
3/6/06	30000
3/6/06	500
3/6/06	17000
6/13/06	7000
6/13/06	230
6/13/06	1300
11/2/06	2300
11/2/06	50000
11/2/06	17000
12/8/06	1100000
12/8/06	1700
12/9/06	80000

2/9/07	5000
2/9/07	7000
2/9/07	17000
4/3/07	800
4/3/07	1700
4/5/07	190
6/5/07	700
6/5/07	300
6/5/07	17000
6/6/07	

Percent Exceedance Summary

Parameter	Endrin
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.085
n	60
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	1.67
n BDL	59
n DLs	5
max detected	0.006
min detected	0.006
max BDL	<0.05
min BDL	<0.005
n BDL > max detected	45
n BDL > WQO	0
n detected	1
n BDL < WQO	59
max/WQO	0.0706
detected < WQO	60
n < max DL	60

DATES	DATA
12/13/02	-0.05
12/13/02	-0.05
12/13/02	-0.05
12/13/02	-0.01
12/13/02	-0.01
2/15/03	-0.01
2/15/03	-0.05
2/15/03	-0.05
3/14/03	-0.05
3/14/03	-0.01
3/14/03	-0.01
5/14/03	-0.01
5/14/03	-0.01
5/14/03	-0.01
6/11/03	-0.01
6/11/03	-0.01
6/11/03	-0.01
10/15/03	-0.01
10/15/03	-0.01
10/15/03	-0.01
12/14/03	-0.01
12/14/03	-0.01
12/14/03	-0.01
2/2/04	-0.01
2/2/04	-0.01
2/2/04	-0.01
2/17/04	-0.01
2/17/04	-0.01
2/17/04	0.006
4/13/04	-0.01
4/13/04	-0.01
4/13/04	-0.01
12/1/05	-0.01
12/1/05	-0.01
12/1/05	-0.01
2/6/06	-0.01
2/6/06	-0.02
2/8/06	-0.02
2/26/06	-0.02
2/26/06	-0.02
2/26/06	-0.02
3/5/06	-0.02
3/5/06	-0.01
3/5/06	-0.01
6/12/06	-0.01
6/12/06	-0.005
6/12/06	-0.005
11/2/06	-0.005
11/2/06	-0.005
11/3/06	-0.005
12/8/06	-0.01
12/9/06	-0.005

12/9/06	-0.005
2/9/07	-0.005
2/9/07	-0.001
2/9/07	-0.001
4/4/07	-0.001
4/4/07	-0.001
4/4/07	-0.001
6/5/07	-0.001
6/6/07	
6/6/07	

Percent Exceedance Summary

Parameter	Dibenz(a,h)anthracene
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.0044
n	59
n detected > WQO	12
% detected > WQO	20.34

Other Stats

% detected	20.34
n BDL	47
n DLs	3
max detected	0.147
min detected	0.0074
max BDL	<0.005
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	4
n detected	12
n BDL < WQO	43
max/WQO	33.4091
detected < WQO	47
n < max DL	47

DATES	DATA
12/13/02	-0.002
12/13/02	-0.002
12/13/02	-0.002
2/15/03	-0.002
2/15/03	-0.002
2/15/03	-0.002
3/14/03	-0.002
3/14/03	-0.002
3/14/03	-0.002
5/14/03	-0.002
5/14/03	-0.002
5/14/03	-0.002
6/11/03	-0.002
6/11/03	-0.002
6/11/03	-0.002
10/15/03	-0.001
10/15/03	-0.001
10/15/03	-0.001
12/14/03	-0.001
12/14/03	-0.001
2/2/04	-0.001
2/2/04	0.147
2/2/04	0.0222
2/17/04	-0.001
2/17/04	-0.001
2/17/04	-0.001
4/13/04	-0.001
4/13/04	-0.001
4/13/04	-0.001
12/1/05	0.0163
12/1/05	-0.001
12/1/05	-0.001
2/6/06	-0.001
2/6/06	-0.001
2/8/06	-0.001
2/26/06	-0.001
2/26/06	0.0078
2/26/06	0.0074
3/5/06	-0.001
3/5/06	0.012
3/5/06	0.0102
6/12/06	-0.001
6/12/06	-0.001
6/12/06	-0.001
11/2/06	0.0527
11/2/06	0.0563
11/3/06	0.0475
12/8/06	-0.005
12/9/06	0.0225
12/9/06	-0.005
2/9/07	-0.005
2/9/07	-0.005
2/9/07	0.0112

4/4/07	-0.001
4/4/07	-0.001
4/4/07	-0.001
6/5/07	-0.001
6/6/07	-0.001
6/6/07	-0.001

Percent Exceedance Summary

Parameter	Diazinon
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	0.05
n	74
n detected > WQO	23
% detected > WQO	31.08

Other Stats

% detected	47.30
n BDL	39
n DLs	5
max detected	0.56
min detected	0.0186
max BDL	<0.05
min BDL	<0.005
n BDL > max detected	0
n BDL > WQO	19
n detected	35
n BDL < WQO	20
max/WQO	11.2000
detected < WQO	51
n < max DL	51

DATES	DATA
12/13/02	0.17
12/13/02	0.2
12/13/02	0.28
2/15/03	0.31
2/15/03	0.27
2/15/03	0.28
3/14/03	0.16
3/14/03	0.19
3/14/03	0.56
5/14/03	0.19
5/14/03	-0.05
5/14/03	0.19
6/11/03	0.05
6/11/03	-0.05
6/11/03	0.1
10/15/03	-0.05
10/15/03	-0.05
10/15/03	-0.05
12/14/03	-0.05
12/14/03	-0.05
12/14/03	0.16
2/2/04	0.36
2/2/04	0.38
2/2/04	0.25
2/17/04	0.03
2/17/04	-0.05
2/17/04	-0.05
2/17/04	-0.05
2/25/04	-0.05
3/1/04	0.04
3/25/04	-0.05
4/13/04	0.2
4/13/04	-0.018
4/13/04	0.03
4/18/04	-0.05
1/26/05	0.22
1/27/05	0.23
2/16/05	0.052
2/20/05	-0.05
2/28/05	-0.05
3/4/05	-0.05
3/18/05	-0.05
3/21/05	-0.05
4/3/05	-0.05
12/1/05	-0.005
12/1/05	-0.005
12/1/05	-0.005
2/6/06	0.0424
2/6/06	-0.005
2/8/06	-0.005
2/26/06	0.0487
2/26/06	0.0186
2/26/06	-0.005

3/5/06	0.0083
3/5/06	-0.002
3/5/06	-0.002
6/12/06	0.0244
6/12/06	-0.002
6/12/06	-0.002
11/2/06	0.0338
11/2/06	0.071
11/3/06	0.0408
12/8/06	-0.004
12/9/06	-0.004
12/9/06	-0.004
2/9/07	-0.004
2/9/07	0.038
2/9/07	0.07
4/4/07	0.0356
4/4/07	-0.002
4/4/07	-0.002
6/5/07	-0.002
6/6/07	-0.002
6/6/07	-0.002

Percent Exceedance Summary

Parameter	Copper, Total Recoverable
Location	UR
Data Source	CMP
min date	12/13/2002
max date	6/6/2007

Percent Exceedance stats

WQO	1000
n	60
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	118
min detected	1.58
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	60
n BDL < WQO	0
max/WQO	0.1180
detected < WQO	60
n < max DL	0

DATES	DATA
12/13/02	11.1
12/13/02	15.4
12/13/02	8.2
2/15/03	13.9
2/15/03	10.3
2/15/03	8.68
3/14/03	7.58
3/14/03	15
3/14/03	12.8
5/14/03	8.12
5/14/03	10.7
5/14/03	2.5
6/11/03	6.13
6/11/03	4.71
6/11/03	4.2
10/15/03	3.53
10/15/03	11.6
10/15/03	4.18
12/14/03	11.1
12/14/03	10.6
12/14/03	9.84
2/2/04	21.6
2/2/04	16.7
2/2/04	15.6
2/17/04	11
2/17/04	9.72
2/17/04	13.2
4/13/04	7.02
4/13/04	8.55
4/13/04	2.58
12/1/05	28.48059
12/1/05	22.85907
12/1/05	17.1282
2/6/06	10.2
2/6/06	1.58
2/8/06	4.8
2/26/06	10.00229
2/26/06	11.10093
2/26/06	13.04314
3/5/06	5.577448
3/5/06	11.43438
3/5/06	8.758344
6/12/06	5.21
6/12/06	4.46
6/12/06	2.47
11/2/06	118
11/2/06	68.6
11/3/06	65
12/8/06	29.7
12/9/06	44.6
12/9/06	21.9
2/9/07	20.6

2/9/07	15
2/9/07	13
4/4/07	7.07
4/4/07	4.96
4/4/07	3.2
6/5/07	6.99
6/6/07	3.99
6/6/07	5.81

Percent Exceedance Summary

Parameter	4,4'-DDT
Location	Wilson Creek
Data Source	CMP
min date	12/14/2003
max date	2/5/2008

DATES	DATA
12/14/03	10
10/17/04	-10
10/19/04	-10
12/1/05	-10
10/5/06	-10
10/10/07	-1
2/5/08	-1

Percent Exceedance stats

WQO	0.59
n	7
n detected > WQO	1
% detected > WQO	14.29

Other Stats

% detected	14.29
n BDL	6
n DLs	2
max detected	10
min detected	10
max BDL	<10
min BDL	<1
n BDL > max detected	0
n BDL > WQO	6
n detected	1
n BDL < WQO	0
max/WQO	16.9492
detected < WQO	6
n < max DL	6

Percent Exceedance Summary

Parameter	Benzo(a)pyrene
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	-1
10/19/04	-1
12/1/05	-1
10/5/06	-1
10/10/07	6.1

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	1
% detected > WQO	20.00

Other Stats

% detected	20.00
n BDL	4
n DLs	1
max detected	6.1
min detected	6.1
max BDL	<1
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	1
n BDL < WQO	4
max/WQO	1.3864
detected < WQO	4
n < max DL	4

Percent Exceedance Summary

Parameter	Benzo(b)fluoranthene
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	-1
10/19/04	-1
12/1/05	-1
10/5/06	-1
10/10/07	7.1

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	1
% detected > WQO	20.00

Other Stats

% detected	20.00
n BDL	4
n DLs	1
max detected	7.1
min detected	7.1
max BDL	<1
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	1
n BDL < WQO	4
max/WQO	1.6136
detected < WQO	4
n < max DL	4

Percent Exceedance Summary

Parameter	BHC, gamma (Lindane)
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	2/5/2008

DATES	DATA
12/14/03	-0.01
10/17/04	0.021
10/19/04	-0.01
12/1/05	-0.01
10/5/06	-0.01
10/10/07	-0.001
2/5/08	-0.001

Percent Exceedance stats

WQO	0.019
n	7
n detected > WQO	1
% detected > WQO	14.29

Other Stats

% detected	14.29
n BDL	6
n DLs	2
max detected	0.021
min detected	0.021
max BDL	<0.01
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	1
n BDL < WQO	6
max/WQO	1.1053
detected < WQO	6
n < max DL	6

Percent Exceedance Summary

Parameter	Copper Dissolved
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	2/25/2008

Percent Exceedance stats

WQO	10
n	20
n detected > WQO	0
% detected > WQO	0.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	4.236037543
min detected	0.99
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	20
n BDL < WQO	0
max/WQO	0.4236
detected < WQO	20
n < max DL	0

DATES	DATA
12/14/03	2.4
10/17/04	1.32
12/1/05	2.900805
2/27/06	2.186812
2/28/06	3.258587
3/1/06	2.457907
3/2/06	4.236038
3/6/06	3.136342
3/7/06	2.602349
3/8/06	2.163107
3/9/06	1.767565
10/5/06	2.53
11/2/06	3.13
12/9/06	1.77
2/9/07	1.88
4/3/07	0.99
10/10/07	2.94
1/4/08	1.52
2/5/08	1.46
2/25/08	1.62

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	235
n	21
n detected > WQO	16
% detected > WQO	76.19

Other Stats

% detected	95.24
n BDL	1
n DLs	1
max detected	80000
min detected	40
max BDL	<20
min BDL	<20
n BDL > max detected	0
n BDL > WQO	0
n detected	20
n BDL < WQO	1
max/WQO	340.4255
detected < WQO	5
n < max DL	1

DATES	DATA
12/14/03	800
2/2/04	500
2/18/04	360
4/13/04	-20
10/6/04	230
10/19/04	30000
1/28/05	17000
2/15/05	1300
12/1/05	2300
2/8/06	500
2/27/06	30000
3/6/06	3000
10/5/06	1700
11/2/06	80000
12/9/06	300
2/9/07	1300
4/3/07	130
10/10/07	5000
1/4/08	1300
2/5/08	40
2/24/08	80

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	400
n	21
n detected > WQO	14
% detected > WQO	66.67

Other Stats

% detected	95.24
n BDL	1
n DLs	1
max detected	130000
min detected	30
max BDL	<20
min BDL	<20
n BDL > max detected	0
n BDL > WQO	0
n detected	20
n BDL < WQO	1
max/WQO	325.0000
detected < WQO	7
n < max DL	1

DATES	DATA
12/14/03	800
2/2/04	500
2/18/04	1700
4/13/04	-20
10/6/04	230
10/19/04	30000
1/28/05	1300
2/15/05	1300
12/1/05	2300
2/8/06	30
2/27/06	800
3/6/06	3000
10/5/06	1700
11/2/06	130000
12/9/06	300
2/9/07	1300
4/3/07	130
10/10/07	8000
1/4/08	1300
2/5/08	40
2/24/08	80

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	Willow Creek
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

DATES	DATA
12/14/03	0.201
10/19/04	0.998
12/1/05	0.587882
10/5/06	0.332
10/10/07	0.342

Percent Exceedance stats

WQO	0.06
n	5
n detected > WQO	5
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	0.998
min detected	0.201
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	16.6333
detected < WQO	0
n < max DL	0

Percent Exceedance Summary		DATES	DATA
		12/14/03	17.2
Parameter	Mercury, Total	12/1/05	68.22271
Location	Willow Creek	10/5/06	15.2
Data Source	CMP	10/10/07	65.8

min date	12/14/2003
max date	10/10/2007

Percent Exceedance stats

WQO	50
n	4
n detected > WQO	2
% detected > WQO	50.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	68.22271343
min detected	15.2
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	1.3645
detected < WQO	2
n < max DL	0

Percent Exceedance Summary		DATES	DATA
		12/14/03	180
Parameter	Solids, Total Dissolved	10/19/04	150
Location	Willow Creek	12/1/05	120
Data Source	CMP	10/5/06	240
		10/10/07	150
min date	12/14/2003		
max date	10/10/2007		

Percent Exceedance stats

WQO	125
n	5
n detected > WQO	4
% detected > WQO	80.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	240
min detected	120
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	1.9200
detected < WQO	1
n < max DL	0

Percent Exceedance Summary

Parameter	Specific Conductance
Location	Willow Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	240
n	38
n detected > WQO	16
% detected > WQO	42.11

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	310
min detected	50
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	38
n BDL < WQO	0
max/WQO	1.2917
detected < WQO	22
n < max DL	0

DATES	DATA
12/14/03	253
2/2/04	220
2/2/04	267
2/18/04	189
4/13/04	276
10/6/04	285
10/17/04	254
10/17/04	276
10/19/04	160
10/19/04	183
10/19/04	310
10/21/04	231
10/22/04	246
1/25/05	256
1/28/05	172
1/29/05	209
1/30/05	235
2/14/05	281
2/15/05	264
2/16/05	196
2/17/05	238
4/12/05	256
12/1/05	160
12/1/05	203.7
2/7/06	241
2/8/06	250
2/27/06	150
3/6/06	50
10/5/06	290
10/5/06	296
11/2/06	186
12/9/06	225
2/9/07	184
4/3/07	236
10/10/07	215
1/4/08	169
2/5/08	186
2/24/08	175

Percent Exceedance Summary

Parameter	4,4'-DDT
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/6/2008

DATES	DATA
12/14/03	50
10/19/04	-10
12/1/05	-10
10/5/06	-10
2/5/08	-1
2/6/08	-1

Percent Exceedance stats

WQO	0.59
n	6
n detected > WQO	1
% detected > WQO	16.67

Other Stats

% detected	16.67
n BDL	5
n DLs	2
max detected	50
min detected	50
max BDL	<10
min BDL	<1
n BDL > max detected	0
n BDL > WQO	5
n detected	1
n BDL < WQO	0
max/WQO	84.7458
detected < WQO	5
n < max DL	5

Percent Exceedance Summary

Parameter	Benz(a)anthracene
Location	Morrison Creek
Data Source	CMP

min date	12/14/2003
max date	10/5/2006

DATES	DATA
12/14/03	17.4
10/19/04	0.0398
12/1/05	10.2
10/5/06	-1

Percent Exceedance stats

WQO	4.4
n	4
n detected > WQO	2
% detected > WQO	50.00

Other Stats

% detected	75.00
n BDL	1
n DLs	1
max detected	17.4
min detected	0.039799999
max BDL	<1
min BDL	<1
n BDL > max detected	0
n BDL > WQO	0
n detected	3
n BDL < WQO	1
max/WQO	3.9545
detected < WQO	2
n < max DL	2

Percent Exceedance Summary

Parameter	Benzo(a)pyrene
Location	Morrison Creek
Data Source	CMP

min date	12/14/2003
max date	10/5/2006

DATES	DATA
12/14/03	54.2
10/19/04	47
12/1/05	13.5
10/5/06	26

Percent Exceedance stats

WQO	4.4
n	4
n detected > WQO	4
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	54.2
min detected	13.5
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	12.3182
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Benzo(b)fluoranthene
Location	Morrison Creek
Data Source	CMP

min date	12/14/2003
max date	10/5/2006

DATES	DATA
12/14/03	31.7
10/19/04	71
12/1/05	19.9
10/5/06	60.5

Percent Exceedance stats

WQO	4.4
n	4
n detected > WQO	4
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	71
min detected	19.89999962
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	16.1364
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Benzo(k)fluoranthene
Location	Morrison Creek
Data Source	CMP

min date	12/14/2003
max date	10/5/2006

DATES	DATA
12/14/03	24.4
10/19/04	53.9
12/1/05	13.1
10/5/06	29.6

Percent Exceedance stats

WQO	4.4
n	4
n detected > WQO	4
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	53.90000153
min detected	13.10000038
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	12.2500
detected < WQO	0
n < max DL	0

Percent Exceedance Summary		DATES	DATA
		12/14/03	32.2
Parameter	Chrysene	10/19/04	108
Location	Morrison Creek	12/1/05	23.6
Data Source	CMP	10/5/06	42.4

min date	12/14/2003
max date	10/5/2006

Percent Exceedance stats

WQO	44
n	4
n detected > WQO	1
% detected > WQO	25.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	108
min detected	23.60000038
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	2.4545
detected < WQO	3
n < max DL	0

Percent Exceedance Summary

Parameter	Copper Dissolved
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/25/2008

Percent Exceedance stats

WQO	10
n	17
n detected > WQO	1
% detected > WQO	5.88

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	18.7
min detected	2.12
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	17
n BDL < WQO	0
max/WQO	1.8700
detected < WQO	16
n < max DL	0

DATES	DATA
12/14/03	4.12
12/1/05	3.918517
2/27/06	4.471416
2/28/06	3.86061
3/1/06	2.775878
3/2/06	3.89557
3/6/06	3.116557
3/7/06	3.72143
3/8/06	2.917976
3/9/06	2.705378
10/5/06	18.7
11/2/06	7.83
12/9/06	5.72
2/9/07	5.59
4/3/07	2.12
2/5/08	2.42
2/25/08	3.89

Percent Exceedance Summary

Parameter	Diazinon
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	0.05
n	42
n detected > WQO	5
% detected > WQO	11.90

Other Stats

% detected	14.29
n BDL	36
n DLs	5
max detected	0.37
min detected	0.0478
max BDL	<0.05
min BDL	<0.002
n BDL > max detected	0
n BDL > WQO	17
n detected	6
n BDL < WQO	19
max/WQO	7.4000
detected < WQO	37
n < max DL	37

DATES	DATA
12/14/03	0.2
2/2/04	-0.05
2/2/04	0.32
2/18/04	-0.05
2/18/04	0.2
4/13/04	-0.018
4/13/04	-0.018
10/6/04	-0.05
10/17/04	-0.05
10/19/04	-0.05
10/21/04	-0.05
10/22/04	-0.05
1/25/05	-0.05
1/28/05	-0.05
1/28/05	0.25
1/29/05	-0.05
1/30/05	-0.05
2/14/05	-0.05
2/15/05	-0.05
2/15/05	0.37
2/16/05	-0.05
2/17/05	-0.05
4/12/05	-0.05
4/12/05	-0.05
12/1/05	-0.005
2/7/06	-0.018
2/7/06	-0.018
2/27/06	-0.00353
2/27/06	-0.018
3/6/06	-0.00353
3/6/06	-0.00353
10/5/06	-0.002
11/2/06	-0.002
12/9/06	-0.002
12/9/06	-0.002
2/9/07	0.0478
2/9/07	-0.002
4/3/07	-0.002
4/3/07	-0.002
1/4/08	-0.002
2/24/08	-0.002
2/24/08	-0.002

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	235
n	19
n detected > WQO	15
% detected > WQO	78.95

Other Stats

% detected	94.74
n BDL	1
n DLs	1
max detected	500000
min detected	50
max BDL	<20
min BDL	<20
n BDL > max detected	0
n BDL > WQO	0
n detected	18
n BDL < WQO	1
max/WQO	2127.6596
detected < WQO	4
n < max DL	1

DATES	DATA
12/14/03	5000
2/2/04	5000
2/18/04	5000
4/13/04	230
10/6/04	170
10/19/04	17000
1/28/05	8000
2/15/05	50000
12/1/05	13000
2/8/06	80000
2/27/06	500000
3/6/06	13000
10/5/06	22000
11/2/06	30000
12/9/06	23000
2/9/07	17000
4/3/07	50
2/5/08	-20
2/24/08	13000

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	400
n	19
n detected > WQO	15
% detected > WQO	78.95

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	130000
min detected	40
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	19
n BDL < WQO	0
max/WQO	325.0000
detected < WQO	4
n < max DL	0

DATES	DATA
12/14/03	8000
2/2/04	8000
2/18/04	7000
4/13/04	300
10/6/04	500
10/19/04	80000
1/28/05	13000
2/15/05	130000
12/1/05	23000
2/8/06	170
2/27/06	22000
3/6/06	13000
10/5/06	80000
11/2/06	50000
12/9/06	3000
2/9/07	17000
4/3/07	80
2/5/08	40
2/24/08	13000

Percent Exceedance Summary		DATES	DATA
		12/14/03	-0.001
Parameter	Indeno(1,2,3-cd)pyrene	10/19/04	0.0366
Location	Morrison Creek	12/1/05	0.009
Data Source	CMP	10/5/06	-0.001

min date	12/14/2003
max date	10/5/2006

Percent Exceedance stats

WQO	0.0044
n	4
n detected > WQO	2
% detected > WQO	50.00

Other Stats

% detected	50.00
n BDL	2
n DLs	1
max detected	0.036599998
min detected	0.009
max BDL	<0.001
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	2
n BDL < WQO	2
max/WQO	8.3182
detected < WQO	2
n < max DL	2

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	Morrison Creek
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

DATES	DATA
12/14/03	0.394
10/19/04	0.53
12/1/05	0.4608
10/5/06	0.515

Percent Exceedance stats

WQO	0.06
n	4
n detected > WQO	4
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	0.53
min detected	0.394
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	8.8333
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Pentachlorophenol
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	10/5/2006

DATES	DATA
12/14/03	0.306
10/19/04	0.748
12/1/05	0.404
10/5/06	0.13

Percent Exceedance stats

WQO	0.28
n	4
n detected > WQO	3
% detected > WQO	75.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	0.748
min detected	0.13
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	2.6714
detected < WQO	1
n < max DL	0

Percent Exceedance Summary		DATES	DATA
		12/14/03	79
Parameter	Solids, Total Dissolved	10/19/04	130
Location	Morrison Creek	12/1/05	73
Data Source	CMP	10/5/06	440

min date	12/14/2003
max date	10/5/2006

Percent Exceedance stats

WQO	125
n	4
n detected > WQO	2
% detected > WQO	50.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	440
min detected	73
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	3.5200
detected < WQO	2
n < max DL	0

Percent Exceedance Summary

Parameter	Specific Conductance
Location	Morrison Creek
Data Source	CMP
min date	12/14/2003
max date	2/25/2008

Percent Exceedance stats

WQO	240
n	47
n detected > WQO	9
% detected > WQO	19.15

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	360
min detected	7
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	47
n BDL < WQO	0
max/WQO	1.5000
detected < WQO	38
n < max DL	0

DATES	DATA
12/14/03	87
2/2/04	83.6
2/2/04	101
2/2/04	81
2/18/04	69.4
2/18/04	64.2
4/13/04	192
4/13/04	316
10/6/04	360
10/17/04	360
10/19/04	100
10/21/04	158
10/22/04	182
1/25/05	265
1/28/05	68
1/28/05	144
1/29/05	108
1/30/05	135
2/14/05	289
2/15/05	89
2/15/05	249
2/16/05	128.6
2/17/05	141
4/12/05	87
4/12/05	248
12/1/05	88
12/1/05	100.1
2/7/06	125
2/7/06	187
2/8/06	202
2/27/06	66
2/27/06	65
3/6/06	91
3/6/06	63
10/5/06	253
10/5/06	260
11/2/06	137
12/9/06	103
12/9/06	164
2/9/07	69
4/3/07	140
4/3/07	7
4/3/07	169
2/5/08	86
2/5/08	97
2/25/08	85
2/25/08	74

Percent Exceedance Summary

Parameter	4,4'-DDT
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/5/2008

DATES	DATA
12/14/03	10
10/19/04	-10
12/1/05	-10.00
10/5/06	-10
10/10/07	-1
2/5/08	-1

Percent Exceedance stats

WQO	0.59
n	6
n detected > WQO	1
% detected > WQO	16.67

Other Stats

% detected	16.67
n BDL	5
n DLs	2
max detected	10
min detected	10
max BDL	<10
min BDL	<1
n BDL > max detected	0
n BDL > WQO	5
n detected	1
n BDL < WQO	0
max/WQO	16.9492
detected < WQO	5
n < max DL	5

Percent Exceedance Summary

Parameter	Benz(a)anthracene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	48.4
10/19/04	0.0274
12/1/05	6
10/5/06	51.4
10/10/07	31.6

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	4
% detected > WQO	80.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	51.4
min detected	0.0274
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	11.6818
detected < WQO	1
n < max DL	0

Percent Exceedance Summary

Parameter	Benzo(a)pyrene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	57.2
10/19/04	28.2
12/1/05	10.2
10/5/06	60.4
10/10/07	71.6

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	5
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	71.6
min detected	10.19999981
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	16.2727
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Benzo(b)fluoranthene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	67.2
10/19/04	44.1
12/1/05	13.5
10/5/06	102
10/10/07	120.5

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	5
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	120.5
min detected	13.5
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	27.3864
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Benzo(k)fluoranthene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	63.6
10/19/04	47.2
12/1/05	12.2
10/5/06	80.9
10/10/07	37.1

Percent Exceedance stats

WQO	4.4
n	5
n detected > WQO	5
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	80.9
min detected	12.19999981
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	18.3864
detected < WQO	0
n < max DL	0

Percent Exceedance Summary

Parameter	Chrysene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	67.7
10/19/04	70
12/1/05	18.2
10/5/06	113
10/10/07	88.8

Percent Exceedance stats

WQO	44
n	5
n detected > WQO	4
% detected > WQO	80.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	113
min detected	18.20000076
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	2.5682
detected < WQO	1
n < max DL	0

Percent Exceedance Summary

Parameter	Copper Dissolved
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/25/2008

Percent Exceedance stats

WQO	10
n	25
n detected > WQO	1
% detected > WQO	4.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	15.2
min detected	2.4212677
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	25
n BDL < WQO	0
max/WQO	1.5200
detected < WQO	24
n < max DL	0

DATES	DATA
12/14/03	3.32
2/2/04	3.09
2/18/04	3.02
4/13/04	3.98
1/28/05	3.42
2/15/05	5.59
12/1/05	4.215065
2/7/06	3.75
2/27/06	4.044624
2/28/06	5.734711
3/1/06	5.317255
3/2/06	2.421268
3/6/06	3.346605
3/7/06	4.977886
3/8/06	5.183052
3/9/06	5.099114
10/5/06	15.2
11/2/06	8.18
12/9/06	7.83
2/9/07	6.48
4/3/07	4.1
10/10/07	6.91
1/4/08	4.04
2/5/08	5.51
2/25/08	4.89

Percent Exceedance Summary

Parameter	Diazinon
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	0.05
n	30
n detected > WQO	8
% detected > WQO	26.67

Other Stats

% detected	36.67
n BDL	19
n DLs	4
max detected	6.5
min detected	0.0132
max BDL	<0.05
min BDL	<0.002
n BDL > max detected	0
n BDL > WQO	11
n detected	11
n BDL < WQO	8
max/WQO	130.0000
detected < WQO	22
n < max DL	22

DATES	DATA
12/14/03	0.5
2/2/04	0.28
2/18/04	0.24
4/13/04	0.16
10/6/04	-0.05
10/17/04	-0.05
10/19/04	-0.05
10/21/04	-0.05
10/22/04	-0.05
1/25/05	-0.05
1/28/05	0.2
1/29/05	0.26
1/30/05	0.21
2/14/05	-0.05
2/15/05	-0.05
2/16/05	-0.05
2/17/05	-0.05
4/12/05	-0.05
12/1/05	0.0256
2/7/06	-0.018
2/27/06	-0.00353
3/6/06	-0.00353
10/5/06	-0.002
11/2/06	-0.002
12/9/06	-0.002
2/9/07	0.0347
4/3/07	6.5
10/10/07	0.0132
1/4/08	-0.002
2/24/08	-0.002

Percent Exceedance Summary

Parameter	Dibenz(a,h)anthracene
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	-0.001
10/19/04	-0.001
12/1/05	-0.001
10/5/06	0.0239
10/10/07	0.0184

Percent Exceedance stats

WQO	0.0044
n	5
n detected > WQO	2
% detected > WQO	40.00

Other Stats

% detected	40.00
n BDL	3
n DLs	1
max detected	0.0239
min detected	0.0184
max BDL	<0.001
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	2
n BDL < WQO	3
max/WQO	5.4318
detected < WQO	3
n < max DL	3

Percent Exceedance Summary

Parameter	Escherichia Coli
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	235
n	24
n detected > WQO	22
% detected > WQO	91.67

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	80000
min detected	0.0132
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	24
n BDL < WQO	0
max/WQO	340.4255
detected < WQO	2
n < max DL	0

DATES	DATA
12/13/02	50000
12/13/02	8000
12/13/02	3000
12/14/03	9000
2/2/04	17000
2/18/04	30000
4/13/04	500
10/6/04	300
10/19/04	80000
1/28/05	7000
2/15/05	17000
12/1/05	5000
2/8/06	170
2/27/06	5000
3/6/06	23000
10/5/06	30000
11/2/06	23000
12/9/06	50000
2/9/07	8000
4/3/07	220
10/10/07	50000
1/4/08	11000
2/5/08	300
2/24/08	3000

Percent Exceedance Summary

Parameter	Fecal Coliform
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	400
n	21
n detected > WQO	18
% detected > WQO	85.71

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	130000
min detected	170
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	21
n BDL < WQO	0
max/WQO	325.0000
detected < WQO	3
n < max DL	0

DATES	DATA
12/14/03	9000
2/2/04	17000
2/18/04	30000
4/13/04	500
10/6/04	500
10/19/04	130000
1/28/05	11000
2/15/05	17000
12/1/05	23000
2/8/06	170
2/27/06	11000
3/6/06	23000
10/5/06	30000
11/2/06	23000
12/9/06	130000
2/9/07	8000
4/3/07	220
10/10/07	50000
1/4/08	11000
2/5/08	300
2/24/08	3000

Percent Exceedance Summary		DATES	DATA
		12/14/03	0.0308
Parameter	Indeno(1,2,3-cd)pyrene	10/19/04	-0.001
Location	Arcade Creek	12/1/05	0.0109
Data Source	CMP	10/5/06	0.0662
		10/10/07	0.1216
min date	12/14/2003		
max date	10/10/2007		

Percent Exceedance stats

WQO	0.0044
n	5
n detected > WQO	4
% detected > WQO	80.00

Other Stats

% detected	80.00
n BDL	1
n DLs	1
max detected	0.1216
min detected	0.0109
max BDL	<0.001
min BDL	<0.001
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	1
max/WQO	27.6364
detected < WQO	1
n < max DL	1

Percent Exceedance Summary

Parameter	Mercury, Methyl
Location	Arcade Creek
Data Source	CMP
min date	9/3/2002
max date	6/11/2008

DATES	DATA
12/14/03	0.348
10/19/04	0.854
12/1/05	0.823448
10/5/06	1.4
10/10/07	0.548

Percent Exceedance stats

WQO	0.06
n	5
n detected > WQO	5
% detected > WQO	100.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	1.4
min detected	0.348
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	23.3333
detected < WQO	0
n < max DL	0

Percent Exceedance Summary		DATES	DATA
		12/14/03	30.5
Parameter	Mercury, Total	12/1/05	43.66433
Location	Arcade Creek	10/5/06	58.1
Data Source	CMP	10/10/07	101

min date	12/14/2003
max date	10/10/2007

Percent Exceedance stats

WQO	50
n	4
n detected > WQO	2
% detected > WQO	50.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	101
min detected	30.5
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	4
n BDL < WQO	0
max/WQO	2.0200
detected < WQO	2
n < max DL	0

Percent Exceedance Summary

Parameter	Pentachlorophenol
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	0.108
10/19/04	0.295
12/1/05	0.192
10/5/06	0.076
10/10/07	0.104

Percent Exceedance stats

WQO	0.28
n	5
n detected > WQO	1
% detected > WQO	20.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	0.295
min detected	0.076
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	1.0536
detected < WQO	4
n < max DL	0

Percent Exceedance Summary

Parameter	Specific Conductance
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/24/2008

Percent Exceedance stats

WQO	240
n	36
n detected > WQO	7
% detected > WQO	19.44

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	391
min detected	37
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	36
n BDL < WQO	0
max/WQO	1.6292
detected < WQO	29
n < max DL	0

DATES	DATA
12/14/03	60
2/2/04	80
2/18/04	60.4
4/13/04	307
10/6/04	285
10/17/04	281
10/19/04	79
10/19/04	128
10/21/04	158
10/22/04	197
1/25/05	391
1/25/05	391
1/28/05	112
1/29/05	132
1/30/05	151
2/14/05	327
2/15/05	194
2/16/05	93.1
2/17/05	122
4/12/05	148
12/1/05	69
12/1/05	76
2/7/06	205
2/8/06	200
2/27/06	42
3/6/06	50
10/5/06	227
10/5/06	230
11/2/06	130
12/9/06	77
2/9/07	84
4/3/07	266
10/10/07	146
1/4/08	37
2/5/08	181
2/24/08	97

Percent Exceedance Summary

Parameter	Turbidity
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	10/10/2007

DATES	DATA
12/14/03	220
10/19/04	280
12/1/05	120
10/5/06	250
10/10/07	320

Percent Exceedance stats

WQO	150
n	5
n detected > WQO	4
% detected > WQO	80.00

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	320
min detected	120
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	5
n BDL < WQO	0
max/WQO	2.1333
detected < WQO	1
n < max DL	0

Percent Exceedance Summary

Parameter	Zinc, Dissolved
Location	Arcade Creek
Data Source	CMP
min date	12/14/2003
max date	2/25/2008

Percent Exceedance stats

WQO	100
n	19
n detected > WQO	1
% detected > WQO	5.26

Other Stats

% detected	100.00
n BDL	0
n DLs	0
max detected	111
min detected	3.326639084
max BDL	all detects
min BDL	all detects
n BDL > max detected	0
n BDL > WQO	0
n detected	19
n BDL < WQO	0
max/WQO	1.1100
detected < WQO	18
n < max DL	0

DATES	DATA
12/14/03	10.8
12/1/05	12.31509
2/27/06	11.61096
2/28/06	14.15106
3/1/06	13.68639
3/2/06	3.326639
3/6/06	9.781774
3/7/06	18.40552
3/8/06	14.44334
3/9/06	13.7891
10/5/06	111
11/2/06	39.5
12/9/06	37.7
2/9/07	20.9
4/3/07	9.71
10/10/07	26.7
1/4/08	12
2/5/08	15.8
2/25/08	17.5

Attachment C. **Local water bodies on 2006 Section 303(d) list relevant to Sacramento Stormwater Management Program**

Water Body	Bis(2ethylhexyl) phthalate	Chlordane	Chlorpyrifos	Copper	DDT	Diazinon	Dieldrin	E.C.	Group A Pesticides[2]	Malathion	Mercury	Org. Enrich./ Low D.O.	PCBs	PCP	Pyrethroids	Zinc	Unknown Toxicity
Delta Waterways	0	0	1 (high)[1]	0	1	1 (high)	0	1 (medium)	1 (low)	0	1 (high)	1 (high)	1 (low)	0	0	0	1 (medium)
Arcade Creek	1	0	1 (medium)	1 (low)	0	1 (medium)	0	0	0	1	0	0	0	0	1	0	0
American River, Lower	0	0	0	0	0	0	1	0	0	0	1 (medium)	0	1	0	0	0	1 (low)
Chicken/Strong Ranch Slough	0	0	1 (medium)	0	0	1 (medium)	0	0	0	0	0	0	0	0	1	0	0
Elder Creek	0	0	1 (medium)	0	0	1 (medium)	0	0	0	0	0	0	0	0	1	0	0
Elk Grove Creek	0	0	1	0	0	1 (medium)	0	0	0	0	0	0	0	0	0	0	0
Mokelumne River, Lower	0	0	1	1 (low)	0	0	0	0	0	0	1	1	0	0	0	1 (low)	0
Morrison Creek	1	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0
Natomas East Main Drain	0	0	0	0	0	1 (medium)	0	0	0	0	1	0	1 (low)	0	0	0	0
Sac. River (Red Bluff - Delta)	0	1	0	0	1	0	1	0	0	0	1 (high)	0	1	0	0	0	1 (medium)
Strong Ranch Slough	0	0	1 (medium)	0	0	1 (medium)	0	0	0	0	0	0	0	0	1	0	0
Total 303(d) Listings in Area	**2**	**1**	**8**	**2**	**2**	**8**	**2**	**1**	**1**	**1**	**5**	**2**	**4**	**1**	**5**	**1**	**3**

1. Text in parentheses beneath pollutant count is SWRCB Section 303(d) list TMDL priority schedule: low, medium, high.
2. Group A Pesticides include the following constituents: aldrin, dieldrin, chlordane, endrin, heptachlor, heptachlor epoxide, hexachlorocyclohexane (including Lindane), endosulfan, and toxaphene.
3. Titles in red are updated for 2008 303(d) draft list.

Data Source: United States Environmental Protection Agency (EPA). 1998. Total Maximum Daily Load (TMDL) Program: California List of Impaired Waters for 1998.

Attachment D. Summary of Local Toxicity Identification Evaluation Data

The Permittees collected four toxicity samples at five receiving water locations during the 2003-04 monitoring period. Significant toxicity was not found in any of these samples, and toxicity identification studies were not performed. However, recent work by others in the Sacramento area[1][2] has determined that pyrethroids in the sediments cause toxicity to benthic organisms. Unpublished data collection by the Regional Board has also indicated that there are periods when receiving water aquatic toxicity occurs due to pyrethroids. Based on these data collected by others, and the expected connection between pesticide application and urban runoff, this class of pesticide was determined to be an identified source of aquatic toxicity in both urban runoff and receiving waters.

[1] D.P. Weston, R.W. Holmes, J. You, and M.J. Lydy, "Aquatic Toxicity Due to Residential Use of Pyrethroid Insecticides," *Environmental Science & Technology,* Vol. 39, No. 24, 2004, pp 9778-9784.

[2] D.P. Weston, J. You, and M.J. Lydy, "Distribution and Toxicity of Sediment-Associated Pesticides in Agriculture-Dominated Water Bodies of California's Central Valley", *Environmental Science & Technology*, Vol. 38, No. 10, 2004, pp 2753-2759.

Chapter 6.99 ENVIRONMENTAL MANAGEMENT DEPARTMENT REGULATORY FEES

6.99.000 Title.

6.99.001 Purpose.

6.99.005 Definitions.

6.99.010 Certified Unified Program Agency (CUPA).

6.99.011 Auto Body Shops.

6.99.012 Auto Dealers.

6.99.013 Auto Repair Shops.

6.99.014 Illegal Methamphetamine Manufacturing or Storage Site.

6.99.015 Chemical Compounds.

6.99.016 County Director.

6.99.017 Equipment Rentals.

6.99.018 General Permit Industries.

6.99.019 Hourly Rate.

6.99.020 Plan Review.

6.99.021 Kennels.

6.99.022 Nurseries.

6.99.026 Retail Gasoline Outlet.

6.99.028 Reinspection.

6.99.029 Special Handling.

6.99.030 State CUPA Surcharge.

6.99.035 Permit/License/ Registration/Surcharge Fees.

6.99.060 Credit—Recycled Oil.

6.99.070 Exceptional Facility Fee—Special Fees.

6.99.075 Fee for Incident Response Cost Recovery.

6.99.076 Fee for Oversight of the Remediation of an Illegal Methamphetamine Manufacturing or Storage Site.

6.99.080 Fee for Tank Installation.

6.99.085 Fee for Tank Closure.

6.99.086 Fee for Tank(s) With Piping Upgrade.

6.99.087 Fee for Tank(s) Without Piping Upgrade.

6.99.090 Fee for Tank Temporary Abandonment.

6.99.100 Fee for Pipe or Monitoring System Repair.

6.99.105 Fee for Well Construction and Concurrent Pump Installation.

6.99.135 Fee for California Accidental Release (CAL ARP) Prevention Program.
6.99.147 Permit Extension Fee.
6.99.150 Reinspection Fee.
6.99.160 Consultation Fee.
6.99.165 Appeal Filing Fee.
6.99.175 Food Facility Fee.
6.99.180 Community Event Permit Fees.
6.99.185 Food Facility Reinspections.
6.99.190 Bakery—No Preparation.
6.99.195 Multiple Food Facilities.
6.99.200 Nonprofit.
6.99.205 Reinspection Fee—General.
6.99.210 Operation of a Food Facility Without a Permit.
6.99.211 Mandatory Food Safety Education Course Fee.
6.99.215 Plan Review.
6.99.220 New Food Facility Construction Plan.
6.99.225 Major Remodel Food Facility Construction Plan.
6.99.230 Minor Remodeling Food Facility Construction Plan.
6.99.235 Minor Remodel Plan Review for Single Piece of Food Equipment.
6.99.240 Miscellaneous Food Facility Plan Review.
6.99.245 Public Swimming Pool.
6.99.250 Swim Pools with Single Recirculation System.
6.99.255 Multiple Swimming, Spa, or Wading Pools.
6.99.256 Temporarily Inactive Fee-Pool/Spas.
6.99.260 Public Swimming Pool Reinspection.
6.99.265 Optional Swimming Pool Service Company Registration.
6.99.270 New Swimming Pool, Spa Pool, Wading Pool or Recreational Water Theme Park Plan Review.
6.99.275 Major Remodel Plan Review for Public Swimming Pool, Spa Pool and Wading Pool.
6.99.280 Minor Remodel Plan Review for Public Swimming Pool, Spa and Wading Pool.
6.99.285 Minor Remodel Plan Review for Single Piece of Recirculation Equipment.
6.99.290 Plan Review for Addition of a Single Attraction to a Recreational Water Theme Park.
6.99.300 Miscellaneous Plan.
6.99.305 Construction Inspection.
6.99.310 Public Swimming Pools, Spas, and Wading Pool Construction Reinspection.
6.99.315 Small Public Water System.
6.99.320 Protection of Drinking Water Cross Connection Control Tag Fees.
6.99.325 Plot Plan.

6.99.330 On site Sewage Treatment (Septic Tank) System.

6.99.335 Test Drilling and Engineering Review.

6.99.340 Septic Tank Abandonment Fee.

6.99.345 Consulting Services.

6.99.350 Septic Tank Cleaner Registration Fee.

6.99.400 Detention Facilities Fees.

6.99.405 Employee Housing.

6.99.410 Employee Housing Reinspection Fee.

6.99.415 Private School License Inspections.

6.99.420 Hotel/Motel Compliance Program Fees.

6.99.425 Medical Waste Facility Inspection Fee.

6.99.430 Medical Waste Noncompliance.

6.99.435 Solid Waste Facility Fee.

6.99.440 Closed Site, Refuse Vehicle, Refuse Exemption, and New Facility Permit.

6.99.445 Enforcement Action.

6.99.450 Fixed Mechanical Plan Approval.

6.99.455 Acoustical Report Review.

6.99.460 Special Condition Permit.

6.99.465 Noise Ordinance Compliance Inspection.

6.99.470 Document Search Fee.

6.99.475 Smoking Control.

6.99.480 Surcharge.

6.99.485 Permit or License—Denial, Suspension, Revocation.

6.99.490 Liability.

6.99.495 Collection.

6.99.000 Title.

This Chapter shall be known as the Environmental Management Department Regulatory Fees Ordinance. (SCC 1223 § 2 (part), 2002.)

6.99.001 Purpose.

The provisions of this Chapter establishing fees associated with Hazardous Materials and Waste Regulation are enacted pursuant to the provisions of Health and Safety Code, Sections 101325 and 101280; Division 20, Chapter 6.5 (commencing with Section 25100), Chapter 6.7 (commencing with Section 25280), Chapter 6.95 (commencing with Section 25500) and Chapter 6.11 (commencing with Section 25404); California Water Code (commencing with Section 13700), and California Constitution, Article XI, Section 7. The provisions of this Chapter establishing fees associated with Environmental Health Services are enacted pursuant to the provisions of the California Health and Safety Code, Section 101325, and California Constitution, Article XI, Section 7. The provisions of this Chapter establishing fees associated with the Storm water Compliance Program are enacted pursuant to the provisions of Sacramento County Code Title 15, Chapter 15.12 and California Constitution, Article XI, Section 7. Enactment of the fees is necessary in order to provide a source of revenue with which to defray the personnel and other costs incurred by the County in conducting the regulatory programs established and

otherwise identified by State and local laws and regulations. The costs incurred by the County for such regulatory purposes are not met by any grants by the State of California, any fees prescribed by the State, and other County revenues are insufficient to cover such costs. Fees are established to cover Program costs for a specific fiscal year that runs from July 1 through June 30. (SCC 1270 § 1, 2004; SCC 1223 § 2 (part), 2002.)

6.99.005 Definitions.

As used in this Chapter, the terms identified in Sections 6.99.010 through 6.99.030 shall be ascribed the meanings contained therein. (SCC 1223 § 2 (part), 2002.)

6.99.010 Certified Unified Program Agency (CUPA).

CUPA as defined in Division 20, Chapter 6.11, Section 25404(c) of the California Health and Safety Code refers to the Agency certified by the Secretary of the California Environmental Protection Agency. (SCC 1355 § 2, 2007: SCC 1223 § 2 (part), 2002.)

6.99.011 Auto Body Shops.

An auto body shop is defined as any commercial facility that meets the definition of Standard Industrial Classification Code 7532 except as noted below, and engages in the repair, replacement, painting, or alteration of automobile bodies or body parts when auto body work is the primary activity. This definition also includes auto body work when it is conducted as an ancillary activity within at least three hundred (300) square feet of dedicated shop space. If the facility meets the definition of SIC Code 7532 but is exclusively engaged in repair or replacement of automotive interiors, upholstery, or tops, it shall not be considered an auto body shop. This definition does not include facilities whose primary business is metal plating or powder coating, except to the extent that other activities as described above are conducted on site. (SCC 1355 § 3, 2007: SCC 1270 § 2, 2004.)

6.99.012 Auto Dealers.

An auto dealer is defined as any commercial facility engaged in the sale, leasing, or rental of new or used cars, trucks and vans, motorcycles, or other similar vehicles. This includes facilities that meet the definition of Standard Industrial Classification Codes 5012, 5511, 5521, 5571, 7513, 7514, 7515, or 7519. Some facilities in SIC Code 7999 also fit this definition. This definition excludes commercial facilities engaged exclusively in the sale of the following: automotive bodies, campers, mopeds, motor scooters, snowmobiles, trailers and mobile homes. This definition is limited to facilities that have at least five thousand (5,000) square feet of outdoor area devoted to the display of all autos as defined above, employee parking or other related purposes. (SCC 1355 § 4, 2007: SCC 1270 § 3, 2004.)

6.99.013 Auto Repair Shops.

An auto repair shop is defined as any facility engaged in the repair or replacement of car, truck, van, motorcycle or other motorized vehicle mechanical or exhaust components, or in the replacement of motor oil and other lubricants and fluids when auto repair work is the primary activity. This definition also includes auto repair work when it is conducted as an ancillary activity with at least three hundred (300) square feet of dedicated shop space. Facilities that meets the definition of Standard Industrial Classification Code Sections 7533 (exhaust system repair), 7537 (transmission repair), 7538 (general automotive repair), or 7539 (automotive repair, not elsewhere classified) or 7539 (motorcycle repair shops only) are included in this definition. Facilities in SIC Code 7539 that are engaged exclusively in frame repair, air conditioning repair, axle straightening, or wheel alignment are not included in this definition. This definition includes businesses that conduct retail or wholesale auto repair, as well as those that conduct in house auto repair to service business owned vehicles, as well as those described above. (SCC 1355 § 5, 2007: SCC 1270 § 4, 2004.)

6.99.014 Illegal Methamphetamine Manufacturing or Storage Site.

Means property where a person manufactures methamphetamine or stores methamphetamine or a hazardous chemical used in connection with the manufacturing or storage of methamphetamine. (SCC 1355 § 6, 2007.)

6.99.015 Chemical Compounds.

The number of chemical compounds shall be determined by either discreet Chemical Abstract Service (CAS) or Hazardous Waste Number or individual Material Safety Data Sheets. (SCC 1355 § 7, 2007: SCC 1223 § 2 (part), 2002.)

6.99.016 County Director.

The term “County Director” means the Director of the County Department of Environmental Management, the County staff of that Department who are subordinate to the Director, and any party designated by the Director. (SCC 1355 § 8, 2007: SCC 1270 § 5, 2004; SCC 1223 § 2 (part), 2002.)

6.99.017 Equipment Rentals.

An equipment rental facility is defined as any facility whose primary business is to rent machinery or equipment used for construction, demolition, digging and grading, building maintenance and repair, painting, plastering and texturing, landscaping, cleaning, pressure washing or steam cleaning, or similar activities. An equipment rental facility is also defined as any facility with a different primary business, but that utilizes more than two hundred (200) square feet of outdoor uncovered area for storage, display, or as a workspace associated with rental equipment (as described above), provided that the facility cleans, maintains, repairs or disposes of waste from any equipment at the site. Facilities engaged in the rental of trucks, trailers and automobiles but not also engaged in the rental of any types of equipment listed above are included in the definition of auto dealer and are not considered equipment rental facilities. (SCC 1355 § 9, 2007: SCC 1270 § 6, 2004.)

6.99.018 General Permit Industries.

A General Permit Industry is defined as any facility that should be covered under the State of California’s General Industrial Storm Water Permit. (SCC 1355 § 10, 2007: SCC 1270 § 7, 2004.)

6.99.019 Hourly Rate.

The term “Hourly Rate” refers to the rate used to calculate all program fees provided for in this Chapter. The rate is calculated using methodologies approved and adopted by the Board of Supervisors. The Board of Supervisors may establish the hourly rate for up to five fiscal years in advance and may increase or decrease the hourly rate for any fiscal year if it determines that there has been a significant change in projected program costs. (SCC 1355 § 11, 2007: SCC 1270 § 8, 2004: SCC 1223 § 2 (part), 2002.)

6.99.020 Plan Review.

For purposes of this code, the term “Plan Review” is defined as a review of any necessary plans and or documents required for the issuance of a permit or any other regulatory approval. (SCC 1355 § 12, 2007.)

6.99.021 Kennels.

A kennel is defined as any facility engaged commercially in the rearing, breeding, sheltering, or boarding of dogs, and at which at least four hundred (400) square feet of area is used for the keeping of dogs. (SCC 1270 § 9, 2004.)

6.99.022 Nurseries.

A nursery is defined as any facility that meets the definition of Standard Industrial Classification Code Section 0181, Ornamental Floriculture and Nursery Products. A nursery is also an establishment that sells plants at wholesale or retail and applies pesticides or fertilizers to the plants at that location. (SCC 1270 § 10, 2004.)

6.99.026 Retail Gasoline Outlet.

A retail gas outlet is defined as any fixed facility that sells or distributes gasoline from pumps, including retail sales to the public or as a card lock facility. It does not include mobile suppliers that service fleets at the customer’s work place or job site. A retail gas outlet is not a facility that operates and uses its own gasoline pump to supply gasoline to vehicles that it either owns or operates as part of its own business. (SCC 1270 § 13, 2004.)

6.99.028 Reinspection.

A reinspection means an inspection made for the purpose of determining compliance with corrective orders issued on a Notice to Comply or other official notice of an inspection report. (SCC 1355 § 13, 2007: SCC 1223 § 2 (part), 2002.)

6.99.029 Special Handling.

The term “Special Handling/Service” means any office activity including but not limited to, a plan review, permit application, or other office review that is expedited, and or any field inspection or oversight service that is provided outside of normal business hours. Special handling/service will be provided pursuant to need or request and upon availability of staff, by paying the basic fee, plus an additional fee pursuant to Section 6.99.035. (SCC 1355 § 14, 2007: SCC 1270 § 14, 2004: SCC 1223 § 2 (part), 2002.)

6.99.030 State CUPA Surcharge.

The term “State CUPA Surcharge” shall be deemed to refer to those provisions and fees prescribed pursuant to contained in Section 25404.5 Paragraph (c), and Section 25287 Paragraphs “(a)” and “(b)” of the Health and Safety Code. (SCC 1223 § 2 (part), 2002.)

6.99.035 Permit/License/ Registration/Surcharge Fees.

The County Director shall charge the regulatory, permit, inspection, re-inspection and surcharge fees provided in this chapter. The fees charged pursuant to this section shall be established by the Board of Supervisors based upon the County’s recovery of the projected program costs for that fiscal year. The permit, license, registration and surcharge fees provided for in this chapter shall not be transferable or in any other way assignable. The Board of Supervisors may establish fees for up to five fiscal years in advance based upon projected program costs. The Board may increase or decrease any and all fees for any fiscal year if it determines that there has been a significant change in projected program costs. (SCC 1355 § 15, 2007: SCC 1223 § 2 (part), 2002.)

6.99.060 Credit—Recycled Oil.

If a business which is required to pay a Hazardous Waste Generation fee pursuant to Section 6.99.035 of this Code accepts from the general public and recycles more than fifty (50) gallons of used motor oil per year, then that business shall be entitled to a credit of forty dollars ($40.00) per year towards payment of the following year’s fee. (SCC 1223 § 2 (part), 2002.)

6.99.070 Exceptional Facility Fee—Special Fees.

If the time required by the County Director to conduct inspections or otherwise review, administer, or process issuance of those permits and licenses described by Sections 6.99.076 through 6.99.100, exceed the times specified below, an Exceptional Facility Fee, at one-half the hourly rate, shall be payable for each additional one-half hour or portion thereof:

a.	Permit to install underground storage tanks under Section 6.99.080:	
1.	First tank	16 hours
2.	Each additional tank	2 hours
b.	Permit to close underground storage tanks under Section 6.99.085	
1.	First tank	7 hours
2.	Each additional tank	1 hour
c.	Permit to upgrade underground storage tanks with piping under Section 6.99.086:	
1.	First tank	13 hours
2.	Each additional tank	2 hours

d.	Permit to upgrade underground storage tanks without piping under Section 6.99.087	8 hours
e.	Permit to temporarily abandon underground storage tanks under Section 6.99.090	3.5 hours
f.	Permit to repair underground storage tank, piping or monitoring system under Section 6.99.100	
	5 hours	
1.	Permit for the replacement or repair of spill container (bucket)	3.5 Hours
g.	Fee for review of first time submittals of Risk Management Plan (RMP) under Section 6.99.135	
1.	Level 1 facility	11 hours
2.	Level 2 or 3 facility	24 hours
h.	Fee for remediation or property contaminated by methamphetamine production related activities under Section 6.99.136	18 hours

(SCC 1355 § 16, 2007: SCC 1329 § 2, 2006: SCC 1238 § 4, 2003: SCC 1223 § 2 (part), 2002.)

6.99.075 Fee for Incident Response Cost Recovery.

In connection with the costs incurred by the County Director and/or the County Director's contractor for services provided in the event of a response to the release or threatened release of a hazardous material or any other substance that could potentially have a negative impact to the environment or public health, a fee based on the current hourly rate established pursuant to Section 6.99.019 shall be owed by the Responsible Party for each hour expended or portion thereof per responding specialist, plus contractor costs if any, mitigating the incident. (SCC 1355 § 17, 2007: SCC 1223 § 2 (part), 2002.)

6.99.076 Fee for Oversight of the Remediation of an Illegal Methamphetamine Manufacturing or Storage Site.

In connection with regulatory services by the County Director and or the County Director's contractor for services under Division 20, Chapter 6.9.1 of the California Health and Safety Code, a fee shall be payable in the amount established pursuant to section 6.99.035. (SCC 1355 § 18, 2007.)

6.99.080 Fee for Tank Installation.

In connection with the installation of underground storage tanks as regulated by Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035. (SCC 1355 § 19, 2007: SCC 1238 § 5, 2003: SCC 1223 § 2 (part), 2002.)

6.99.085 Fee for Tank Closure.

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035. (SCC 1355 § 20, 2007: SCC 1238 § 6, 2003: SCC 1223 § 2 (part), 2002.)

6.99.086 Fee for Tank(s) With Piping Upgrade.

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035. (SCC 1355 § 21, 2007: SCC 1238 § 7, 2003.)

6.99.087 Fee for Tank(s) Without Piping Upgrade.

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035. (SCC 1355 § 22, 2007: SCC 1238 § 8, 2003.)

6.99.090 Fee for Tank Temporary Abandonment.

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee in the amount established pursuant to Section 6.99.035. (SCC 1355 § 23, 2007: SCC 1223 § 2 (part), 2002.)

6.99.100 Fee for Pipe or Monitoring System Repair.

In connection with regulatory services by the County Director under Chapter 6.34 of this Code, a fee in the amount established pursuant to Section 6.99.035 shall be paid in connection with the repair of a pipe as defined in Section 25281.5 of the Health and Safety Code for an existing underground storage tank facility or repair of a monitoring system for such facility. (SCC 1355 § 24, 2007: SCC 1238 § 9, 2003: SCC 1223 § 2 (part), 2002.)

6.99.105 Fee for Well Construction and Concurrent Pump Installation.

In connection with services by the County Director under Chapter 6.28 of this Code, a fee shall be payable in the amount established pursuant to Section 6.99.035. (SCC 1355 § 25, 2007: SCC 1223 § 2 (part), 2002.)

6.99.135 Fee for California Accidental Release (CAL ARP) Prevention Program.

In connection with the regulatory services provided under Chapter 6.96 of this Code, fees for first-time submittals of Risk Management Plans (RMPs) shall be in the amounts established pursuant to Section 6.99.065. The established review times for initial submittals are estimated to be eleven (11) hours for Program Level 1 facilities and twenty-four (24) hours for Program Level 2 and 3 facilities. If a facility changes its operation in a way that does not require a new RMP, the fee for reviewing any revisions requiring agency submittal shall be based upon actual review time on an hourly basis as established pursuant to Section 6.99.065. The annual regulatory program fees for CAL ARP facilities shall be established pursuant to Section 6.99.035. (SCC 1296 § 1, 2005: SCC 1238 § 12, 2003: SCC 1223 § 2 (part), 2002.)

6.99.147 Permit Extension Fee.

In connection with the issuance of a one time extension of any permit granted under Sections 6.99.080 through 6.99.105 a fee equal to twenty (20) percent of the original permit shall be paid. (SCC 1355 § 26, 2007: SCC 1223 § 2 (part), 2002.)

6.99.150 Reinspection Fee.

Whenever, in connection with regulatory services delivered under Chapters 6.28, 6.34, 6.96 or 6.98 of this Code more than one inspection by the County Director is required in connection with a particular activity which is regulated or in which a regulatory violation is identified, a reinspection fee in the amount established pursuant to Section 6.99.065 shall be payable for each one-half hour or portion thereof of time consumed by each reinspection. (SCC 1223 § 2 (part), 2002.)

6.99.160 Consultation Fee.

A fee in the amount established pursuant to Section 6.99.019 shall be payable for each hour or portion thereof of service delivered by the County Director in connection with site remediation, investigation and/or consultation activities required or requested in connection with the contamination of a site by discharge of a hazardous substance, material or waste. (SCC 1355 § 27, 2007: SCC 1223 § 2 (part), 2002.)

6.99.165 Appeal Filing Fee.

Any person authorized to file an appeal under Chapters 6.28, 6.34, 6.96 or 6.98 shall, at the time of filing the appeal and as a condition precedent to the legal effectiveness of the appeal, pay an appeal filing fee in the amount established pursuant to Section 6.99.065. (SCC 1223 § 2 (part), 2002.)

6.99.175 Food Facility Fee.

a. The annual regulatory program fees for a food facility as defined in California Health and Safety Code Section 114380 through Section 114387 shall be established pursuant to Section 6.99.035 for the following facilities:
Food Preparation Establishment (without hood)
Restaurant
Bar
Restaurant/Bar
School/Non Profit Sr. Meal Program
Bakery-No Preparation
Caterer/Low Risk
Caterer/High Risk
Temporary Food Facility (Food Prep/High Risk)
Temporary Food Facility (Packaged Food/Low Risk)
Temporary Food Facility Multi-Event (Food Prep/High Risk)
Temporary Food Facility Multi-Event (Packaged Food/Low Risk)
Produce Stand
Certified Farmers' Market
Retail Mkt (15,000 + Sq.Ft.)
(6,000-14,999 Sq.Ft.)
(Less Than 6,000 Sq. Ft.)
Mobile Food Facility
(Category A)
(Category B)
(Category C)
(Category D)
Mobile Support Unit
Commissary
Satellite Food Dist. Fac.
Seasonal/Low Risk
Seasonal/High Risk
Restricted Food Service Est.
Swap Meet Prepackaged Food Stand (Variable Locations)
b. A Mobile Food Facility Category A is a vehicle as defined in California Health and Safety Code Section 113831 that is permitted to sell prepackaged food, whole uncut produce, whole fish, and whole aquatic invertebrates.
c. A Mobile Food Facility Category B is a vehicle as defined in California Health and Safety Code Section 113831that is permitted to sell unpackaged food that requires no preparation other than heating, popping, blending, portioning, or dispensing. The Mobile Food Facility Category B utilizes a mobile support unit or a permitted facility for its commissary.
d. A Mobile Food Facility Category C is a vehicle as defined in California Health and Safety Code Section 113831 that is permitted to sell unpackaged food that requires no preparation other than heating, popping, blending, portioning or dispensing. The Mobile Food Facility Category C utilizes an onsite commissary that is not used by any other mobile food facility and is not permitted as a separate food facility.
e. A Mobile Food Facility Category D is a vehicle as defined in the California Health and Safety Code, section 113831 that is permitted to sell unpackaged food that is cooked or baked on the vehicle or any unpackaged food that requires preparation beyond heating, popping, blending, portioning or dispensing.
f. A Food Preparation Establishment (without hood) is a "food facility" as defined in Section 113789 of the California Health and Safety Code that handles unpackaged food, and in which any installed heat processing equipment is limited to equipment that does not require mechanical exhaust ventilation pursuant to Section 114149.1 of the Health and Safety Code. (SCC 1355 § 28, 2007: SCC 1223 § 2 (part), 2002.)

6.99.180 Community Event Permit Fees.

a. Sections 114338.1 through 114381.2 of the California Health and Safety Code require that the person or organization in control of any community event having temporary food facilities must obtain a permit.

The applicant for a permit shall pay fees established pursuant to Section 6.99.035 based upon one of the following categories:
1. Community Event Permit—five or fewer Temporary Food Facilities.
2. Community Event Permit—six or more Temporary Food Facilities.
3. Community Event Permit—five or fewer Non-Profit Temporary Food Facilities.
b. No fee shall be charged to nonprofit charitable temporary food facilities, nor to the person or organization responsible for the nonprofit charitable temporary food facilities that operate in conjunction with a community event as defined in Section 113755 of the Health and Safety Code, provided that there are no more than five temporary food facilities at such event and provided all facilities are nonprofit charitable temporary food facilities as defined in Section 113842 of the Health and Safety Code. The County Director shall make educational materials concerning basic concepts of food protection available to the participants of such events.
c. In addition to the Community Event Permit, the operator of each complying Temporary Food Facility must also obtain a permit. Permit fees shall be established pursuant to Section 6.99.035 based upon the following two categories:
Temporary Food Facility—Packaged Foods/Low Risk
Temporary Food Facility—Prepared Foods/High Risk
d. A penalty fee established pursuant to Section 6.99.035 shall be charged to the person or organization in charge of any community event when no permit has been obtained at least two weeks prior to the event.
e. A late fee established pursuant to Section 6.99.035 shall be charged to the operator of any Temporary Food Facility when no permit has been obtained at least two weeks prior to the event.
f. If the applicant for permit to operate a temporary food facility desires to operate at multiple events, a multi-event permit may be issued provided the operator of the temporary food facility:
1. Uses the annual permit only at permitted community events;
2. Completes a risk assessment sheet and receives approval from the County Director for food protection operating procedures, including storage, transportation, preparation, holding and serving, as well as approval for any changes in such procedures;
3. Completes and posts the self-inspection check list prior to operating at each event;
4. Operates in compliance with all applicable laws and codes;
5. Obtains a separate permit for each facility if the applicant operates more than one facility at an event;
6. Provides a list of events at which the applicant plans to operate;
7. Provides proof of satisfactory completion of a class within the three years preceding application approved by the County Director in basic fundamentals of food protection for food preparation operators;
8. Applies for the multi-event permit prior to operating and pays any applicable fees; and
9. Submits a menu.
10. Utilizes an approved commissary and submits a valid commissary letter
The annual multi-event permit fees shall be established pursuant to Section 6.99.035 for the following:
Temporary Food Facility Multi-event (Pkg. Foods/Low Risk)
Temporary Food Facility Multi-event (Food Prep/High Risk) (SCC 1355 § 29, 2007: SCC 1223 § 2 (part), 2002.)

6.99.185 Food Facility Reinspections.

The reinspection fee for food facilities as defined in California Health and Safety Code Section 113700 through Section 113910 shall be established pursuant to Section 6.99.035 for the following facilities:
Food Preparation Establishment (without hood)
Restaurant
Bar
Restaurant/Bar
School/Non Profit Sr. Meal Program
Bakery No Preparation
Caterer/Low Risk
Caterer/High Risk
Temporary Food Facility (Food Prep/High Risk)
Temporary Food Facility (Packaged Food/Low Risk)
Temporary Food Facility Multi-Event (Food Prep/High Risk)

Temporary Food Facility Multi-Event (Pkgd Food/Low Risk)
Produce Stand
Certified Farmers' Market
Retail Mkt (15,000 + Sq. Ft.)
(6,000-14,999 Sq. Ft.)
(Less Than 6,000 Sq. Ft.)
Mobile Food Facility (Category A)
Mobile Food Facility (Category B)
Mobile Food Facility (Category C)
Mobile Food Facility (Category D)
Mobile Food Prep. Unit
Mobile Support Unit
Commissary
Satellite Food Dist. Facility
School Satellite Facility
Restricted Food Service Est.
Swap Meet Prepackaged Food Stand
(Variable Locations)
Seasonal (Low Risk)
Seasonal (High Risk)
(SCC 1355 § 30, 2007: SCC 1333 § 30, 2006: SCC 1223 § 2 (part), 2002.)

6.99.190 Bakery—No Preparation.

The term "Bakery—No Preparation" means a bakery wherein no products are prepared or processed from the beginning state. (SCC 1223 § 2 (part), 2002.)

6.99.195 Multiple Food Facilities.

Any premises with multiple food facilities operating under the same ownership, shall pay the following fees: one hundred (100) percent of the annual fee for the type facility with the highest prescribed fee, and seventy (70) percent of each remaining fee. temporary food facilities, mobile food facilities, mobile support units, swap meet prepackaged food stands, or satellite food distribution facilities shall not be included as multiples and shall pay the basic fee. (SCC 1355 § 31, 2007: SCC 1223 § 2 (part), 2002.)

6.99.200 Nonprofit.

Any charitable or nonprofit organization which is exempt from payment of income taxes by ruling of the Director of Internal Revenue Service. (SCC 1223 § 2 (part), 2002.)

6.99.205 Reinspection Fee—General.

Except as otherwise specified in this Code any fee for a reinspection as defined in Section 6.99.028 shall be established pursuant to sections 6.99.170 and 6.99.172. (SCC 1270 § 16, 2004; SCC 1223 § 2 (part), 2002.)

6.99.210 Operation of a Food Facility Without a Permit.

Any food facility as defined in California State law operating without a permit shall be subject to closure of the facility and a penalty fee not to exceed three times the annual permit fee established for such food facility pursuant to Section 6.99.170. (SCC 1333 § 29, 2006: SCC 1223 § 2 (part), 2002.)

6.99.211 Mandatory Food Safety Education Course Fee.

A per person and per class fee for the Food Safety Education Course shall be established pursuant to Sections 6.99.035 and 6.04.022. (SCC 1355 § 32, 2007.)

6.99.215 Plan Review.

For purposes of this Code, Plan Review is defined as a review of three sets of construction plans for all proposed new food facilities, public swimming pool, spa pool, or wading pool facilities or the remodeling of such existing facilities for compliance with State or local laws and regulations. Fees are due and

payable when plans are submitted to the Environmental Management Department for review. (SCC 1223 § 2 (part), 2002.)

6.99.220 New Food Facility Construction Plan.

A new food facility construction plan shall consist of a plan for a room, building, or place, or portion thereof, intended for use as a food facility. Fees for review of new food facility construction plans are based on square footage and shall be established pursuant to Section 6.99.170 for the following facilities:
a. Prepackaged foods only
b. Food facilities without hoods
1. Less than 2000 sq. ft.
2. 2,000 sq. ft. to 5,999 sq. ft.
3. 6,000 sq. ft. or more
c. Food facilities with hoods
1. Less than 2,000 sq. ft.
2. 2,000 sq. ft. to 5,999 sq. ft.
3. 6,000 sq. ft. or more
(SCC 1223 § 2 (part), 2002.)

6.99.225 Major Remodel Food Facility Construction Plan.

For purposes of this section, the phrase “major remodel of a food facility” means the remodeling or revisions to a food facility, as defined in the Health and Safety Code, to thirty (30) percent or more of the food service related areas, not including the dining area. The terms “major remodel” or “revision” shall include but not be limited to structural alterations to food preparation and storage rooms, removal or replacement of food service equipment, changes in mechanical or plumbing fixtures, or changes in materials and finishes. Fees for review of construction plans for major remodel of a food facility are based on square footage and shall be established pursuant to Section 6.99.170 for the following facilities:
a. Prepackaged foods only
b. Food facilities without hoods
1. Less than 2,000 sq. ft.
2. 2,000 sq. ft. to 5,999 sq. ft.
3. 6,000 sq. ft. or more
c. Food facilities with hoods
1. Less than 2,000 sq. ft.
2. 2,000 sq. ft. to 5,999 sq. ft.
3. 6,000 sq. ft. or more
(SCC 1223 § 2 (part), 2002.)

6.99.230 Minor Remodeling Food Facility Construction Plan.

For purposes of this section the phrase “minor remodel of a food facility” means the remodeling or revisions to a food facility, as defined in the Health and Safety Code, of less than thirty (30) percent of the food service related areas excluding the dining area, including resubmitted plans. The fee for review of a minor remodel plan shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.235 Minor Remodel Plan Review for Single Piece of Food Equipment.

For purposes of this section, a minor remodel plan review for a single piece of food equipment is the review of plans for a single piece of food equipment and related items, such as, the addition of an oven and hood. The fee for review of a single piece of equipment for a food facility shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.240 Miscellaneous Food Facility Plan Review.

The fee for review and approval of additional food facility plans previously approved by the Environmental Health Division shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.245 Public Swimming Pool.

The annual regulatory program fees for a public swimming pool, spa pool and wading pool as defined in California Code of Regulations Title 22, Section 65501(a), (f) and (b) shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.250 Swim Pools with Single Recirculation System.

The annual regulatory program fee for one or more public swim pools that are served by a single recirculation, disinfection, and filtration system, as approved by the County Director, shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.255 Multiple Swimming, Spa, or Wading Pools.

Fees for premises with multiple swimming, spa, or wading pools operating under the same ownership shall be computed at one hundred (100) percent for the highest fee and seventy (70) percent of each remaining fee. (SCC 1223 § 2 (part), 2002.)

6.99.256 Temporarily Inactive Fee-Pool/Spas.

For the purposes of this section, the phrase “Temporarily Inactive Pool, Spa, or Wading Pool” shall mean any pool, spa or wading pool that is maintained empty or unused. The fee for temporarily inactive pool, spa or wading pool shall be established pursuant to Section 6.99.035. (SCC 1355 § 33, 2007.)

6.99.260 Public Swimming Pool Reinspection.

The reinspection fee for a public swimming pool, spa pool and wading pool as defined in California Code of Regulations Title 22, Section 65501(a), (b) and (d) shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.265 Optional Swimming Pool Service Company Registration.

In connection with Registration of Swimming Pool Service Companies by the County Director per Section 6.64.030, the fee for each company shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.270 New Swimming Pool, Spa Pool, Wading Pool or Recreational Water Theme Park Plan Review.

The fee for the review of new construction plan for a public swimming pool, public spa pool, public wading pool or recreational water theme park shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.275 Major Remodel Plan Review for Public Swimming Pool, Spa Pool and Wading Pool.

For purposes of this section major remodeling plan for a public pool, spa or wading pool shall mean remodeling or revision to such a plan of thirty (30) percent or more of the swimming pool, spa pool or wading pool structural area, excluding replacement of equipment solely for repair purposes. The fee for review by the County Director of a major remodeling plan for a public swimming pool, public spa, or public wading pool shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.280 Minor Remodel Plan Review for Public Swimming Pool, Spa and Wading Pool.

For the purposes of this section, a minor remodeling plan for a public swimming pool, spa or wading pool includes resubmitted plans; remodeling or revision shall mean remodeling or revisions to such a plan of less than thirty (30) percent of the swimming pool, spa pool or wading pool structural area or equipment alterations, excluding replacement of equipment solely for repair purposes. The fee for the review by the County Director of minor remodeling plans for a public swimming pool, public spa, or public wading pool shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.285 Minor Remodel Plan Review for Single Piece of Recirculation Equipment.

For purposes of this section a minor remodel plan review for a single piece of recirculation equipment is the review of plans for the replacement of a swimming pool, public spa, or wading pool pump, filter,

sanitizer or other recirculation equipment, excluding replacement of equipment solely for repair purposes. The fee for review of a minor remodel plan for a single piece of recirculation equipment shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.290 Plan Review for Addition of a Single Attraction to a Recreational Water Theme Park.

For purposes of this section a plan review for addition of a single attraction to a recreational water theme park is the review of plans for a single attraction and related appurtenances to an existing recreational water theme park. The fee for plan review for addition of a single attraction shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.300 Miscellaneous Plan.

For purposes of this section a miscellaneous public swimming pool, public spa and public wading pool construction plan is the review of three additional copies of a plan previously approved by the County Director. The fee for review of miscellaneous public swimming pool, public spa or public wading pool plans shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.305 Construction Inspection.

Construction inspection of a public swimming pool, public spa and public wading pool shall consist of a pre-gunite and final inspection. Fees shall be paid when construction plans are submitted for review and shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.310 Public Swimming Pools, Spas, and Wading Pool Construction Reinspection.

The fee for a reinspection by the County Director for construction inspection shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.315 Small Public Water System.

Small public water systems are those systems as defined in the California Health and Safety Code, Section 116275. A new permit application fee, permit amendment fee, repair permit fee and an annual fee for each small public water system regulated by the County Director shall be established pursuant to Section 6.99.035. (SCC 1355 § 34, 2007: SCC 1223 § 2 (part), 2002.)

6.99.320 Protection of Drinking Water Cross Connection Control Tag Fees.

The fee for an approved tag for each backflow assembly tested in compliance with Sacramento County Code Section 6.30.100 shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.325 Plot Plan.

The fee for review and tentative approval of a plot plan for individual water well and/or septic system shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.330 On site Sewage Treatment (Septic Tank) System.

In connection with services by the County Director under Chapter 6.32 of this code, fees in the amount established pursuant to Section 6.99.035 shall be payable. (SCC 1355 § 35, 2007: SCC 1223 § 2 (part), 2002.)

6.99.335 Test Drilling and Engineering Review.

The fee for Test Drilling and Engineering Review as required by Rules and Regulations of the Environmental Health Division, adopted pursuant to SCC Section 6.32.130, shall be established pursuant to Section 6.99.170 for each review or test drilling. (SCC 1223 § 2 (part), 2002.)

6.99.340 Septic Tank Abandonment Fee.

The fee for a permit to abandon a septic tank shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.345 Consulting Services.

The fee for consultations for the installation, location or abandonment of an onsite sewage treatment (septic) system shall be established pursuant to Section 6.99.035. (SCC 1355 § 6, 2007: SCC 1223 § 2 (part), 2002.)

6.99.350 Septic Tank Cleaner Registration Fee.

The fee for the registration of a septic tank cleaner as required by Health and Safety Code Section 117400 shall be established pursuant to Section 6.99.170 for each pump truck. (SCC 1223 § 2 (part), 2002.)

6.99.400 Detention Facilities Fees.

The annual reimbursement from the Sheriff's Department and Probation Department for environmental health regulatory oversight of detention facilities as defined in California Health and Safety Code, Section 101045, shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.405 Employee Housing.

Unless otherwise stated in this Chapter, the annual fees for an employee housing facility or farm labor camp shall be established pursuant to Section 6.99.170 for the following:
a. Fee per employee.
b. Employee Housing Facility or Farm Labor Camp with Biennial Inspection.
(An employee housing facility or farm labor camp with biennial inspection is an employee housing facility or farm labor camp that meets minimum standards and no major code violations are encountered during the inspection. A major code violation is a condition which typically cannot be corrected in one day.)
c. Employee Housing Facility or Farm Labor Camp with Annual Inspection.
(An employee housing facility or farm labor camp with annual inspection is an employee housing facility or farm labor camp that fails to meet minimum standards and a major code violation is encountered during the inspection. A major code violation is a condition that typically cannot be corrected in one day.)
(SCC 1223 § 2 (part), 2002.)

6.99.410 Employee Housing Reinspection Fee.

The fee for reinspection of an employee housing facility or farm labor camp shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.415 Private School License Inspections.

The fees for inspections of nonpublic schools as requested, or as required by Title 5, California Code of Regulations, Section 3064, and California Education Code, Section 56366.1, shall be established pursuant to Section 6.99.170 for each inspection. (SCC 1223 § 2 (part), 2002.)

6.99.420 Hotel/Motel Compliance Program Fees.

The fees for inspections of hotels/motels pursuant to the Sacramento County Hotel/Motel Compliance Program (Chapter 16.21 of the Sacramento County Code) shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.425 Medical Waste Facility Inspection Fee.

The fee for medical waste facilities as defined in Division 2 and Division 22 of the Health and Safety Code shall be established pursuant to Section 6.99.170 for the following:
a. Large Quantity Medical Waste—Acute Care Hospital.
1 to 99 Beds
100 to 199 Beds
200 to 250 Beds
250+ Beds
b. Onsite Treatment of Medical Waste
c. Medical Waste—Skilled Nursing Facility
1 to 199 Beds
200+ Beds
d. Medical Waste Small Quantity Generator—Offsite Treatment

e. Medical Waste Small Quantity Generator—Onsite Treatment
f. Limited Quantity Hauling Exemption
g. Medical Waste—Common Storage Facilities
2 to 15 Generators
16 to 49 Generators
50+ Generators
h. Medical Waste Clinic/ Laboratory/ Mortuary/ Primary Care
i. Tattoo/Body Art/Permanent Cosmetics
(SCC 1223 § 2 (part), 2002.)

6.99.430 Medical Waste Noncompliance.

The medical waste noncompliance fee for purposes of this section is defined as a fee charged to a medical waste generator which generates less than two hundred (200) pounds of medical waste each calendar month and is in violation of the Medical Waste Act, Division 20, Chapter 6.1 of the Health and Safety Code as determined by an onsite inspection. The noncompliance fee shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.435 Solid Waste Facility Fee.

a. The annual fee for solid waste handling or disposal facilities, as defined in Title 14 and Title 27 of the California Code of Regulations, and Division 30 of the California Public Resources Code, shall be established pursuant to Section 6.99.170 for the following:
Municipal Solid Waste Landfill
Construction, Demolition, Inert Landfill
Transfer/Processing Facility
Composting Facility, Quarterly Inspection
Composting Facility, Monthly Inspection
Organic Processor/Chip & Grind
Non-traditional Facility
b. In addition to the fee in subsection (a), each solid waste handling or disposal facility shall be assessed a regional fee for a share of the annual regional program costs pursuant to Section 6.99.170. The amount of the fee for each facility shall be based upon the percent of the total County-wide tonnage received at each facility. The annual County-wide tonnage shall be determined based upon the tonnage reported to the County Director for the last three quarters (April 1—December 31) of the prior calendar year and the first quarter (January 1—March 31) of the current calendar year. This assessment shall be based upon the percent of the total annual County-wide tonnage received at the facility gate.
c. Each facility shall report the tonnage received at the facility gate on a quarterly basis within fifteen (15) days following the end of each quarter.
d. In the event that a new solid waste handling or disposal facility is added during the fourth quarter of the current fiscal year wherein no appropriate history of tonnage (12 months) exists, then the regional fee shall be based upon estimated tonnage for the fourth quarter of the current fiscal year. (SCC 1228 § 1, 2002: SCC 1223 § 2 (part), 2002.)

6.99.440 Closed Site, Refuse Vehicle, Refuse Exemption, and New Facility Permit.

The annual fee for a closed site, refuse vehicle, refuse exemption, and processing a new facility permit shall be established pursuant to Section 6.99.035 for the following:
Closed Site, Quarterly Inspection
Closed Site, Annual Inspection
Refuse Vehicle
Refuse Exemption
New Facility Permit
(SCC 1355 § 37, 2007: SCC 1223 § 2 (part), 2002.)

6.99.445 Enforcement Action.

Cost recovery for enforcement action shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.450 Fixed Mechanical Plan Approval.

For purposes of this section a fixed mechanical plan approval is the tentative approval of a plan by the County Director to determine compliance with Sacramento County Code, Chapter 6.68. The fee for each such plan approval shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.455 Acoustical Report Review.

For purposes of this section an acoustical report review is the review by the County Director of a construction plan for compliance with Sacramento County Code, Chapter 6.68. The fee for an acoustical report shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.460 Special Condition Permit.

The fee for an application for a special condition permit as provided for in Section 6.68.190 shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.465 Noise Ordinance Compliance Inspection.

The fee for determination of compliance to a previous order of correction as issued by the County Director for a violation of Chapter 6.68 shall be established pursuant to Section 6.99.170. (SCC 1223 § 2 (part), 2002.)

6.99.470 Document Search Fee.

A fee established pursuant to Section 6.99.170 shall be charged to any consulting firm, realtor, lending institution or other commercial enterprise for services performed by the County Director in searching files for the purpose of complying with document research requests by those enterprises. (SCC 1223 § 2 (part), 2002.)

6.99.475 Smoking Control.

For purposes of enforcement of the provisions of Title 37 of the Sacramento City Code, Chapters 4.61 and 6.84 of the Sacramento County Code, and California Labor Code Section 6404.5, the fees for a smoking exemption, permit, renewal, revised plan, reinspection or complaint verification, additional testing, and laboratory costs shall be established pursuant to Section 6.99.170 for the following:
a. Smoking Exemption or Permit
-Includes application, plan review, and one on-site performance evaluation
b. Renewal of Smoking Exemption or Permit
-Includes application review and one on-site performance evaluation
c. Revised Plan
-Includes review of revised plan
d. Inspection/Reinspection Fee
-Includes the issuance of an official notice when it is determined such facility is not in compliance or a reinspection of facility for compliance with applicable codes
e. Additional Testing
-Includes additional testing at the facility as directed by any special condition of the exemption or permit and shall be charged for each site evaluation
f. Laboratory Costs
-Applicant or permittee shall pay the actual costs for any laboratory testing as required by a special condition of the exemption or permit
(SCC 1223 § 2 (part), 2002.)

6.99.480 Surcharge.

If the County Director is requested or required to perform regulatory functions or work in excess of the cost recovery provided by the fees established pursuant to this Chapter, a surcharge to recover the excess costs shall be assessed at the hourly rate established pursuant to Section 6.99.019. (SCC 1355 § 38, 2007: SCC 1223 § 2 (part), 2002.)

6.99.485 Permit or License—Denial, Suspension, Revocation.

Except as prohibited by federal or State law or regulation, or local ordinance or regulation, the County Director shall be authorized to deny, suspend, revoke, or refuse to renew any permit or license to any party or responsible parties wherein any license, permit, or program cost recovery fees are unpaid and delinquent pursuant to this Chapter. Any decision of the Director to deny, suspend, revoke, or refuse to renew any permit or license may be appealed to the Hearing Authority pursuant to procedures adopted by the Director. Any such appeal shall be in writing, shall state the specific reasons therefore and grounds asserted for relief, and shall be filed with the Director not later than fifteen (15) days after the date of service of any such decision. If an appeal is not filed within the time or in the manner prescribed above, the right to review shall be deemed to have been waived. “Hearing Authority” shall be deemed to refer to one or more persons assigned the responsibility of conducting a hearing by the County Executive. (SCC 1223 § 2 (part), 2002.)

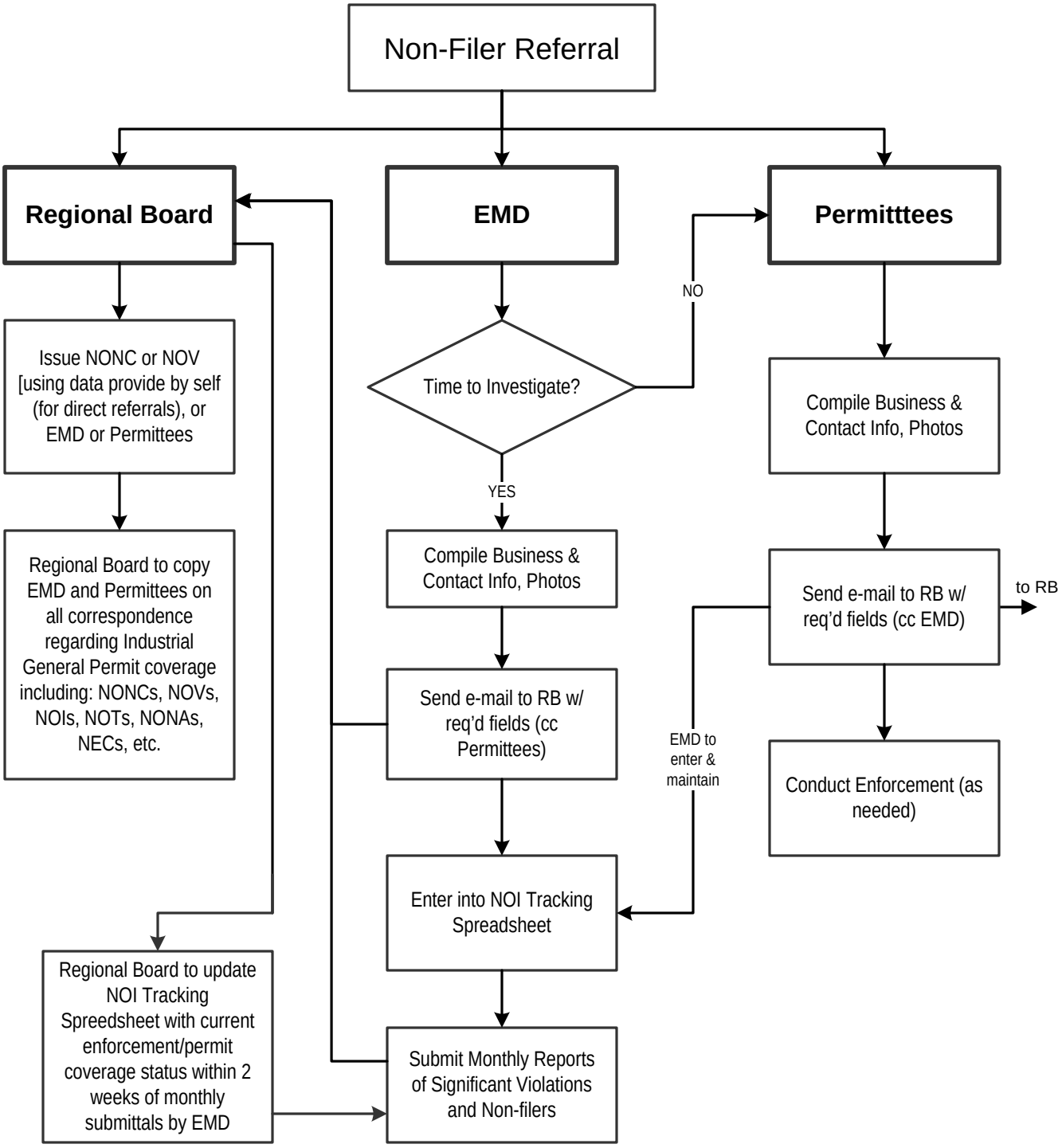
6.99.490 Liability.

All fees prescribed by this Chapter shall be owing by and collectable from: (1) the owner of any land upon which hazardous material or hazardous waste is situated and to which the regulatory activities associated with the fee relate; (2) the lessee or operator of any business or enterprise responsible for hazardous materials or hazardous wastes to which the regulatory activities associated with the fee relate; (3) any contractor who undertakes activities pertaining to hazardous materials or hazardous waste which are regulated by Chapters 6.28, 6.34, 6.96 or 6.98; (4) the owner of any business for which any permit, regulatory, inspection, or plan review fees are provided in this chapter; and (5) the operator of any business for which any permit, regulatory, inspection, or plan review fees are provided in this Chapter. The foregoing parties shall be jointly and severally liable for any and all such fees. (SCC 1223 § 2 (part), 2002.)

6.99.495 Collection.

The County Director shall be responsible for the collection of all fees prescribed by this Chapter. All fees the exact or estimated amount of which can be calculated at the time an application for a Permit or License under Chapters 6.28, 6.34, 6.96 or 6.98 is filed of this Code, shall be so calculated and estimated, and owing pursuant to the filing of the application. No application for such a Permit or License shall be deemed to be complete or valid unless all fees calculated and estimated by the County Director have been submitted with the application. The County Director shall be authorized to order refunds and the County Auditor-Controller shall draw warrants for such refunds in such amounts as the County Director prescribes in connection with any fees collected at the time of application for a Permit or License which were overestimated. Any fees prescribed by this Chapter not collected by the County Director at the time of application for a Permit or License required by Chapters 6.28, 6.34, 6.96 or 6.98, and all other fees prescribed by this Chapter, shall be billed by the County Director to the party or parties responsible for payment therefore. A fee which is owing and unpaid shall become delinquent thirty (30) calendar days following the date of mailing by the County Director of the billing. A delinquency charge in an amount of ten (10) percent of the outstanding account balance, but not less than seventy-five dollars ($75.00) shall be applied and collectable from the parties responsible in connection with all delinquent accounts. All costs, beyond those recovered by any delinquency charge either directly or indirectly incurred by the County Director, including but not limited to court costs, collection costs and handling charges, in collecting unpaid and delinquent accounts shall be owed by the responsible party or parties. The County Director shall be authorized to file and diligently prosecute in the name of the County civil suits in Small Claims Courts and/or Municipal/Superior Courts of competent jurisdiction or seek liens in the name of the County for the collection and recovery of delinquent fees and/or other charges prescribed by this Chapter. (1355 § 39, 2007: SCC 1355 § 39, 2007: SCC 1223 § 2 (part), 2002.)

Referral Process for Industrial General Permit Non-Filers



COUNTY OF SACRAMENTO
OFFICE OF THE COUNTY COUNSEL - DOWNTOWN OFFICE

700 H Street, Suite 2650, Sacramento, California 95814 Telephone (916) 874-5544 Facsimile (916) 874-8207

April 28, 2009

COUNTY COUNSEL
Robert A. Ryan, Jr.

ASSISTANT COUNTY COUNSEL
Melvyn W. Price
John F. Whisenhunt

SUPERVISING DEPUTY COUNTY COUNSEL
Michele Bach
John H. Dodds
M. Holly Gilchrist
Richard G. Llata
Kathleen A. O'Connor
Krista C. Whitman
Denis J. Zilaff

DEPUTY COUNTY COUNSEL
Michael G. Arkelian
Rebecca B. Armstrong
Richard L. Bowser
J. Steven Burris
Alan C. Campbell
Renaldo Carboni
Peter L. Dixon
Lawrence J. Duran
Joanne C. East
Vicki J. Finucane
Keith W. Floyd
Lilly C. Frawley
Carly Hegle
Julieanne L. Hinrichsen
Tina L. Izen
Karla Kowalcyk
Traci F. Lee
Jason A. Manoogian
Diane E. McElhern
Henry D. Nanjo
Stephanie G. Percival
Nanci A. Porter
Martha E. Potiriades
June Powells-Mays
Carol F. Pulido
Joy A. Ramos
John E. Reed
Diana L. Ruiz
John T. Seyman
Kathryn A. Shurtleff
John J. Soika
Ray C. Thompson
Lisa A. Travis
Claire van Dam
Silvia B. Viarnes
Dian M. Vorters
Timothy D. Weinland
James R. Wood
Elizabeth H. Wright
James G. Wright

Statement of Legal Authority

This Statement is provided on behalf of the County of Sacramento pursuant to the "Waste Discharge Requirements, Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, Sacramento, and County Of Sacramento, Storm Water Discharges from Municipal Separate Storm Sewer System, Sacramento County, Order No. R5-2008-0142, NPDES No. CAS082597" issued by the California Regional Water Quality Control Board, Central Valley Region on September 11, 2008 (hereafter referred to as the "Order").

Section C.6 of the Order requires the preparation of a statement "certified by its chief legal counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section C.6 specifies six items that must be included in the statement:

"6. Each Permittee shall provide to the Executive Officer a statement certified by its chief legal counsel that it has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s),which shall include the following:

a. Citation of urban runoff related ordinances adopted by the Permittees and the reasons they are enforceable;

b. Progressive enforcement policy and how it will be effectively implemented;

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

f. Description of the Permittee's stormwater management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

As required by the Order, a complete discussion of each issue with respect to the County of Sacramento follows.

a. Citation of urban runoff related ordinances adopted by the Permittees and the reasons they are enforceable.

The principal ordinance governing discharges to the County's municipal separate storm sewer system (MS4) is Chapter 15.12 of the Sacramento County Code (the "Storm Water Ordinance"). One of the stated purposes of the Storm Water Ordinance is to "protect and enhance the watercourses within the unincorporated area of the County, by controlling the contribution of urban pollutants to stormwater runoff which enters the County storm drain system in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CAS082597, and by controlling pollutants that are discharged directly to natural surface waters." The provisions of the Storm Water Ordinance authorize implementation or enforcement of the mandates of the Order and stormwater regulations. Another purpose of the Storm Water Ordinance is to establish appropriate enforcement procedures and penalties for violations of its provisions. The Storm Water Ordinance was amended in 2004 to address previously noted exceptions to the County's authority. A copy of the Storm Water Ordinance is attached hereto as Exhibit "A".

Additionally, the County's Grading Ordinance, Chapter 16.44 of the Sacramento County Code (the "Grading Ordinance"), regulates grading projects and sets conditions for approval of such projects. The County enacted this ordinance specifically to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution. A copy of the Grading Ordinance is attached hereto as Exhibit "B".

The County's authority under its ordinances is very wide-ranging and is sufficient to address the mandates contained in the Order. These ordinances were properly published, introduced and adopted by the Sacramento County Board of Supervisors and constitute enforceable enactments pursuant to the County's police power.

b. Progressive enforcement policy and how it will be effectively implemented

All sanctions for violations of the Storm Water Ordinance are available as progressive remedies and may be imposed administratively. Authorized for violations under that Ordinance are administrative civil penalties, treble damages, recovery of abatement costs, and criminal sanctions. These remedies may be cumulative. The Storm Water Ordinance states that each enforcement action "shall take into consideration such factors as the nature, circumstances, extent and gravity of the violation, and the violator's past and present efforts to comply."

The County's Environmental Management Department (EMD) inspects, tracks and ensures compliance with the Order concerning commercial and industrial facilities located in the unincorporated area of the County. Additionally, by memorandum of understanding, EMD also performs this same service in those jurisdictions of the other co-permittees. EMD is designated by the State as a Certified Unified Program Agency and an Environmental Health Agency for the County of Sacramento. EMD's authority is established in Chapter 6.11, Division 20 and Chapter 4, Division 104 of the Health and Safety Code.

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order.

The County Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in it. As discussed further below, these options include issuing notices of violation to anyone found to be in violation of its provisions, issuing cease and desist orders where violation constitutes an immediate threat to public health or safety, and issuing notices of administrative civil penalty. In addition to administrative enforcement options, the County may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 15.12.330 allows the Administrator of the County's Municipal Services Agency to promulgate regulations for the implementation of the County's Storm Water Ordinance. This section gives the County the ability to further refine its administrative compliance options.

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.

The County implements its Storm Water Ordinance through the stormwater program detailed in its Stormwater Quality Improvement Plan (SQIP). Additionally, the Storm Water Ordinance sets forth a detailed administrative process for appealing enforcement actions. Section 15.12.540 provides that any person receiving a notice of violation, an administrative compliance order or who otherwise suffers an adverse determination under the Ordinance may request an administrative hearing before an administrative hearing officer appointed pursuant to Government Code section 27720 et seq. The Ordinance requires that the appellant file a written request for an administrative hearing accompanied by payment of an administrative hearing fee in an amount established by the Administrator based upon actual expense. If the person prevails in the appeal, the fee is refunded. Alternatively, the hearing officer may order the appellant to pay additional costs. If no request for hearing is filed within the prescribed filing period, the determination of the Administrator becomes final.

Where an appeal is timely filed, the County will then hold a hearing on the matter before a hearing officer not less than thirty (30) and not more than ninety (90) calendar days from the filing of the written request unless the notice is issued concurrently with a cease and desist order and, in that case, the hearing must take place not more than forty-five (45) days from the date of the notice. A record of the entire proceeding shall be made, and evidence rules established by Government Code § 11513 apply. The hearing officer may, for good cause, grant continuances, and must issue a final decision within ten (10) days of the hearing's conclusion.

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

As stated above, the Storm Water Ordinance includes an extensive section on enforcement actions giving the County a wide variety of administrative options in case of violations. The administrative enforcement options include issuing a notice of violation, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the Administrator to direct the owner or occupant of any premises, or any other person responsible for any violation of the Ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the County stormwater conveyance system; (2) Immediately discontinue any other violation of the Ordinance; and (3) Clean up the area affected by the violation. The Administrator may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

The County has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

f. Description of the Permittee's stormwater management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

Compliance with the Order is a County-wide responsibility. The County's Stormwater Quality Improvement Plan (SQIP) provides a detailed explanation of the County's stormwater management structure, which is headed by the County's Department of Water Resources. There, a staff of twelve administer the Order and work with other County departments to implement its requirements. Inter-departmental agreements are adopted when necessary to ensure that other applicable departments understand their responsibilities under the Order.

Based on the foregoing discussion, the Office of the County Counsel respectfully submits this certification.

Certified by,

ROBERT A. RYAN, JR.
County Counsel

By _____
RAY C. THOMPSON
Deputy County Counsel

Attachment

Exhibit "A"

Chapter 15.12 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Article 1 General Provisions

15.12.105 Title.

15.12.110 Findings.

15.12.120 Purpose and Intent.

15.12.130 Definitions.

15.12.135 Construction.

15.12.140 Applicability.

15.12.150 Regulatory Consistency.

15.12.160 Compliance Disclaimer.

15.12.170 Severability.

15.12.180 Administration.

15.12.190 Disclaimer of Liability.

Article 2 Prohibited Discharges

15.12.200 Prohibited Non-Stormwater Discharge.

15.12.210 Exceptions To Non-Stormwater Discharge Prohibition.

15.12.220 Exception to Otherwise Applicable Exemptions.

15.12.230 Prohibited Stormwater Discharges.

15.12.240 Prohibited Conditions.

15.12.250 Negligence or Intent Not Required.

Article 3 Reduction of Pollutants in Stormwater

15.12.300 General Requirements for Best Management Practices.

15.12.302 Significant Industrial Activities.

15.12.305 County Stormwater Permit.

15.12.310 Containment and Notification of Spills.

15.12.320 Specified Performance Requirements for Industrial Activities.

15.12.322 Construction Sites With Building Permits.

15.12.325 Post Construction Requirements for New Development and Significant Redevelopment.

15.12.327 BMP Maintenance Requirements.

15.12.330 Administrative Rules and Regulations.

Article 4 Inspection and Monitoring

15.12.400 Scope of Inspections.

15.12.430 Monitoring Requirements for Industrial Facilities.

15.12.435 Reporting Requirements.

15.12.438 Confidentiality of Information.

15.12.440 Record Retention.

15.12.450 Fees.

Article 5 Enforcement

15.12.500 Enforcement at Construction Sites with Building Permits.

15.12.505 Notice of Violation.

15.12.520 Cease and Desist Orders.

15.12.525 Enforcement Actions—Content.

15.12.530 Delivery of Notice.

15.12.540 Administrative Appeals.

15.12.543 Conduct of Administrative Hearings—Generally.

15.12.545 Form and Contents of Decision—Finality of Decision.

15.12.548 Procedures for Collection of Administrative Civil Penalty.

15.12.549 Actions Not Prohibited.

15.12.550 Nuisance and Abatement.

15.12.555 Enforcement Policy.

15.12.560 Administrative Civil Penalties.

15.12.570 Criminal Penalties.

15.12.580 Miscellaneous Enforcement Provisions.

Article 6 Recovery of Cost Abatement

15.12.600 Costs of Abatement—Confirmation.

15.12.610 Costs—Assessments.

15.12.620 Treble Costs.

15.12.630 Hearing of Protests.

15.12.640 Assessment for Summary Abatement.

15.12.650 Time for Contest of Assessment.

15.12.660 Filing Copy of Report With County Auditor.

Article 1 General Provisions

15.12.105 Title.

This Chapter shall be known as the “stormwater Ordinance.” (SCC 1280 § 2 (part), 2004)

15.12.110 Findings.

a. The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the Waters of the United States by extending National Pollutant Discharge Elimination System (NPDES) requirements to stormwater and urban runoff discharge into the County storm drain system.
b. The State Water Resources Control Board (“State Board”) is the State water pollution control agency for all purposes of the Clean Water Act pursuant to Section 13160 of the California Water Code. The State Board is authorized by the United States Environmental Protection Agency to administer the NPDES program within the State. The Porter-Cologne Water Quality Control Act (Water Code section 13000 et seq.) provides authority for the State NPDES program, including provisions to issue NPDES Permits and Waste Discharge Requirements to regulate discharges of stormwater to waters of the State.
c. Stormwater flows from individual properties to the County storm drain system and then ultimately to the waters of the State.
d. The County is a co-permittee under the Waste Discharge Requirements for County of Sacramento and cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento, Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County (Order No. R5-2002-0206), dated December 6, 2002, which also serves as a National Pollutant Discharge Elimination System Permit under the Federal Clean Water Act (NPDES No. CAS082597). As a co-permittee, the County is required to possess the necessary legal authority, and to implement appropriate procedures, to regulate the entry of pollutants and non-stormwater discharges into and from the County storm drain system.
e. The County’s Municipal Stormwater Permit requires the County effectively to prohibit non-stormwater discharges from the unincorporated urbanized area of the County into the County storm drain system except as otherwise permitted by federal law.
f. Non-stormwater discharges and stormwater pollutants that are discharged directly to waters of the State without passing through the County storm drain system are not subject to the requirements of the Municipal Stormwater Permit. However, such discharges have the potential to degrade water quality and impact the quality of life for the people of the County. Regulation of such discharges by the County provides benefits to its people and protects the local environment.

g. The Board finds in this regard that the provisions of this Chapter are necessary to provide the County with the legal authority necessary to implement and otherwise comply with the requirements of its Municipal Stormwater Permit and to protect the waters of the State for the benefit of its people and the environment. (SCC 1295 § 1, 2005: SCC 1280 § 2 (part), 2004)

15.12.120 Purpose and Intent.

a. This Chapter is adopted pursuant to Article XI, Section 7 of the California Constitution which authorizes the County to exercise its police power to protect and promote the public health, safety and general welfare. While stormwater runoff is one step in the natural cycle of water, human activities, including, but not limited to, agriculture, construction, manufacturing and the operation of an urban infrastructure, may result in undesirable discharges of pollutants and certain sediments. Such discharges may accumulate in local drainage channels and waterways and eventually may be deposited in the natural surface waters. The purpose of this Chapter is to protect and enhance the watercourses within the unincorporated area of the County, by controlling the contribution of urban pollutants to stormwater runoff which enters the County storm drain system in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal discharge Permit No. CAS082597, and by controlling pollutants that are discharged directly to natural surface waters.
b. It is the intent of the Board in adopting this Chapter to provide the County with the legal authority to accomplish the following goals:
1. To benefit the people and environment of the County by protecting water quality in waters of the State;
2. To reduce the discharge of pollutants in stormwater to the maximum extent practicable, whether those discharges are made to the County storm drain system, or directly to natural surface waters;
3. To effectively prohibit Non-stormwater discharges into the County storm drain system or to natural surface waters;
4. To comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES Municipal Storm Water Discharge Permit #CAS082597 as they apply to the discharge of pollutants into and from the County storm drain system;
5. To fully implement the County’s stormwater Quality Improvement Plan;
6. To protect the physical integrity and function of the County storm drain system from the effects of pollutants and materials other than stormwater;
7. To prevent the contamination of groundwater as a result of pollution migration from the County storm drain system;
8. To promote cost effective management and beneficial use of sediments in the County storm drain system;
9. To protect the health and safety of maintenance personnel and the public who may be exposed to pollutants in the County storm drain system or in natural surface waters;
10. To provide for the recovery of regulatory costs incurred by the County in the implementation of this Chapter or its stormwater Quality Improvement Plan, including, but not limited to, enforcement activities, compliance assistance, inspections, investigations, sampling and monitoring; and
11. To establish appropriate enforcement procedures and penalties for violations of the provisions of this Chapter. (SCC 1280 § 2 (part), 2004)

15.12.130 Definitions.

Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and which are not specifically defined in this Chapter shall, when used in this Chapter, have the same meaning as set forth in said act or regulation.
As used in this Chapter, the following words and phrases shall have the meanings set forth below unless the context clearly indicates otherwise.
a. “Administrator” means the Administrator of the County of Sacramento’s Municipal Services Agency and his or her designees.
b. “Best management practices” or BMPs means schedules of activities, prohibition of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants to the County storm drain system or directly or indirectly to natural surface waters. BMPs shall also be defined to include structural controls, treatment controls, source controls, training requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.
c. “Board” means the Board of Supervisors of the County of Sacramento.
d. “County” means the County of Sacramento.
e. “County stormwater permit” means a permit issued to industries by the County to establish requirements intended to eliminate Non-stormwater discharges and control, reduce, or eliminate pollutants in stormwater.
f. “County storm drain system” means those public man-made facilities within the unincorporated area of the County which are owned, operated, maintained or controlled by the County by which stormwater may be conveyed to natural surface waters, including, but not limited to, any roads with drainage systems, municipal streets, catch basins, water quality basins, detention basins, constructed wetlands, artificial channels, aqueducts, curbs, gutters, ditches, sumps, pumping stations, storm drain inlets, and storm drains.
g. “Director of Water Resources” means the Director of the County’s Department of Water Resources, and his or her designees.
h. “Discharge” means the release or placement of any material into the County storm drain system or natural surface waters, including, but not limited to, stormwater, wastewater, pollutants, solid materials, liquids, hazardous waste, raw materials, debris, litter or any other substance.
i. “Discharger” means any person who discharges, or causes to discharge, either directly or indirectly, stormwater or any other material into the County storm drain system or to natural surface waters.
j. “Illicit connection” means any physical connection to the County storm drain system or natural surface waters which is not expressly authorized by the County.
k. “Implementing agency” means the agency or department designated by the Administrator to enforce the provisions of this Chapter with respect to a particular site, facility or industry category.
l. “Industry” or “industrial activity” means any service, business, enterprise, or any other activity conducted by any person for the purpose of monetary or other compensation, or in support of or promotion of such activity. This term shall also mean any similar activity conducted by a non-profit

corporation as defined by the State of California.
m. “Material” means any substance, including, but not limited to, raw materials, finished products, garbage and debris, lawn clippings, leaves and other vegetation, biological and fecal waste, sediment and sludge, oil and grease, gasoline, paints, solvents, cleaners and any fluid or solid containing chemicals.
n. “Municipal Stormwater Permit” means NPDES Permit #CAS082597, including any amendments thereto or successor permit, issued by the Regional Board to the County and the cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, and Sacramento.
o. “National Pollution Discharge Elimination System Permit” or “NPDES Permit” means a permit issued by either the Regional Board, the State Water Resources Control Board pursuant to Chapter 5.5 (commencing with Section 13370) of Division 7 of the Water Code, or the United States Environmental Protection Agency to control discharges from point sources to natural surface waters.
p. “Natural surface water” means creeks, natural ponds or lakes, wetlands, the Sacramento River, American River, Cosumnes River, Mokelumne River, Lake Natoma, or navigable waters of the delta and shall include any waters of the United States contained within the boundaries of the State. Natural surface water does not mean any wet or dry detention basin, constructed wetland, stormwater treatment facility, artificial lake or pond or other man-made body of water.
q. “Non-stormwater discharge” means any discharge to the County storm drain system or directly to natural surface waters which did not originate as surface runoff and drainage from storm events and snow melt, but essentially resulted from human activities, or materials or processes under a persons control. Non-stormwater discharges include but are not limited to discharges of: (1) water that has been used by a person for any purpose such as cleaning, rinsing, cooling, irrigation, aquaculture, recreation, cooking, and industrial processes; (2) water or wastewater that originates or flows from equipment, valves, piping, hoses, containers, tanks, or other man-made apparatus; or (3) any discharge of materials or wastes other than water.
r. “Person” means any natural person as well as any corporation, partnership, public agency, trust, estate, cooperative association, joint venture, business entity or other similar entity, or the agent, employee or representative of any of the above.
s. “Pollutant” means any contaminant or other substance which, as determined by the Administrator, is discharged or has a reasonable potential to be discharged in sufficient quantities or concentrations to cause exceedance of receiving water limitations, or otherwise cause a violation of the Municipal Stormwater Permit. Pollutant may include, but is not limited to, solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive material, dredged soil, rock, sand, industrial waste, feces, fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon, surfactants, oil and grease, petroleum hydrocarbon, organic solvents, metals, phenols, pesticides, nutrients, suspended or settleable solids, materials causing an increase in biochemical or chemical oxygen or total organic carbon, substances which alter pH, and those pollutants defined in Section 1362(6) of the Federal Clean Water Act.
t. “Potential discharger” means any person who by nature of the enterprise, activity or industry in which such person is engaged, or by the use, possession or ownership of specified types of building, facility, equipment, or materials, is determined by the Administrator to generate or have the capacity to generate pollutants, wastes, or wastewater which have significant potential to be discharged to the County storm drain system or directly to any natural surface waters.

u. “Premises” means any building, lot, parcel or land, or portion thereof, whether improved or unimproved.
v. “Prohibited non-stormwater discharge” means any non-stormwater discharge to the County storm drain system or directly to natural surface waters, which is not otherwise specifically authorized by this Chapter, the Regional Board, State or Federal law, or an NPDES Permit.
w. “Prohibited non-stormwater discharge installation” means any structure or equipment installed at a person’s premises that is not directly connected to the County drain system, but nonetheless is intended or serves to discharge or convey a prohibited non-stormwater discharge to the County storm drain system or waters of the State.
x. “Receiving water limitations” is as defined and listed in Section B.1. of the Municipal Stormwater Permit or any successor document.
y. “Receiving waters” means surface bodies of water, as defined by the Municipal Stormwater Permit, including, but not limited to, creeks and rivers, which serve as discharge points for the County storm drain system.
z. “Regional Board” means the California Regional Water Quality Control Board, Central Valley Region.
aa. “Significant industrial activity” means any industrial activity, individual industrial facility, or class of industrial facilities which is determined by the Administrator to discharge or have the potential to discharge pollutants into stormwater, or non-stormwater in quantities or concentrations which may cause exceedance of receiving water limitations, or for which a requirement has been imposed by the state or federal government on the County to conduct stormwater regulatory activities focused on the facility or activity.
bb. “Significant redevelopment” means the creation or addition of at least five thousand (5,000) square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to expansion of a building footprint, or replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces.
cc. “Specified performance requirements” means standards adopted by the County that define required conditions or results regarding the elimination of non-stormwater discharges or the control of pollutants in stormwater from specified sources.
dd. “State Construction General Permit” means the State Water Resources Control Board’s Order No. 99-08 – DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 Waste Discharge Requirements (WDRS) for discharges of Storm Water Runoff Associated With Construction Activity, and any successor documents.
ee. “State Industrial General Permit” means the State Water Resources Control Board’s “Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities” and any successor documents.
ff. “Stormwater” means surface runoff and drainage resulting from storm events and snow melt, including surface runoff and drainage that contains pollutants as a result of contact with man-made or natural sources.
gg. “Threatened prohibited non-stormwater discharge” means any condition or activity which does not currently result in a prohibited non-stormwater discharge but is nevertheless determined by the Administrator to be a condition which results in a substantial likelihood of a future prohibited non-

stormwater discharge;
hh. “Unmitigated stormwater pollutant source” means any existing condition that if left unmitigated is reasonably likely, as determined by the Administrator, to result in a discharge of pollutants in stormwater that will cause or contribute to an exceedance of receiving water limitations, harm or interfere with the County storm drain system, or otherwise pose a threat to public health and safety.
ii. “Waters of the United States” has the same meaning as set forth in Part 122.2 of Title 40 of the Code of Federal Regulations or any successor provision. (SCC 1295 § 2, 2005: SCC 1280 § 2 (part), 2004)

15.12.135 Construction.

The provisions of this Chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and any acts amendatory thereof or supplementary thereto, applicable implementing regulations, and NPDES Permit # CAS082597 and any amendment, revision or re-issuance thereof. In the event of a conflict between this Chapter and any federal or state law, regulation, order or permit, the requirement which establishes the higher standard for public health and safety shall govern. (SCC 1280 § 2 (part), 2004)

15.12.140 Applicability.

The provisions of this Chapter shall be applicable to all dischargers and potential dischargers located within the unincorporated area of the County and all dischargers or potential dischargers that discharge either directly or indirectly into the County storm drain system. This Chapter shall also apply, within the unincorporated area of the County, to stormwater and Non-stormwater discharges made directly to natural surface waters. This Chapter shall not be applicable to discharges occurring outside the unincorporated area of the County.
This Chapter shall apply to facilities subject to the State Construction General Permit; the pollutant control provisions of the County Erosion and Sediment Control Ordinance, County Grading permit, or a Building Permit; or any other instrument of the County that establishes pollutant control provisions for construction sites. However, compliance with the requirements of these permits and the Erosion and Sediment Control Ordinance shall constitute compliance with this Chapter.
This Chapter shall not apply to activities conducted by or facilities operated by the State of California or by agencies of the Federal Government. (SCC 1280 § 2 (part), 2004)

15.12.150 Regulatory Consistency.

The provisions of this Chapter shall take precedence over and are controlling with respect to any conflicting or inconsistent provisions in this Code. (SCC 1280 § 2 (part), 2004)

15.12.160 Compliance Disclaimer.

Compliance by any person with the provisions of this Chapter shall not preclude the need to comply with other local, state or federal statutory or regulatory requirements relating to the control of pollutant

discharges or protection of stormwater quality, or both. (SCC 1280 § 2 (part), 2004)

15.12.170 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Chapter. The Board hereby declares that it would have adopted this Chapter and each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof without regard to whether any other section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter would subsequently be declared to be invalid or unconstitutional. (SCC 1280 § 2 (part), 2004)

15.12.180 Administration.

Except as otherwise provided herein, the authority to implement this Chapter is vested in the Administrator who shall be responsible for the administration, implementation and enforcement of the provisions of this Chapter. Unless otherwise specified herein, any powers granted to or duties imposed upon the Administrator may be delegated by the Administrator to other County employees or, upon the approval of the Board, to employees of other public agencies. (SCC 1280 § 2 (part), 2004)

15.12.190 Disclaimer of Liability.

The degree of protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific, engineering and other relevant technical considerations. The standards set forth herein are minimum standards and this Chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into natural surface waters. This Chapter shall not create liability on the part of the County or any officer or employee thereof for any damages that result from reliance on this Chapter or any administrative decision lawfully made there under. (SCC 1280 § 2 (part), 2004)

Article 2 Prohibited Discharges

15.12.200 Prohibited Non-Stormwater Discharge.

Except as provided in Section 15.12.210, it shall be unlawful for any person to make or cause to be made any Non-stormwater discharge into the County storm drain system or directly to natural surface waters. (SCC 1280 § 2 (part), 2004)

15.12.210 Exceptions To Non-Stormwater Discharge Prohibition.

The following discharges to the County storm drain system are exempt from the otherwise applicable

discharge prohibition set forth in Section 15.12.200:
a. Any discharge regulated under a NPDES Permit issued to the discharger, and administered by the State pursuant to Chapter 5.5 of Division 7 of the Water Code, provided that any such discharge is in compliance with all requirements of the NPDES Permit and all other applicable laws and regulations.
b. Any discharge from any of the following activities provided that any such discharge does not cause or contribute to the violation of any receiving water limitation as determined by the Administrator:
1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising ground waters;
5. Uncontaminated ground water infiltration [as defined in 40 CFR 35.2005(20)] to separate storm sewers;
6. Uncontaminated pumped ground water;
7. discharges from potable water sources;
8. Foundation drains;
9. Air conditioning condensate;
10. Uncontaminated irrigation water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Lawn watering;
15. Individual residential car washing;
16. Flows from riparian habitats and wetlands;
17. Dechlorinated swimming pool discharges; or
18. discharges or flows from emergency fire fighting activities.
c. Any discharges which the Administrator, the County Health Officer or the Regional Board determines in writing are necessary for the protection of public health or safety.
d. Additional categories of non-stormwater discharges which do not cause or contribute to the violation of any receiving water limitation may be excepted from the otherwise applicable prohibition by the Administrator upon approval of the Executive Officer of the Regional Board, as provided in the Municipal Stormwater Permit, or any successor permit. (SCC 1280 § 2 (part), 2004)

15.12.220 Exception to Otherwise Applicable Exemptions.

Notwithstanding the exemptions provided for in Section 15.12.210 above, if the Regional Board or the Administrator determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any receiving water limitation or results in the conveyance of significant quantities of pollutants to natural surface waters, or is otherwise a danger to public health or safety, the Administrator may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue following expiration of the thirty (30) day period commencing upon delivery of the notice. Upon expiration of such thirty (30) day period, any such discharge shall be unlawful. Upon finding that any continuance of the discharge poses an immediate significant threat to the environment or to public health and safety, the Administrator may

waive the thirty day waiting period and require immediate cessation of the discharge. (SCC 1280 § 2 (part), 2004)

15.12.230 Prohibited Stormwater Discharges.

It shall be unlawful for any person to discharge, or cause to be discharged, any stormwater or material to the County storm drain system which results in, or contributes to a violation of a receiving water limitation or a violation of the Municipal Stormwater Permit. (SCC 1280 § 2 (part), 2004)

15.12.240 Prohibited Conditions.

a. In the interest of preventing prohibited discharges from occurring, it shall be unlawful for any person to maintain, or cause to be maintained, any of the following conditions:
1. Unmitigated stormwater pollution source;
2. Threatened prohibited non-stormwater discharge;
3. Prohibited non-stormwater discharge Installation; or
4. Illicit connection.
b. Illicit connections shall be subject to removal and abatement by the County pursuant to this Chapter and Title 16 of this Code.
c. The prohibition set forth in subsection (a)(4) above shall apply to illicit connections in existence at the time that this Chapter becomes effective. Upon the effective date of this Chapter, any person who maintains an illicit connection shall have thirty (30) days from the effective date of this Chapter to disconnect and discontinue use of such connection. Notwithstanding the provisions of this section, any person who maintains an illicit connection, as defined in Section 15.12.130, may apply to the County for a Sacramento County Water Agency Permit to continue the connection subject to applicable County standards. No permit shall be issued for any connection or any physical facility or apparatus that is installed, intended, serves, or is known to convey a prohibited discharge to the County storm drain system or waters of the State. (SCC 1295 § 3, 2005: SCC 1280 § 2 (part), 2004)

15.12.250 Negligence or Intent Not Required.

A violation of the provisions of this Article shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge. (SCC 1280 § 2 (part), 2004)

Article 3 Reduction of Pollutants in Stormwater

15.12.300 General Requirements for Best Management Practices.

Any person engaged in activities which may result in pollutants entering the stormwater conveyance system shall, to the maximum extent practicable, undertake BMPs to reduce the risk of Non-stormwater discharge and/or pollutant discharge. (SCC 1280 § 2 (part), 2004)

15.12.302 Significant Industrial Activities.

a. The Administrator may designate as significant industrial activities those industrial activities or facilities which are identified as potentially significant sources of discharges of pollutants to the County storm drain system. A significant industrial activity may occur at stationary facilities or as a mobile activity that takes place at various job sites.
b. Industries for which the Municipal Stormwater Permit specifies that the County shall conduct routine inspections, or which are listed in Municipal Stormwater Permit provision 9 ii c, are hereby designated as significant industrial activities.
c. Notwithstanding subsection (b) of this section, food establishments, as defined in the Section 113780 of the State of California Health and Safety Code, shall not be designated as significant industrial activities.
d. Significant industrial activity designations that apply only to individual facilities may be made by the Administrator and are subject to appeal under section 15.12.540 of this Chapter.
e. Significant industrial activity designations made by the Administrator pursuant to subsection (a) of this section that apply to classes of activities or facilities shall be subject to the requirements of Section 15.12.330 of this Chapter governing the adoption of regulations. (SCC 1295 § 4, 2005: SCC 1280 § 2 (part), 2004)

15.12.305 County Stormwater Permit.

a. The Administrator may require the owner or operator of a significant industrial activity to obtain a County stormwater permit, which may establish any provisions necessary for the implementation of this Chapter, effective control of stormwater pollutants and non-stormwater discharges, and compliance with the Municipal Stormwater Permit. Provisions may include but are not limited to applicable specified performance requirements; and reporting, documentation, training, and monitoring requirements.
b. Notwithstanding subsection (a) of this Section, food establishments, as defined in the State of California Health and Safety Code Section 113780, and industrial facilities required to obtain coverage under the State Industrial General Permit shall not be required to obtain a County stormwater permit.
c. The County stormwater permit shall describe the aspects of business to which it applies, which may include but are not limited to areas, equipment, buildings, industrial processes, or activities of the business.
d. Any person who continues to own or operate a significant industrial activity without obtaining a County stormwater permit if required by the Administrator, shall be in violation of this Chapter.
e. The Administrator may establish permit fees, according to the provisions of Section 15.12.450 of this Chapter, to fund the County’s costs associated with regulating the permitted activity, including but not limited to administration, inspection, enforcement, compliance assistance, and outreach
f. The Administrator may revoke a County stormwater permit for significant violations of this Chapter. Prior to issuance or revocation of any permit, the Administrator shall establish, as part of the enforcement policy required by Section 15.12.555, written policy regarding permit administration, including timelines and criteria for permit revocation and permit reinstatement. Permit revocation and reinstatement decisions by the Administrator shall be subject to appeal under Section 15.12.540 of this

Chapter. (SCC 1280 § 2 (part), 2004)

15.12.310 Containment and Notification of Spills.

a. Any person owning or occupying a premises, or conducting any activity, that has knowledge of any non-stormwater discharge or threatened prohibited discharge, from the premises or activity to the County stormwater conveyance system shall immediately take all reasonable action to contain and otherwise minimize any such discharge.
b. The Administrator may designate individual facilities or types of industries where the owner or operator of the Industry shall be required to notify the Administrator or the implementing agency within twenty-four (24) hours of the discovery of an actual discharge into the County stormwater conveyance system.
c. For any discharge subject to the reporting requirements of the State of California Water Code sections 13271 and 13272, notification in compliance therewith shall constitute sufficient notification for the purposes of this Section. (SCC 1295 § 5, 2005: SCC 1280 § 2 (part), 2004)

15.12.320 Specified Performance Requirements for Industrial Activities.

a. The Administrator may establish specified performance requirements for significant industrial activities that are intended to apply to a class or classes of industries. Such requirements shall be subject to the provisions for adoption of regulations under Section 15.12.330 of this Chapter.
b. The Administrator may impose specified performance requirements that apply to single facilities. Such requirements shall be subject to appeal under Section 15.12.540 of this Chapter.
c. Any facility that it is in compliance with its State or Federal NPDES Permit for stormwater discharges for that facility shall be deemed to have met the requirements of Section 15.12.300, except that any specified performance requirements applicable to such facilities shall also be met. (SCC 1280 § 2 (part), 2004)

15.12.322 Construction Sites With Building Permits.

Any person owning or operating a construction site for which a building permit has been issued shall implement BMPs to control the discharge of pollutants to the maximum extent practicable, and eliminate non-stormwater discharges that are not in compliance with an NPDES Permit. (SCC 1280 § 2 (part), 2004)

15.12.325 Post Construction Requirements for New Development and Significant Redevelopment.

a. The Administrator shall be authorized to establish specified performance requirements and requirements for BMPs as appropriate to minimize the long-term, post construction discharge of stormwater pollutants from new development or significant redevelopment, to implement the development standards plan, and to comply with the requirements associated with development standards in the Municipal Stormwater Permit, including but not limited to Provisions 16 through 26.

The requirements for new development or redevelopment may include but are not limited to performance standards, source control BMPs, treatment BMPs, structural BMPs, operational BMPs, building material specifications or limitations, site design requirements, signage and marking, and associated maintenance programs or schedules.
b. Requirements established pursuant to subsection (a) of this section may be included in development standards, building codes, building permits, conditions of development, or any other appropriate instrument administered by the County. (SCC 1280 § 2 (part), 2004)

15.12.327 BMP Maintenance Requirements.

The Administrator may require a property owner to establish, document, and conduct a maintenance program, subject to approval, for any BMP or to ensure continued compliance with specified performance requirements. This requirement may apply to BMPs required by the County or BMPs that were voluntarily installed. Such a maintenance program may be required when the Administrator determines that proper maintenance is necessary to protect public safety, health, infrastructure, or the environment, or to otherwise meet the purposes of this Chapter. Maintenance requirements established pursuant to this subsection must be appropriate for the site conditions and design of BMPs. (SCC 1295 § 6, 2005: SCC 1280 § 2 (part), 2004)

15.12.330 Administrative Rules and Regulations.

a. The Administrator shall have the authority to promulgate regulations for the implementation of this Chapter. Prior to the Administrator's initiation of any proposed regulations, the Administrator shall submit a public input plan to the Board for its approval. The public input plan approved by the Board shall be generally applicable to the promulgation of regulations by the Administrator.
b. All regulations promulgated by the Administrator shall be consistent with the provisions of this Chapter. Any such regulations, or amendments thereof, shall be filed with the Clerk of the Board. The Clerk shall cause announcement of said rules or regulations to be published in a newspaper of general circulation within ten calendar days. Such announcements shall provide a reasonable summary of the content of the rule. In addition, the Administrator shall make a reasonable effort to identify, notify, and provide copies to any industries which are specifically designated by the Administrator as subject to a rule or regulation. However, neither the failure of the Administrator to provide such notice nor the failure to receive individual notice shall exempt an industry from that rule or regulation. No regulations promulgated by the Administrator or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which notification of the regulations are published.
c. Any person who asserts that he or she is aggrieved by the terms or application of a regulation issued pursuant to this section may appeal the issuance of such regulation by filing a written notice of appeal with the Clerk of the Board. The notice of appeal shall specifically identify the regulation or regulations from which the appeal is taken and the reasons for the appeal. Upon receipt of such notice, the Clerk of the Board shall schedule the appeal for a public hearing by the Board. At the conclusion of the public hearing the Board shall be vested with jurisdiction to deny the appeal or to rescind or modify the regulation. The Board's determination in this regard shall be final.
d. Any regulation from which an appeal is filed prior to its effective date shall not become effective until

the date of a determination by the Board of the appeal. Any regulation from which an appeal is filed on or subsequent to the effective date thereof shall remain in full force and effect during the pendency of the appeal, and any decision which rescinds or modifies the regulation shall apply prospectively. (SCC 1280 § 2 (part), 2004)

Article 4 Inspection and Monitoring

15.12.400 Scope of Inspections.

a. Prior to commencing any inspection authorized pursuant to this Chapter, the Administrator shall obtain the consent of the owner or occupant of the premises, an inspection warrant or a criminal search warrant.
b. The Administrator may conduct inspections related to purposes of implementing this Chapter on private or public property. Inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Chapter, including, but not limited to, compliance with requirements of the Municipal Stormwater Permit, visual evidence, complaints received, knowledge or physical evidence of industrial activities or other pollutant sources, random sampling, sampling in areas with evidence of stormwater contamination, illicit connections, discharge of non-stormwater to the County storm drain system or similar factors.
c. The Administrator may enter upon private property to investigate the source of any discharge to any public street, inlet, gutter, storm drain or the County storm drain system.
d. The Administrator may enter upon private property for the purpose of verifying compliance with the provisions of this Chapter, including, but not limited to, the following:
1. Identifying products produced, processes conducted, chemicals used and materials stored on or contained within the property;
2. Identifying point(s) of discharge of all wastewater, process water systems, pollutants and other discharges from the property;
3. Investigating the drainage patterns of the premises, including natural and graded slopes, and artificial conveyance systems;
4. Establishing the location of all points of discharge from the property, whether by surface run-off or through a storm drain system;
5. Locating any prohibited condition, illicit connection, or the source of any prohibited discharge; and
6. Evaluating implementation of BMPs.
e. For purposes of verifying compliance with the provisions of this Chapter, the Administrator may inspect any vehicle, truck, trailer, tank truck or other mobile equipment, or any stationary equipment, which may reasonably be believed to be used by the business for business-related activities and to be associated with industrial sources of pollutants or with non-stormwater discharges.
f. The Administrator may inspect and copy all records of the owner or occupant of any premises relating to chemicals or processes presently or previously occurring on-site, including materials and/or chemical inventories, facilities maps or schematics or diagrams, material safety data sheets, hazardous waste manifests, business plans, pollution prevention plans, state general permits, monitoring program plans or any other records relating to illicit connections, prohibited discharges or the potential discharge of pollutants to the County storm drain system. In addition, the Administrator may require the owner or

occupant to furnish, within a reasonable time period, copies of all such records.
g. The Administrator may inspect, sample and test any area runoff, soils area (including any groundwater testing), process discharge, materials within any waste storage area (including any container contents), and/or treatment system discharge for the purpose of determining the potential for the contribution of pollutants to the County storm drain system. The Administrator may investigate the integrity and layout of all storm drain and sanitary sewer systems or other pipelines on the premises using appropriate tests, including, but not limited to, smoke and dye tests or video surveys. The Administrator may take photographs or video tape, make measurements or drawings, and create any other record reasonably necessary to document conditions on the premises.
h. The Administrator may erect and maintain monitoring and sampling devices for the purpose of measuring any discharge or potential source of discharge to the County storm drain system. (SCC 1295 § 7, 2005: SCC 1280 § 2 (part), 2004)

15.12.430 Monitoring Requirements for Industrial Facilities.

a. The Administrator may require industries, at their own expense, to conduct and report monitoring of stormwater and non-stormwater discharges from their facilities and operations, for purposes necessary for the implementation of this Chapter or compliance with the Municipal Stormwater Permit. The goals of monitoring may include but are not limited to characterization of known and potential pollutant sources, pollutant content of discharges, and BMP effectiveness. Required forms of monitoring may include but are not limited to toxicity, flow, and analysis of pollutant concentrations.
b. The Administrator may designate specific monitoring requirements and/or require the discharger or potential discharger to submit a monitoring plan that describes specific monitoring requirements. Specific monitoring requirements may include sampling points, sampling times or deadlines, analysis and sampling methods, frequencies, storm event criteria, and other specifications necessary to ensure timely, adequate, accurate, and representative monitoring;
c. The discharger or potential discharger shall ensure that the integrity of the sample is protected at all times, including collection, handling, splitting, transport, and storage. Deliberate tampering with or altering of a sample shall be a violation of this Chapter.
d. The Administrator may specify information that must be documented in association with any sampling and monitoring event. At a minimum, unless otherwise allowed by the Administrator, the discharger or potential discharger shall record and maintain the following information for each sampling event:
1. The date, exact place, method and time of sampling;
2. The name, title, and employer of the person or persons taking the samples;
3. Sample preservation used;
4. The dates analyses were performed;
5. Sample chain of custody forms;
6. Who performed the analyses;
7. Analytical methods used, including detection limits;
8. Quality assurance and quality control documentation;
9. Laboratory reports of analytical results;
10. Any unusual observations or conditions noted during sample acquisition or analysis.

e. Any information submitted pursuant to this section shall be subject to the approval of the Administrator and the Administrator may require additional information if the Administrator determines the information submitted is incomplete or insufficient. (SCC 1280 § 2 (part), 2004)

15.12.435 Reporting Requirements.

a. The Administrator may require any person to report information for purposes related to the purpose and intent of this Chapter. Required information may include but is not limited to the following: characterization of industrial activities; compliance with this Chapter, compliance with a County stormwater permit; compliance with State General Permit requirements; compliance with the County stormwater Ordinance; compliance with administrative enforcement orders or other enforcement actions; discharge monitoring; training; and BMP implementation, effectiveness, and maintenance.
b. The Administrator may require information to be submitted on an as needed basis, or according to a specific schedule as specified in a County stormwater permit.
c. The Administrator may require submitted information to be compiled, summarized, analyzed or organized in a reasonable manner that facilitates its interpretation or other use. As necessary to facilitate the use of information, the Administrator may also specify the medium and format of required submittals.
d. Failure to provide information in a timely manner as required by the Administrator, or knowingly or negligently concealing, destroying, or providing false information shall be a violation of this Chapter. (SCC 1295 § 8, 2005: SCC 1280 § 2 (part), 2004)

15.12.438 Confidentiality of Information.

a. Information and data on a discharger or potential discharger obtained from inspections, reports, questionnaires, applications, permits, monitoring programs, records, or any other form of submittal to the County shall be available to the public or other governmental agency without notification unless the discharger or potential discharger specifically requests confidentiality as to any portion thereof and is able to demonstrate to the satisfaction of the Administrator that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the discharger or potential discharger. Stormwater and non-stormwater discharge constituents and characteristics will not be recognized as confidential information, and effluent data shall be available to the public without restriction.
b. When requested by a discharger or potential discharger furnishing information to the County, and agreed to by the Administrator, the portions of that information which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available to the County and other governmental agencies for uses related to the ordinance codified in this Chapter, the National Pollutant Discharge Elimination System (NPDES) and/or the pretreatment program, and enforcement of other environmental regulatory programs. Those portions of the information shall also be available for use by the state or any state agency in judicial review or enforcement proceedings involving the discharger or potential discharger furnishing the information.
c. Information and data requested from a discharger or potential discharger which the discharger or potential discharger believes to be proprietary and the release of which to the public would substantially

impair the operations or business interests of the discharger or potential discharger, may alternatively be provided to the County for its review at the facility of the discharger or potential discharger rather than provided to the County for its keeping, at the discretion of the County. The burden will be on the discharger or potential discharger to demonstrate to the satisfaction of the County that such information is proprietary and that this alternative procedure is necessary or appropriate and will not prevent the County from properly carrying out the objectives of this Chapter

d. In the event access to or disclosure of any such confidential or proprietary information is requested pursuant to an action brought under federal or state laws, the County shall have the option, in its sole discretion, of defending itself in such action or requiring the discharger or potential discharger to provide a defense. If the County makes written tender upon a discharger or potential discharger to defend such an action with counsel acceptable to County and such discharger or potential discharger does not appear in and assume the defense of such action within the time specified in the tender, the County shall be free to disclose the information to the party making request therefore. In any event, the discharger or potential discharger shall be liable to the County in defending such action and for any judgment rendered against the County in such action. Payment of all such amounts shall be made by the discharger or potential discharger within thirty (30) days of billing by the County. (SCC 1295 § 9, 2005: SCC 1280 § 2 (part), 2004)

15.12.440 Record Retention.

Any reports, data, or other records and documentation required by the Administrator of a discharger to be collected or submitted for characterizing discharges, demonstrating compliance with this Chapter, or otherwise related to the purposes of this Chapter, shall be retained at the discharger’s premises and made readily available to the Administrator for a period of not less than three years. (SCC 1295 § 10, 2005)

15.12.450 Fees.

The Administrator shall collect such fees as may be established by the Board to provide for the recovery of regulatory costs, including routine inspections and other regulatory functions associated with this Chapter. Any such fees shall be established by resolution of the Board. Failure to pay required fees within the time period set in policy established by the Administrator shall be a violation of this Chapter. There shall be no fee assessed to appeal the determination that a person conducts any significant industrial activity. (SCC 1280 § 2 (part), 2004)

Article 5 Enforcement

15.12.500 Enforcement at Construction Sites with Building Permits.

Any person found to be in violation of any provision of this Chapter in connection with activities subject to a building permit issued pursuant to Title 16 of the Sacramento County Code, shall be subject to the enforcement provisions of both this Chapter and Title 16. (SCC 1295 § 11, 2005: SCC 1280 § 2 (part), 2004)

15.12.505 Notice of Violation.

The Administrator may issue a notice of violation to any person found to be in violation of a provision of this Chapter, including any regulation, permit, information request, order, variance, or other requirement that the Administrator is authorized to enforce or implement pursuant to this Chapter. (SCC 1280 § 2 (part), 2004)

15.12.520 Cease and Desist Orders.

a. Any violation of this Chapter in which the Administrator also determines that the violation constitutes an immediate threat to public health or safety, including by way of illustration and not limitation, significant harm to human or aquatic life or to the County storm drain system or natural surface waters, may result in an order to immediately cease and desist all activities causing such immediate threat.
b. A cease and desist order shall direct the owner or occupant of any premises subject to this Chapter, or any person named therein which is subject to this Chapter, to immediately discontinue all or specified prohibited conditions or discharges to the County storm drain system, natural surface waters, or otherwise, until such time as abatement actions sufficient in the determination of the Administrator have been satisfactorily effected and so confirmed by written amendment to said cease and desist order.
c. Any cease and desist order may be appealed pursuant to the administrative appeals process of this Chapter; provided, however, the effect of the cease and desist order shall remain in effect pending final determination thereof. Nothing shall limit the Administrator's authority to continue enforcement actions under a pending cease and desist order, including modifying a cease and desist order consistent with the purpose and intent of this Chapter.
d. Any cease and desist order shall be cumulative with all of the remedies in this Chapter and as provided by law.
e. A cease and desist order shall inform the discharger of the Administrator's authority and intent to conduct abatement of the violation or threatened violation according to Section 15.12.550, if the discharger fails to comply with the requirements of the order within the specified time frame.
f. If the discharger fails to comply with a cease and desist order within the time specified in the order, the Administrator may conduct abatement of the violation according to Section 15.12.550.
g. Nothing in this section requires the Administrator to issue a cease and desist order before conducting summary abatement as provided under Section 15.12.550. (SCC 1295 § 12, 2005: SCC 1280 § 2 (part), 2004)

15.12.525 Enforcement Actions—Content.

a. In addition to any other content, a notice of violation, or a cease and desist order shall contain the following elements:
1. A statement of the Administrator's findings that indicates a violation has occurred.
2. A citation of the provision of this Chapter that has been violated.
3. A date by which any person must be in compliance with this Chapter, or a date by which an action plan must be submitted by the person to propose a means and time frame by which to correct violations.

The Administrator may extend the compliance date when good cause exists for such an extension.
4. Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.
5. Notification that the County may recover any costs incurred by the County as a result of the violation.
6. Notification that a violation of this Chapter may result in an administrative civil penalty of up to five thousand dollars ($5,000.00) per violation for each day that the violation occurs, or in criminal penalties.
7. Notification that the recipient has a right to a hearing on the matter as set forth in Section 15.12.540 of this Chapter, to determine the enforcement of any administrative civil penalty sought by the Administrator, or to appeal any findings or required corrective actions established by the Administrator.
8. Notification of hearing dates, appeal deadlines, and procedures for requesting a hearing established according to Section 15.12.540 of this Chapter.
b. In addition to any other content, a notice of violation, or a cease and desist order, or a notice of administrative civil penalty may establish required corrective actions, including the following:
1. Terms, conditions, and requirements reasonably related to the provisions of this Chapter, including the following:
A. Cessation of illicit discharges.
B. Correction of prohibited conditions.
C. A requirement for submittal of a written action plan for achieving and maintaining compliance with this Chapter. The Administrator may require the action plan to address specific items, including the following:
i. Specific time schedules for compliance;
ii. Description of BMPs that will be implemented for containment, cleanup, removal, storage, or proper disposal of any material having the potential to contribute pollutants to stormwater runoff;
iii. Identification of persons responsible for compliance with this Chapter.
D. Reporting requirements to demonstrate ongoing compliance.
2. A requirement that the person receiving same shall submit written certification to the Administrator that the necessary corrective actions have been completed. As appropriate for the type of correction action taken, the notice of violation may require documentation that substantiates the certification, including but not limited to receipts, contracts, or photographs.
3. Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this Chapter.
c. A notice of violation, a cease and desist order, or a notice of administrative civil penalty may be issued separately or in combination with another notice or order for the same violations or set of related violations. (SCC 1295 § 13, 2005: SCC 1280 § 2 (part), 2004)

15.12.530 Delivery of Notice.

Any notice of violation, cease and desist order, permit revocation, notice of administrative civil penalty or other enforcement action pursuant to the requirements of this Chapter shall be subject to the following requirements:
a. Delivery shall be deemed complete upon either personal delivery to the recipient or by deposit in the U.S. Mail postage pre-paid for first class delivery.
b. Where the recipient of the notice or order is the owner of the premises, the address for notice or order

shall be the address from the most recently issued equalized assessment roll for the premises.
c. Where the owner or occupant of any premises cannot be located after reasonable efforts of the Administrator, the notice or order shall be deemed delivered after posting on the premises for a period of ten (10) business days. (SCC 1295 § 14, 2005: SCC 1280 § 2 (part), 2004)

15.12.540 Administrative Appeals.

a. Administrative hearings and appeals under this Chapter shall be to a Hearing Officer appointed pursuant to Government Code section 27720 et seq. Each Hearing Officer shall also meet the requirements of Government Code section 11425.30 and any other applicable restriction.
b. Any person served with a notice or order pursuant to this Chapter shall be provided an opportunity for a hearing prior to enforcement of an administrative civil penalty; or to appeal required corrective actions or the Administrator's findings of a violation of this Chapter.
1. Appeal Hearing. If a notice of violation or a cease and desist order is issued, but not concurrently with a notice of administrative civil penalty, the person who receives it shall be afforded an opportunity for a hearing to appeal the Administrator's findings or required corrective actions in the manner described in the following subsections:
A. To appeal the Administrator's findings, required corrective actions, or any provision of a notice or order, the person shall file a written request for hearing. The filing period for a request for hearing shall be set in written policy by the Department issuing the notice or order adopted pursuant to 15.12.330, but shall in no case be less than fifteen (15) calendar days. Any notice or order shall notify the recipient of the specific date by which the notice must be filed. The request for hearing shall be filed with the party issuing the notice or order at the address so designated on the notice and must be accompanied by payment of the Hearing Officer fee, established and amended from time to time by the Administrator based upon actual expense. If the person filing a request for hearing prevails on appeal, then the Hearing Officer fee will be refunded by the Administrator. A request for hearing shall be deemed filed within the filing period if it is postmarked within that period. If a request for hearing is not filed within the proscribed filing period, the notice, order or other action or determination by the Administrator shall become final.
B. Except as provided in subsection (b)(1)(C) of this section, within ninety (90) calendar days of receipt of the request for hearing by the Administrator, the hearing shall be scheduled by the Administrator with a Hearing Officer designated by the Administrator, who shall conduct the hearing in accordance with Chapter 4.5 (commencing with Section 11400) of Part 1 of Division 3 of Title 2 of the Government Code, and the Administrator shall have all the authority granted to an agency by those provisions. Except as provided in subsection (b)(1)(C) of this section, the Hearing Officer shall issue a decision within sixty (60) calendar days after the completion of any hearing conducted pursuant to this section.
C. When a cease and desist order is issued pursuant to this Chapter, the hearing shall be scheduled by the Administrator with a Hearing Officer within fifteen (15) calendar days of receipt by the Administrator of the request for hearing. The Hearing Officer shall issue a decision within fifteen (15) calendar days after the completion of any hearing conducted pursuant to this subsection.
2. Administrative Civil Penalty Hearing. If the Administrator issues a notice of administrative civil penalty, prior to enforcement of any penalty, the person receiving the notice shall be afforded an opportunity for a hearing. The notice shall establish a time, date and place for the hearing before a

Hearing Officer, as follows.
A. The date for the hearing which shall be no less than thirty (30) calendar days and no more than ninety (90) days from the date of the notice, except that if the notice is issued concurrently with a cease and desist order, the hearing date shall be no more than forty-five (45) days from the date of the notice.
B. Alternative dates for the hearing may be established by mutual consent of the person and the Administrator, or as ordered by the Hearing Officer.
3. Combined Hearing. An appeal hearing may be consolidated with a hearing for an administrative civil penalty, as follows:
A. If a notice of administrative civil penalty is issued concurrently with a notice of violation or cease and desist order for the same violation or a related set of violations, and if the person files a request for hearing, according to the procedures established in subsection (b)(1)(A) of this Section, the appeal hearing shall be conducted in conjunction with the administrative civil penalty hearing.
B. If a notice of administrative civil penalty is not issued concurrently with a notice of violation or cease and desist order, but is issued within a reasonably close period of time for the same violation or a related set of violations, and if the person receiving the notice or order files a request for hearing according to the procedures established in subsection (b)(1)(A) of this Section, the appeal hearing may be conducted in conjunction with the administrative civil penalty hearing, at the discretion of the Hearing Officer.
4. Recovery of Hearing Costs. The Administrator may recover the costs incurred by the County for hearings as follows:
A. Cost for Appeal Hearing. For appeal hearings, the provisions of Section 15.12.450 notwithstanding, the Administrator shall set a standard fee to be paid by the person at the time that the request for hearing is filed. The purpose of the fee is to recover the County's costs, or portion thereof, for the Hearing Officer. If the person filing a request for hearing prevails on appeal, then the hearing officer fee will be refunded by the Administrator. In addition, by order of the hearing officer, the County may be awarded its costs, including hearing officer fees above and beyond the standard fee, staff time, and attorneys' fees, in defending against an unsuccessful appeal brought without substantial merit, which costs may be charged jointly and severally against the appellants and recovered as costs of enforcement as provided herein. Such an award must be based upon a finding supported by a preponderance of the evidence that the appeal was without substantial merit or was taken for the sole purpose of delay.
B. Costs for Administrative Civil Penalty Hearing. If the County prevails in seeking an administrative civil penalty, by order of the hearing officer, the County may be awarded costs incurred while seeking the penalty, including hearing officer fees, staff time, and attorneys' fees.
5. If the Administrator finds that a violation(s) may pose an imminent and substantial endangerment to the public health or safety or the environment, any required corrective action established by a notice or order issued under this Chapter that are intended to correct such violations, shall take effect upon issuance, regardless of the filing of a request for hearing.
c. Administrative hearings for matters concerning this Chapter shall be conducted according to Sections 15.12.540 through 15.12.548 hereof. (SCC 1295 § 15, 2005: SCC 1280 § 2 (part), 2004)

15.12.543 Conduct of Administrative Hearings—Generally.

a. General. At the time set for hearing, the Hearing Officer shall state what the prima facie case is, what the burden of proof is, and what the range of penalties is. The Hearing Examiner shall proceed to hear

the testimony of the Administrator, the person, and other competent persons respecting the circumstances of the violation, and other relevant facts concerning the matter. The Hearing Officer shall follow the rules of procedure for conducting hearings established by this Code.

b. Record of Oral Evidence at Hearing. A record of the entire hearing proceedings shall be made by either a certified court reporter or any other means of permanent recording determined to be appropriate by the Hearing Officer. A transcript of the proceedings shall be made available to all parties upon request and upon payment of the fee prescribed therefore. Such fees may be established and revised from time-to-time by the Administrator.

c. Continuances. The Hearing Officer may, upon request of the person, a party in interest, or the Administrator, grant continuances from time to time for good cause shown, or upon his/her own motion. Any continuance granted shall in no way diminish the responsibility of the person and/or parties in interest for maintaining the premises, nor affect other requirements of this Chapter regarding time for challenging any decisions made or actions taken.

d. Oaths—Certification. The Hearing Officer or certified shorthand reporter shall administer the oath or affirmation.

e. Evidence Rules. Government Code of the State of California, Section 11513, as presently written, or hereinafter amended, shall apply to hearings conducted under this Chapter.

f. Rights of Parties. Each party may represent themselves, or be represented by anyone of their choice. Each party may appear at the hearing and offer evidence in this matter and cross examine witnesses.

g. Official Notice. In reaching a decision, official notice may be taken, either before or after submission of the case for decision, of any fact which may be judicially noticed by the courts of this state.

f. Inspection of Premises. The Hearing Officer may inspect the premises involved in the hearing prior to, during or after the hearing, provided that:

1. Notice of such inspection shall be given to the parties before the inspection is made;

2. The parties are given an opportunity to be present during the inspection;

3. The Hearing Officer shall state for the record during the hearing, or file a written statement after the hearing for inclusion in the hearing record, upon completion of the inspection, the material facts observed and the conclusion drawn therefrom; and

4. Each party then shall have a right to rebut or explain the matters so stated by the Hearing Officer either for the record during the hearing or by filing a written statement after the hearing for inclusion in the hearing record.

g. Burden of Proof. The burden of proof in hearings held pursuant to this Chapter shall be as follows:

1. In the case of any notice or order, the Administrator shall bear the burden of proof, by a preponderance of evidence, to show that a violation of this Chapter has occurred.

2. In the case of a notice of administrative civil penalty, the Administrator shall bear the burden of proof, by a preponderance of evidence, to show that a penalty should be assessed.

3. In the case of an appeal regarding the occurrence of a violation, or of required corrective actions, the appellant shall bear the burden of proof, by clear and convincing evidence, to show cause for amending or rejecting all or part of the corrective actions or requirements imposed by the Administrator by a notice or order. (SCC 1295 § 16, 2005)

15.12.545 Form and Contents of Decision—Finality of Decision.

a. Following the hearing, the hearing officer shall issue an order in writing no later than thirty (30) days from the date of the hearing, unless the time is waived by the parties. The order shall contain findings of fact and rationale appropriate to the violation and result, and a resolution of the essential issues raised, including the following:
1. Confirmation or denial of the occurrence of violations of this Chapter that are alleged by the Administrator;
2. Confirmation or rejection of any administrative civil penalty sought by the Administrator, and establishment of the monetary amount of any administrative civil penalty to be enforced.
3. Confirmation, amendment, or rejection of required corrective actions related to compliance with this Chapter that are imposed by the Administrator, but only if those requirements are appealed by the person.
b. The Hearing Officer's order concerning any administrative civil penalty shall be guided by factors including, but not limited to the following: the danger or harm to public health and safety or the environment created by the violation; actions by the person to prevent, correct, or conceal the violation; negligence; intent; recidivism; and any economic benefit associated with non-compliance.
c. The Hearing Officer's order shall uphold required corrective actions if the person fails to show clear and convincing evidence that the required corrective actions are unreasonable or unnecessary for achieving or demonstrating ongoing compliance with this Chapter. The Hearing Officer's order may amend, or reject required corrective actions, provided that compliance with this Chapter will be achieved. The Hearing Officer's order shall not address required corrective actions unless the person files a request for hearing according to the procedures established in Section 15.12.540(b)(1)(A) of this Chapter.
d. The Hearing Officer's order shall inform the person of the following:
1. If the violation is not corrected, or if any required corrective actions are not met within the time(s) required, that the violation may be abated by the County, without further notice or consent of the person or any party in interest, in such manner as may be ordered by the Hearing Officer, and the expense thereof, including all costs of enforcement, incurred by the County as a result of the person's failure to comply, shall be recoverable by the County, and may be made a lien on the subject premises pursuant to the provisions of Government Code Section 25845. Additionally, upon entry of a second or subsequent order within a two-year period finding that the person is responsible for a condition that may be abated in accordance with this Chapter and Government Code Section 25845, or any successor provision thereto, except for conditions abated pursuant to Section 17980 of the Health and Safety Code, the Hearing Officer may order the person to pay treble the costs of abatement pursuant to Government Code Section 25845.5, or any successor provision thereto.
2. The time and manner by which a person may file a challenge to the Hearing Officer's order is governed by Government Code Section 53069.4, or any successor provision thereto.
3. Failure to comply with the Hearing Officer's order shall constitute a misdemeanor and is subject to additional enforcement action, including criminal penalties and additional civil and administrative penalties.
e. The order issued by the Hearing Officer pursuant to this Section shall be effective upon issuance. A copy of the order shall be delivered by the Hearing Officer in accordance with Section 15.12.530.
f. Preparation of a record of the administrative proceeding shall be governed by the provisions of Sacramento County Code, Chapter 1.06, as presently written or hereinafter amended.
g. The provisions of Sacramento County Code, Chapter 1.06 notwithstanding, any challenge to the order

of the Hearing Officer concerning any appeal or administrative civil penalty shall be governed by Government Code Section 53069.4, or any successor provision thereto. Service of the notice of appeal authorized by Government Code Section 53069.4 on the County shall be served upon the Clerk of the Board.
h. After any notice or order made pursuant to this Chapter shall have become final, no person to whom any such order is directed shall fail, neglect or refuse to obey such order. The Administrator may pursue, through County Counsel or the District Attorney, appropriate judicial action against any person who fails to comply with any such notice or order, including charging that person with a misdemeanor offense. (SCC 1295 § 17, 2005)

15.12.548 Procedures for Collection of Administrative Civil Penalty.

a. The administrative penalty shall be due and payable within thirty (30) days after the Hearing Officer's decision is issued. If the penalty is not timely paid, the County may pursue all reasonable and legal means in collecting those sums authorized and due.
b. All administrative civil penalties collected from actions brought pursuant to this Chapter shall be paid to the County department(s) enforcing this Chapter, and shall be deposited into a special account that shall be expended to fund the activities of the department to implement the applicable provisions of this Chapter. (SCC 1295 § 18, 2005)

15.12.549 Actions Not Prohibited.

This Chapter does not do any of the following:
a. Otherwise affect the authority of the Administrator to take any other action authorized by any other provision of law.
b. Restrict the power of a city attorney, district attorney, or the Attorney General to bring, in the name of the people of California, any criminal proceeding otherwise authorized by law.
c. Prevent the Administrator from cooperating with, or participating in, proceeding specified in subsection 15.12.549(b). (SCC 1295 § 19, 2005)

15.12.550 Nuisance and Abatement.

a. Any condition in violation of the provisions of this Chapter, including, but not limited to, the maintenance or use of any illicit connection or the occurrence of any prohibited discharge, is declared and deemed to be a public nuisance.
b. At the request of the Administrator, the County may seek a court order to enjoin or abate the nuisance, or both. Prior to seeking any court order to enjoin or abate a nuisance or threatened nuisance, the Administrator shall issue a cease and desist order to the owner and occupant, if any, of the Premises where the nuisance or threatened nuisance is occurring.
c. At the request of the Administrator, the County may seek an abatement warrant or other appropriate judicial authorization to enter the Premises where any nuisance or threatened nuisance is occurring and to abate the condition and restore the area.

d. In the event the nuisance constitutes an imminent danger to public safety or the environment, the Administrator may enter the premises from which the nuisance emanates, abate the nuisance and restore any property affected by the nuisance without prior notice to or consent from the owner or occupant thereof and without judicial warrant.
1. An imminent danger shall include, but is not limited to, exigent circumstances created by the dispersal of pollutants, where such pollutants present a significant and immediate threat to the public health and safety or the environment.
2. Notwithstanding the authority of the County to conduct an emergency abatement action, an administrative hearing pursuant to Section 15.12.540 shall follow the emergency abatement action. (SCC 1280 § 2 (part), 2004)

15.12.555 Enforcement Policy.

In the interest of achieving consistent enforcement of this Chapter, and in recognition of the need to have enforcement policy adapted to the structure and practices of various implementing agencies, each implementing agency that is delegated enforcement responsibility pursuant to this Chapter by the Administrator or the Board shall submit, to the Director of Water Resources, a draft written enforcement policy. Each such enforcement policy need only address those enforcement duties assigned to the implementing agency. Each policy shall address, if included in the delegated duties, guidelines for: the issuance of notices of violation, issuance of cease and desist orders, County stormwater permit administration, abatement, compliance deadlines, filing periods for administrative appeals, and imposition of administrative civil penalties. Enforcement policies shall take into consideration such factors as the nature, circumstances, extent, and gravity of the violation, and the violator’s past and present efforts to comply. Upon approval by the Director of Water Resources, the enforcement policy shall be deemed adopted by the implementing agency who shall use such policy to achieve consistent enforcement standards by said implementing agency. Any amendments to an enforcement policy must be submitted to the Director of Water Resources for approval. (SCC 1295 § 20, 2005: SCC 1280 § 2 (part), 2004)

15.12.560 Administrative Civil Penalties.

a. In addition to any other remedies provided by this Chapter, the person may be subject to an administrative civil penalty of up to five thousand dollars ($5,000.00) per day for each violation of this Chapter. In seeking imposition of an administrative civil penalty, the Administrator shall commence the procedure by issuing a notice of administrative civil penalty, which shall be served and proof of service shall be made in the same manner as provided in Section 15.12.530 of this Chapter.
b. The notice of administrative civil penalty shall state that the recipient has a right to a hearing as set forth in Section 15.12.540 of this Chapter.
c. Procedures concerning notice, conduct of the hearing, and service shall be as provided in Section 15.12.540 of this Chapter.
d. Subsections 15.12.560(a), (b), and (c) notwithstanding, the Administrator may establish a schedule of fines which, if adopted by the Board, and as it may be amended from time to time by the Board, shall become appended to this Chapter. The schedule of fines shall define specific violations for which an

administrative civil penalty shall apply, and shall assign a specific monetary penalty to be assessed for each violation included in the schedule of fines. When the Administrator has found that such violation has occurred and has issued an appropriate notice or order pursuant to this Chapter, the administrative civil penalty shall be enforceable without further action being required. Any person receiving such a schedule of fines penalty shall be entitled to appeal the Administrator's findings giving rise to such penalty pursuant to the procedure established in Section 15.12.540 of this Chapter. (SCC 1295 § 21, 2005: SCC 1280 § 2 (part), 2004)

15.12.570 Criminal Penalties.

a. Any person who violates any provision of this Chapter, undertakes to conceal any violation of this Chapter, continues any violation of this Chapter after notice thereof, fails to or fails to comply with a specified compliance requirement or a provision of a County stormwater permit, shall be guilty of a misdemeanor and upon conviction thereof be fined not more than one thousand dollars ($1,000.00) or imprisoned for not more than six months in the County Jail, or both.
b. Each day in which a violation occurs and each separate failure to comply with either a separate provision of this Chapter, a notice of violation, a cease and desist order, or failure to comply with specified compliance requirements or a provision of a County stormwater permit, shall constitute a separate violation of this Chapter punishable by fines or sentences in accordance herewith.
c. The Administrator may authorize specifically designated County employees to issue citations for misdemeanor violations of this Chapter pursuant to Penal Code Section 836.5. (SCC 1295 § 22, 2005: SCC 1280 § 2 (part), 2004)

15.12.580 Miscellaneous Enforcement Provisions.

a. Each and every remedy available for the enforcement of this Chapter shall be non-exclusive and it is within the discretion of the Administrator to seek cumulative remedies.
b. The Administrator may request the County to file a civil action in a court of competent jurisdiction seeking an injunction against any threatened or continuing non-compliance with the provisions of this Chapter. Any temporary, preliminary or permanent injunction issued pursuant to this subsection may include an order for reimbursement to the County of all costs incurred in enforcing this Chapter, including, but not limited to, costs of inspection, investigation and monitoring, the costs of abatement undertaken at the expense of the County, costs relating to the restoration of the environment and any other costs or expenses authorized by law.
c. The Administrator may request the County to file an action for civil damages in a court of competent jurisdiction seeking recovery of any of the following:
1. All costs incurred in the enforcement of this Chapter, including, but not limited to, costs relating to investigation, sampling, monitoring, inspection, administrative expenses, all other expenses authorized by law and consequential damages.
2. All costs incurred in mitigating harm to the environment or reducing the threat to human health.
3. Damages for irreparable harm to the environment.
d. The County is authorized to file actions for civil damages resulting from any trespass or nuisance occurring on public property or to the County storm drain system from any violation of this Chapter

where such violation has caused damage, contamination or harm to the environment, public property or the County storm drain system.
e. The remedies available to the County pursuant to the provisions of this Chapter shall not limit the right of the County or any law enforcement agency to seek any other legal or equitable remedy that may be available to it.
f. Each day in which a violation occurs and each separate failure to comply with specified compliance requirements or provision of a County stormwater permit, a separate provision of this Chapter, an Administrative enforcement order, or a cease and desist order shall constitute a separate violation of this Chapter punishable by civil, criminal and administrative penalties in accordance with this Chapter. (SCC 1295 § 23, 2005: SCC 1280 § 2 (part), 2004)

Article 6 Recovery of Cost Abatement

15.12.600 Costs of Abatement—Confirmation.

a. When proceedings under this Chapter result in the correction of a violation of this Chapter or in a final determination that a violation exists subsequent to the date specified in any notice issued pursuant to the provisions of this Chapter, the costs of such proceedings incurred by the County may be assessed against the property. Such costs may include, but are not limited to, those incurred in inspecting property, publication, mailing and posting of notices, conducting hearings, processing appeals and pursuing any judicial action. It is the purpose of this section to allow the assessment against property of costs of proceedings if a violation is corrected in any manner.
b. The Administrator shall keep an account of the administrative and other costs of abatement, and shall submit to the Board for confirmation an itemized written report showing such costs and their proposed assessment to the respective properties. The report shall be filed with the Clerk of the Board not later than fifteen (15) calendar days in advance of the confirmation hearing required below.
c. Upon receipt of the report, the Clerk of the Board shall schedule a public hearing to receive protests and confirm the report. A statement of the proposed assessment and notice of the time, date and place of the hearing, together with reference to the report on file with the Clerk, shall be mailed to the owner or owners of each parcel of property proposed to be assessed shown on the last equalized assessment roll available on the date of mailing of the notice or any other address or addresses ascertained to be more accurate. Such notice shall be mailed not later than fifteen (15) calendar days in advance of the hearing. Notice of the time, date and place of the public hearing by the Board shall be published once in a newspaper of general circulation published with the County.
With respect to each property proposed to be assessed for which the name or the owner or owners is not shown on the last equalized assessment roll or no address for an owner is shown on the last equalized assessment roll, the notice shall show the name or names of the owner or owners, if such name or names are shown on the last equalized assessment roll, the assessor’s parcel number, the street address of the property, if the property has an address and the address is known to the Administrator, the name of the street or road upon which such property abuts, if the property abuts upon a street or road, the amount of the proposed assessment and reference to the report on file with the Clerk. Such publication shall be made not later than fifteen (15) calendar days in advance of the hearing.
d. At the time fixed for receiving and considering the report, the Board shall conduct a public hearing

and shall receive and consider any objections from members of the general public or property owners liable to be assessed for the abatement. Written protests or objections shall specify the date, hour and description of the subject property under hearing. The Board may continue the hearing and delegate to the Administrator or his designee the responsibility of hearing individual protests and submitting a recommendation with respect thereto; provided that the Board provides an opportunity for individual consideration of each project upon receipt of the recommendation by the Administrator. The Board may modify the report if it is deemed necessary. The Board shall then confirm the report by motion or resolution. (SCC 1280 § 2 (part), 2004)

15.12.610 Costs—Assessments.

a. If the costs as confirmed are not paid within thirty (30) days of the date of mailing of the notice or date of publication pursuant to Section 15.12.600 of this chapter, such costs shall be assessed against the parcel of land pursuant to Section 25845 of the Government Code, and shall be transmitted to the Tax Collector for collection and shall be subject to the same penalties and the same procedures and sale in case of delinquency as provided for ad valorem taxes.
b. If subsequent to the mailing of the notice of violation and prior to transmittal of the notice of unpaid costs to the Tax Collector for collection as set forth in subsection (a) of this section, the property subject to the notice of violation is sold, or title otherwise transferred to a bona fide purchaser, said costs shall be the responsibility of the owner of record as of the date said notice of violation was placed in the United States postal system or posted on the property.
c. In addition to assessing the unpaid costs as provided in subsection (a) of this section, the Tax Collector or his designated representative may pursue any remedy provided by law for collection of the unpaid costs. (SCC 1280 § 2 (part), 2004)

15.12.620 Treble Costs.

Pursuant to Government Code Section 25845.5, upon entry of a second or subsequent civil or criminal judgment within a two year period finding that an owner is responsible for a condition in violation of this Chapter that may be abated pursuant to Government Code Section 25845, a court may order the owner to pay treble the costs of abatement. (SCC 1280 § 2 (part), 2004)

15.12.630 Hearing of Protests.

Upon the day and hour fixed for the hearing, the Board shall hear and pass upon the report of the Administrator together with any such protests or objections. The Board may make such revision, correction or modification of the report or the charge as it may deem just; and in the event the Board is satisfied with correctness of the charge, the report of the Administrator (as submitted or as revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the Board on the report and the charge and on all objections or protests shall be final and conclusive. (SCC 1280 § 2 (part), 2004)

15.12.640 Assessment for Summary Abatement.

Where the charge to be made is the result of summary abatement pursuant to Section 15.12.550(d), the Board may determine whether or not the action to abate was proper, and may confirm the charge or not as it may deem proper. (SCC 1295 § 24, 2005: SCC 1280 § 2 (part), 2004)

15.12.650 Time for Contest of Assessment.

The validity of any assessment made under the provisions of this Chapter shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is ordered to be placed upon the assessment roll as provided herein. (SCC 1280 § 2 (part), 2004)

15.12.660 Filing Copy of Report With County Auditor.

A certified copy of the assessment shall be filed with the County Auditor on or before August 1. The descriptions of the parcels reported shall be those used for the same parcels on the map books of the County Assessor for the current year. (SCC 1280 § 2 (part), 2004)

Exhibit "B"

Chapter 16.44 LAND GRADING AND EROSION CONTROL

16.44.010 Purpose.

16.44.020 Definitions.

16.44.030 Delegation.

16.44.040 Administration.

16.44.050 Permits Required.

16.44.060 Permits Not Required.

16.44.065 Exemptions.

16.44.070 Improvement Plans.

16.44.080 Application Contents.

16.44.090 Plans.

16.44.100 Specifications.

16.44.110 Security.

16.44.120 Right of Entry.

16.44.130 Permit Fees.

16.44.140 Environmental Review.

16.44.150 Application Review.

16.44.160 Contents of Permit.

16.44.170 Conditions.

16.44.180 Procedure for Imposition.

16.44.190 Term.

16.44.200 Transferability.

16.44.210 Denial of Permit.

16.44.220 Amendment of Permit.

16.44.230 Request for Inspection.

16.44.240 Reports.

16.44.250 Cessation of Work.

16.44.260 Completion of Work.

16.44.270 Inspection.

16.44.280 Grounds for Suspension and Revocation.

16.44.290 Method of Suspension or Revocation.

16.44.300 Appeals.

16.44.310 Appeal Fee.

16.44.320 Appeal Hearings.

16.44.330 Actions on Appeals.

16.44.340 Notices.

16.44.350 Action Against and Release of Security.

16.44.360 Violations.

16.44.370 Laws Not Enforced.

16.44.010 Purpose.

It is the intent of the Board of Supervisors in enacting this chapter to minimize damage to surrounding properties and public rights-of-way, the degradation of the water quality of watercourses, and the disruption of natural or County authorized drainage flows caused by the activities of clearing and grubbing, grading, filling and excavating of land, and sediment and pollutant runoff from other construction related activities, and to comply with the provisions of the County's National Pollutant Discharge Elimination System (NPDES) Permit Number, CA0082597, issued by the California Regional Water Quality Control Board (Regional Board)
These goals will be achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other pollutant runoff, including construction debris and hazardous substances used on construction sites, and the disruption of existing drainage and related environmental damage caused by the aforementioned activities. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.020 Definitions.

As used in this chapter, the following words and phrases shall have the meanings given in this section:
1. "Administrator" means the Administrator of the Public Works Agency of Sacramento County or his or her designated representative(s).
2. "Applicant" means any person who submits an application for a permit pursuant to this chapter.
3. "Civil engineer" means a professional engineer in the branch of civil engineering holding a valid certificate of registration issued by the State of California.
4. "Clearing and grubbing" means moving or removing by manual or mechanical means trees, vegetation and/or the top four inches or greater of soil.
5. "Compaction" means the act of compacting or consolidating soil and rock material to a specified density, and the resulting compacted state of the material.
6. "Construction site" means any land area on which the activity of clearing and grubbing, grading, excavating, or filling is occurring.
7. "County" is the County of Sacramento.
8. "County Specifications" means the County Improvement Standards, County Standard Construction Specifications and other standards included in applicable County ordinances, regulations and manuals, as amended from time to time.
9. "Engineering geology" means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.
10. "Environmental Coordinator" is the County official designated by the County Executive to prepare and process environmental documents.
11. "Erosion" means the transport of the ground surface or soil as a result of the movement of wind or water.
12. "Erosion control measures" means seeding, mulching, vegetative buffer strips, sod, plastic covering,

burlap covering, watering and other measures which control the movement of the ground surface or soil.
13. “Grade” is the elevation of the ground surface as measured from a known vertical control.
14. “Grading” includes the act or result of digging, excavating, transporting, spreading, depositing, filling, compacting, settling, or shaping of land surfaces and slopes, and other operations performed by or controlled by human activity involving the physical movement of rock or soil.
15. “Hazardous Substances” means those materials listed in Title 40 of the Code of Federal Regulations (40 CFR) Part 117 and/or 40 CFR Part 302.
16. “National Pollutant Discharge Elimination System (NPDES)” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the Clean Water Act.
17. “Permittee” means the applicant in whose name a valid permit is issued pursuant to this chapter and the applicant’s agents, employees and designated representative(s).
18. “Person” means any individual, corporation, partnership, association of any type, public agency or any other legal entity.
19. “Pollutants” is as defined in Title 40 CFR Part 122.
20. “Runoff” is surface runoff and drainage related to storm events, snow melt, street washwaters related to street cleaning or maintenance and other waters associated with the construction activity which are or may be introduced into the municipal separate storm sewer system.
21. “Sediment” means soil or earth material deposited by water.
22. “Sediment control measures” means dikes, sediment detention traps, sediment detention basins, filters, fences, barriers, swales, berms, drains, check dams, and other measures which control the deposit of soil or earth material.
23. “Site” means a parcel or parcels of real property owned by one or more than one person on which activity regulated by this chapter is occurring or is proposed to occur.
24. “Slope” is an inclined ground surface the inclination of which is expressed as a percent.
25. “Structure” means anything constructed or erected which requires location on the ground or attached to something having location on the ground.
26. “Watercourse” means a river, stream, creek, basin, lake, pond, waterway, or channel, natural or man-made, having a defined bed and banks. Whenever a watercourse consists of an ordinary channel, and in addition thereto, an overflow channel, the watercourse shall be deemed to include all property lying between the banks of the overflow channel.
27. “Wetlands” means those areas that are inundated or saturated by surface or ground water at a frequency sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, bogs and marshes. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.030 Delegation.

Whenever in this chapter an authority or power is vested in or a duty is imposed upon an officer or official, an employee subordinate to the officer or official to whom an appropriate delegation has been made shall be entitled to exercise the power or authority and perform the duty. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.040 Administration.

Except as otherwise provided, the Administrator is responsible for administering this chapter and Grading and Erosion Control Permits, and is authorized from time to time to promulgate and enforce rules or regulations consistent with and necessary to implement the purposes, intent and express terms of this chapter.
Any rules or regulations promulgated by the Administrator, or amendments thereof, shall be filed with the Clerk of the Board of Supervisors. The Clerk shall cause said rules or regulations to be published in a newspaper of general circulation within ten (10) calendar days. No rules or regulations promulgated by the Administrator, or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which the rules or regulations are published. Any person shall have fifteen (15) days after the date of publication in which to file an appeal in accordance with the provisions of Section 16.44.300. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.050 Permits Required.

Except as provided by Sections 16.44.060, 16.44.065 or 16.44.070, a Grading and Erosion Control Permit shall be required to (1) grade, fill, excavate, store or dispose of 350 cubic yards or more of soil or earthly material or (2) clear and grub 1 acre or greater of land within the unincorporated area of the County. A separate permit is required for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. Any determination by the Administrator as to whether a permit is required may be appealed pursuant to the provisions of Section 16.44.300. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.060 Permits Not Required.

A. A Grading and Erosion Control Permit shall not be required to (1) grade, fill, excavate, store or dispose of less than three hundred fifty (350) cubic yards of soil or earthly material or (2) clear and grub less than 1 acre of land within the unincorporated area of the County or (3) for the grading, filling, excavating, storing, disposing, or clearing and grubbing for:
a. Swimming pools, basements, or footings of structures if authorized by a valid building permit;
b. Underground utilities;
c. Mining or quarry operations, if a use permit has been granted by the County;
d. Refuse disposal sites operated by a governmental agency;
e. The production of planted agricultural crops.
B. Notwithstanding the provisions of subsection (A) hereof exempting specified activities from the otherwise applicable permit requirements, the activities described in subsection (A) shall be subject to the standards and requirements of this chapter. Any building permit issued in connection with the activities described in subsection (A) or in connection with any building permit issued for a single family residence on an individual lot may be conditioned on compliance with the standards and requirements of this chapter. Any inspections required pursuant to this chapter or any other Chapter of Title 16 of the Sacramento County Code shall include a determination of compliance with the purpose of

this chapter. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.065 Exemptions.

A Grading and Erosion Control Permit shall not be required for, and the provisions of this chapter shall not apply to, grading, filling, excavating, storing, disposing, or clearing and grubbing for situations where, in the determination of the Administrator, there is a clear and imminent danger to life or property, or threat of loss of services for which there is an overriding public concern. The Administrator may, at the time of granting such exemption, impose conditions in accordance with Section 16.44.170, including but not limited to, the requirement for the posting of security. Such exemption must be requested from the Administrator and approved in writing prior to the commencement of any activity regulated by this chapter. (SCC 1002 § 3, 1995.)

16.44.070 Improvement Plans.

Where an improvement plan is being processed in conjunction with either an approved tentative, parcel, or final map; or a development plan is being processed in accordance with the provisions of Title 12 of this Code, such plan shall also be considered as a request to undertake those activities regulated by this chapter. Such plans shall be reviewed and approved, conditionally approved or denied in accordance with the standards and requirements set forth in this chapter and other applicable county specifications. For an approved tentative, parcel, or final map, or development plan; any submitted improvement plans shall include provisions to require compliance with the standards and requirements of this chapter. If an improvement plan is approved, then a Grading and Erosion Control Permit shall not be required. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.080 Application Contents.

The application for a Grading and Erosion Control Permit shall be filed in the Office of the Administrator, and on a form and submitted with such information as is prescribed by the Administrator, including the following:
A. The name, address and telephone number of the applicant and the applicant’s engineer;
B. The address and parcel number of the location for which the permit is sought;
C. A copy of all entitlements granted for the property by the County, including conditions of approval and the environmental documentation;
D. A copy of all required state and federal permits;
E. Plans conforming with the requirements of Section 16.44.090;
F. Specifications conforming with the requirements of Section 16.44.100, if the Administrator expressly requires this information;
G. Security conforming with the requirements of Section 16.44.110;
H. Right of Entry conforming with the requirements of Section 16.44.120;
I. Fees conforming with the requirements of Section 16.44.130;
J. Other information as may be required by the Administrator. (SCC 1002 § 3, 1995; SCC 0928 § 2,

1993.)

16.44.090 Plans.

Plans shall be prepared by a civil engineer in conformance with County Specifications and shall include the following:
A. A vicinity map indicating the site location and significant geographic features;
B. A site delineation map indicating boundary lines of the property and each lot or parcel into which the site is proposed to be divided;
C. The location of on-site and surrounding watercourses and wetlands, existing and proposed drainage systems, and drainage area boundaries and acreages. Additional hydrologic analysis shall be provided as required by the Administrator;
D. The location of existing and proposed roads and structures on the site, and on adjacent property;
E. Accurate contours at two foot intervals for slopes up to ten percent and five foot intervals for slopes over ten percent showing topography of existing ground and locations of existing vegetation, including all oak trees, all other trees over six inches in diameter measured at four and one-half feet above the ground, groves of trees, and natural features such as rock outcroppings. Spot elevations will be required where relatively flat conditions exist. The spot elevations or contour lines shall be extended off-site for a minimum distance of fifty (50) feet, or one hundred (100) feet in flat terrain;
F. Elevations, location, extent and slope of all proposed grading shown by contours, cross-sections or other means, and location of any disposal areas, fills or other special features to be included in the work;
G. A statement of the quantity of material to be excavated, the quantity of material to be filled, whether such excavation or fill is permanent or temporary, and the amount of such material to be imported to or exported from the site;
H. A delineation of the area to be cleared and grubbed;
I. A statement of the estimated starting date, grading completion date, and when site improvements will be completed;
J. The location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed prior to, during or after the proposed activity;
K. A description of measures designed to control dust and stabilize the construction site road and entrance;
L. A description of the location and methods of storage and disposal of construction materials;
M. Any additional plans required by the Administrator. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.100 Specifications.

When required by the Administrator, the following information shall be prepared and signed by a civil engineer, and submitted with the application for a Grading and Erosion Control Permit:
A. Preparation of natural ground to occur prior to placement of fill, including provisions for removal of organic or deleterious materials;
B. Quality control of native or imported fill material;
C. Degree of compaction;

D. Gradient of cut and fill slopes;
E. Geotechnical engineering or engineering geology reports used in the development of the above information. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.110 Security.

A. Prior to issuance of the permit, the applicant shall provide security in an amount estimated by the Administrator to be the cost for stabilizing the activity site if the site is abandoned or work is stopped during the performance of the activity described in the permit. The security shall be one of the following, subject to the approval of the Administrator;
1. Bond or bonds by one or more duly authorized corporate sureties.
2. A deposit, either with the County or a responsible escrow agent or trust company, at the option of the County, of money or negotiable bonds of the kind approved for securing deposits of public moneys.
3. An instrument of credit from an agency of the state, federal or local government when an agency of the state, federal, or local government provides at least twenty (20) percent of the financing for the project, or from one or more financial institutions subject to regulation by the state or federal government and pledging that the funds necessary are on deposit and guaranteed for payment, or a letter of credit by such financial institution.
B. The security shall be released to the permittee upon either:
1. Issuance of a certificate of completion, provided no administrative or legal action against such security has been commenced prior to that date and the permittee has complied with the provisions of Section 16.44.260; or
2. Voluntary relinquishment of the permit by the holder thereof to the County, provided no administrative or legal action against such security has been commenced prior to that date and the permittee has complied with the provisions of Section 16.44.250. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.120 Right of Entry.

Whenever any portion of the work requires entry onto adjacent property for any reason, the applicant shall obtain the written consent of the adjacent property owner or his authorized representative, and shall file a copy of said consent with the Administrator before a permit for such work may be issued. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.130 Permit Fees.

A fee shall be paid by the applicant to the County for plan checking and review, materials testing, site inspections, processing, issuance and other services performed by the Administrator in connection with the investigation of an application for, and administration of, a Grading and Erosion Control Permit. The fees for these services shall be in the amount of the actual costs incurred by the County based on the hourly rate of the personnel performing the services, including all overhead costs, and as determined by the Accounting and Fiscal Services Section of the Public Works Agency.

A minimum deposit of seven hundred and fifty dollars ($750) shall be paid by the applicant at the time of and with the filing of the application with the Administrator. In the event the accrued costs exceed the initial deposit, the County shall submit a monthly bill to the applicant for the amount owing as of the date on the bill. Interest of one and one-half percent (1-1/2%) per billing period (28 day cycle) compounded each billing period shall be added to the unpaid balance due to any amount which has not been paid in full within twenty-eight (28) days from the date on the bill.
The Administrator shall not perform any services for an applicant if an amount owing is not paid within twenty-eight (28) days, until such time that all amounts owing and interest thereon is paid in full. The balance of fees owing shall be paid in full prior to final inspection. In the event the actual costs do not exceed the minimum deposit amount, the County shall reimburse the applicant the difference between the deposit amount and the actual total charges. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.140 Environmental Review.

Grading and erosion control permits, and amendments thereto, are subject to the requirements of the California Environmental Quality Act (CEQA). The applicant shall furnish a copy of the application to the Environmental Coordinator for preparation and processing of the appropriate environmental documents. The Administrator is authorized to hold public hearings on Negative Declarations, Draft Environmental Impact Reports and Final Environmental Impact Reports prepared on applications for Grading and Erosion Control Permits, for the purposes of receiving comments from the public. The Administrator shall not approve a Grading and Erosion Control Permit prior to considering the applicable environmental document and complying with the requirements of CEQA and the County Procedures for Preparation and Processing of Environmental Documents. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.150 Application Review.

The Administrator shall review and approve, conditionally approve or deny Grading and Erosion Control Permit applications and improvement plans in accordance with the provisions of this chapter. Grading and Erosion Control Permit applications and improvement plans shall be issued or approved unless the Administrator finds in writing that:
A. The applicant has failed to provide sufficient or adequate plans, information or other data necessary to allow determinations respecting compliance with the provisions of this chapter or County Specifications;
B. The environmental review has not been completed, other provisions of this Code or of state law pertaining to environmental review have not been satisfied, or the activity will have significant adverse environmental impacts which cannot be substantially mitigated. Where the activity will have significant adverse impacts, the Administrator may approve the permit in accordance with the provisions of this chapter, Title 20, and the California Environmental Quality Act of 1970;
C. The proposed activity will violate provisions of this chapter, County Specifications, or state or federal laws, and such violation cannot be resolved by the imposition of conditions pursuant to Section 16.44.170;
D. The proposed activity will adversely affect surrounding properties and public rights-of-way, the water

quality of watercourses, and existing drainage. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.160 Contents of Permit.

The Grading and Erosion Control Permit shall include but not be limited to a complete description of the activity for which it is issued, the property for which it is issued, the date of issuance and the date of expiration, and a description of any and all conditions upon which the permit has been issued. The permit shall be kept at the site during the activity for which the permit was issued. A Grading and Erosion Control Permit authorizes the permittee to undertake only that activity described in the permit and only on the property for which the permit is issued. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.170 Conditions.

The Administrator may at the time of issuance of the Grading and Erosion Control Permit impose such conditions as are necessary to ensure compliance with this chapter, County Specifications, or state or federal laws. Such conditions shall be reasonably related to the public needs created by the proposed activity. Conditions to mitigate environmental impacts of the activity may also be imposed by the Administrator. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.180 Procedure for Imposition.

Any condition imposed pursuant to the provisions of Section 16.44.170 shall be embodied, together with the reasons therefor, in the permit and served upon the applicant or permittee. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.190 Term.

A Grading and Erosion Control Permit shall be effective on the date of issuance, and shall remain in force for one year, unless suspended or revoked by the Administrator, or voluntarily relinquished by the permittee. Before the expiration of a permit, a permittee may apply for an extension of time in which to complete the activity. One extension of not more than one year may be granted by the Administrator. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.200 Transferability.

A Grading and Erosion Control Permit shall not be transferable or assignable from one person to another, unless approved by the Administrator and the person to whom the permit is to be transferred agrees to comply with the requirements of the original permit and to any conditions imposed therein. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.210 Denial of Permit.

The Administrator shall deny an application for a Grading and Erosion Control Permit if any of the findings in Section 16.44.150 are made. Notice shall be served on the applicant, in writing with the reasons stated therefor, pursuant to the provisions of Section 16.44.340. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.220 Amendment of Permit.

Any proposed changes in the activity authorized by the permit shall be submitted to the Administrator for review. The permittee shall not undertake or allow activity to occur which does not conform with the plans or conditions of the original permit, unless approved by the Administrator. The Administrator shall review any proposed changes in the same manner and pursuant to the same standards as the original application. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.230 Request for Inspection.

Requests for inspection of any site subject to the provisions of this chapter shall be made to the Administrator at the following phases of activity. Such a request shall be made at least two full business days in advance of the desired day of inspection.
A. When the site has been cleared of vegetation and unapproved fill, and scarified, benched, or otherwise prepared and before any fill is placed; and the erosion control and sediment control measures to be implemented in this phase have been placed;
B. When approximate final elevations have been established; drainage terraces, swales and other drainage devices have been graded and are ready for paving; berms have been installed at the top of slopes; and the erosion control and sediment control measures to be implemented in this phase have been placed;
C. When work has been completed; slope planting established and irrigation systems installed, if required; and the erosion control and sediment control measures to be implemented in this phase have been placed.
The Administrator, upon inspection of the site, shall notify the person or permittee (1) that the phase of work inspected is approved, or (2) what deficiencies, corrections or other work needs to be completed before approval of that phase. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.240 Reports.

Notification to the Administrator shall be required within twenty-four (24) hours following the failure of authorized measures to prevent erosion or sediment from leaving the construction site; the deposit of debris or material on adjoining property or public rights-of-way, or; the interference with any existing watercourses or drainage facilities. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.250 Cessation of Work.

If activity is ceased on site for any reason for a period in excess of fifteen (15) calendar days, and before

the activity being conducted under the permit is completed, all necessary steps shall be taken to prevent damage through erosion or sedimentation to adjoining properties or to the public rights-of-way or to any natural or artificial drainage facilities or watercourses. The premises shall also be graded to blend into the adjacent terrain. The Administrator shall be notified as soon as possible, but no later than fifteen (15) calendar days, after the cessation of work. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.260 Completion of Work.

After completion of work in accordance with and conforming with an approved permit and delivery to the County of record plans and a grading plan as finally implemented, and payment of all fees, the Administrator shall issue a certificate of completion. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.270 Inspection.

The Administrator may enter and inspect property for which a Grading and Erosion Control Permit has been applied to determine applicability or compliance with this chapter and County Specifications. The Administrator may also inspect any and all property on which grading, filling, clearing and grubbing or excavating activities are occurring. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.280 Grounds for Suspension and Revocation.

A Grading and Erosion Control Permit may be suspended if:
A. The physical state of the property differs from the descriptions, plans or information furnished to the Administrator in the permit application;
B. The activity does not conform to the approved plans, grades, conditions or terms of the permit;
C. The activity is in violation of this chapter, County Specifications, or state or federal laws;
D. Any reports required to be submitted to the Administrator have not been submitted; or
E. Any of the information contained in reports submitted to the Administrator is in error. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.290 Method of Suspension or Revocation.

The Administrator may suspend or revoke a Grading and Erosion Control Permit by issuing a notice of suspension or revocation, stating the reasons therefor, and serving same, upon the permittee. Upon suspension or revocation of a permit, in accordance with the provisions of this Section, the permittee shall immediately cause all grading, filling, excavating, storing, disposing or clearing and grubbing to cease until written authorization is received from the Administrator to proceed with the activity.
The permittee shall have fifteen (15) calendar days after the date of service of the suspension or revocation in which to file an appeal in accordance with the provisions of Section 16.44.300. If such an appeal is filed, the suspension or revocation shall remain in force and be effective until a final decision on the appeal is issued by the Board of Supervisors.
If the Administrator suspends a permit, such permit may either be reinstated or revoked by the

Administrator, depending upon whether the permittee corrects the grounds stated for the suspension in the notice issued by the Administrator. If the permittee fails to remedy the grounds for suspension within a time period specified by the Administrator, but in no event later than sixty (60) calendar days, the Administrator shall revoke the permit. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.300 Appeals.

If the applicant for a Grading and Erosion Control Permit, the permittee, or other persons whose property rights may be affected is dissatisfied with any determination made by the Administrator, such person may appeal to the Board of Supervisors. Any such appeal shall be in writing, shall state the specific reasons therefor and grounds asserted for relief, and shall be filed with the Clerk of the Board of Supervisors not later than fifteen (15) calendar days after the date of the action being appealed. If an appeal is not filed within the time or in the manner prescribed above, the right to review of the action against which the complaint is made shall be deemed to have been waived. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.310 Appeal Fee.

The Board of Supervisors shall by resolution adopt and, from time to time, amend a fee for the filing of appeals. Such fee shall be for the sole purpose of defraying costs incurred for the administration of appeals. The fee for an appeal shall be paid at the time of and with the filing of an appeal. No appeal shall be deemed valid unless the prescribed fee has been paid. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.320 Appeal Hearings.

After the filing of an appeal within the time and in the manner prescribed by Section 16.44.300, the Board of Supervisors shall conduct a hearing for the purpose of determining whether the appeal should be granted. Written notice of the time, date and place of the hearing shall be served upon the Administrator and the appellant not later than ten (10) days preceding the date of the hearing. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.330 Actions on Appeals.

The Board of Supervisors shall review the entire proceeding or proceedings relating to the act or decision being appealed, de novo, and may make any order it deems just and equitable, including the granting of a Grading and Erosion Control Permit. Any hearing may be continued from time to time. At the conclusion of the hearing, the Board of Supervisors shall prepare a written decision which either grants or denies the appeal, and contains findings of fact and conclusions. The written decision, including a copy thereof, shall be filed with the Clerk of the Board of Supervisors. The Clerk shall serve such decision on the applicant or permittee and the Administrator. The decision of the Board of Supervisors shall become final upon the date of filing and service with respect to any appeal. (SCC 1002

§ 3, 1995; SCC 0928 § 2, 1993.)

16.44.340 Notices.

Any notice authorized or required by this chapter shall be deemed to have been filed, served and effective for all purposes on the date when it is personally delivered in writing to the party to whom it is directed or deposited in the United States mail, first class postage prepaid, and addressed to the party to whom it is directed.
Whenever a provision in this chapter requires a public hearing to be conducted, notice of the time, date, place and purpose of the hearing shall be published at least once not later than ten (10) calendar days in advance of the date of commencement of the hearing in a newspaper of general circulation which is published within the County. The same type of notice shall also be served on each permittee whose permit may be affected by the action taken at the conclusion of the hearing. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.350 Action Against and Release of Security.

The Administrator may commence action against the security provided by a permittee if:
A. The permittee ceases activities on site prior to completion of work without complying with the provisions of Section 16.44.250;
B. The permittee fails to comply with the terms of the permit;
C. The activity has caused or is threatening to cause damage or injury to persons, property or the environment.
The monies so obtained shall be used solely to finance remedial work undertaken by the County or a private contractor under contract to the County, and to reimburse the County for any administrative costs and expenses incurred in remedying the situation, including attorneys fees and legal costs incurred in any necessary action to obtain the security. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.360 Violations.

Except as otherwise specifically provided, pursuant to the provisions of Government Code Section 25132, violation of any of the provisions contained in this chapter shall constitute an infraction subject to a fine of one hundred ($100) dollars for each day or any portion thereof a violation continues.
Violation of any of the provisions of this chapter following notice to the permittee by the Administrator advising of the violation and ordering a cessation thereof, shall pursuant to the provisions of Section 1.01.190 contained in Title 1 of this Code, constitute a misdemeanor.
Violation of any of the provisions of this chapter may be remedied by injunction or other civil proceeding commenced in the name of the County pursuant to direction by the Board of Supervisors. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

16.44.370 Laws Not Enforced.

There are many ordinances and other laws applicable to activities permitted under this chapter which are not sought to be enforced under this permitting process. Such laws include, but are not limited to, building, floodplain management, and land development measures. The issuance of a Grading and Erosion Control Permit shall not be deemed to constitute a representation that the activity so permitted or the property upon which such activity is occurring complies with such other ordinances or other laws. Nor shall the existence of such an unrevoked permit be deemed to preclude any criminal or civil remedy for violation of such other ordinances or laws. The possession of a Grading and Erosion Control Permit shall not be deemed to relieve the holder of the requirement to apply for or obtain any other license or permit required by ordinance or statute. (SCC 1002 § 3, 1995; SCC 0928 § 2, 1993.)

County Executive
Terry Schutten

County of Sacramento

Board of Supervisors
Roger Dickinson, District 1
Jimmie R. Yee, District 2
Susan Peters, District 3
Roberta MacGlashan, District 4
Don Nottoli, District 5

Inter-Departmental Correspondence

Date: June 30, 2008

To: Agency Administrators
Department Heads

From: Terry Schutten

Subject: ***County-wide Integrated Pest Management Policy***

Attached is a copy of the final County-wide Integrated Pest Management Policy (IPM), and the related documents entitled "IPM Coordinator Staffing" and "Department IPM Plans." Consistent with the County initiative to be a leader in sustainability for our community, we are establishing this policy for all County operations, facilities, and properties. In addition, the County is required by a Municipal Stormwater Permit, issued by the State of California, to develop and implement an IPM policy for County operations to minimize pesticide discharges to local water bodies.

This policy was developed using a collaborative and participatory process involving representatives from the implementing departments, as well as the County's Business Environmental Resource Center (BERC), and the County Agricultural Commissioner. The County departments primarily responsible for implementing the IPM Policy, are:

- Airports
- General Services
- Regional Parks and Open Space
- Transportation
- Waste Management and Recycling
- Water Resources

Due to their pest management activities, the implementing departments are required to establish department-specific plans. In addition, we request the implementing departments to work together to establish and fund an IPM Coordinator, as outlined in the IPM Coordinator Staffing document.

Other departments and their employees may occasionally need to conduct activities in support of this policy. For example, employees of any County department might receive information to help them recognize and report conditions in their workplace that are conducive to pest populations, or be expected to help prevent pests by disposing of food waste in designated pest-resistant receptacles. The primary purposes of this policy are to:

- Promote the health and safety of employees and citizens
- Protect the environment
- Enhance the sustainability of County operations
- Maintain effective pest management through responsible pesticide use practices and the application of IPM
- Reduce risks associated with pesticide use

If you have questions about this policy, please contact Dave Tamayo, Environmental Specialist IV, with the Department of Water Resources Stormwater Quality Program, at (916) 874-8024 or tamayod@saccounty.net.

We thank you for supporting a policy which ultimately will benefit the environment and quality of life for all County residents and employees.

Attachments: (3)

c: David Tamayo-Environmental Specialist IV, Department of Water Resources

County of Sacramento Integrated Pest Management Policy	
County IPM Policy	Pest management activities associated with County operations, and County-owned facilities and property shall be in accordance with the principles of Integrated Pest Management (IPM), State and Federal pesticide use laws and regulations, and the Municipal Stormwater Permit. These activities shall also be consistent with this policy's definition of IPM and with guidance established by the County IPM Coordinator.
Background	The County of Sacramento recognizes that: • its citizens and environment should be protected from exposure to pesticides • the County, as a public agency, should model environmentally responsible practices • IPM is a widely established and accepted method of achieving long term, effective pest control while reducing pesticide use and the risks associated with it • the County is subject to the terms of a state-issued Municipal Stormwater Permit that requires minimization of pesticide use and implementation of IPM in County operations and facility management that affect water quality discharged from its municipal separate stormwater sewer system
IPM Definition	For the purposes of its IPM policy, the County adopts the following University of California Statewide Integrated Pest Management (UCIPM) definition: IPM is an ecosystem-based strategy that focuses on long-term prevention of pests or their damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistance varieties. Pesticides are used only after monitoring indicates they are needed according to established guidelines, and treatments are made with the goal of removing only target organism. Pest control materials are selected and applied in a manner that minimizes risks to human health, beneficial and non-target organisms, and the environment.
Policy purpose & intent	The purpose and intent of the County IPM Policy is to: • promote the health and safety of employees and citizens • protect the environment • enhance the sustainability of County operations • maintain effective pest management through responsible pesticide use practices and the application of IPM to • reduce risks associated with pesticide use, and • establish the need for an IPM Coordinator
Policy applicability	The County IPM Policy applies to all pest management activities (including those conducted outside areas served by the municipal separate stormwater sewer system, and those occurring in agricultural, rural, and open space areas which are exempt from the requirements of the Municipal Stormwater Permit) conducted by County staff or provided by vendors under contract to the County occurring: • as part of County operations, and/or • at County-owned property and facilities For the purposes of this policy "County operations" and "County-owned property and facilities" do not include conservation easements, utility easements, or other non-possessory interests held by a third party on County-owned property, nor property or facilities for which the County serves as a temporary "pass-through" owner of real property, pending transfer of the property to another party. For facilities where the County is a lessee, rather than the property owner, the County shall, when renewing a lease agreement or entering into a new one, include as a lease condition the requirement that the property owner shall control pests in a manner that meets the requirements of the County IPM policy. This policy does not apply to County-owned property under lease to a tenant at the time of policy adoption, until such time that the lease expires or is otherwise re-negotiated. In some cases, the IPM policy will also apply to other activities that have the potential to significantly affect pest populations—such as maintenance practices and facility designs.

Oversight: ***IPM Coordinator***	The County Executive authorizes the Agricultural Commissioner to designate an IPM Coordinator as a central resource to ensure that the County IPM policy is fully implemented and in compliance with applicable State and Federal laws, regulations, and permits. The duties of the IPM coordinator listed below are intended to serve all departments, and an equitable funding mechanism shall be established by the affected departments. • Provide guidance and oversight for Department IPM Plan content and development. • Establish contract language for pest management vendors • Periodically determine adequacy of Departmental IPM Plans and their implementation. • Develop a common record keeping system. • Gather data and prepare reports to demonstrate compliance with the Municipal Stormwater Permit. Additional duties specific to individual departments, such as detailed technical assistance, may be conducted by the IPM Coordinator under department specific funding mechanisms:
Policy Implementation:	Implementation of the IPM policy will primarily be the responsibility of individual departments. Departments that conduct or contract for pest management shall develop and establish department IPM Plans that comply with this policy and according to guidance established by County Executive or the IPM Coordinator.

County of Sacramento
Integrated Pest Management Policy

Implementation Document: Department IPM Plans

IPM Policy Implementation

In accordance with the County's IPM Policy, every County Department that engages in pest management activities (or contracts through a vendor for such) shall develop and implement a written Department IPM Plan.

This document provides direction regarding the establishment of Department IPM Plans. While originally adopted by the County Executive to facilitate and expedite initial development of Department IPM Plans, the requirements established herein may be amended from time to time by the County IPM Coordinator.

Department IPM Plan approval

Department IPM Plans, and changes to them, shall be submitted to, and are subject to approval by, the County IPM Coordinator. Each Department shall submit its Department IPM Plan for approval by the County IPM Coordinator no later than June 30, 2009.

Department IPM Plan goals

Each Department IPM Plan shall meet the following goals:

- support and allow the Department to effectively carry out its core mission
- maintain a safe and healthy environment for County employees, residents, contractors, and customers
- implement the principles of IPM
- contain sufficient detail to ensure adequate IPM implementation by Department staff
- provide for continuous improvement, including the investigation, and implementation where appropriate, of methods to reduce both pesticide risk and long term pesticide use through the use of cultural, mechanical, physical, and biological measures
- comply with direction from the County IPM Coordinator, and requirements of the County IPM Policy, the County's Municipal Stormwater Permit, and other applicable permits
- conform to the requirements of State and Federal pesticide use regulations

Required elements

The following elements are required in the Department IPM Plan:

- A statement of adoption of the Plan by the Department
- A copy of the County IPM Policy

- Designation of staff responsible for coordination of IPM activities on a department wide or site-by-site basis, as appropriate, and to provide a primary point of contact with the County IPM Coordinator
- Identification of staff positions responsible for and participating in pest management activities and decision making, including but not limited to pesticide applications
- Written pest tolerance thresholds
- Procedures for monitoring pest populations and conditions conducive to pest populations
- Description of site specific pest prevention measures
- Written site specific pest management prescriptions, including pest control advisor recommendations, for any pesticide applications made by the Department or its vendors
- Criteria for the selection and use of pesticides, including justification for the increased or continued use of any pesticides known or likely to cause local water quality impairments, as determined by the County Stormwater Program
- Record keeping procedures for pest management activities, including monitoring, decision making, and pesticide applications. This shall include provisions to collect and retain records for pest management activities conducted by contractors
- IPM contract requirements for vendors providing pest management services (if any) including pest control advisors, pesticide applicators, and structural pest control operators
- Written plan for providing and documenting staff training
- Written procedures for storage of pesticides
- Annual assessment of pest management alternatives
- Annual performance and effectiveness evaluation of the overall Department IPM Plan to be submitted to the County Stormwater Program

Departments that do not directly manage pests, but have operations or facilities with a significant potential to affect pest populations or pest management activities, may be required by the County IPM Coordinator to develop specified elements of an IPM Plan or to participate in and support the plan or portions of a Department IPM Plan established by another Department.

County of Sacramento
Integrated Pest Management Policy

Implementation Document: IPM Coordinator Staffing

IPM Policy

The County IPM policy recognizes the need to establish an IPM Coordinator position to ensure full compliance of the policy by providing oversight and technical assistance to affected departments.

Focus on initial setup

Most of the duties of the IPM Coordinator identified in the IPM policy pertain to the initial setup of components necessary for full implementation of the policy.

IPM Coordinator Staffing

The initial duties of the IPM Coordinator require a significant workload and level of focus that can not be absorbed by the Agricultural Commissioner, Water Resources, or other County departments. Because the IPM Coordinator activities will be focused on initial implementation tasks, and ongoing needs beyond that are uncertain, it is recommended that the County Agricultural Commissioner hire a contractor to fulfill this role initially. After completion of the initial tasks, which may take 1-2 years, the ongoing work load and staffing needs should be evaluated.

Funding of shared vs. department specific work

Many of the IPM Coordinator duties focus on tasks that are common to all the affected departments. In addition, maintaining compliance with the Stormwater Permit is the responsibility of departments that have activities subject to its requirements and provisions. It is recommended that the affected departments develop a mechanism to equitably share the costs for these tasks.

The IPM policy also recognizes that the IPM Coordinator may provide department specific services, such as detailed technical assistance in establishing or implementing a Department IPM plan. Such duties would be most appropriately funded by the individual department. At their discretion, individual departments would be free to obtain such technical assistance either from the IPM Coordinator, or from a separate contractor of their own choosing.

County of Sacramento

Storm Water Utility

Procedures for Manhole and Pump Station Sump Inspection and Cleaning

November, 2005

Prepared by
Department of Water Resources
Drainage Operations and Maintenance Section

TABLE OF CONTENTS

SECTION I - BACKGROUND 1

- Program History 1
- Permit Requirements 1
- Manhole Prioritization Criteria 2
- Storm Drain Pump Station Prioritization 3

SECTION II - PREVIOUS SUMP INSPECTION AND CLEANING EFFORTS 3

- Storm Drain Manhole Inspection and Cleaning Efforts 3
- Storm Drain Pump Station Sump Inspection 3

SECTION III - SUMP INSPECTION AND CLEANING PROCEDURES 3

- Recordkeeping of Sump Inspections and Cleanings 3
- Prioritized List of Inspections 4
- Procedures for Storm Drain Sump Inspection 4
- Procedures for Storm Drain Manhole Cleaning 5
- Procedures for Pump Station Sump Inspection and Cleaning 5

SECTION IV - MONITORING AND EVALUATION OF SUMP MANHOLE CLEANING PROGRAM 5

SECTION V - FISCAL YEAR (2005/06) SUMP INSPECTION, PRIORITIZATION, AND CLEANING 5

APPENDIX A - FISCAL YEAR (2005/06) SUMP INSPECTION, PRIORITIZATION, AND CLEANING

SECTION I - BACKGROUND

Program History

The County of Sacramento (County) regulates stormwater discharges from our municipal separate storm sewer system or MS4 system in accordance with the National Pollutant Discharge Elimination System (NPDES). The County's MS4 Permit was issued in 1990 under Phase I stormwater permitting, as a joint permit for the Cities of Sacramento, Folsom and Galt.

The current MS4 Permit was adopted on December 6, 2002 and expires on December 1, 2007 and the Cities of Citrus Heights, Elk Grove and Rancho Cordova have been added as co-permittees in the current MS4 Permit. Each co-permittee must document compliance with the MS4 Permit and the County currently provides limited drainage maintenance and stormwater quality services to Citrus Heights and Rancho Cordova. Therefore, any services provided by the County on behalf of these cities or within its own jurisdiction must be documented accordingly.

The MS4 Permit requires the County to develop and implement a stormwater management program with the goal of reducing the discharge of pollutants to the maximum extent practicable.

Permit Requirements

Provision C10e.ii of the MS4 Permit requires that procedures be developed for maintaining catch basins and sumps. The County's storm drain system is designed with drain inlets (no sumps) instead of catch basins (with sumps). Instead the system incorporates sumps in the bottom of storm drain manholes and at storm drain pump stations.

In order to meet MS4 permitting requirements, the County proposed a program for manhole sump and pump station sump maintenance in the July, 2003 Stormwater Quality Improvement Plan (SQIP). The 2003 SQIP program included the following:

- Prioritization of manhole and pump station sumps for cleaning based on accumulation of waste and presence or absence of downstream BMPs;
- A schedule of inspection and cleaning for removal of accumulated waste (e.g., sediment, trash, debris, and other pollutants) based on prioritization. At a minimum, cleaning of prioritized manhole and pump station sumps shall occur prior to the rainy season (Oct. 1);
- Record keeping of cleaning and overall quantity of waste removed;
- Proper disposal of waste removed pursuant to applicable laws; and
- Measures to eliminate waste discharges during storm drain system maintenance and cleaning activities.

Manhole Prioritization Criteria

The County will prioritize manhole sumps for cleaning based on accumulation of waste and the presence or absence of downstream BMPs. Initially, manhole sumps will be prioritized for cleaning based on the following criteria described in the July, 2003 SQIP, as follows:

- Is a manhole sump located immediately upstream or in the proximity of sensitive receiving waters? If yes, the sump is given a higher priority.
- Is a manhole sump located upstream of a regional storm water quality BMP (e.g., Water Quality detention basin)? If yes, the sump is given a lower priority, because sediment and other pollutants will be treated and/or removed by the downstream BMP.
- Are manhole sumps present in upstream or downstream manholes? If not, the sump is given a higher priority.
- Are adjacent pipes cleaned during regular maintenance program activities? (30-inch and larger diameter pipes are not cleaned by the regular maintenance program, since they are considered self- cleaning). If yes, the sump is given a lower priority.

In addition, storm drain manhole sumps that are upstream of storm drain pump station sumps and detention basins will be given a lower priority sump rating for the purposes of this program.

High priority manhole sumps will be inspected and where necessary cleaned annually prior to the rainy season (October 1). Sumps that are not considered high priority sumps in Citrus Heights, Rancho Cordova, and in the Unincorporated portion of the County will be cleaned during regular maintenance program activities. A system-wide cleaning currently takes approximately 10 years to complete. In addition, maintenance staff will be dispatched to clean inlets and sumps when debris, sediment, or trapped waste is reported.

In the future, the criteria listed above will be adjusted to address pollutant accumulation as data pertaining to the accumulation rate of sediment and debris is collected during manhole and pump station sump maintenance operations.

Storm Drain Pump Station Prioritization

Sumps on storm water pump stations are inspected annually for sediment and debris and are cleaned as necessary prior to the rainy season. All pump station sumps are considered high priority and will remain on the annual inspection and cleaning schedule in the foreseeable years.

SECTION II - PREVIOUS SUMP INSPECTION AND CLEANING EFFORTS

Storm Drain Manhole Inspection and Cleaning Efforts

In previous years the most downstream manhole in each of the storm drain systems was identified as the initial location for field inspections for each storm drain contributing to receiving waters. Field inspections included documenting if the storm drain manhole had a sump and measurements of the accumulation of sediment/debris and sump depth. If the most downstream manhole in the storm drain system did not have a sump, inspections proceeded to the next upstream manhole/s until a sump was reached. Upstream sump inspections also documented if the manhole had a sump and sump measurements.

Storm Drain Pump Station Sump Inspection

All storm drain pump station sumps are inspected on a yearly basis in the spring/early summer as part of a pump station preventative maintenance program. The inspection consists of inspecting the sump and removing the sediment or debris accumulated in the sump.

SECTION III - SUMP INSPECTION AND CLEANING PROCEDURES

Recordkeeping of Sump Inspections and Cleanings

Recordkeeping and reporting is a critical part of the Sump Cleaning Program to demonstrate compliance with the Stormwater Permit and to provide data for evaluating the effectiveness of the activities. Every attempt shall be made to quantify efforts in ways that relate to protection of water quality. For example, records of volume of waste removed from storm drain system sumps will be used to measure the County's ability to reduce the amount of such material discharged downstream to local creeks and rivers.

During storm drain manhole inspections and cleaning, recordkeeping includes recording the following:

1. Manhole number
2. Downstream water body
3. Outfall manhole (Y/N)

4. Manhole sump depth
5. Depth of accumulated sediment/debris in sump
6. Quantity of debris removed

Records are also kept of all inspections and cleanings performed on storm drain pump stations sumps. Pump station sump inspection recordkeeping includes:

1. Length, width, and depth of sump
2. Depth of accumulated sediment/debris in sump

Finally, manpower, equipment usage, and associated work performed by the County's regular maintenance program will be recorded and ultimately used to determine the magnitude of high priority manhole sumps that will be able to be cleaned in the current fiscal year.

Prioritized List of Inspections

A list of prioritized sumps will be compiled from each previous year's data. Each manhole on the prioritized list is to be inspected at least once during the following fiscal year. Several manholes may be inaccessible due to fenced backyards or other encroachments made by the public. Every practical effort should be made to inspect the manholes included on the prioritized sump list. However, when a manhole is not accessible the next available manhole upstream should be inspected in its place. If a manhole is skipped, notes should be made with regard to why the manhole was skipped and which manhole was inspected in its place.

Procedures for Storm Drain Sump Inspection

Each manhole inspected shall be inspected according to the following procedure:

1. Use a manhole pick to remove manhole the cover completely from manhole rim.
2. If the manhole has either a channelized bottom or does not have a sump, record the findings in the comments section and proceed to the next manhole.
3. If the manhole has a sump, the inspector is to record both the sump depth and the depth of accumulated debris in the sump.
4. After recording information from the manhole's interior the manhole rim should be cleaned of debris and the cover replaced.

In general, if a manhole sump is encountered there will be standing water in the sump. If the manhole is properly constructed the depth of the standing water should be approximately the same as the sump depth from the outlet invert when no debris is present.

If debris is present an initial reading should be noted as the depth to debris. A second reading should then be taken using a survey rod or other firm measurement device by forcing the rod through the debris to the manhole bottom. This second reading should be

recorded as the sump depth. The difference between the first and second measurement should then be recorded as the depth of debris in the manhole.

Procedures for Storm Drain Manhole Cleaning

In general sumps will be dewatered and cleaned using vactor-truck equipment. However, in areas that are not accessible to vactor trucks such as residential backyards and parkways, debris may be removed using hand tools. When material is removed from the manhole bottom the quantity of debris must be recorded by either of the following:

1. Measuring the total volume removed in cubic feet or
2. Measuring the average depth of removed debris and the interior footprint of the manhole then calculating the total debris removed in cubic feet.

   (i.e. $Volume = Depth * \pi * \left(\frac{Diameter\ of\ Manhole}{2} \right)^2$)

Procedures for Pump Station Sump Inspection and Cleaning

Pump station sumps are to be inspected and cleaned each year as part of the annual maintenance program. During the inspection and cleaning process, all debris that has accumulated within the pump station sump is to have its volume recorded and then be removed.

Due to the wide variation in size between pump station sumps a standard cleaning procedure has not been presented. In general, sumps will be cleaned with vactor trucks during their annual inspection.

SECTION IV - MONITORING AND EVALUATION OF SUMP MANHOLE CLEANING PROGRAM

Monitoring and evaluation activities required by the MS4 permit are an important aspect of the sump cleaning program. Periodic in-house evaluations will be conducted primarily through collection and analysis of records, site visits, and interviews with maintenance staff to assess effectiveness of the program. The goal is to continuously improve the cost-effectiveness and environmental benefits of the program. Ongoing monitoring and evaluation of the program assures that the County is properly adhering to and fulfilling permit compliance.

SECTION V - FISCAL YEAR (2005/06) SUMP INSPECTION, PRIORITIZATION, AND CLEANING

The updated 2005/06 sump inspection, prioritization, and cleaning program focuses on storm drain pump station sumps and manhole sumps on storm drain systems immediately outfalling to sensitive receiving waters of creeks and rivers in Sacramento County. Initial priority has been placed on drainage basins with outfalls to the American River, Arcade Creek, and Morrison Creek. Maintenance data collected from the inspection and cleaning program will be used to annually update and reassess each previous year's program.

Each successive fiscal year's program will attempt to refine inspections and cleaning efforts completed during the previous year's program. Storm drain systems immediately outfalling to receiving waters will be reinspected to determine if there has been appreciable sediment/debris accumulation since the completion of last year's inspection and cleaning program. In addition, the program will be expanded to include tributaries, waters affected by new construction, and contributing systems that were not previously identified. Appendix A includes a list of storm drain manholes identified for this year's program.

APPENDIX A
FISCAL YEAR (2005/06) SUMP INSPECTION, PRIORITIZATION, AND CLEANING

County of Sacramento

Storm Water Utility

Guidelines for Operating And Maintaining Creeks and Channels

Updated February, 2006

Prepared by
Department of Water Resources
Drainage Operations and Maintenance Section

TABLE OF CONTENTS

SECTION 1 - BACKGROUND 1

SECTION 2 - PERMIT REQUIREMENTS 1

NPDES PERMITTING 1
UNITED STATES DEPARTMENT OF FISH AND GAME 1

SECTION 3 - CHANNEL TYPES 2

CHANNEL TYPE T1 2
CHANNEL TYPE T2 2
CHANNEL TYPE T3 2
CHANNEL TYPE T4 2
CHANNEL TYPE T5 2
DESIGNATED NATURAL STREAM 2

SECTION 4 - STANDARD PROTOCOL FOR OPERATING AND MAINATIANING CREEKS AND CHANNELS 3

ANNUAL CREEK AND CHANNEL INSPECTIONS 3
MECHANICAL CLEANING 3
HAND CREW CLEANING 3
SPRAYING 3
AUTHORIZED MAINTENANCE ACTIVITIES 4

- *Debris or Obstruction Removal 4*
- *Silt, Sand, or Sediment Removal 4*
- *Vegetation Control 4*
- *Overbank Maintenance 5*
- *Repair of Previous Erosion Control Work 5*
- *Minor Erosion Control Work 5*

MAINTENANCE SCHEDULE LIMITATIONS 5

APPENDIX

Appendix A – California Fish and Game Memorandum of Understanding
Appendix B –Natural Streams Zoning Code
Appendix C – December 31, 2009 - MOU Extension

SECTION 1 - BACKGROUND

The County of Sacramento maintains approximately 350 miles of creeks and channels in the unincorporated portions of the County, and the Cities of Citrus Heights and Rancho Cordova. These 350 miles are composed of approximately 300 miles of unlined open creeks and channels, and 50 miles of concrete lined channels. For maintenance purposes, creeks and channels are broken up into six different categories that range from natural to various degrees of improved and unimproved channels (T1 through T5) according to the requirements of California Fish and Game. T1 channels are improved channels without riparian habitat. T2's are improved channels with significant riparian habitat. T3's are improved mitigated channels. T4's are unimproved channels without significant riparian habitat, and T5's are unimproved channel with significant riparian habitat. Natural streams (N) typically include significant riparian habitat and have been included into the natural streams program by resolution from the County Board of Supervisors.

The classification of each channel significantly affects the type of work, cleaning schedule, and equipment that can be used within the boundaries of each water course. For example concrete lined channel may be cleaned by hand or by mechanical tools year round. However, creeks that have been included in the natural steams program may only be cleaned by hand maintenance crews between June 1st and October 30th of each year.

SECTION 2 - PERMIT REQUIREMENTS

NPDES Permitting

The County of Sacramento (County) regulates stormwater discharges from our municipal separate storm drain system or MS4 system in accordance with the National Pollutant Discharge Elimination System (NPDES). The County's MS4 Permit was issued in 1990 under Phase I stormwater permitting, as a joint permit for the Cities of Sacramento, Folsom and Galt (Permit Number CAS082597).

The current MS4 Permit was adopted on December 6, 2002 and expires on December 1, 2007 and the Cities of Citrus Heights, Elk Grove and Rancho Cordova have been added as co-permittees in the current MS4 Permit. Each co-permittee must document compliance with the MS4 Permit and the County currently provides limited drainage maintenance and stormwater quality services to Citrus Heights and Rancho Cordova. Therefore, any services provided by the County on behalf of these cities or within its own jurisdiction must be documented accordingly. The County no longer provides and stormwater services to the City of Elk Grove.

As a requirement of the NPDES permit the County prepares an annual work plan for each fiscal year. The work plan requires that the County prepare and implement guidelines for operating and maintaining creeks and channels. The content of this guideline is intended to satisfy NPDES requirements.

United States Department of Fish and Game

Creek and channel maintenance shall occur in accordance with State of California, Department of Fish and Game (Fish and Game) requirements. Current Fish and Game requirements are outlined in the 2000-2004 Memorandum of Understanding between the

County of Sacramento and California Department of Fish and Game Regarding Routine Maintenance Activities in Unimproved and Improved Channels (MOU). This MOU was extended in October, 2004 through December, 2009. A copy of the MOU is provided in Appendix A.

SECTION 3 - CHANNEL TYPES

The following is a brief summary of the channel classification system used by the County. Exhibits detailing the various channel types encountered within the county can be found at the end of Appendix A.

Channel Type T1

Type T1 channels include improved creeks and channels without significant riparian habitat and in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within constructed banks and concrete-lined, rip rapped, or vegetation barren earth channels with modified banks. T1 channels may be mechanically cleaned or hand cleaned year round. All other creek and channel designations shall be cleaned and maintained in accordance with the scheduling restrictions listed below.

Channel Type T2

These waterways include improved creeks and channels with significant riparian habitat in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within earth lined, constructed banks. The riparian habitat consists of volunteer vegetative growth and does not contain mitigated riparian habitat.

Channel Type T3

T3 channels include improved mitigated channels in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within constructed banks and rip rapped, or earth channels with modified banks, and where significant efforts to mitigate the previous loss of riparian habitat are incorporated into the channel.

Channel Type T4

These channels include unimproved waterways without significant riparian habitat in which significant man-made alterations and/or improvements have not occurred and where significant riparian habitat does not exist.

Channel Type T5

These channels include unimproved waterways with significant riparian habitat in which significant man-made alterations and/or improvements have not occurred.

Designated Natural Stream

These channels exist as both improved and unimproved channels. The natural streams are those designated by the County as natural streams by resolution and typically contain significant riparian habitat. A designated natural stream shall also be defined, as appropriate,

by the previously listed types 1 through 5. These streams shall have the flow line cleaned only. A copy of the creeks and channels included in the Natural Stream Program is provided in Appendix B.

SECTION 4 - STANDARD PROTOCOL FOR OPERATING AND MAINATIANING CREEKS AND CHANNELS

The following is a brief summary of maintenance practices and restrictions for the creeks and channels maintained by the County. Detailed practices and procedures as required by the Fish and Game MOU are included in Appendix A.

Annual Creek and Channel Inspections

The County shall visually inspect all creeks and channels a minimum of once per year. The inspections will start in January and must be completed by the end of May in order to complete the cleaning schedule for the months that follow. Inspections are done by walking and/or driving the channels to check for erosion, vegetation, debris, illicit connections, and flow obstructions. There are three broad maintenance categories for work performed on creeks and channels. These three categories include mechanical cleaning, hand crew cleaning, and spraying.

Mechanical Cleaning

Mechanical cleaning involves the use of machinery to remove vegetation, debris, and sediment from drainage facilities. Examples of machinery that are commonly used by maintenance crews include bobcats, excavators, backhoes, and/or slope mowers. Mechanical cleaning shall be performed on non channels at the request of Drainage Operations and Maintenance Section, and on concrete lined channels annually.

Hand Crew Cleaning

Hand crew cleaning is the most prevalent type of cleaning performed on the creeks and channels. This type of cleaning involves the use of shovels, picks, weed eaters and chainsaws. This type of cleaning shall be done on designated creeks and channels once per year as determined by the annual inspection. This type of cleaning is used to remove debris from channels, re-establish flow lines, and create fire breaks. Currently, the City of Citrus Heights performs hand cleaning within its jurisdiction. The County does not provide either hand crew cleaning or spraying within the City of Citrus Heights jurisdiction.

Spraying

Spraying shall be conducted as outlined in the Standard Protocol for Application of Herbicides and Pesticides for the use at Creeks, Channels, and Detention Basins Maintained by County Drainage Maintenance, and the County of Sacramento Aquatic Pesticide Application Plan, July 2004.

The County uses the application of herbicides and pesticides to help limit growth of vegetation in drainage channels, detention basins, creeks and on levees. Application of herbicides and pesticides significantly reduces the need for hand and mechanical cleaning and helps to maintain the stormwater carrying capacity of County drainage facilities.

Glyphosate is the only type of aquatic pesticide applied by the County to drainage channels, detention basins, creeks, and levees maintained by the County. Glyphosate is a non-selective herbicide that kills vegetation that it comes in contact with.

Spraying is conducted within incorporated and unincorporated partitions of Sacramento County and the City of Rancho Cordova. The County does not currently provide spraying services for the City of Citrus Heights.

Authorized Maintenance Activities
The following are Fish and Game authorized maintenance activities. In the event that a maintenance activity does not meet authorization requirements, Fish and Game must be notified in writing 14 days prior to the commencement of work.

Debris or Obstruction Removal

- Scope - Removal of debris which noticeably reduce channel capacity or would result in accelerated erosion and/or cause pump damage.

- Limitations – Unless chipped or mulched, all cleared debris must be removed from the 100-year flood plain. Large diameter limbs and trees left for natural habitat must be staked or cabled in place to prevent flotation.

Silt, Sand, or Sediment Removal

- Scope - Removal/displacement of silt, sand, or sediment in the immediate vicinity of man-made facilities or structures which cause obstruction to flow.

- Limitations – Removal shall be limited to within 100 feet of drainage structures. Work shall be completed during low flow conditions. Turbidity shall be minimized by silt fences and/or bypass pumping.

Vegetation Control

- Scope - Control of aquatic vegetation to remove obstructions to flow from toe of slope to toe of slope of unimproved channels, as shown on Exhibit 7 of Appendix A. Control of weeds and grasses on maintenance roads within the banks, to conduct facility inspection, by mechanical means, hand labor, or chemical application. Control of the lower branches of woody growth, less than 4-inches DBH, growing on the lower stream banks from ground level to a distance of 6 feet above the ground level. Removal of non-native vegetation from top of bank to top of bank as shown on Exhibit 8 of Appendix A. Control of vegetation may be performed with the use of mechanical devices, chemicals, or hand labor.

- Limitations – Trees greater than 4-inches in diameter at breast height shall not be removed. Only herbicides registered with the California Department of Pesticide

Regulation shall be used. Wildlife shall be allowed to leave the maintenance are unharmed and shall not be flushed or removed from the site.

Repair of Previous Erosion Control Work

- Scope - Repair of failed rock, sacked concrete, or gabion section providing erosion control.

- Limitations – Maintenance activities shall be limited to within 20 feet of existing structures.

Minor Erosion Control Work

- Scope - Sloping, installation of rock, gabions, or other erosion control measures as shown in Exhibits 6 and 7 of Appendix A, to stabilize the eroded area.

- Limitations – Work shall be limited within 30-feet vertically from channel invert and no longer than 50-feet in length. Work shall be completed during low or no flow conditions. Vegetation removal shall be minimized. Channel bottom and immediate area shall be returned to its natural state at project completion including scarifying compacted channel bottom and replanting vegetation.

Overbank Maintenance

- Scope – Work performed outside of the channel bottom, side slopes, and top of bank. Overbank areas are typically within the floodplain but outside of the main floodway.

- Limitations – Maintenance activities within the overbank area of natural streams shall not be permitted without coordination with Fish and Game. No net loss of habitat shall be permitted.

Maintenance Schedule Limitations

The following is a list of scheduling limitations during which all work within a creek or channel must be performed. The limitations apply to all channel types other than T1 channels. In the event that schedule conflicts occur, the most restrictive limitation shall govern.

Mechanical Crews - June 1 to October 30

Hand Crews - June 1 to March 1

Spraying - March 1 to November 30

Giant Garter Snake Habitat - May 1 to October 1

APPENDIX A

CALIFORNIA FISH AND GAME MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

between

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY

and

CALIFORNIA DEPARTMENT OF FISH AND GAME

regarding

ROUTINE MAINTENANCE ACTIVITIES
IN UNIMPROVED and IMPROVED CHANNELS

(2000 - 2004)

This Memorandum of Understanding (MOU) by and between the California Department of Fish and Game, hereinafter called the "Department", and the COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY, hereinafter called the "Agency", is for the purpose of delineating and defining routine maintenance activities in improved channels and unimproved natural channels and shall not require further notice and agreement in compliance with Section 1601 of the Fish and Game Code.

WHEREAS, Section 1601 of the Fish and Game Code allows the Department to propose reasonable modifications to certain maintenance and construction projects as would allow for the protection and continuance of existing fish and wildlife resources that may be substantially adversely affected by that construction project; and

WHEREAS, with regard to any project that involves routine maintenance and operation of water supply, drainage, flood control, or waste treatment and disposal facilities, notice to, and agreement with, the Department is not required subsequent to the initial notification and agreement, unless the work as described in the agreement is substantially changed or conditions affecting fish and wildlife resources change, and the resources are adversely affected by the activity conducted under the agreement; and

WHEREAS, it is essential that the Agency perform routine maintenance activities within improved channels and unimproved natural channels to maintain the designed capacity of the channel(s), to protect the Agency’s investment, to prevent loss of life and property, and to promote efficient and wise use or disposal of water; and

WHEREAS, consistent with the policies of California Fish and Game Code Section 1600 et seq., the protection and conservation of the fish and wildlife resources of California are of utmost public interest, and fish and wildlife conservation is a proper responsibility of the State; and

WHEREAS, in order to avoid future conflicts, it is mutually beneficial to delineate and define limited natural stream maintenance and routine maintenance, to establish procedures to expedite maintenance activities, and to provide for the protection and continuance of the existing fish or wildlife resources during such maintenance activities; and

WHEREAS, nothing in this MOU shall constitute a waiver of any future or current Department claims to the use and maintenance of natural conditions under the public trust doctrine; and

WHEREAS, nothing in this MOU shall constitute a waiver of the Agency's claimed rights to maintain and operate the channel(s) solely from the flood control standpoint without a 1601 agreement; and

WHEREAS, this MOU is not intended to affect the Agency's rights under Fish and Game Section 1601 (f) to undertake emergency work necessary to protect life or property.

NOW THEREFORE, the Department and the Agency agree as follows:

I. DEFINITIONS

The following definitions shall govern this MOU:

(Type 1) Improved Channel without significant riparian habitat- An improved channel without significant riparian habitat is defined as a channel of a stream or river in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within constructed banks and concrete-lined, rip rapped, or vegetation barren earth channels with modified banks (including leveed systems). This type of channel lacks any significant riparian habitat. The waterway reaches listed in Exhibit 1 attached hereto include the exclusive list of improved channels as defined in the MOU.

(Type 2) Improved Channel with significant riparian habitat- An improved channel with significant riparian habitat is defined as a channel of a stream or river in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within earth lined, constructed banks (including leveed systems). The riparian habitat consists of volunteer vegetative growth and does not contain mitigated riparian habitat.

(Type 3) Improved Mitigated Channel- An improved mitigated channel is defined as the channel of a stream or river in which significant man-made alterations have occurred to improve the passage of irrigation and/or flood flows, including straightening the channel or containing the flows within constructed banks and rip rapped, or earth channels with modified banks (including leveed systems) and where significant efforts to mitigate the previous loss of riparian habitat are incorporated into the channel. The waterway reaches listed in Exhibit 1 attached hereto includes the exclusive list of improved mitigated channels as defined in the MOU.

(Type 4) Unimproved channel without significant riparian habitat- An unimproved channel without significant riparian habitat is defined as a channel of a stream or river in which significant man-made alterations and/or improvements have not occurred and where significant riparian habitat does not exist. Channels not listed in Exhibit 1 attached hereto are considered to be unimproved channels with significant riparian habitat.

(Type 5) Unimproved channel with significant riparian habitat- An unimproved channel with significant riparian habitat is defined as a channel of a stream or river in which significant man-made alterations and/or improvements have not occurred. This type of channel contains significant riparian habitat. The waterway reaches listed in Exhibit 1 attached hereto includes the exclusive list of unimproved channels as defined in the MOU.

Designated Natural Stream – These channels exist as both improved and unimproved channels. The natural streams are those designated by the County as natural streams by resolution and typically contain significant riparian habitat. A designated natural stream shall also be defined, as appropriate, by the previously listed types 1 through 5.

Channel banks, channel bottoms, low flow channels and other appurtenant features of channel Types 1 through 5 are defined by the illustrations shown on Exhibits 2 through 6.

Significant riparian habitat – Woody vegetation within the 100 year flood plain, such as willows, cottonwood trees, alders, oaks, and other native trees, shrubs, and bushes that provides habitat to birds, rodents, and other types of animals.

Maintenance activities – Limited and routine maintenance activities in natural streams and other channels are defined as the removal/displacement of sand, silt, sediment, debris, rubbish, woody or aquatic vegetation and other obstructions to flow; the control of weeds, grasses, and emergent vegetation; and the cleaning, clearing, repair, and replacement with in-kind or similar erosion control facilities and constructed channel improvements; all as authorized to maintain the structural integrity and capacity of the channels.

Diameter Breast Height (DBH) - Diameter of a tree trunk at a point measured 4 ½ feet above grade.

Overbank – Overbank areas are defined as the areas outside of the channel bottom, side slopes, and top of bank. Overbank areas are typically within the floodplain but outside of the main floodway. Special conditions are included in this document for maintenance work in the Overbank areas of Designated Natural Streams.

II. AUTHORIZED ACTIVITIES

The routine maintenance activities identified below, when performed on the channel(s) and work area(s) specifically specified in Exhibit 1 and in accordance with the procedures described below, shall not require further notice to, or agreement with, the Department. For unanticipated routine maintenance activities that are located outside the approved stream type location or outside the approved work period, the Agency, shall provide the Department written notice of such activities 14 days prior to commencement of the work (See Exhibit 11). The Department may require individual streambed alteration agreements for activities that are deemed not to be routine maintenance.

A. Debris or Obstruction Removal

Removal of debris, trash, rubbish, flood-deposited woody and herbaceous vegetation, fallen trees, dead trees which are in clear danger of falling in or across the channel, branches, and associated debris which noticeably reduces channel capacity, would result in accelerated erosion and/or cause pump damage.

Mitigation Measure: All cleared vegetation and debris shall be removed from the normal high water areas of the stream corridor and shall not be redeposited within the 100-year floodplain or the debris may be "chipped" and scattered as "mulch" at the project sites. Fallen trees and large tree limbs may be moved outside of and parallel to the main flow area of the stream. They shall be staked and cabled to the ground to prevent floatation and to provide biological habitat.

B. Silt, Sand, or Sediment Removal

Removal/displacement of silt, sand, or sediment in the immediate vicinity of man-made facilities or structures which cause obstruction to flow.

Mitigation Measure: In natural streams and unimproved channels, excavation of silt, sand or sediment shall not exceed 100 - feet linear from the structure without specific notice to the Department. Removal of silt, sand, sediment from improved channels and the forebay of sump pumping plants shall be performed to the extent necessary to ensure proper operation of the improved channels and sump pumping plant.

Mitigation Measure: Precautions to minimize turbidity/siltation shall be taken into account during silt, sand, and sediment removal activities. Silt, sand, and sediment removal operations shall be limited to periods when there is low or no stream flow.

Mitigation Measure: In natural streams, unimproved channels, and in improved mitigated channels, unless otherwise agreed, should stream flow exist, the stream flow should be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses. Where appropriate, silt fences, screening, or other measures should be placed in the channels to reduce turbidity caused by the maintenance activity. Any temporary dam or other artificial obstruction constructed shall only be built from materials such as sandbags or clean gravel which will cause little or no siltation. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam or other artificial obstruction.

Mitigation Measure: Where removal of accumulated sand, silt, sediment, and other obstructions to maintain channel capacity in a natural stream, unimproved channel, or improved mitigated channel exceed 100 feet, the Agency shall submit separate plans detailing the project. Channels should be cleared in such a manner that trees greater than four (4) inches DBH are avoided or are trimmed as is necessary to gain access. In channels where small trees are contiguous on both sides of the watercourse, thinning of trees may be authorized to permit access. Removal of all vegetation along long reaches of the stream bank shall be avoided. Unless agreed otherwise, any work area left barren of vegetation as a result of the maintenance activities shall be restored to its natural state by seeding, or other agreed upon means with native species of trees, shrubs, and grasses, within thirty (30) days or by October 30th of the year the activity occurred.

C. Vegetation Control

Control of aquatic and terrestrial vegetation may be performed with the use of mechanical devices, chemicals, or hand labor. The following activities are authorized: Control of aquatic vegetation, weeds, grasses, shrubs and woody growth to remove obstructions to flow in improved channels and in the channel bottom from toe of slope to toe of slope of unimproved channels, as shown on Exhibit 7. Control of weeds and grasses on maintenance roads within the banks, to conduct facility inspection, by mechanical means, hand labor, or chemical application. Control of the lower branches of woody growth, less than four (4) inches DBH, growing on the lower stream banks from ground level to a distance of 6 feet above the ground level. Where appropriate, removal of non-native

vegetation (bamboo, tree tobacco, castor bean, pampas grass, eucalyptus, acacia, etc.), including stump and root removal from top of bank to top of bank, as shown on Exhibit 8.

Mitigation Measure: Trees greater than four (4) inches DBH shall not be removed without consultation with the Department.

Mitigation Measure: Cleared or trimmed vegetation may be "chipped" and scattered as "mulch" at the project sites or removed from the normal high water areas of the stream corridor.

Mitigation Measure: Only herbicides registered with the California Department of Pesticide Regulation shall be used. All herbicides shall be applied in accordance with regulations set by the California Department of Pesticide Regulation. All herbicides shall be used according to labeled instructions, (specifically the use of chemicals in the vicinity of State Waters). Labeled instructions for the herbicide used shall be made available to the Department upon request. Any non-plant aquatic life killed by chemical treatment shall be reported immediately to the DEPARTMENT.

Mitigation Measure: If any wildlife is encountered during the course of routine maintenance, said wildlife shall be allowed to leave the maintenance area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site. No trees shall be disturbed that contain active bird nests until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.

D. Overbank Maintenance (Designated Natural Streams)

When it becomes necessary to work in the overbank area of any designated natural stream an amendment to the MOU shall be submitted by the Agency to the Department for review. All maintenance activities and mitigation measures shall be conducted in compliance with this Section II, "Authorized Activities," parts A, B, C, E and F and the following:

Mitigation Measure: To protect and maintain riparian wetland systems and to ensure a "No Net Loss" in wildlife value or acreage or wetlands and riparian habitat, the Agency shall have overbank maintenance activity in a designated natural stream monitored by a qualified biologist or botanist. The monitoring report shall identify and enumerate the vegetation and acreage impacted by the maintenance activity. The monitoring report, at a

minimum, shall include all areas within the low flow channel overbank areas. The Agency shall submit to the Department a revegetation plan which endeavors to ensure no net loss of riparian habitat or values. Upon approval of the Department, implementation of the revegetation plan shall begin as soon as is practical after completion of maintenance activity in the specified reaches of natural stream. To ensure a successful revegetation effort, all planted trees shall be monitored and maintained as necessary for five (5) years. Any recurring maintenance in mitigated overbank areas shall be considered routine and shall not require additional mitigation measures.

E. Repair of Previous Erosion Control Work

Repair of failed rock, sacked concrete, or gabion section. Maintenance activities shall be confined to the failed section and immediately adjacent areas (adjacent areas not to exceed twenty (20) feet) affected by the failure.

F. Minor Erosion Control Work

Sloping, installation of rock, gabions, or other erosion control measures as shown in Exhibits 6 and 7, from the toe of slope in the channel to a maximum of thirty (30) feet, measured vertically, above the channel invert to stabilize the eroded area. The length of the project work shall be less than fifty (50) feet.

Mitigation Measure: Project work shall be limited to periods when there is low or no stream flow. Unless otherwise agreed, should stream flow exist, the stream flow shall be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses. Any temporary dam or other artificial obstruction constructed shall only be built from materials such as sandbags or clean gravel which will cause little or no siltation. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam. Project work shall be performed in a manner that minimizes stream turbidity.

Mitigation Measure: Removal of vegetation shall be minimized. Trees greater than four (4) inches DBH shall not be removed without consultation with the Department. To the extent possible, the stream channel shall be returned to its natural state and without creating a possible future bank erosion problem. Erosion control shall be confined to specific locations listed in Exhibit 9 and 10.

Mitigation Measure: Upon project completion, the stream channel bottom shall be scarified from the work site to the equipment entrance, where activities have caused compaction of the streambed soil material. Unless agreed otherwise, any work area left barren of vegetation as a result of the maintenance activities shall be restored to its natural state by seeding, or other agreed upon means with native species of trees, shrubs, and grasses, within thirty (30) days or by October 30th of the year the activity occurred.

III. TIME AND MANNER OF MAINTENANCE ACTIVITIES

A. SCHEDULE LIMITS

Maintenance activities shall be performed at a time and in a manner so that the proposed maintenance activities minimize adverse impacts and provide for the protection and continuance of the fish and wildlife. Periods of implementation of maintenance activities within **unimproved channels with significant riparian habitat (Type 5), improved channels with significant riparian habitat (Type 2), improved mitigated channels (Type 3) and the flowing portion of unimproved channels without significant riparian habitat (Type 4) listed in Exhibit 1, and all other channels (regardless of type) not listed in Exhibit 1** are as follows:

Mechanical crews - June 1 to October 30 *

Hand crews - June 1 to March 1 * (regular cleaning)
Critical Locations Anytime debris build-up at bridges or culverts threatens to flood existing structures or facilities.

Giant Garter Snake Habitat - May 1 to October 1 *

* In the case of schedule conflicts the more restrictive limits shall apply.

Implementation of maintenance activities outside the wetted (flowing) portion of **unimproved channels without significant riparian habitat (Type 4) listed in Exhibit 1, and improved channels without significant riparian vegetation (Type 1) listed in Exhibit 1** are not restricted to a specific time period, unless otherwise agreed to in writing.

2. OTHER REQUIREMENTS

Giant Garter Snake

The following creeks maintained by the County of Sacramento Stormwater Utility have been identified by the Fish & Wildlife Service as critical habitat for the Giant Garter Snake:

Creek Name	Watershed Number
Laguna Creek (from Excelsior Rd to Sheldon Rd West of Bruceville Rd.)	16
Elk Grove Creek (from Bradshaw Rd to the confluence of Laguna Ck)	47

Adjoining creeks, channels, or tributaries within one mile of the above named creek reaches

Construction and Maintenance activities within the Giant Garter Snake habitat will be conducted only between May 1 and October 1 (see Section III A.) when snakes are more active and are expected to move to avoid danger. Should the Giant Garter Snake be encountered on these creeks or any other maintenance area they may be flushed or herded to adjacent areas where no work will occur for at least one month. Sightings shall be reported to the Fish and Wildlife Service at (916) 979-2725.

Channel bank vegetation removal shall be performed on one side of creek, channel, or ditch at a time to allow snakes to migrate to the opposite side. Dewatered habitat shall remain dry for a minimum of 15 consecutive days prior to excavating of filling.

Should it become necessary to work in the Giant Garter Snake habitat between October 2 and April 30 Stormwater Utility Crews will contact the Fish and Wildlife Service at (916) 979-2725.

Western Pond Turtle

The following creeks maintained by the County of Sacramento Stormwater Utility have been identified as habitat for the Western Pond Turtle:

Creek Name	Watershed Number
Dry Creek North	27
Linda Creek	30

Should the Western Pond Turtle be encountered on these creeks or any other maintenance area they shall not be harassed, flushed, herded, or otherwise disturbed and work shall be avoided within 200 feet of the Western Pond Turtle aquatic habitat.

Salmon and Steelhead

The following creeks maintained by the County of Sacramento Stormwater Utility have been identified as habitat for spawning Salmon and Steelhead:

Creek Name	Watershed Number
Dry Creek North	27
Linda Creek	30

Mitigation is accomplished through avoidance of work during spawning seasons and is met by adherence to the schedule and method limits in Section III A of this document.

Elderberry Plant (Habitat for Elderberry Longhorn Beetle)

Elderberry plants 1.0 inch in diameter at ground level shall be identified, marked, and protected to the drip line of the plant.

Oak Trees

Viable Oak Trees greater than 6.0 inch DBH shall be mitigated for at a minimum replacement ratio of 1:1 DBH. Viable oak trees greater than 6.0 inch DBH may be removed without mitigation if they are a safety hazard or cause damage to the hydraulic capacity of the channel.

Raptor and Songbird Nesting

Maintenance crews shall avoid working within the drip line of trees or shrubs that are, at the time of work, providing habitat for nesting raptors or songbirds.

Beaver Dams

The dams shall be removed under the methods and mitigation measures in Section IIA, "Debris and Obstruction Removal", of this MOU. Pond levelers, beaver relievers or other devices designed to discourage beaver dam construction and/or control the size of impoundments caused by beaver dams may be deployed.

IV. REPORTING REQUIREMENTS

The Agency shall provide to the Regional Manager, Region 2 of the Department, Exhibit 1 and a report describing the proposed maintenance activities and anticipated time schedule. Exhibit 1 and the report shall be submitted for review and approval prior to commencement of maintenance activities. The Department reserves the right to modify the stream definition types if maintenance activities at specific locations are viewed to adversely impact significant wildlife habitat. The written report shall include the following information: Typical problem descriptions, proposed solutions, equipment to be used, and the scheduled time periods of proposed activity. For unanticipated routine maintenance

activities that are located outside the approved stream type location or outside the approved work period, the Agency, shall provide the Department written notice of such activities 14 days prior to commencement of the work (See Exhibit 11). The Agency shall notify the Department of any modifications made to Exhibit 1 and the proposed maintenance activities (See Section VI below).

V. FEES

A fee of $5,180.00 for a five year period shall be paid to the Department prior to commencement of maintenance activities. This negotiated fee is based on the anticipated annual costs that will be reasonably incurred by the Department to administer and monitor the routine maintenance described in this MOU.

VI. AMENDMENT AND TERMINATION

This MOU cannot be amended or modified in any way except by a written agreement duly executed by the Department and the Agency. Any proposal for amendment or modifications must be delivered for review and approval by the Regional Manager or the official designated by the Regional Manager. If the Agency gives notice to and obtains the agreement of the Department to maintain additional specific facilities on improved or unimproved channels, any such additional facilities shall be added to Exhibit 1 by written amendment to this MOU, and all provisions of this MOU shall apply.

This MOU becomes effective on receipt of signed MOU and the fee agreed to in Section V. of this MOU. This MOU may be terminated by either party. Said termination shall become effective three (3) months after the party not initiating the termination has been duly notified in writing. This MOU expires on December 31, 2004. After the termination of this MOU the Agency may seek a new MOU. The Agency shall submit new exhibits when requesting a new MOU. The MOU processing fee is subject to change.

The Department reserves the right to suspend and/or revoke this MOU if the Department determines that the circumstances warrant. The circumstances that could require a reevaluation include, but are not limited to, the following: A) Failure to comply with the terms/conditions of this MOU. B) The information provided by the operator in support of the MOU is determined by the Department to be incomplete, or inaccurate. C) When new information becomes available to the Department representative(s) that was not known when preparing the original terms/conditions of this MOU. D) The project as described in the notification/agreement has changed, or conditions affecting fish and wildlife resources change.

VII. ENTIRE AGREEMENT

This MOU, along with the exhibits attached hereto, constitutes the entire Agreement and understanding between the Department and the Agency for routine maintenance activities. This MOU supersedes all prior and contemporaneous routine activity agreements, representation, understanding, if any, whether oral or written.

A copy of this MOU must be provided to the Contractor/work crew and must be in their possession at the work site. The MOU shall be presented to any Department of Fish & Game employee inspecting the stream maintenance activity.

VIII. OTHER ENVIRONMENTAL LAWS, STATUTES, OR REGULATIONS

This MOU does not constitute any form of authorization, permit, biological opinion, or compliance with the requirements and provisions of any other statue, regulation, requirement, or ordinance respecting the protection or conservation of fish and wildlife resources. Those statutes include, but are not limited to, the California Environmental Quality Act, the California Endangered Species Act, or the Federal Endangered Species Act.

Various work and activities encompassed by this MOU may require prior approval by the Corps of Engineers and/or may be governed by special conditions of the Department of the Army permit issued for the project. Nothing in this MOU shall be construed to alleviate the need to comply with the terms and conditions of the Department of the Army permit or obtain the Corps of Engineers authorization, where applicable.

THE DEPARTMENT OF FISH AND GAME
The Resources Agency of California

By: _____ _____

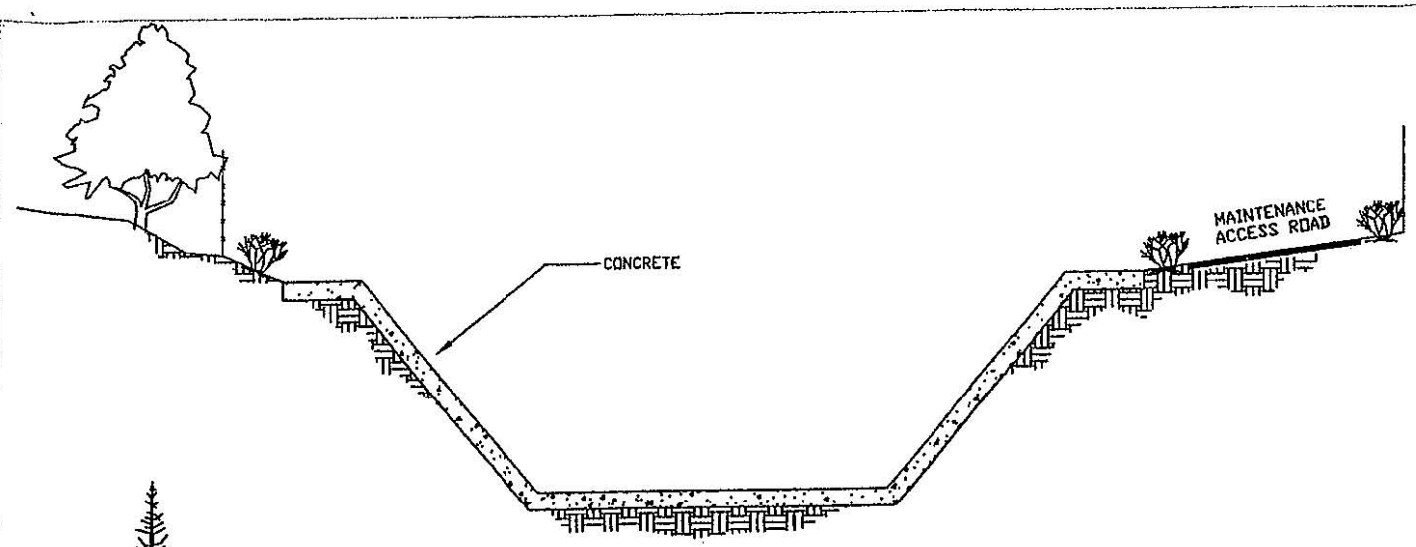
Banky E. Curtis — Date
Regional Manager
Sacramento Valley Central Sierra Region

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY
A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA

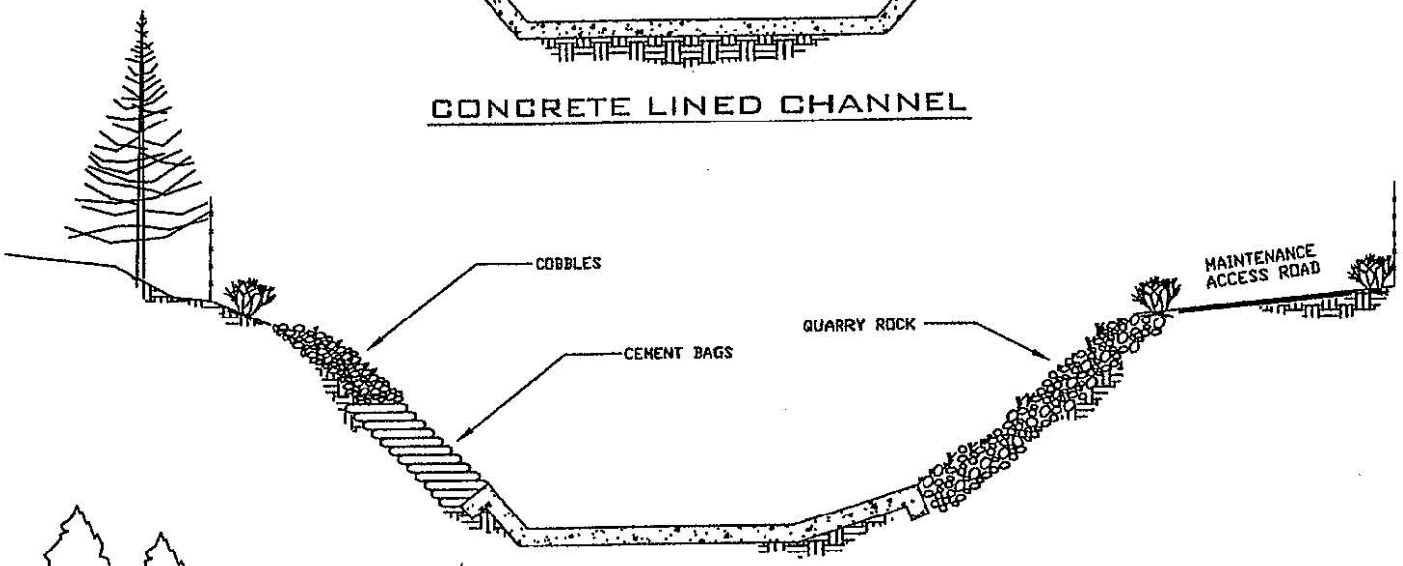
By: _____ _____

Michael Peterson, Principal Civil Engineer Date
Sacramento County
Department of Water Resources

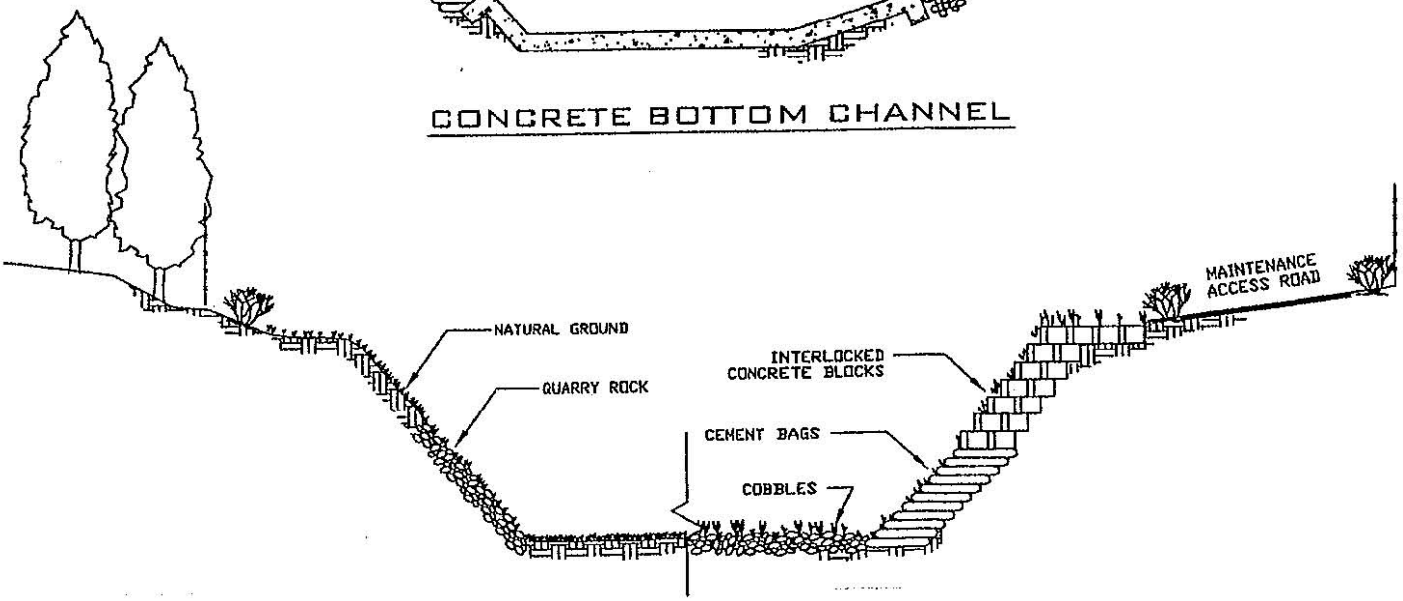
Exhibit 1 consists of a set of County stream maintenance map with streams identified by Type (1,2 3,4 or 5). The actual Exhibit 1 is transmitted to Fish and Game separately from this MOU. A copy of this Exhibit 1 is available for viewing at the County of Sacramento, Water Resources Division, Drainage Operations and Maintenance Section.



CONCRETE LINED CHANNEL



CONCRETE BOTTOM CHANNEL



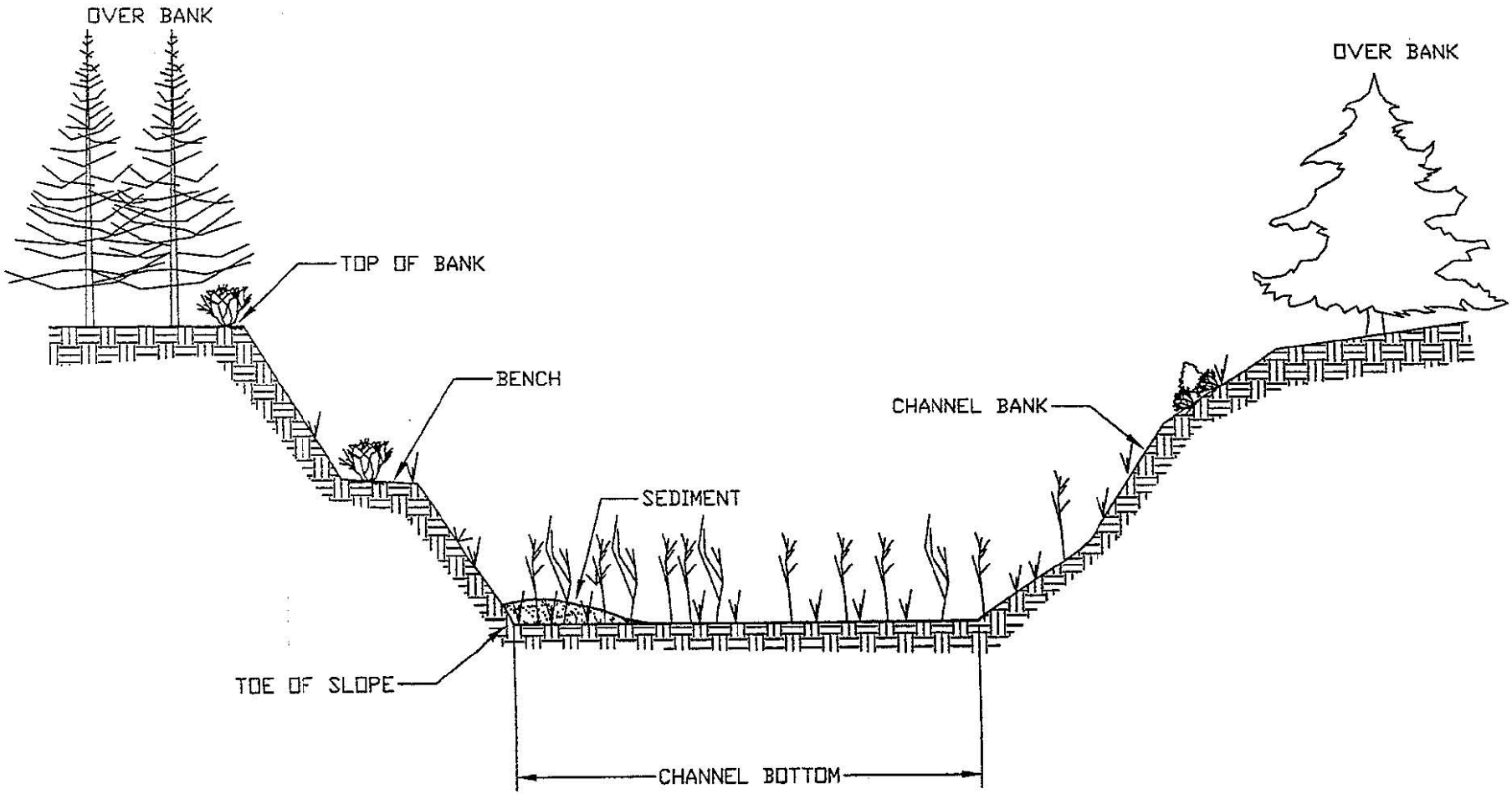
IMPROVED CHANNEL WITH DIFFERENT TREATMENTS

CHANNEL TYPE 1 ~ TYPICAL

IMPPROVED CHANNEL WITHOUT SIGNIFICANT RIPARIAN HABITAT

Memorandum of Understanding
Routine Stream Maintenance
County of Sacramento

Exhibit 2

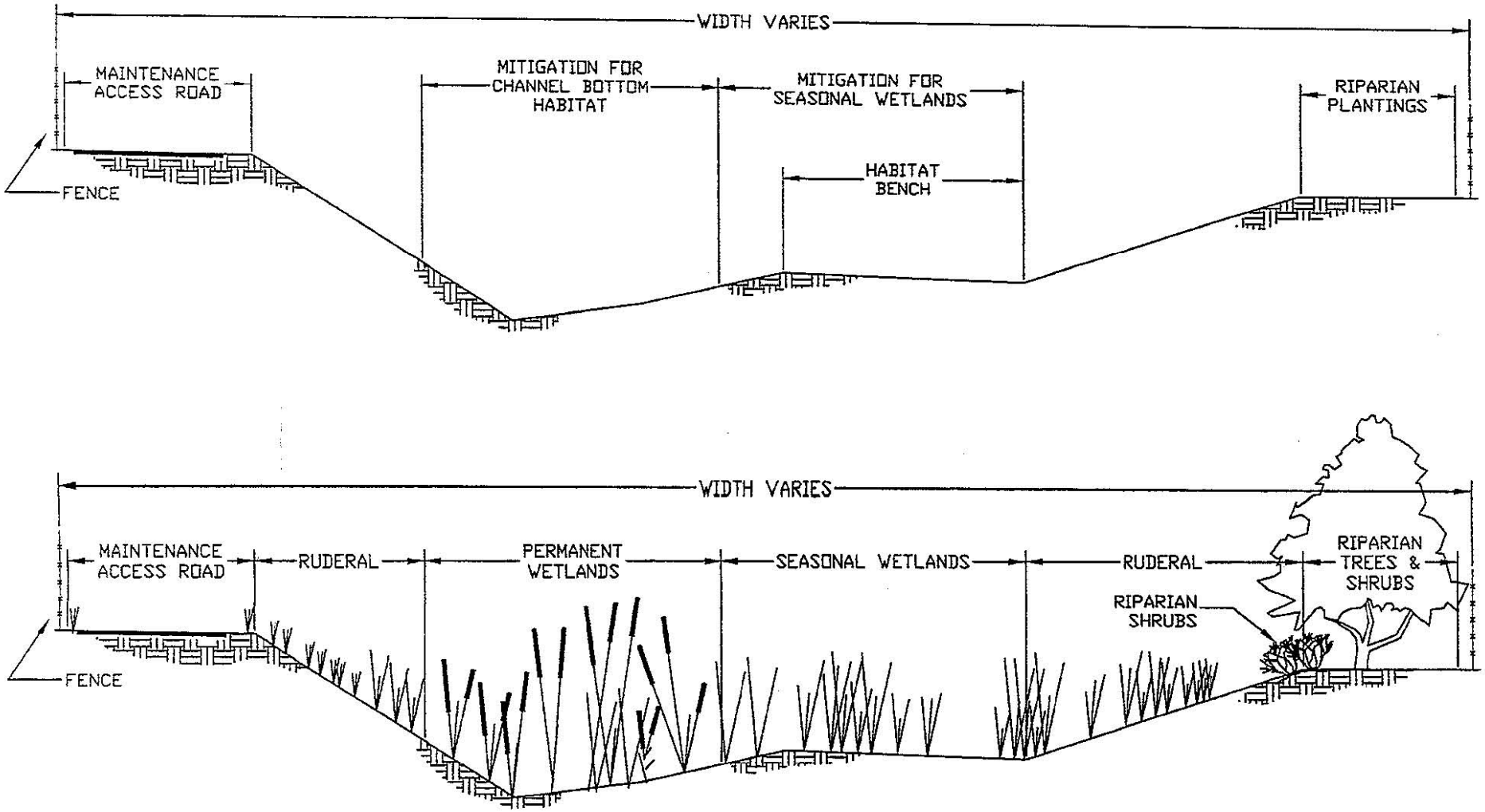


CHANNEL TYPE 2 ~ TYPICAL

IMPPROVED CHANNEL WITH SIGNIFICANT RIPARIAN HABITAT

Memorandum of Understanding
Routine Stream Maintenance
County of Sacramento

Exhibit 3

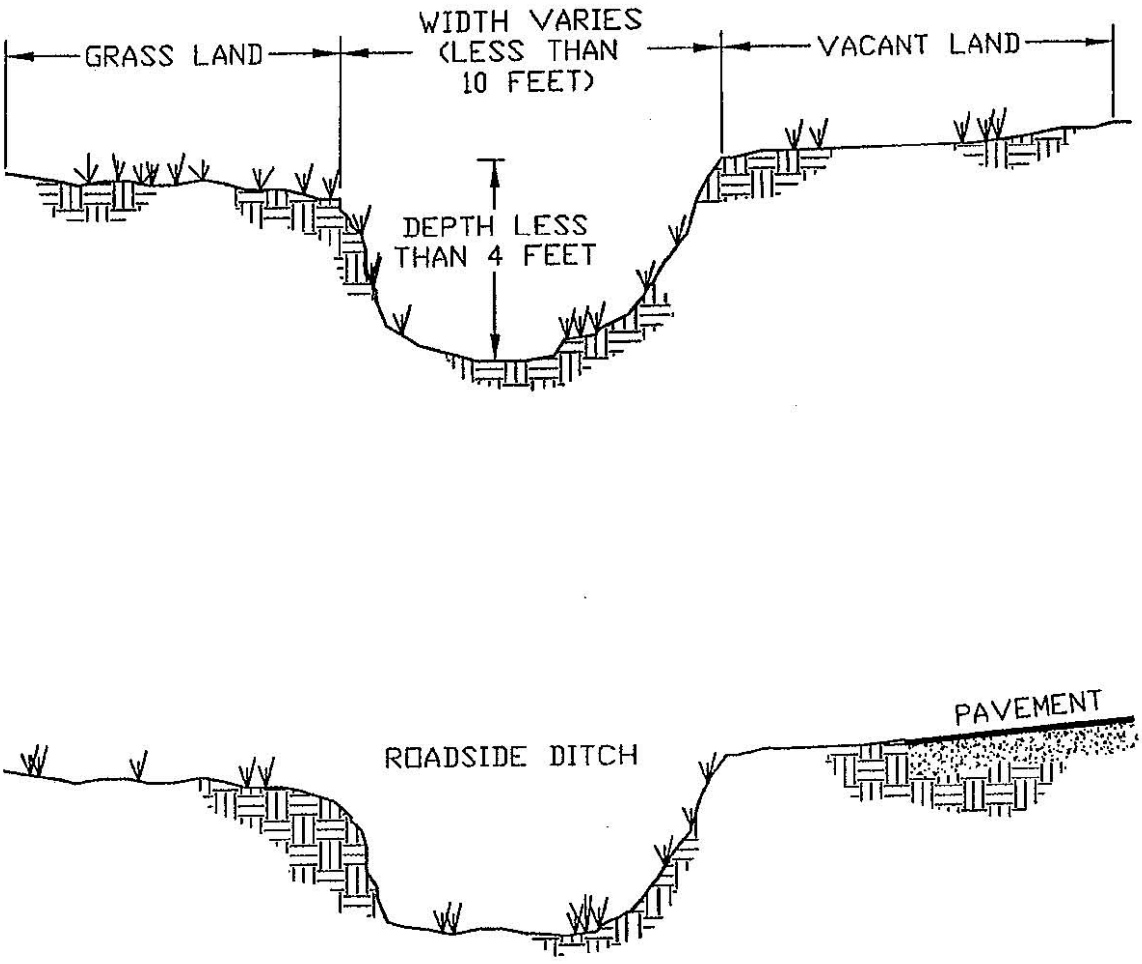


CHANNEL TYPE 3 ~ TYPICAL

IMPPROVED CHANNEL WITH MITIGATING RIPARIAN HABITAT

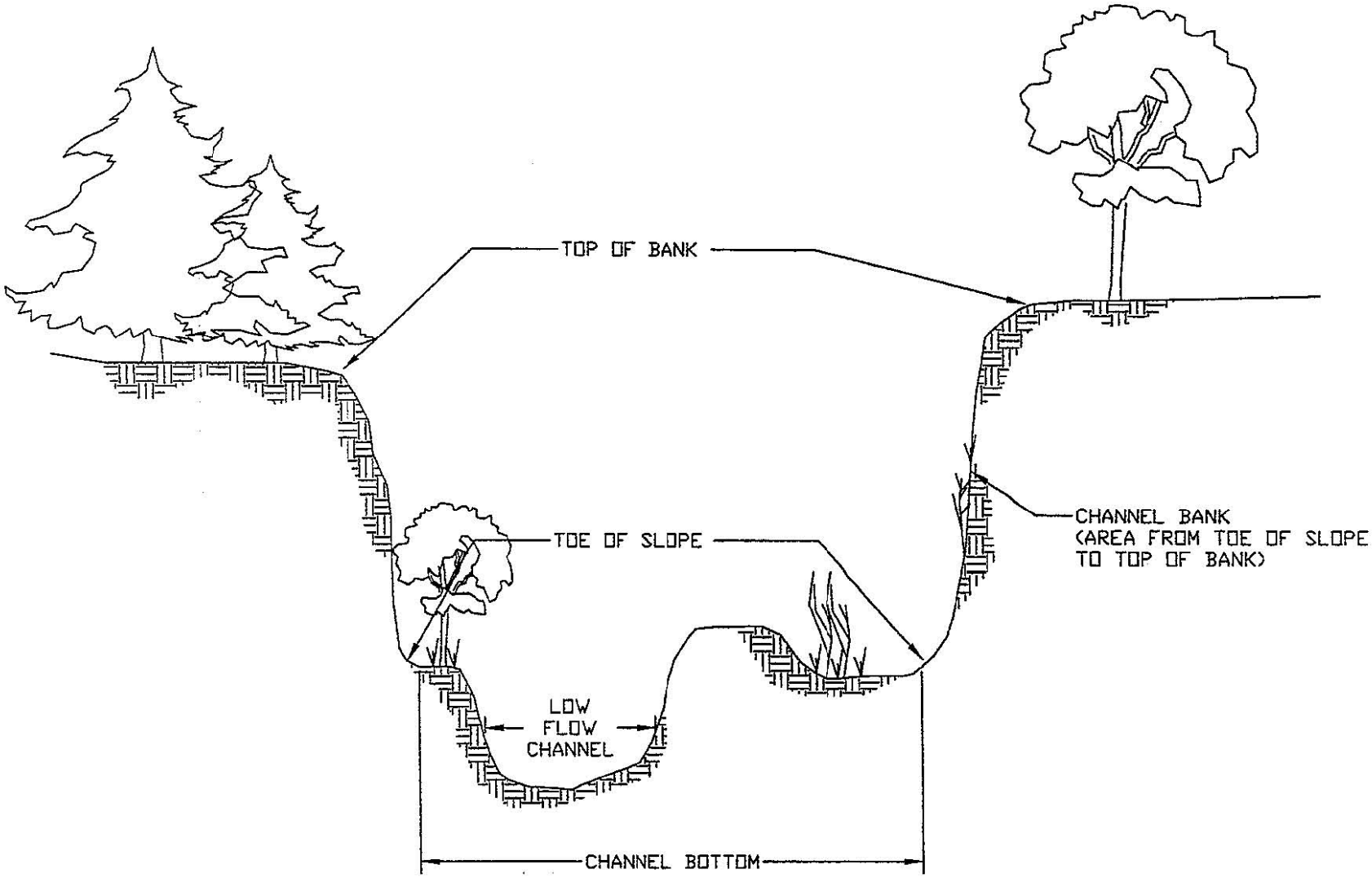
Memorandum of Understanding
Routine Stream Maintenance
County of Sacramento

Exhibit 4



CHANNEL TYPE 4 ~ TYPICAL

UNIMPPROVED CHANNEL WITHOUT SIGNIFICANT RIPARIAN HABITAT



CHANNEL TYPE 5 ~ TYPICAL

UNIMPPROVED CHANNEL WITH SIGNIFICANT RIPARIAN HABITAT

Memorandum of Understanding
Routine Stream Maintenance
County of Sacramento

Exhibit 6

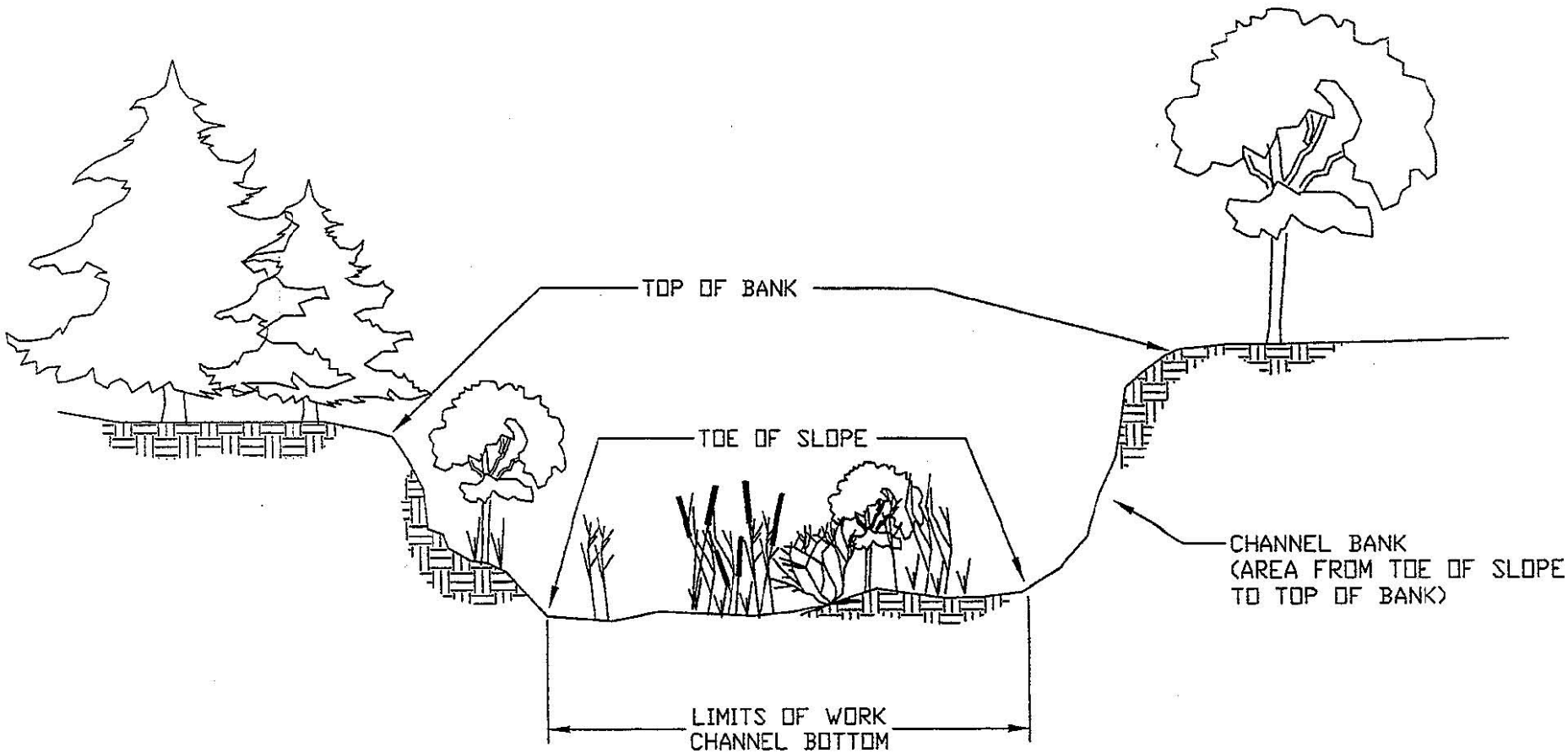


EXHIBIT 7~CONTROL OF AQUATIC AND WOODY GROWTH

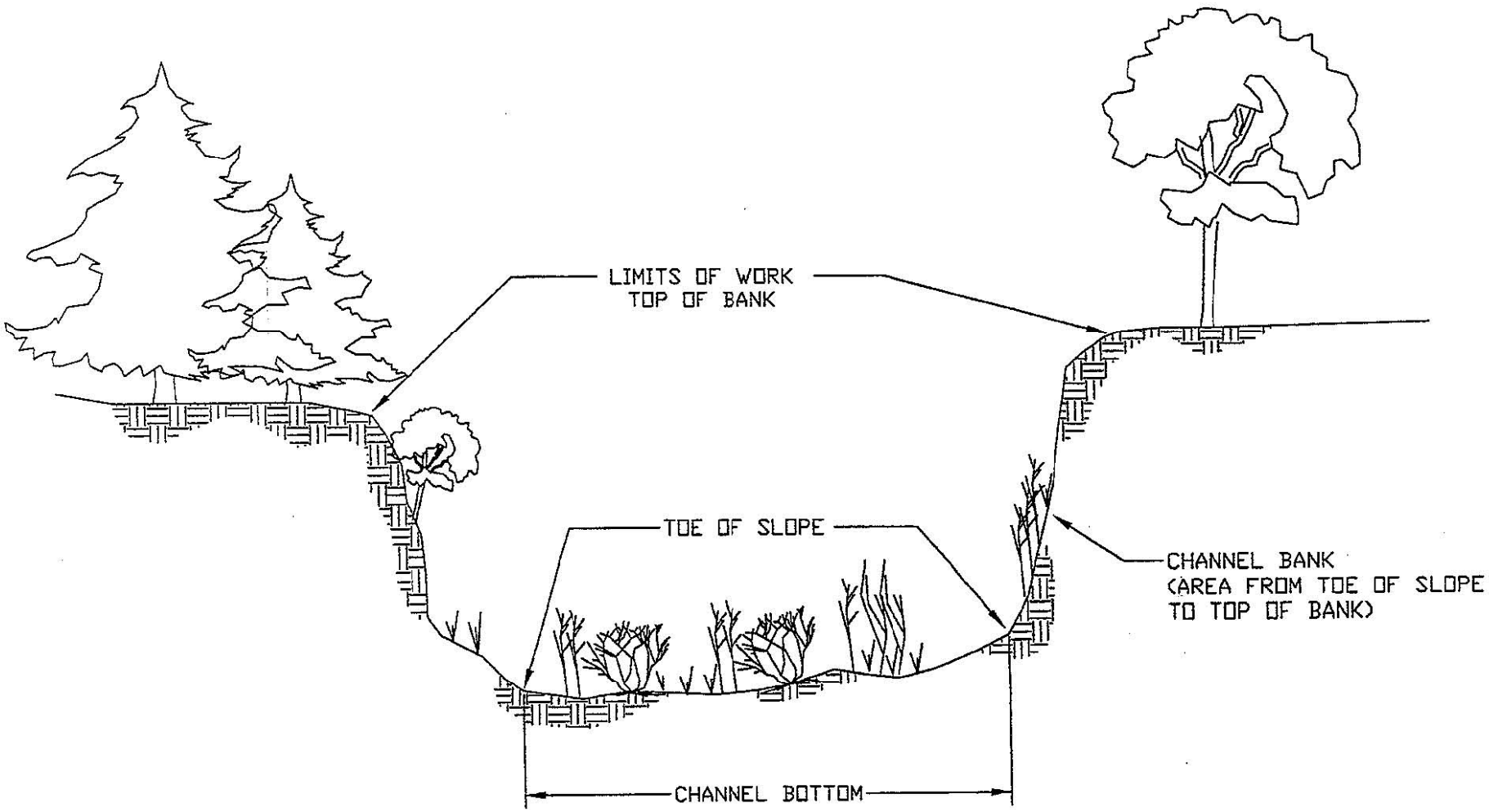


EXHIBIT 8~CONTROL OF NON-NATIVE VEGETATION

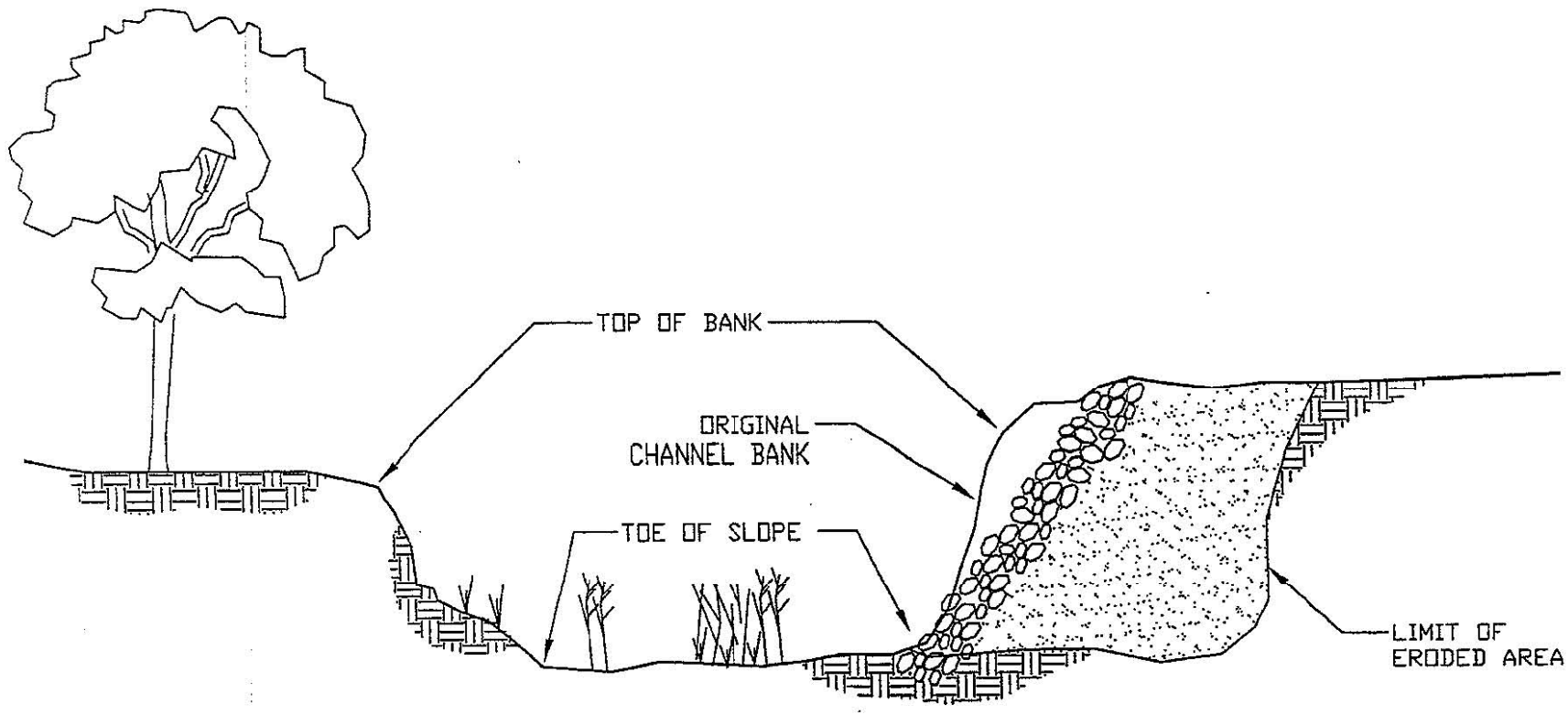


EXHIBIT 9~MINOR EROSION CONTROL WORK

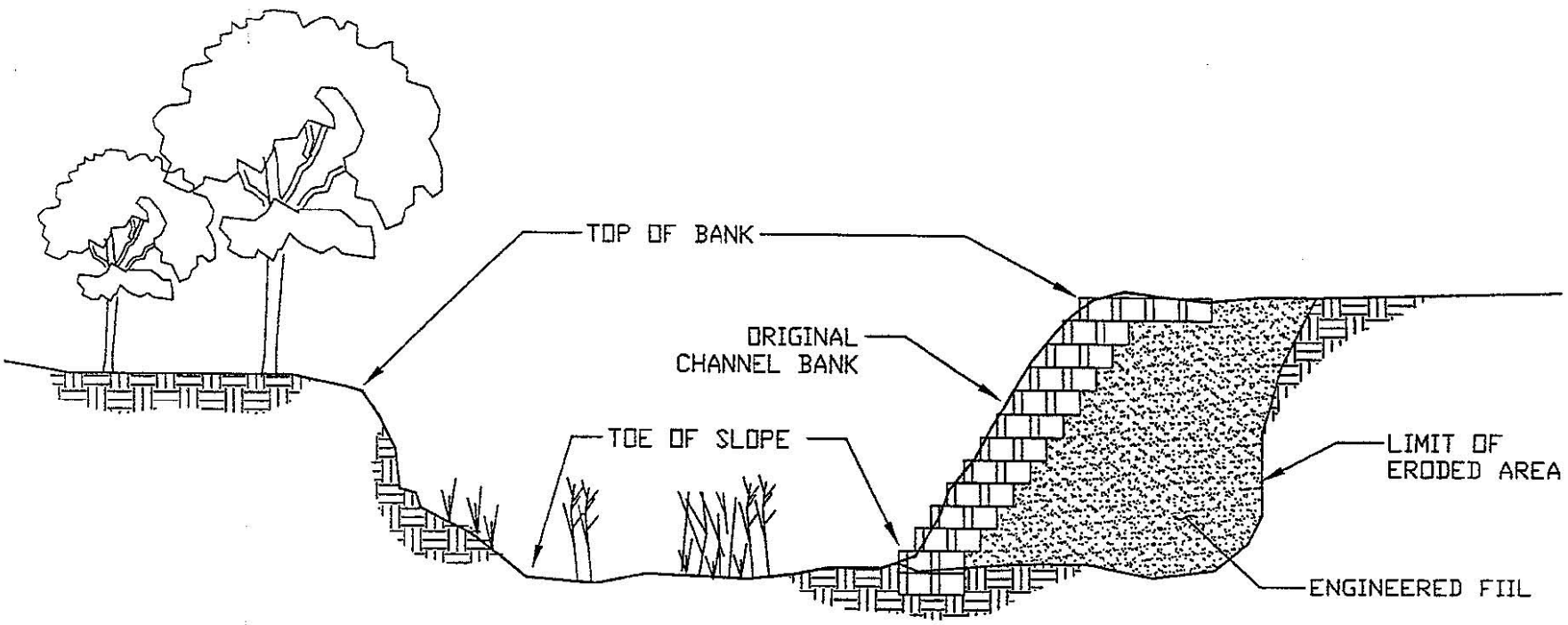


EXHIBIT 10~MINOR EROSION CONTROL WORK

Memorandum of Understanding
Routine Stream Maintenance
County of Sacramento

Exhibit 10

APPENDIX B

NATURAL STREAMS ZONING CODE

235-160. Purpose

The Natural Streams (NS) Combining Zone as shown on the Comprehensive Zoning Plans shall be used to regulate property along the designated Natural Streams within the unincorporated area of the County to:

(a) Protect current and future occupants of land subject to flooding from the physical damage of flooding.

(b) Protect property from flood losses and prevent noncompatible development in floodprone areas.

(c) Protect and preserve the natural character and amenities of the Natural Streams.

(d) Minimize the placement of fill in floodplain areas of the Natural Streams.

(e) Protect and enhance the quality of water entering and flowing within the Natural Streams.

(f) Preserve the recreation potential of the Natural Streams.

235-161. Applicability of (NS) Combining Zone Designation

(a) The (NS) appearing after a zone abbreviation on the Comprehensive Zoning Plans indicates that the property so classified is subject to the provisions of this Article in addition to those of the underlying zone, except as otherwise specified in this Article.

(b) The (NS) Combining Zone may be applied to the unincorporated area of the County adjacent to or near the designated Natural Streams for which the Board determines that land development may have an impact on the preservation or enhancement of scenic, recreational, hydrological, or related values along or near the Natural Streams.

(c) For purposes of this Article the following streams or portions of streams are herein designated as Natural Streams:

(1) Arcade Creek - from Auburn Boulevard (near Winding Way) to Greenback Lane (east of Almond Avenue).

(2) Arcade Creek - South Branch - from the confluence with Arcade Creek to approximately 1100 feet east of Kenneth Avenue.

(3) Brooktree Creek - from the confluence with Arcade Creek to San Juan Avenue.

(4) Carmichael Creek - from Ancil Hoffman Park to Walnut Road.

(5) Chicken Ranch Slough - from Cottage Way to approximately 350 feet west of Garfield Avenue.

(6) Coyle Creek - from the confluence with Brooktree Creek to Madison Avenue.

(7) Cripple Creek - from the confluence with Arcade Creek to approximately 400 feet north of Central Avenue.

(8) Kohler Creek - from the confluence with Arcade Creek to Madison Avenue.

(9) Linda Creek - from the Placer County line near Old Auburn Road to the Placer County line near Mountain Avenue.

(10) Minnesota Creek - from the American River Parkway to approximately 550 feet north of Olive Street.

(11) San Juan Creek - from the confluence with Arcade Creek to Greenback Lane.

(12) Strong Ranch Slough - from Arden Way to approximately 800 feet east of Walnut Avenue.

(13) Verde Cruz Creek - from the confluence with Arcade Creek to approximately 1800 feet west of Dewey Drive.

APPENDIX C

DECEMBER 31, 2009 - MOU EXTENSION

STATE OF CALIFORNIA —THE RESOURCES AGENCY
Arnold Schwarzenegger, *Governor*

DEPARTMENT OF FISH AND GAME
1701 NIMBUS ROAD, SUITE A
RANCHO CORDOVA, CALIFORNIA 95670
(916) 358-2900

RECEIVED
OCT 29 2004
MSA-DEPARTMENT OF WATER RESOURCES
DRAINAGE OPERATIONS & MAINTENANCE

October 27, 2004

Stephen Kenning
County of Sacramento
Municipal Services Agency
3847 Branch Center Road, Trailer #4
Sacramento, CA 95827

Subject: **Request to Renew the Memorandum of Understanding (MOU) between the County of Sacramento Public Works Agency (Agency) and the California Department of Fish and Game (Department) regarding Routine Maintenance Activities in Unimproved and Improved Channels**

Dear Mr. Kenning:

The Department of Fish and Game (Department) has reviewed your October 8, 2004 request to renew the Memorandum of Understanding (MOU) between the County of Sacramento Public Works Agency (Agency) and the California Department of Fish and Game regarding Routine Maintenance Activities in Unimproved and Improved Channels in Sacramento County. The original MOU was signed by the Department on December 13, 2000 and is scheduled to expire on December 31, 2004.

The Department hereby agrees to renew the Memorandum of Understanding between the County of Sacramento Public Works Agency and the California Department of Fish and Game regarding Routine Maintenance Activities in Unimproved and Improved Channels. The MOU will be extended from December 31, 2004 to December 31, 2009. All the provisions and conditions in the original MOU remain in effect. The renewal becomes effective on receipt of the $5,180.00 routine maintenance fee and return of this letter.

Copy of this letter and a copy of the original MOU should be readily available to present to any Department of Fish & Game employee inspecting the stream maintenance activity.

If you have questions regarding this matter, please contact Mr. Gary Hobgood, Environmental Scientist at (916) 983-6920 or Mr. Dale Watkins, Lake and Streambed Alteration Agreement Program at (916) 358-2842.

Please sign the attached Renewal Signature Page indicating your acceptance of these terms and return to the Department of Fish and Game, Region 2, 1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670.

Memorandum of Understanding between the County of Sacramento Public Works Agency and the California Department of Fish and Game regarding Routine Maintenance Activities in Unimproved and Improved Channels

Renewal Signature Page

THE DEPARTMENT OF FISH AND GAME
The Resources Agency of California

By: _____ 11/16/2004
Larry L. Eng, Ph.D. Date
Deputy Regional Manager
Sacramento Valley Central Sierra Region

COUNTY OF SACRAMENTO PUBLIC WORKS AGENCY
A POLITICAL SUBDIVISION OF THE STATE OF CALIFORNIA

By: _____ 12-7-04
Keith DeVore, Director Date
Sacramento County
Department of Water Resources

COUNTY OF SACRAMENTO
Public Works Agency
Department of Transportation

STORM WATER POLLUTION PREVENTION PROGRAM
STREET SWEEPING PRIORITIZATION

Pavement, Roadside, Bridges, Hazardous Materials, Trees and Landscape Maintenance Sections

September 2, 2004
Revised July 2008

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Purpose 2
1.2 Background 2
1.3 Area of Coverage 2

2. STREET SWEEPING PRIORITIZATION

2.1. Criteria for Prioritization 3
2.2. Street Sweeping Prioritization Schedule 3
2.3. Bike Lane Sweeping Schedule 5

3. MONITORING PROGRAM EFFECTIVENESS

3.1. Data Base Analysis 12
3.2. Awareness and Communication 12

Maps/Checklist/Policies

1. Sacramento County Map 13
2. Sacramento CA Urbanized Area 14
3. Sacramento County ADT 15
4. Sacramento CA Urbanized Area w streets 16

1. INTRODUCTION

1.1. Purpose

The purpose and intent of this prioritized listing of street sweeping is a good faith effort to comply with National Pollutant Discharge Elimination System (NPDES) requirements as administered though the California Regional Water Quality Control Board, Central Valley Region. In partnership with other County of Sacramento Departments, Agencies, and Sections it is the intent of the Department of Transportation to comply with all applicable requirements to reduce to maximum extent practicable pollutants from or deposited within the County of Sacramento's road right of way.

1.2. Background

Through the Sacramento County Department of Water Resource the Department of Transportation has direction to create, publish, and implement a prioritized street sweeping program as directed in Section 10.f.ii. of the Tentative Order for Storm Water Discharges. The Tentative order states;

Beginning 1 July 2008 each Permittee shall perform street sweeping of curbed streets according to the following schedule:

Priority A: These streets and/or street segments shall be swept at least once per month.

Priority B: These streets and/or street segments shall be swept at least once every other month. Arterials and Bike Lanes

Priority C: The residential neighborhoods in the unincorporated areas of the county. These will be swept every other month or as needed.

1.3. Area of Coverage

The area defined in Section 10.f.ii is limited to curbed streets within the MS4 permit area. However, it is the intent of the County of Sacramento Department of Transportation to comply with and extend the same or similar street sweeping prioritization to as much of its service area as is possible. The Department of Transportation recognizes pollutants occur on all County road right of ways and as a good steward of the community wishes to preserve

and protect all receiving waters of the Sacramento County region. (See maps of coverage area)

2. STREET SWEEPING PRIORITIZATION

2.1. Criteria for Prioritization

The criteria for prioritization will consider those streets, which have the potential to generate the most pollutants as being top priority in frequency of street sweeping. As the Department of Transportation has no hard data in direct correlation to the quantities of materials actually removed, the following criteria will be followed until verifiable data can be obtained.

1.) Traffic volume.
2.) Location of adjacent business such as shopping centers and industrial plants
3.) Past requests for street sweeping
4.) Cumulative knowledge and recollection of DOT employees

2.2. Street Sweeping Prioritization Schedule

The following schedule is for Priority A and B streets using the above criteria. All other streets listed on the Department of Transportation scheduled sweeping lists are Priority C. All streets/roads will be swept when there is need such as hazardous material spills, gravel, and heavy soil, ECT. Additionally the Sacramento County Department of Transportation has commitments to sweep designated bike lanes on County road right of way bi-monthly. These bike lanes are located to the right edge of traveled lanes, which accumulate the most debris. The designated bike lane listing follows the prioritization schedule.

Priority A

Roads Swept Monthly

ROAD NAME	FROM	TO	MILES	#P	L Miles	ADT
WATT AVE	FOLSOM BLVD	FAIR OAKS BLVD	1.2	4	4.8	75517
KIEFER BLVD.	CITY LIMITS	BRADSHAW RD	2.4	4	9.6	20978
BRADSHAW RD.	JACKSON RD.	FOLSOM BLVD	3.1	4	12.4	48176
ROSEVILLE RD	MADISON AVE	CITY LIMIT(SACTO)	1.9	4	7.6	22132
SOUTH WATT AVE	JACKSON RD	FOLSOM BLVD	.3	4	1.2	
Sunrise Blvd	FAIR OAKS BLVD	COLOMA RD	1.6	4	6.4	
Hazel Ave	Folsom Blvd	Currough Downs	1.1	4	4.4	
					46.8	

Priority B

Roads Swept every other month

ROAD NAME	FROM	TO	MILES	#P	L Miles	ADT (2002)
HOWE AVE	FAIR OAKS BLVD	AUBURN BLVD	3.4	4	13.6	59162
COTTAGE WAY	HOWE AVE	WATT AVE	1.2	4	4.8	5614
FULTON AVE	FAIR OAKS BLVD	AUBURN BLVD	3.7	4	14.8	38475
MARCONI AVE	CITY LIMIT	FAIR OAKS BLVD	4.8	4	19.2	26264
EL CAMINO AVE	CITY LIMIT	FAIR OAKS BLVD	5.0	4	20	29519
ALTA ARDEN X-WAY	WATT AVE	HOWE AVE	1.5	4	6	18668
ARDEN WAY	ETHAN WAY	KINGSFORD DR	4.7	4	18.8	40986
EASTERN AVE	EDISON AVE	FAIR OAKS BLVD	3.6	4	14.4	22576
WHITNEY AVE	WATT AVE	WALNUT AVE	2.0	4	8	10703
WALNUT AVE	WINDING WAY	FAIR OAKS BLVD	3.5	4	14	23717
COLLEGE OAKS DR	MADISON AVE	WINDING WAY	1.7	4	6.8	14129
MADISON AVE	AUBURN BLVD	WATT AVE	2.8	4	11.2	58913
AIR BASE DR	MADISON AVE	WATT AVE	0.4	4	1.6	
MADISON AVE	AUBURN BLVD	FOLSOM CITY LIMIT	8.3	4	33.2	56244
SAN JUAN AVE	MADSION AVE	FAIR OAKS BLVD	3.4	4	13.6	23424
DEWEY AVE	LINDA SUE	WINDING WAY	1.9	4	7.6	21640
MANZANITA AVE	AUBURN BLVD	FAIR OAKS BLVD	2.6	4	10.4	33679
GREENBACK LN	FAIR OAKS BLVD	MADISON AVE	2.6	4	10.4	42433
MAIN AVE	GREENBACK LN	BLUE OAK DR	0.8	4	3.2	
GARFIELD AVE	GREENBACK LN	WINDING WAY	1.2	4	4.8	23578
GREENBACK LN	ARCADE CREEK	DIABLO BLVD	0.4	4	1.6	42433
HILLSDALE BLVD	ELKHORN BLVD	MADISON AVE	2.4	4	9.6	32564
WALERGA RD	NORTHLOOP BLVD	HILLSDALE BLVD	3.9	4	15.6	36080
ELVERTA RD	WATT AVE	WALERGA RD	1.8	4	7.2	18575
ANTELOPE RD	WATT AVE	DALY AVE	3.2	4	12.8	47684
DON JUILO BLVD	ANTELOPE RD	WATT AVE	3.6	4	14.4	9480
WATT AVE	AUBURN BLVD	PFE ROAD	4.6	4	18.4	47772
NORTHGATE BLVD	CITY LIMITS	DEL PASO RD	1.1	4	4.4	
DEL PASO RD	RICHTER AVE	EAST LEVEE RD	1.1	4	4.4	
ELKHORN BLVD	DIABLO BLVD	RIO LINDA BLVD	6.8	4	27.2	59425
WATT AVE	FAIR OAKS BLVD	AUBURN BLVD	6.3	4	25.2	57986
AUBURN BLVD	HOWE AVE	MANZANITA AVE	7.6	4	30.4	24629
CALVINE RD,	HIGHWAY 99 INTERCHANGE	GRANT LINE RD.	7.4	2	14.8	32602
GERBER RD.	STOCKTON BLVD.	E.G.-FLORIN RD.	2.3	4	9.2	21880
POWER INN RD.	JUNIPERO ST.	CALVINE RD.	3.1	4	12.4	31798
FLORIN RD.	FRANKLIN BLVD.	BRADSHAW RD	6.7	4	26.8	58576
FLORIN-PERKINS RD.	ROVANA CIR.	FLORIN RD.	0.7	4	2.6	
65th. ST. EXPRESSWAY	53rd. AVE.	FLORIN RD.	0.9	4	3.6	16372
44TH ST	14th. AVE.	47TH AVEor s/o at your Disc.	2.5	3	7.4	6276
47th. AVE.	RxR TRACKS	STOCKTON BLVD.	1.9	4	7.4	37014
FRANKLIN BLVD.	FRUITRIDGE RD.	EAST PARKWAY	2.6	4	10.4	30999
FRUITRIDGE ROAD	MENDOCINO BLVD	ETHEL WAY N/S Only	0.7	1	0.7	39750
STOCKTON BLVD.	14th. AVE.	ELSIE AVE.	4.3	4	17.2	41245
SOUTH WATT AVE.	FLORIN RD	KIEFER BLVD	3.5	4	14.0	46619
LA RIVIERA DR.	WATT AVE.	FOLSOM BLVD.	1.3	4	5.2	19553
	A. ON/OFF-RAMPS FROM WATT AVE.					
AMERICAN RIVER DR.	WATT AVE.	CITY LIMITS	1.3	2	2.6	13205
OLD PLACERVILLE RD.	BRADSHAW RD	ROUTIER RD(S/S)	1.8	4	7.2	8280

SUNRISE BLVD.	DOUGLAS RD.	RC CITY LIMITS	2	4	8	88712
FAIR OAKS BLVD.	CITY LIMITS	STACY HILLS DR	13.6	4	54.4	50620
HAZEL AVE.	FOLSOM BLVD.	COUNTY LINE	6.2	4	24.64	53979
					585.5	

BIKE LANES SWEPT EVERY OTHER MONTH

Road Name	From	To	(Ft.)	Miles
A Parkway	Franklin Blvd.	Center Parkway	1,305	0.25
A Parkway	Center Parkway	Franklin Blvd.	1,305	0.25
Airbase Dr.	Watt Ave.	Madison Ave.	2,150	0.41
Airbase Dr.	Madison Ave.	Watt Ave.	2,170	0.41
Alta Arden Expway	Howe Ave.	Fulton Ave.	4,000	0.76
Alta Arden Expway	Wyda Way	Howe Ave.	3,740	0.71
American River Dr.	City Limits (Sacto)	Sandbar Cir.	18,685	3.54
American River Dr.	Los Rios Way	City Limits (Sacto)	18,685	3.54
Antelope Rd.	Walerga Rd.	Citrus Height City Limits	13,751	3.59
Antelope Rd.	Old Auburn Rd.	Walerga Rd.	27,875	5.28
Arden Way	Morse Ave.	McClaren Dr.	16,725	3.17
Arden Way	McClaren Dr.	Morse Ave.	16,725	3.17
Auburn Blvd.	Watt Ave.	St. Ives Ln.	26,880	5.09
Auburn Blvd.	Manzanita Av.	Watt Ave.	26,940	5.10
Bell St.	Northrop Ave	Arden Way	5,285	1.00
Bell St.	Alta Arden Expway.	Edison Ave.	9,285	1.76
Bell St.	Edison Ave.	Alta Arden Expway.	9,470	1.79
Bell St.	Arden Way	Northrop Ave	5,285	1.00
Bowling Dr.	Florin Rd.	Cuny Ave.	3,205	0.61
Bowling Dr.	Cuny Ave.	Florin Rd.	3,205	0.61
Bradshaw Rd.	Kiefer Blvd.	Folsom Blvd.	10,465	1.98
Bradshaw Rd.	Folsom Blvd.	Arlisson Dr.	5,425	1.03
Bradshaw Rd.	Old Placerville Rd.	Goethe Rd.	760	0.14
Bradshaw Rd.	Ecology Lane	Kiefer Blvd.	3,335	0.63
Briggs Dr.	Florin Rd	Lawnwood Dr.	2,760	0.52
Briggs Dr.	Lawnwood Dr.	Steelman Cir. (S/Ext)	2,575	0.49
California Ave.	Oak Ave.	Jan Dr.	13,185	2.50
California Ave.	Jan Dr.	Oak Ave.	13,185	2.50
Calvine Rd.	City Limits (Sacto)	Power Inn Rd.	2,305	0.44
Calvine Rd.	Cliffcrest Dr.	Auberry Dr.	2,305	0.44

Center Parkway	City Limits (Sacto)	A Parkway	4,095	0.78
Center Parkway	A Parkway	City Limits (Sacto)	4,100	0.78
Central Ave	Woodmore Oaks	Main Ave.	15,400	2.92
Central Ave	Main Ave.	Woodmore Oaks	15,410	2.92
Chandler Dr.	Stockton Blvd.	Lindale Dr.	315	0.06
Chandler Dr.	Lindale Dr.	Stockton Blvd.	315	0.06
College Oak Dr.	Winding Way	Saddlerock Way	4,195	0.79
College Oak Dr.	Myrtle Ave.	Sycamore Ave.	3,405	0.64
Cuny Ave.	Franklin Blvd.	Bowling Dr.	2,015	0.38
Cuny Ave.	Gomez Ct.	Forty Second St.	360	0.07
Cypress Ave	Pasadena Ave.	Manzanita Ave.	7,935	1.50
Cypress Ave	Manzanita Ave.	Pasadena Ave.	7,935	1.50
Diablo Dr.	Olymic Way	Roseville Rd.	4,750	0.90
Diablo Dr.	Roseville Rd.	Elkhorn Blvd.	4,950	0.94
Don Julio Blvd.	Watt Ave.	Antelope Rd.	15,600	2.95
Don Julio Blvd.	Antelope Rd.	Morazan St.	15,170	2.87
Eastern Ave.	Fair Oaks Blvd.	Vulcan Dr.	5,925	1.12
Eastern Ave.	Cottage Way	Edison Ave.	11,315	2.14
Eastern Ave.	Edison Ave.	Birgit Way	9,825	1.86
Eastern Ave.	Arden Way	Fair Oaks Blvd.	5,215	0.99
East Stockton Blvd.	Power Inn Rd.	State Route 99	5,625	1.07
East Stockton Blvd.	State Route 99	Power Inn Rd.	5,625	1.07
Edison Ave.	Fulton Ave.	Pasadena Ave.	14,725	2.79
Edison Ave.	Pasadena Ave.	Watt Ave.	8,840	1.67
Edison Ave.	Morse Ave.	Fulton Ave.	2,945	0.56
El Camino Ave.	Avalon Dr.	Maryal Dr.	340	0.06
El Camino Ave.	Eastern Ave.	Fair Oaks Blvd.	10,195	1.93
El Camino Ave.	Fair Oaks Blvd.	Eastern Ave.	11,110	2.10
El Camino Ave.	Howe Ave.	Ethan Way	1,190	0.23
Elk Grove Blvd.	East Stockton Blvd.	Elk Grove-Florin Rd.	3,725	0.71
Elkhorn Blvd.	Marysville Blvd.	Bismark Dr.	28,435	5.39
Elkhorn Blvd.	Larchmont Dr.	Interstate 80	11,300	2.14
Elkhorn Blvd.	Interstate 80	Marysville Blvd.	40,255	7.62
Elsie Ave.	Stockton Blvd.	Power Inn Rd.	2,945	0.56
Elsie Ave.	Power Inn Rd.	Stockton Blvd.	2,945	0.56
Engle Ave.	Fair Oaks Blvd.	Holloway Ln.	1,630	0.31
Fair Oaks Blvd.	Munroe St.	Lawson Way	3,600	0.68
Fair Oaks Blvd.	Larch Ln.	Wedgewood Ave.	20,525	3.89
Fair Oaks Blvd.	Watkins Dr.	Treecrest Ave.	9,450	1.79
Fair Oaks Blvd.	Madison Ave,	Old Winding Way	8,335	1.58

Fair Oaks Blvd.	Homewood Way	Walnut Ave.	3,145	0.60
Fair Oaks Blvd.	Paloma Ave.	Larch Ln.	13,185	2.50
Fair Oaks Blvd.	Crocker Road	Munroe St.	3,200	0.61
Fifty Third Ave.	Fiftieth Ave.	East-Ending	3,230	0.61
Fifty Third Ave.	Sixtyfifth St.	City Limits (Sacto)	1,725	0.33
Fifty Third Ave.	City Limits (Sacto)	Sixtyfifth St.	1,645	0.31
Fifty Third Ave.	East-Ending	Fiftieth St.	3,230	0.61
Folsom Blvd.	South Watt Ave.	City Limits.	35,815	1.45
Folsom Blvd.	Hazel Ave.	U.S. 50	6,830	1.29
Folsom Blvd.	U.S. 50	Hazel Ave.	6,830	1.29
Forty Ninth Ave.	Martin Luther King Blvd.	Forty Second St.	1,860	0.35
Forty Ninth Ave.	Forty Second St.	Martin Luther King Blvd.	1,860	0.35
Forty Second St.	Cuny Ave.	Forty Ninth Ave.	660	0.13
Forty Second St.	Forty Ninth Ave.	Cuny Ave.	660	0.13
Forty Seventh St.	Fiftieth St.	Fiftieth Ave.	2,110	0.40
Forty Seventh St.	Ledonne Dr.	Fiftieth St.	965	0.18
Fulton Ave.	Sierra Blvd.	Northrop Ave.	1,325	0.25
Fulton Ave.	Northrop Ave.	Sierra Blvd.	1,325	0.25
Garfield Ave.	Fair Oaks Blvd.	Palm Ave.	2,230	0.42
Garfield Ave.	Oldham Ln.	Greenback Ln.	2,635	0.50
Garfield Ave.	Madison Ave.	Fair Oaks Blvd.	20,685	3.92
Gerber Rd.	Stockton Blvd.	Elk Grove-Florin Rd.	14,465	2.74
Gerber Rd.	Elk Grove-Florin Rd.	Reese Rd.	6,955	1.32
Gerber Rd.	Fernridge Dr.	Stockton Blvd.	4,885	0.93
Gold Country Blvd.	Sunrise Blvd.	Hazel Ave.	15,420	2.92
Gold Country Blvd.	Hazel Ave.	Discovery Village	15,420	2.92
Gold Express Dr.	Sunrise Blvd.	Gold Rush Dr.	2,290	0.43
Gold Express Dr.	Gold Rush Dr.	Sunrise Blvd.	2,290	0.43
Gold Rush Dr.	Coloma Rd.	Cold County Blvd.	2,810	0.53
Gold Rush Dr.	Gold County Blvd.	Coloma Rd.	2,810	0.53
Grant Ave.	Sue Pam Dr.	Fair Oaks Blvd.	1,110	0.21
Grant Ave.	Marshall Ave.	Hollister Ave.	2,650	0.50
Grant Ave.	Hollister Ave.	Ava Way	800	0.15
Grant Ave.	Voleyn St.	Marshall Ave.	1,495	0.28
Grant Ave.	Fair Oaks Blvd.	Sue Pam Dr.	1,110	0.21
Greenback Ln.	Arcade Creek	Verner Ave.	2,068	0.39
Harrington Way.	South-Ending	American River Dr.	1,140	0.22
Harrington Way.	American River Dr.	South-Ending	1,140	0.22
Hazel Ave.	Nimbus Road	Oak Ave.	25,005	4.74
Hazel Ave.	Oak Ave.	Tributary Point Dr.	25,160	4.77

Hazel Ave.	U.S. 50	Folsom Blvd.	705	0.13
Hemlock St.	Myrtle Ave.	Auburn Blvd.	4,450	0.84
Hemlock St.	Auburn Blvd.	Myrtle Ave.	4,450	0.84
Hillsdale Blvd.	Turnsworth Ct.	Elkhorn Blvd.	11,035	2.09
Hillsdale Blvd.	Elkhorn Blvd.	Madison Ave.	12,215	2.31
Hollister Ave.	Grant Ave.	Fair Oaks Blvd.	2,640	0.50
Hollister Ave.	Fair Oaks Blvd.	Grant Ave.	2,645	0.50
Howe Ave.	Burney Way	Marconi Ave.	2,115	0.40
Hurley Way	Ethan Way	Howe Ave.	1,335	0.25
Hurley Way	Bell St.	Morse Ave.	5,290	1.00
Hurley Way	Rushden Dr.	Ethan Way	9,070	1.72
Illinois Ave.	Madison Ave.	Pershing Ave.	1,975	0.37
Illinois Ave.	Char Ave.	Madison Ave.	1,955	0.37
Kenneth Ave.	Winding Way	Stratus Dr.	14,890	2.82
Kenneth Ave.	Central Ave.	Oak Ave.	4,950	0.94
Kenneth Ave.	Oak Ave.	Winding Way	20,040	3.80
Kiefer Blvd.	City Limits (Sacto)	Kiefer S/Frontage Rd.	3,460	0.66
Kiefer Blvd.	Southport Dr.	Mayhew Rd.	5,460	1.03
Kiefer Blvd.	Bradshaw Rd.	Southport Dr.	8,170	1.55
Kiefer Blvd.	Autumnwood Dr.	South Watt Ave.	1,275	0.24
Kingsford Dr.	American River Dr.	Arden Way	4,050	0.77
Kingsford Dr.	Arden Way	American River Dr.	4,050	0.77
La Riviera Dr.	Watt Ave.	Folsom Blvd.	7,500	1.42
La Riviera Dr.	Folsom Blvd.	Watt Ave.	7,490	1.42
Lawnwood Dr.	Forman Way	Richman Way	240	0.05
Lincoln Ave.	Manzanita Ave.	San Juan Ave.	10,325	1.96
Lincoln Ave.	San Juan Ave.	Oak Knoll Dr.	825	0.16
Lincoln Ave.	Glenridge Dr.	Manzanita Ave.	7,850	1.49
Lindale Dr.	Chandler Dr.	Palmer House Dr.	3,495	0.66
Lindale Dr.	Palmer House Dr.	Chandler Dr.	3,945	0.75
Madison Ave.	Fair Oaks Blvd.	Lake Natoma Dr.	20,955	3.97
Madison Ave.	Greenback Ln.	Fair Oaks Blvd.	20,930	3.96
Main Ave.	Lakefair Ct.	Oak Ave.	13,095	2.48
Main Ave.	Oak Ave.	Winding Oak Dr.	15,585	2.95
Manzanita Ave.	Cypress Ave.	Auburn Blvd.	11,825	2.24
Manzanita Ave.	Auburn Blvd.	Nonnie Ave.	2,820	0.53
Manzanita Ave.	Shadow Creek Dr.	Kimberly Hill Ct.	7,070	1.34
Manzanita Ave.	Locust Ave.	Cypress Ave.	1,335	0.25
Marconi Ave.	Howe Ave.	Ashbourne Dr.	7,915	1.50
Marconi Ave.	Watt Ave.	Fair Oaks Blvd.	15,480	2.93

Marconi Ave.	Fair Oaks Blvd.	Calderwood Ln.	19,685	3.73
Marconi Ave.	Fulton Ave.	Howe Ave.	3,965	0.75
Mariposa Ave.	Sycamore Dr.	Watson Way	1,120	0.21
Mariposa Ave.	Watson Way	Antelope Rd.	700	0.13
Mariposa Ave.	Chula Vista Dr.	Limerick Way	2,970	0.56
Marshall Ave.	Stanley Ave.	Grant Ave.	2,645	0.50
Marshall Ave.	Grant Ave.	Stanley Ave.	2,645	0.50
Martin Luther King	Forty Ninth Ave.	State Route 99	5,025	0.95
Martin Luther King	State Route 99	Franklin Blvd.	4,680	0.89
Morse Ave.	Northrop Ave.	Cottage Way	7,725	1.46
Morse Ave.	South-Ending	Marconi Ave.	4,455	0.84
Morse Ave.	Marconi Ave.	South-Ending	4,605	0.87
Morse Ave.	Cottage Way	Fair Oaks Blvd.	10,640	2.02
Munroe St.	City Limits (Sacto)	Sierra Blvd.	2,330	0.44
Munroe St.	Sierra Blvd.	City Limits (Sacto)	2,330	0.44
Myrtle Ave.	Auburn Blvd.	Hemlock St.	3,485	0.66
Myrtle Ave.	Hemlock St.	Auburn Blvd.	3,485	0.66
Norris Ave.	Silver Crest Ave.	St. Andrews Ave.	1,375	0.26
Norris Ave.	Whitney Ave.	Auburn Blvd.	5,420	1.03
Norris Ave.	Auburn Blvd.	Whitney Ave.	5,420	1.03
Norris Ave.	Pounds Ave.	Clairidge Way	950	0.18
North Loop Blvd.	Scrub Oak Way	Benjamin Dr.	1,175	0.22
North Loop Blvd.	Palmerson Way	Redwatern Dr.	3,080	0.58
Northrop Ave.	West-Ending	Watt Ave.	10,325	1.96
Northrop Ave.	Watt Ave.	West-Ending	10,490	1.99
Oak Ave. (Carm.)	Boyer Dr.	California Ave.	1,985	0.38
Oak Ave. (Carm.)	California Ave.	Fair Oaks Blvd.	2,110	0.40
Oak Ave. (Orvale.)	Sunrise Blvd.	City Limits (Folsom)	22,840	4.33
Oak Ave. (Orvale.)	City Limits (Folsom)	Sunrise Blvd.	22,840	4.33
Old Placerville Rd.	Bradshaw Rd.	Routiers Rd	11,915	2.26
Palm Dr.	Fair Oaks Blvd.	California Ave.	1,995	0.38
Palm Dr.	California Ave.	Palm Estates Ct.	1,995	0.38
Palmer House Dr.	Gerber Dr.	Flamingo Way	5,335	1.01
Palmer House Dr.	Florin Rd.	McTavish Cir.	5,440	1.03
Pasadena Ave.	Edison Ave.	Winding Way	1,955	0.37
Pasadena Ave.	Winding Way	Newell St.	2,590	0.49
Pershing Ave.	Kenneth Ave.	Madison Ave.	10,675	2.02
Pershing Ave.	Madison Ave.	Kenneth Ave.	10,675	2.02

Power Inn Rd.	Auberry Dr.	Hay Stack Dr.	5,680	1.08
Power Inn Rd.	Betty Lou Dr.	Elsie Ave.	8,345	1.58
Rio Linda Blvd.	Elkhorn Blvd.	O Street	3,990	0.76
Rio Linda Blvd.	Silver Park Ave.	Elverta Rd.	6,845	1.30
Rio Linda Blvd.	Elverta Rd.	Marysville Blvd.,	15,430	2.92
San Juan Ave.	Fair Oaks Blvd.	Greenback Lane	15,280	2.89
San Juan Ave.	Greenback Lane	Fair Oaks Blvd.	15,280	2.89
Saverien Dr.	American River Dr.	Fair Oaks Blvd.	1,810	0.34
Saverien Dr.	Fair Oaks Blvd.	American River Dr.	1,810	0.34
Sixth Parkway	Florin Rd.	Sky Parkway	1,460	0.28
Sixth Parkway	Sky Parkway	Florin Rd.	1,460	0.28
Sixtyfifth St.	Stockton Blvd.	Fifty Third Ave.	1,105	0.21
Sixtyfifth St.	City Limits (Sacto)	Stockton Blvd.	1,595	0.30
Sky Parkway	Sixth Parkway	Sixtyfifth St.	2,980	0.56
Sky Parkway	North Parkway	Fifth Parkway	555	0.11
South Watt Ave.	Autumnwood Dr.	Folsom Blvd.	1,620	0.31
South Watt Ave.	Folsom Blvd.	Kiefer Blvd.	2,465	0.47
Stanley Ave.	Fair Oaks Blvd.	Oak Cliff Cir.	5,445	1.03
Stanley Ave.	Marshall Ave.	Fair Oaks Blvd.	5,600	1.06
Steiner Dr.	North Parkway	Forty Seventh Ave.	3,450	0.65
Steiner Dr.	Forty Seventh Ave.	North Parkway	3,450	0.65
Stockton Blvd.	State Route 99	City Limits (Sacto)	13,610	2.58
Stockton Blvd.	City Limits (Sacto)	State Route 99	13,675	2.59
Sue Pam Dr.	South-Ending	Grant Ave.	1,040	0.20
Sue Pam Dr.	Grant Ave.	Whitney Ave.	665	0.13
Sunset Ave.	San Juan Ave.	Hazel Ave.	19,025	3.60
Sunset Ave.	Hazel Ave.	San Juan Ave.	19,025	3.60
Sutter Ave.	Fair Oaks Blvd.	California Ave.	2,000	0.38
Sutter Ave.	Valle Vista Rd.	Fair Oaks Blvd.	2,015	0.38
Twenty Eighth St.	U Street	Elverta Rd.	3,630	0.69
Twenty Eighth St.	Elverta Rd.	U Street	3,630	0.69
Van Alstine Ave.	Fair Oaks Blvd.	California Ave.	1,995	0.38
Van Alstine Ave.	California Ave.	Fair Oaks Blvd.	1,995	0.38
Wachtel Way	Oak Ave.	Old Auburn Rd.	5,924	1.12
Wachtel Way	Old Auburn Rd.	Oak Ave.	5,915	1.12
Walerga Rd.	Hillsdale Blvd.	Antelope Rd.	12,285	2.33
Walerga Rd.	Elverta Rd.	County Line (Placer)	4,815	0.91
Walerga Rd.	County Line (Placer)	Elverta Rd.	4,850	0.92
Walerga Rd.	Antelope Rd.	Hillsdale Blvd.	12,285	2.33
Walnut Ave.	Fair Oaks Blvd.	Winding Way	18,085	3.43

Walnut Ave.	Winding Way	Foothill Dr.	12,330	2.34
Walnut Ave.	El Camino Ave.	Fair Oaks Blvd.	5,095	0.96
Watt Ave.	La Brea Way	Maryal Dr.	10,710	2.03
Watt Ave.	Whitney Ave.	Edison Ave.	1,970	0.37
Watt Ave.	Elkhorn Blvd.	County Line (Placer)	14,825	2.81
Watt Ave.	County Line (Placer)	Van Owen St.	16,775	3.18
Watt Ave.	Barrington Rd.	Fair Oaks Blvd.	7,180	1.36
Whitney Ave.	Garfield Ave.	Sue Pam Dr.	1,305	0.25
Whitney Ave.	Sue Pam Dr.	Garfield Ave.	1,305	0.25
Winding Way	Auburn Blvd.	Rampart Dr.	13,235	2.51
Winding Way	Barrett Rd.	Entrance St.	12,440	2.36
Winding Way	San Juan Ave.	Bellue St.	6,155	1.17
Winding Way	Crestview Drive	Auburn Blvd.	13,670	2.59
Woodmore Oaks Dr.	Sunrise Blvd.	Central Ave.	6,420	1.22
Woodmore Oaks Dr.	Central Ave.	Sunrise Blvd.	6,420	1.22
				327.15

3. MONITORING PROGRAM EFFECTIVENESS

3.1. Database Analysis

The Sacramento County Department of Transportation is utilizing an electronic maintenance management system to track the quantities of sweeping materials removed from the road right of way by sweeper activities. After tracking an annual cycle of street sweeping, a comparison of the amount of debris removed and the areas being swept will be made to determine if sweeping frequency should be increased. With current equipment in inventory it is not possible to determine the volume or weight of debris removed from individual streets. Should the Department of Transportation discover areas with high quantities of materials being removed further investigation will be initiated using the same criteria as was used for initial prioritization.

1.) Traffic volume.
2.) Location of adjacent business such as shopping centers and industrial plants
3.) Past requests for street sweeping.
4.) Cumulative knowledge and recollection of DOT employees

3.2. Awareness and Communication

Through training of supervisors and sweeper operators the Sacramento County Department of Transportation will continuously evaluate the need for sweeping. Utilizing the linked team meetings, sweeping schedules may be adjusted at crew level to increase the frequency of sweeping streets known to have high potential to pollute the stormwater system.

County of Sacramento

Municipal Services Agency

Department of Water Resources

DETENTION BASIN MAINTENANCE

Drainage Maintenance Engineering

Revised: April 2009

TABLE OF CONTENTS

Detention Basin Map ____ *3*

B-01 Unionhouse Creek / East Stockton Boulevard ____ *4*

B-03 Howe Avenue ____ *7*

B-04 Manlove ____ *10*

B-05 Wilhaggin ____ *13*

B-06 Silver Springs Ranch / Dierks Ranch ____ *16*

B-25 Antelope North Road ____ *19*

B-38 North Metro Air Park ____ *22*

B-39 South Metro Air Park ____ *24*

B-78 Unionhouse Creek / Elk Grove Florin Road ____ *26*

B-79 Strawberry Creek / East Stockton Blvd. ____ *28*

B-81 Unionhouse Creek / Lenhart ____ *30*

B-84 Bear Hollow ____ *32*

B-88 Hackberry ____ *35*

B-89 Hazelwood ____ *37*

B-90 Silver Legends ____ *39*

B-91 Laguna Creek / Polo Crosse ____ *41*

B-92 Fox Creek ____ *43*

B-95 Robla Creek ____ *45*

B-96 Ottomon Hills ____ *47*

B-98 Anatolia North ____ *50*

B-99 Anatolia South ____ *53*

Future Detention Basins ____ *56*

North Highlands ____ *57*

Barrett Ranch ____ *61*

Fox Creek ____ *65*

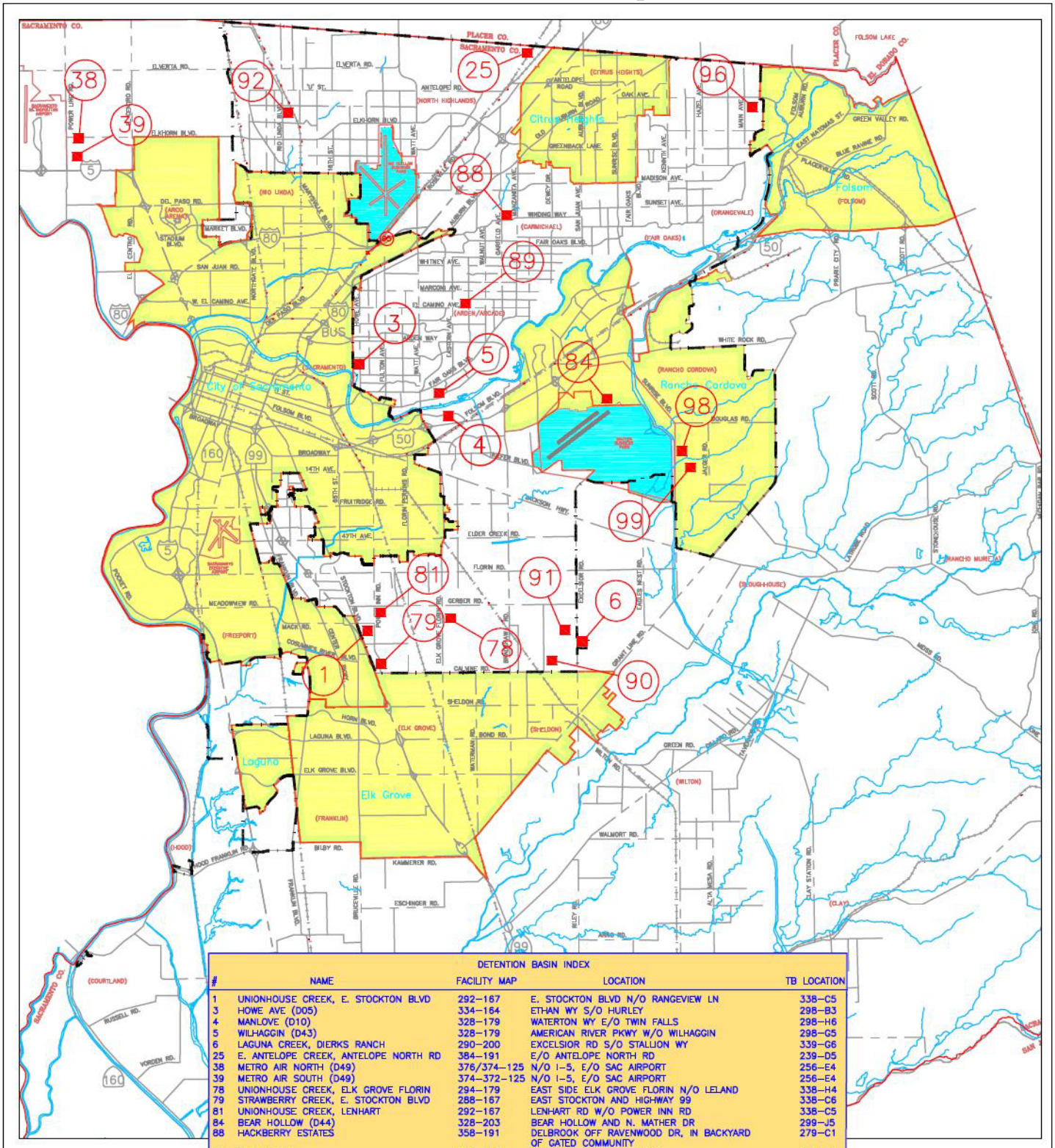
Appendix A

Table 1 – Summary of Detention Basins

Appendix B

Maintenance Agreements –Unionhouse Creek/ East Stockton Blvd, Silver Springs Ranch, and Hazelwood Detention Basins

Detention Basin Map



DETENTION BASIN INDEX

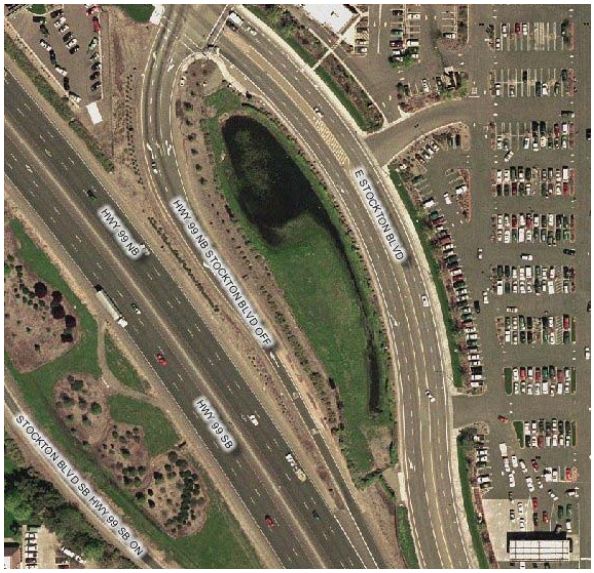
#	NAME	FACILITY MAP	LOCATION	TB LOCATION
1	UNIONHOUSE CREEK, E. STOCKTON BLVD	292–167	E. STOCKTON BLVD N/O RANGEVIEW LN	338–C5
3	HOWE AVE (D05)	334–164	ETHAN WY S/O HURLEY	298–B3
4	MANLOVE (D10)	328–179	WATERTON WY E/O TWIN FALLS	298–H6
5	WILHAGGIN (D43)	328–179	AMERICAN RIVER PKWY W/O WILHAGGIN	298–G5
6	LAGUNA CREEK, DIERKS RANCH	290–200	EXCELSIOR RD S/O STALLION WY	339–G6
25	E. ANTELOPE CREEK, ANTELOPE NORTH RD	384–191	E/O ANTELOPE NORTH RD	239–D5
38	METRO AIR NORTH (D49)	376/374–125	N/O I–5, E/O SAC AIRPORT	256–E4
39	METRO AIR SOUTH (D49)	374–372–125	N/O I–5, E/O SAC AIRPORT	256–E4
78	UNIONHOUSE CREEK, ELK GROVE FLORIN	294–179	EAST SIDE ELK GROVE FLORIN N/O LELAND	338–H4
79	STRAWBERRY CREEK, E. STOCKTON BLVD	288–167	EAST STOCKTON AND HIGHWAY 99	338–C6
81	UNIONHOUSE CREEK, LENHART	292–167	LENHART RD W/O POWER INN RD	338–C5
84	BEAR HOLLOW (D44)	328–203	BEAR HOLLOW AND N. MATHER DR	299–J5
88	HACKBERRY ESTATES	358–191	DELBROOK OFF RAVENWOOD DR, IN BACKYARD OF GATED COMMUNITY	279–C1
89	HAZELWOOD	344–182	HAZELWOOD AND WRENDALE	278–J6
90	LAGUNA CREEK, SILVER LEGENDS DR (D22)	286–194	SILVER LEGENDS AND COUNTRY RANCH DR	339–D7
91	LAGUNA CREEK, POLO CROSSE	290–200	POLO CROSSE AVE AND PALM BEACH DR	339–F6
92	FOX CREEK	376–155	RIO LINDA BLVD N/O ELKHORN BLVD	376–155
95	ROBLA CREEK	368–155	G ST E/O RIO LINDA BLVD.	257–H4
96	OTTOMON HILLS	374–227	MAIN AVE AND WILTSHIRE WAY	260–H2
98	ANATOLIA NORTH	318–215	SUNRISE BLVD AND BOSPHOROUS DR	320–D2
99	ANATOLIA SOUTH	316–218	SUNRISE BLVD N/O KIEFER BLVD	320–E3

N

County of Sacramento
Stormwater Detention Basins

B-01

Unionhouse Creek / East Stockton Boulevard



General Information

APN	115-0210-030
Owner	County of Sacramento
Facility Map #	292-167
Thomas Guide Page	338-C5
Construction Project	None
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	1.7
Side Slopes	2:1
Obstructions	Stockpile on south side
Pump Station Associated w/ Basin	None

Location

Detention basin #1 is located along the west side of E. Stockton Blvd. (north of Rangeview Lane).

Security

The security system for the detention basin includes a 6’ high chain-link fence bordering the perimeter with #2214 Masterlocks at the access gates. There are two points of entry into the site: one at the north end, and one at the south end. Both gates are accessible to vehicles via East Stockton Blvd.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for erosion at waterline, floating debris, and excess vegetation.
- Basin Inlets (2): Check for debris, cracks in the structure, and erosion.
- Basin Outlet (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and assure the rack is properly locked/secured.

Routine Maintenance: Perform During Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the entire basin.

- Spraying: Spraying is permitted year-round in and around the detention basin. During this task, follow the *Standard Protocol for Application of Herbicides and Pesticides for Use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions as stated below:

  During the summer visit: "#2 – Treat vegetation that may obstruct proper flow of channel through basin. #1 for 50' flat area at gates on north and south ends of basin. Avoid allowing spray to drift into desirable vegetation. #1 includes aquatic and terrestrial application".

  During the fall visit: "#7 – to maintain 50' flat area at the gates on the north and south ends of the basin. Avoid application to the inside of the banks of drainage. Avoid allowing spray to drift into desirable vegetation."

  During the winter visit: "#12 – to maintain 50' flat area at the gates on the north and south ends of the basin. Avoid application to the inside of the banks of drainage. Avoid allowing spray to drift into desirable vegetation."

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-03

Howe Avenue



General Information

APN	277-0250-024; 277-0250-009; 285-0160-006
Owner	State of California; Sacramento & San Joaquin Drainage Districts
Facility Map #	334-164
Thomas Guide Page	298-B3
Construction Project	American River Levee Project
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	10.8
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	D-05 Howe Avenue

Location

Detention basin #3 is located on Ethan Way (south of Hurley Way).

Security

The basin is secured by a six-foot high chain-link fence. There are a total of four access points: two via Ethan Way, one via the American River bike trail, and one via the D-05 Howe Avenue pump station. The access point via the bike trail on the southwest side of the basin requires a Cyber key. The other three access points require a #3207 Masterlock key.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for large/floating debris and excess vegetation.
- Basin Inlets (2): Check for erosion and debris.
- Basin Outlets (2): Check for debris in the trash/access rack, cracks in the structure, erosion, and assure the rack is properly locked/secured.

Routine Maintenance: Perform During Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the west and north side flat areas along the fence.

- Spraying: Spraying is permitted year-round in and around the detention basin. During this task, follow the *Standard Protocol for Application of Herbicides and Pesticides for Use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions as stated below:

  During the fall visit: "#4 to maintain flat area to fence at the top of east and north sides of basin where no potential for erosion exists. Avoid allowing spray to drift into desirable vegetation."

  During the winter visit: "#7 for maintenance road, flat area to fence where no potential erosion exists. Avoid allowing spray to drift into desirable vegetation." In addition, assist with pump station sump cleaning.

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-04

Manlove



General Information

APN	075-0010-002
Owner	County of Sacramento
Facility Map #	328-179
Thomas Guide Page	298-H6
Construction Project	Flood Control Project
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	2.3
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	D-10 Manlove

Location

Detention basin #4 is located west of the intersection of Waterton Way and Twin Falls Drive.

Security

The basin is secured partly by a 6’ high chain-link fence and partly by 6’ high wooden fencing. There are two access points to the site and three to the basin itself. The two access points to the site are via Woodman Way and Waterton Way. The Woodman Way entrance is not accessible to vehicles, but the Waterton Way entrance is. To access the basin itself, there are two gates west of the D-10 Manlove pump station and one gate east of the station. Different keys are required for each gate: Masterlock key #2214 for the west traffic gate, a Cyber key for the west pedestrian gate, and a Masterlock key #A105 for the east traffic gate.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation, sediment, and floating debris.
- Basin Interior: Check for large debris, and excess vegetation.
- Basin Inlet (1): Check for debris, cracks in the structure, and erosion.
- Basin Outlet (1): Check for debris in the trash rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Flap Gate (1): Inspect to make sure no debris is blocking the flap gate, that it is free swinging, and is in good condition.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed twice per year during the spring and summer visits to the entire basin.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task follow the *Standard Protocol for Application of Herbicides and Pesticides for the use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions as stated below:

  In the early part of the year: "#4 to maintain flat area to fence at top of basin. Avoid application to inside banks of drainage. Avoid allowing spray to drift into desirable vegetation."

  In the spring: "#1 for flat area to fence on east and west sides at top of basin. Avoid allowing spray to drift into desirable vegetation."

  In the fall: "#1 for flat area to fence on east and west sides at the top of the basin. Avoid allowing spray to drift into desirable vegetation."

  At the end of the year: "#7 to maintain flat area to fence at the top of the basin. Avoid application to inside banks of drainage. Avoid allowing spray to drift into desirable vegetation."

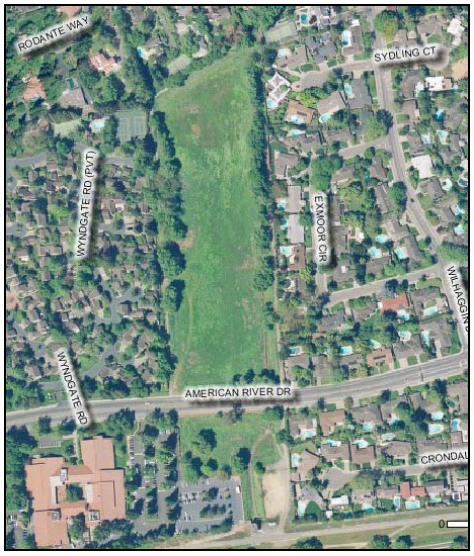
The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual Sheriff maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-05

Wilhaggin



General Information

APN	292-0180-021
Owner	Sacramento & San Joaquin Drainage Districts
Facility Map #	328-176, 328-179, 330-176, 330-179
Thomas Guide Page	298-G5
Construction Project	American River Levee Project
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	13
Side Slopes	Unknown
Obstructions	American River Drive divides the basin
Pump Station Associated w/ Basin	D-43 Wilhaggin

Location

Detention basin #5 is located on the north and south sides of American River Drive (east of Watt Avenue).

Security

Both the north and south portions of the basin are secured partly by 6’ high chain-link fencing and partly by 6’ high wooden fencing. There are a total of four access points: two access points for each portion. All four entrances are accessible via American River Drive: two on the east side and two on the west side of the street.

Both gates to the northern portion of the basin are accessible to vehicles and require a Masterlock key #2214. Both gates for the southern portion are accessible to vehicles. The east side gate requires a Masterlock key #A105, and the west side gate requires a Masterlock key #2214.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for large/floating debris and excess vegetation.
- Basin Low Flow Pipe System: Check for debris or sediment that might block flow or erosion.
- Basin Inlets (5): Check for debris, cracks in the structure, and erosion.
- Basin Outlets (2): Check for debris in the trash rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Access Road: Check for erosion, loss of gravel, and vegetation.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the entire basin.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task follow the *Standard Protocol for Application of Herbicides and Pesticides for Use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions stated below:

  Spray twice per year: "#2- Treat vegetation growing in bottom, cracks, and top edge of concrete. Also for spot treatment of service road, flat area at top of basin, and fence line. Avoid allowing spray to drift into desirable vegetation."

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-06

Silver Springs Ranch / Dierks Ranch



General Information

APN	123-0220-062
Owner	County of Sacramento
Facility Map #	290-200
Thomas Guide Page	339-G6
Construction Project	Dierks Ranch
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	5.0
Side Slopes	3:1
Obstructions	Three islands on south side
Pump Station Associated w/ Basin	None

Location

Detention basin #6 is located at the northeast corner of the intersection of Excelsior Road and Stallion Way.

Security

The security system for the basin consists of 6’ high wrought iron fencing and post and cable fencing. There are four points of entry to the basin that are all secured by cables. One is located on Stallion Way, another is at the end of Belgian Court, and two are on Steed Way. There are no County locks on the cables, but there are gaps in the post and cable fencing at these locations to allow for pedestrians to access the site.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Basin Interior: Check for erosion at waterline, floating debris, and excess vegetation.
- Basin Inlets (3): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Basin Outlets (3): Check for debris, cracks in the structure, and erosion.

Note: Per the Maintenance Agreement with the Silver Springs Ranch Homeowners Association: "The County's maintenance responsibility of the basin shall include the removal of bulrush, cattails, algae, and volunteer trees growing along the bank areas within the basin." The County is only responsible for maintaining the flow of drainage within the basin itself.

Routine Maintenance: Perform at Various Visits

- Mowing: No mowing occurs at this basin.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task, follow the *Standard Protocol for Application of Herbicides and Pesticides for Use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions as stated below:

  During the summer visit: "treat vegetation encroaching into detention basin."

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning shall only be performed along the banks of the detention basin. If the drainage flow is blocked, then hand cleaning may be performed within the basin.

B-25

Antelope North Road



General Information

APN	203-0240-014
Owner	County of Sacramento Water District
Facility Map #	384-191
Thomas Guide Page	239-D5
Construction Project	East Antelope Legends
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	2.2
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	None

Location

Detention basin #25 is located on the east side of Antelope North Road (north of Great Valley Drive).

Security

Between the maintenance road surrounding the basin and Antelope North Road, the basin is secured by post and cable fencing. On the north side, the basin is secured by 6' high chain-link paneled fencing. On the south and east sides, the basin is bordered by the creek and temporary orange mesh fencing.

To access the basin site, there is one traffic gate on the west side. The gate is secured by a chain and Masterlock #2214. The basin itself is easily accessible by pedestrians.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (4): Check for debris, cracks in the structure, erosion, and condition of stone rip-rap.
- Basin Outlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin. Only mow from the fencing to the water line.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task follow the *Standard Protocol for Application of Herbicides and Pesticides for the use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions stated below:

  During the spring and summer visits: "#4 to maintain service road where there is no potential for erosion. Avoid allowing spray to drift into desirable vegetation. #2 treat only vegetation which may obstruct proper flow through low flow channel. Avoid allowing spray to drift into desirable vegetation."

  During the fall visit: "#2 treat only vegetation which may obstruct proper flow through low flow channel. Avoid allowing spray to drift into desirable vegetation."

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-38

North Metro Air Park



General Information

APN	201-1020-073
Owner	County of Sacramento
Facility Map #	374-125, 376-125
Thomas Guide Page	256-E3
Construction Project	Metro Air Park
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	23
Side Slopes	4:1
Obstructions	None
Pump Station Associated w/ Basin	D-49 Metro Air Park

Location

Detention basin #38 is located west of Bayou Way (north of detention basin #39 and the proposed Meister Way).

Security

The basin plans originally stated that post and cable fencing was to be constructed around the basin, but that note was deleted. The basin does not currently have any exterior fencing on site. There are two access ramps that lead to the interior of the basin, one on the north side and the other on the south side. The plans stated that a traffic gate should have been constructed on the north access ramp, but neither the north nor the south access ramp has a traffic gate.

Inspection and Maintenance

Current maintenance is performed by the developer of the Metro Air Park project. The County of Sacramento will begin maintaining the basin after a substantial amount of construction has been performed and the developer has stopped dewatering. When the County of Sacramento takes over maintenance of the basin, it is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine gates and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (3): Check for debris, cracks in the structure, and erosion.
- Basin Outlets (1): Check for debris, cracks in the structure, erosion, and condition of rip-rap.
- Low Flow System: Check inlets and outlets for clogging debris or excess sediment.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Current environmental restrictions prohibit spraying.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-39

South Metro Air Park



General Information

APN	201-1020-067
Owner	County of Sacramento
Facility Map #	372-125, 374-125
Thomas Guide Page	256-E4
Construction Project	Metro Air Park
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	19
Side Slopes	4:1
Obstructions	Three interior islands
Pump Station Associated w/ Basin	D-49 Metro Air Park

Location

Detention basin #39 is located west of Bayou Way (south of detention basin #38 and the proposed Meister Way).

Security

The basin plans originally stated that post and cable fencing were to be installed around the basin, but that note was deleted. The basin does not currently have any exterior fencing on site. There are two access ramps that lead to the interior of the basin, one on the north side and the other on the south side. The south access ramp does not have a gate, but the north ramp has a traffic gate with a Cyber lock.

Inspection and Maintenance

Current maintenance is performed by the developer of the Metro Air Park project. The County of Sacramento will begin maintaining the basin after a substantial amount of construction has been performed and the developer has stopped dewatering. When the County of Sacramento does maintain the basin, it is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation, sediment, and erosion at waterline.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (7): Check for debris, cracks in the structure, and erosion. Note: some inlets may be submerged.
- Basin Outlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Current environmental restrictions prohibit spraying.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-78

Unionhouse Creek / Elk Grove Florin Road



General Information

APN	121-0030-050; 121-0030-051; 121-0030-056
Owner	County of Sacramento
Facility Map #	294-179
Thomas Guide Page	338-H4
Construction Project	None
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	5.0
Side Slopes	Unknown
Obstructions	Stockpiles on southeast and northwest sides
Pump Station Associated w/ Basin	None

Location

Detention basin #78 is located on the east side of Elk Grove Florin Road (south of Leland Avenue).

Security

To access the basin, there is one traffic gate located on the east side of Elk Grove Florin Road. There is no fencing surrounding the site. The lock on the traffic gate is a #3207 Masterlock.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (1): Check the inlet weir for overgrown vegetation.
- Basin Outlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Access Road: Check for overgrown vegetation and gravel.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Unionhouse Creek / Elk Grove Florin Road detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-79

Strawberry Creek / East Stockton Blvd.



General Information

APN	115-0130-032
Owner	County of Sacramento
Facility Map #	288-167
Thomas Guide Page	338-C6
Construction Project	None
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	3.7
Side Slopes	1:1
Obstructions	100’ Easement dividing basins
Pump Station Associated w/ Basin	None

Location

Detention basin #79 is located on the west side of East Stockton Blvd. (north of the Calvine Road on-ramp to Highway 99).

Security

The basin is completely enclosed by a 6’ high chain-link fence, and has three access gates. One vehicle swing gate is located on the north end of the basin and is secured by a Masterlock #2214. The two gates on the south end include a rolling traffic gate with Masterlock #3207 and a pedestrian gate with Masterlock #2214. All gates are accessible via East Stockton Blvd.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlet (1): Check overflow weir for cracks in the structure and vegetation.
- Basin Equalizer (2): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Basin Outlets (2): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Flap Gates (2): Inspect to make sure no debris is blocking the flap gates, that they are free swinging, and are in good condition.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

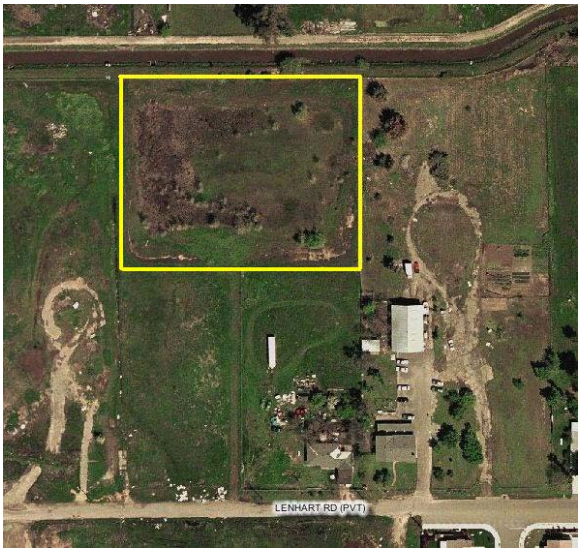
- Spraying: Spraying is not performed at the Strawberry Creek / East Stockton Blvd. detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual Sheriff Maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-81

Unionhouse Creek / Lenhart



General Information

APN	115-0210-034
Owner	County of Sacramento
Facility Map #	292-167
Thomas Guide Page	338-C5
Construction Project	None
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	1.9
Side Slopes	3:1
Obstructions	Multiple cottonwood trees
Pump Station Associated w/ Basin	None

Location

Detention basin #81 is located north of Lenhart Road (west of Roseview Way).

Security

The basin has a 6' high chain-link fence enclosing the site. There is one vehicle access gate with a #3207 Masterlock. The basin is accessible via Lenhart Road.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing, access road, and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Outlets (1): Check for debris, cracks in the structure, and erosion.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Lenhart / Unionhouse Creek detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from outlet structure, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-84

Bear Hollow



General Information

APN	072-0370-096
Owner	City of Rancho Cordova
Facility Map #	328-206 / 328-203
Thomas Guide Page	299-J5
Construction Project	Villages at Zinfandel
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	24
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	D-44 Bear Hollow

Location

Detention basin #84 is located south of the North Mather Drive and Spoto Drive intersection.

Security

There are three access points to the basin that are all vehicle accessible. The swinging gate that is located on the east side of the basin is secured by #2214 Masterlock. Another access point is located off of North Mather Drive and is secured by a piece of wire. The third access point is a swinging traffic gate on the south side of the D-44 Bear Hollow pump station, secured by a Cyber lock.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (4): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Basin Outlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task follow the *Standard Protocol for Application of Herbicides and Pesticides for the use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions stated below:

  #2- Treat only vegetation which may obstruct proper flow in center of basin. Use caution to avoid spray or drift to desirable vegetation.

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-88

Hackberry



General Information

APN	230-0860-005
Owner	Justin and Denise Massey
Facility Map #	358-191
Thomas Guide Page	279-C1
Construction Project	Hackberry Estates (1998)
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	1.0
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	None

Location

Detention Basin #88 is located in the backyard of 5731 Delbrook Lane.

Security

The basin is almost completely surrounded by a 6’ high wooden fence. There are some areas that are damaged and some that are completely torn down. The basin has two points of entry: one is a traffic gate that is partially blocked by vegetation and has no lock, and the other is a pedestrian gate with no lock. Both points are located on the west side of the house and are accessible from Delbrook Lane.

Maintenance

Hackberry detention basin is not on the maintenance schedule and is currently maintained by the homeowner. Since the parcel is not owned by the County of Sacramento and there is no easement, the County does not perform maintenance at this site.

B-89

Hazelwood



General Information

APN	271-0243-007 through 010
Owner	County of Sacramento
Facility Map #	344-182
Thomas Guide Page	278-J6
Construction Project	Hazelwood
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	1.7
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	None

Location

Detention basin #89 is the public Hazelwood Greens Park located south of the Wrendale Way and Hazelwood Avenue intersection.

Security

County employees can access the basin with a #2214 Masterlock key through the rolling traffic gate on the northwest side. The basin can also be accessed through the pedestrian gate on the northeast side, but only during normal hours of park operation. The hours of operation for the park are 7 AM to sunset.

The detention basin is secured by 6’ high wooden fencing on the west, east, and south sides. On the north side, the basin is secured by metal fencing.

Maintenance

The Hazelwood detention basin is also known as Hazelwood Greens Park. It is operated and mostly maintained by Mission Oaks Recreation and Park District. The Park District performs all of the landscape and waste management maintenance.

The County of Sacramento inspects and cleans the trash rack on an annual basis. During the rainy season, the trash rack may need to be cleaned more often if necessary.

B-90

Silver Legends



General Information

APN	122-0120-038
Owner	County of Sacramento
Facility Map #	286-194
Thomas Guide Page	339-D7
Construction Project	Silver Legends Unit 2
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	2.2
Side Slopes	Unknown
Special Features	None
Pump Station Associated w/ Basin	D-22 Silver Legends

Location

Detention basin #90 is located at the south end of Country Ranch Drive.

Security

The detention basin is enclosed by 6’ high chain-link fencing and 6’ high wooden fencing. There are two points of entry into the site: one at the south end of Country Ranch Drive, and another at the west end of Silver Legends Court. Both access points require a Cyber key.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing, the access road, and the access ramp for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Basin Interior: Check for erosion at waterline, floating debris, and excess vegetation.
- Basin Inlets (2): Check the inlet pipe and inlet weir for debris, cracks in the structure, and erosion.
- Basin Outlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Silver Legends detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from inlet and outlet structures, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-91

Laguna Creek / Polo Crosse



General Information

APN	122-0420-022
Owner	J & L Properties
Facility Map #	290-200
Thomas Guide Page	339-F6
Construction Project	Silver Springs
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	2.8
Side Slopes	3:1
Special Features	Concrete lined swale on east side
Pump Station Associated w/ Basin	None

Location

Detention basin #91 is located on the northeast corner of Palm Beach Drive and Polo Crosse Avenue.

Security

On both sides of the basin securing the culverts are 4’ high metal fencing held in place by two stone columns on either side. To transition to the post and cable fencing on the west side of the basin, there is 6-8 LF of 6’ high wrought iron fencing.

There is a minor security system in place that blocks vehicle traffic from driving into the basin. The north access ramp has a 6' high wrought iron gate with a #3207 Masterlock. The south access ramp has a cable with a #2214 Masterlock. The basin itself is easily accessible by pedestrians.

Maintenance

The Polo Crosse detention basin is owned and mostly maintained by J & L Properties. The owner is responsible for weed abatement for fire control purposes, and litter pick up. The County of Sacramento has a 60-foot wide drainage easement alongside the eastern boundary of the basin. It is the responsibility of the County of Sacramento to perform flood control maintenance on the easement.

B-92

Fox Creek



General Information

APN	206-0033-004
Owner	Gabriel Morales and Crystal Dubois
Facility Map #	376-155
Thomas Guide Page	257-H1
Construction Project	None
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	2.4
Side Slopes	Unknown
Obstructions	None
Pump Station Associated w/ Basin	None

Location

Detention basin #92 is located north of the Rio Linda Boulevard and Q Street intersection.

Security

The basin area is secured by a 6’ high chain-link fence around the majority of the perimeter with a 6’ high wrought iron fence, along the private properties adjacent to the preserve area, securing the remainder of the basin. The one access point is located on the east side of the basin via Front Street and the access gate is secured by a #2214 Masterlock.

Inspection and Maintenance

The Fox Creek detention basin is primarily maintained by the Wildlife Heritage Foundation. The County of Sacramento is responsible for maintaining the hydraulic capacity of the drainage channel through vegetation and/or sediment removal. This site is to be visited for inspection and maintenance twice per year to ensure proper operation.

Inspection: Perform Each Visit

- Site Conditions: Examine access gate and road for damage and overgrown vegetation.
- Channel Interior: Check for erosion at water line, large/floating debris, and excess vegetation.
- Channel Inlet (1): Located on the east end of the basin and adjacent to Front Street, a culvert structure allows water into the drainage corridor. Check for debris, cracks in the structure, erosion, and overgrown vegetation.
- Channel Outlets (2): The two outfalls are located on the west side of the basin adjacent to Rio Linda Boulevard. Check for debris, cracks in the structure, erosion, and overgrown vegetation.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing is not performed at the Fox Creek detention basin.

- Spraying: Spraying is not performed at the Fox Creek detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from channel, and making any repairs as needed following inspection.

B-95

Robla Creek



General Information

APN	214-0330-072
Owner	County of Sacramento
Facility Map #	368-155
Thomas Guide Page	257-H4
Construction Project	Robla Creek Improvement Project
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Flood Control

Site Characteristics

Acreage	2.1
Side Slopes	Unknown
Special Features	None
Pump Station Associated w/ Basin	None

Location

Detention basin #95 is located north of G Street (east of Rio Linda Blvd).

Security

Post and cable fencing enclose the basin on the south and west sides. The east side is bordered Dry Creek, and the north side is bordered by houses. There are two access points on the south side of the basin, via G Street. Both access points consist of traffic gates: one with an American lock, and the other with a #A105 Masterlock.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing, access road, and access ramp for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin Interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Basin Outlet Channel (1): Check for flow line for excess debris and vegetation.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Robla Creek detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-96

Ottomon Hills



General Information

APN	213-1030-018
Owner	County of Sacramento
Facility Map #	374-227
Thomas Guide Page	260-H2
Construction Project	Ottomon Hills
Wet or Dry	Dry Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	0.75
Side Slopes	3:1
Obstructions	None
Pump Station Associated w/ Basin	None

Location

Detention basin #96 is located on the southeast corner of Wiltshire Way and Main Avenue.

Security

Post and cable fencing enclose the basin on the north and west sides. The east side is bordered by 6' high wooden fencing and the south is bordered by Linda Creek. The only access point is a traffic gate on the north side of the basin via Wiltshire Way. The traffic gate is secured by a #3207 Masterlock.

Inspection and Maintenance
The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine fencing and access ramps for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin interior: Check for erosion, large/floating debris, and excess vegetation.
- Basin Inlets (1): Check for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured.
- Basin Outlets (3): Check the outlet pipes for debris in the trash/access rack, cracks in the structure, erosion, and make sure the rack is properly locked/secured. Check the overflow weir for cracks in the structure and erosion.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed during the spring and summer visits to the basin.

- Spraying: As per the *Aquatic Pesticides Application Plan*, spraying is only permitted between the months of April and December. During this task follow the *Standard Protocol for Application of Herbicides and Pesticides for the use at Creeks, Channels, and Detention Basins* to ensure proper usage of pesticides. Please follow the specific instructions stated below:

  #2- Treat only vegetation which may obstruct proper flow in center of basin. Use caution to avoid spray or drift to desirable vegetation.

  The instructions may be altered due to current site or weather conditions. However, each change must be accompanied by a recommendation for use by a Pest Control Advisor.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

  Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-98

Anatolia North



General Information

APN	067-0430-028
Owner	City of Rancho Cordova
Facility Map #	318-215
Thomas Guide Page	320-D2
Construction Project	Anatolia II
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	9.5
Side Slopes	3:1
Obstructions	Anatolia North Channel inhibits slope mowing on the south and east slopes of the detention basin.
Pump Station Associated w/ Basin	None

Location

Detention basin #98 is located at the southeast corner of the intersection of Sunrise Boulevard and Bosphorus Drive.

Security

The basin does not currently have any exterior fencing on site. There is one vehicle access point at the northeast corner of the basin off of Anatolia Drive. A locked pipe gate (Masterlock #2214) guards an access ramp into the adjacent Anatolia North Channel.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin.

Inspection: Perform Each Visit

- Site Conditions: Examine pipe gate and access ramp for damage and overgrown vegetation.
- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin interior: Check for erosion at water line, large/floating debris, and excess vegetation. Woody vegetation may colonize basin. Basin was designed to accommodate low-medium density shrubby vegetation.
- Basin Inlets (3): A 30" diameter pipe outfalls at the northwest corner of the basin adjacent to Sunrise Boulevard. A 30" diameter pipe outfalls on the north side of the basin south of Niobe Circle. A low-flow 18" diameter pipe lies below the inlet weir at the northeast corner of the basin. Check for debris, cracks in structure, and erosion. Check access control racks for debris and ensure they are locked and secured.
- Inlet Weir (1): Located at the northwest corner of basin. Check riprap for erosion and displacement.
- Basin Outlets (1): Water leaves the basin through a 12" diameter pipe at the southwest corner of the basin and into the Anatolia North Channel. Check for debris, cracks in structure, and erosion.
-

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed twice per year during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Anatolia North detention basin at this time.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

B-99

Anatolia South



General Information

APN	067-0090-037
Owner	Sun Ridge, LLC
Facility Map #	318-215, 318-218, 316-215
Thomas Guide Page	320-D3
Construction Project	Anatolia II
Wet or Dry	Wet Basin
Water Quality/Flood Control/Dual	Dual

Site Characteristics

Acreage	36.7
Side Slopes	3:1
Obstructions	Emergent marsh/ riparian wetland. No formal vehicular access locations exist.
Pump Station Associated w/ Basin	None

Location

Detention basin # 99 is along the east side of Sunrise Boulevard approximately 1000 feet south of the intersection of Sunrise Boulevard and Justinian Drive.

Security

This basin does not currently have any exterior fencing on site. No formal access points exist at this time. Access to the north side of the basin can be gained from the open area planned for Rancho Del Sol Park. The outlet structure can be accessed directly off of Sunrise Boulevard.

Inspection and Maintenance

The basin is to be visited for inspection and maintenance four times per year to ensure proper operation of the basin. However, maintenance is not allowed in the emergent marsh/ riparian wetland, the middle chamber of the detention basin, unless the proper permits are obtained from the appropriate regulatory agencies.

Inspection: Perform Each Visit

- Basin Slopes: Check for erosion, excess vegetation, debris, and animal burrows.
- Flow Line: Check for excess vegetation and sediment.
- Basin interior: Check for erosion at water line, large/floating debris, and excess vegetation. Woody vegetation may colonize basin. Basin was designed to accommodate low-medium density shrubby vegetation.
- Basin Inlets (2): A 30" diameter pipe outfalls on the north side of the basin south of Pyxis Circle. A 36" diameter pipe outfalls at the northwest corner of the basin adjacent to Sunrise Boulevard. Check for debris, cracks in the structure, and erosion. Check access control racks for debris and ensure they are locked and secured.
- Basin Outlets (1): Water leaves the basin through a single 42" diameter pipe at the southwest corner of the basin, adjacent to Sunrise Boulevard, and into the Folsom South Channel Overchute. Check for debris, cracks in structure, and erosion. Check trash rack for debris and ensure they are locked and secure.
- Spillway Weirs (2): Located on the south side of the basin and allows water to spill from the basin into the Anatolia Wetland Preserve. Check riprap for erosion and displacement.

Routine Maintenance: Perform at Various Visits

- Mowing: Mowing will be performed twice per year during the spring and summer visits to the basin.

- Spraying: Spraying is not performed at the Anatolia South detention basin.

- Hand Cleaning: Hand cleaning will be performed per the annual maintenance schedule. According to the *Memorandum of Understanding* with the Department of Fish & Game, regularly scheduled hand cleaning is only permitted between June 1st and March 1st. If during inspection it is found that debris or sediment is blocking flow and may cause flooding, then hand cleaning is permitted at any time.

Hand cleaning tasks include: Removing sediment and debris from low flow line, removing sediment and debris from inlet and outlet structures, replacing stone rip-rap to inlet and outlet structures as needed, removing dead vegetation from entire basin, and making any repairs as needed following inspection.

Future Detention Basins

1. Anatolia III (temporary)
2. Laguna Creek: north of Gerber Road and west of Bradshaw Road
3. Montelena
4. Sunridge Canyonlands
5. Sunridge Hetch Hetchy
6. North Douglas

North Highlands
Conservation Easement



APN	203-0070-082
Owner	Ken Whitney
Acreage	2.3
Facility Map Page	384-179
Thomas Guide Page	238-J5
Grantee, Preserve Manager	The Habitat Management Foundation, Ken Whitney

Purpose

The purpose of the North Highlands conservation easement is to preserve, protect, and establish maintenance of the wetland area surrounding creek segment 54R10 of the Antelope Creek watershed.

Preserve Manager (Grantee) Responsibilities

1. *Maintaining fencing and signage.*
2. *Coordinating trash removal.*
3. *Conducting thatch/exotic plant management when necessary with qualified personnel.*
4. *During the initial construction of created wetlands and the subsequent five year monitoring program, the Preserve Manager (Grantee) will review monitoring data, and recommend and coordinate with the Corps of Engineers for any remedial action.*
5. *General annual inspections of the Preserve.*
6. *Arrange for any corrective action necessary to ensure the performance of the habitat at the Preserve.*

The Preserve Manager may retain professional biologists, botanists, and other types of consultants to conduct inspections and monitoring activities at the Preserve.

Qualified Personnel Responsibilities (By Others)

1. *Drainage channel function and erosion monitoring tasks.*
2. *Evaluating the accumulation of dead vegetative matter (thatch) and recommending removal as needed.*
3. *Evaluating the presence of newly introduced exotic plants and recommend management, if needed.*
4. *Evaluating site conditions and recommending remedial action to the Preserve Manager (Grantee).*
5. *Provide corrective action as needed to ensure the success of the conservation area.*

Maintenance Activities and Guidelines

1. *Thatch Management*
   a. *Controlled Burns: Consult local fire authorities and notify Corps of Engineers if planned.*
   b. *Mowing: Notify Corps of Engineers prior to mowing and remove cut vegetation from site.*
2. *Flood Control: When necessary, remove vegetation, sediment, and trees from flow line using hand tools.*
3. *Non-Native Plant Species Management:*
   a. *Hand/Mechanical Removal: Removal using handheld equipment is the desired method of non-native plant species management. The Corps of Engineers does not need to be notified if small mechanical equipment is used.*
   b. *Biological Controls: Currently there is no biological control for Himalayan Blackberry, but there is for yellow star thistle. If a biological control is to be used, notify the Corps of Engineers and consult with the County Agricultural Commissioner for details.*
   c. *Use of Herbicides for Non-Native/Exotic Pest Plant Management: Any use of herbicide, pesticide, fungicide, or insecticide must be approved by the Corps of Engineers prior to application.*
4. *Tree Removal: Native tree removal is only permitted if it is diseased, a threat to other trees, or is a danger to public safety or private property. The Corps of Engineers is to be notified if any tree removal is planned.*
5. *Mosquitoes: If mosquito control is necessary, consult with the local Mosquito Vector Control District and send a plan of action to the Corps of Engineers for review and approval.*
6. *Trash Removal: The Preserve Manager will coordinate any trash removal as needed.*
7. *Fencing and Signage: The Preserve Manager is responsible for the maintenance and replacement of the gates, fencing, and signage.*

Prohibited Activities

The following activities are prohibited unless necessary to accomplish preservation, maintenance, repair, fire protection or enhancement as may be authorized by the Corps of Engineers.

1. *Access to the Preserve: There will be no public access to the Preserve*
2. *Vegetation Removal: No killing, removal, or alteration to native vegetation unless described above.*
3. *Burning and Dumping: No burning or dumping of rubbish, garbage, or any other waste unless for thatch management.*
4. *Disking: Disking is prohibited*
5. *Additional Roads, Trails, Benches, and Utility Lines: There will be no roads, trails, or benches in the Preserve area. Future construction of these structures must be approved by the Corps of Engineers.*
6. *Equipment or Fuel Storage: There will be no equipment or fuel storage within the Preserve.*
7. *Topography: Once adjacent development is complete in the area, there will be no leveling, grading, exploration, development, extraction of oil, gas, or minerals.*
8. *Pesticides or Chemical Agents: Other than the uses listed above, there will be no use of pesticides, fungicides, insecticides, or any other chemical agents.*
9. *Motor-Vehicle Use: No motorized vehicles shall be ridden, brought, used, or permitted on any portion of the Preserve except for the following: maintenance purposes, mosquito abatement, emergency, or law enforcement situations.*
10. *Construction: Once adjacent development is complete, no construction shall be allowed except for the above mentioned purposes.*
11. *Non-native plants: No non-native plants will be planted in the Preserve.*

Preserve Inspections and Reporting

General Inspection: A general inspection will be conducted once per year during July. During the inspection, each of the following will be evaluated:

- *Erosion*
- *Fire-Hazard Reduction*
- *Fencing and Signage*
- *Trash Accumulation*
- *Unauthorized Motor Vehicle Use*

Biological Inspection: A biological inspection will be conducted once per year during September or October. During the inspection, each of the following will be evaluated:

- *Habitat Function*
- *Thatch Accumulation*
- *Newly Introduced Non-Native Plant Species*
- *Preserve Function*

Annual Reporting Requirements: The monitoring biologist will create an annual report and submit it to the Corps of Engineers no later than December 31 of each year. The report will include:

- *A map of the Preserve*
- *Photos documenting the status of the Preserve*
- *A description of proposed activities and maintenance or management actions*
- *A description of actions for which the Corps of Engineers notification or approval was not needed but were carried out during the year*
- *Observations from the biological inspection*
- *Recommendations for altered management practices*

Barrett Ranch
Conservation Easement



APN	203-0120-087, 203-0120-088
Owner	Wildlife Heritage Foundation
Acreage	1.06
Facility Map Page	378-182
Thomas Guide Page	239-A7, 259-A1
Grantee, Preserve Manager	Wildlife Heritage Foundation

Purpose

The purpose of the Barrett Ranch conservation easement is to preserve, protect, and establish maintenance of the wetland area surrounding creek segment 55P17 of the Sierra Creek watershed.

Preserve Manager (Grantee) Responsibilities

1. *Maintaining fencing and signage.*
2. *Coordinating trash removal*
3. *Conducting thatch/invasive plant management when necessary with qualified personnel.*
4. *Reviewing monitoring data, and recommending and coordinating with the Corps of Engineers for any remedial action.*
5. *Maintaining a log for the Preserve that will contain a record of all activities, correspondence, and determinations regarding the Preserve.*
6. *Performing general inspections of the Preserve.*
7. *Coordinating an annual biological inspection by a qualified biologist.*
8. *Arranging for any corrective action necessary to ensure the performance of the habitat at the Preserve.*

The Preserve Manager may retain professional biologists, botanists and other types of consultants to conduct inspections and monitoring activities at the Preserve.

Qualified Personnel Responsibilities (By Others)

1. *Monitoring swale function and erosion.*
2. *Evaluating the accumulation of dead vegetative matter (thatch) and recommending removal as needed.*
3. *Evaluating the presence of newly introduced non-native plants and recommend management, if needed.*
4. *Conduction the biological inspection, collecting data on the Preserve and preparing reports.*
5. *Evaluating site conditions and recommending remedial action to the Preserve Manager (Grantee).*
6. *Assist in reviewing or planning restoration activities, use of the Preserve for education, or other tasks such as grant proposal.*

Maintenance Activities and Guidelines

1. *Thatch Management*
   a. *Controlled Burns: Consult local fire authorities and notify Corps of Engineers if planned.*
   b. *Mowing: Notify Corps of Engineers prior to mowing and remove cut vegetation from site.*
   c. *Grazing: Small grazers are permissible for thatch management. Submit a plan to the Corps of Engineers for review and approval.*
2. *Non-Native Plant Species Management:*
   a. *Hand/Mechanical Removal: Removal using handheld equipment is the desired method of non-native plant species management. The Corps of Engineers does not need to be notified if small mechanical equipment is used.*
   b. *Biological Controls: Currently there is no biological control for Himalayan Blackberry, but there is for yellow star thistle. If a biological control is to be used, notify the Corps of Engineers and consult with the County Agricultural Commissioner for details.*
   c. *Use of Herbicides for Non-Native/Exotic Pest Plant Management: Any use of herbicide, pesticide, fungicide, or insecticide must be approved by the Corps of Engineers prior to application.*
3. *Tree Removal: Native tree removal is only permitted if it is diseased, a threat to other trees, or is a danger to public safety or private property. The Corps of Engineers is to be notified if any tree removal is planned.*
4. *Mosquitoes: If mosquito control is necessary, consult with the local Mosquito Vector Control District and keep the Corps of Engineers informed through the annual report.*
5. *Beaver Management: If beaver dams become established, the Preserve Manager should consult with the Monitoring Biologist to decide whether to leave the beavers alone, install beaver baffling devices, breach the beaver dam, or remove the beavers. The Corps of Engineers will be notified through the annual report.*
6. *Trash Removal: The Preserve Manager will coordinate any trash removal as needed.*
7. *Fencing and Signage: The Preserve Manager is responsible for the maintenance and replacement of the gates, post-and-cable fencing, and signage.*
8. *Fire Breaks: The Preserve Manager can create a 10-foot minimum firebreak along the west side of the Preserve, although it is not required by the Corps of Engineers.*

Prohibited Activities

The following activities are prohibited unless necessary to accomplish preservation, maintenance, repair, fire protection or enhancement as may be authorized by the Corps of Engineers.

1. *Access to the Preserve: There will be no public access to the Preserve.*
2. *Vegetation Removal: No killing, removal, or alteration to native vegetation unless described above.*
3. *Burning and Dumping: No burning or dumping of rubbish, garbage, or any other waste unless for thatch management.*
4. *Disking: Disking is prohibited.*
5. *Additional Roads, trails, benched, and utility lines: There will be no roads, trails, or benches in the Preserve area. Future construction of these structures must be approved by the Corps of Engineers.*
6. *Equipment or fuel storage: There will be no equipment or fuel storage within the Preserve.*
7. *Topography: Once adjacent development is complete in the area, there will be no leveling, grading, exploration, development, extraction of oil, gas, or minerals.*
8. *Pesticides or Chemical Agents: Other than the uses listed above, there will be no use of pesticides, fungicides, insecticides, or any other chemical agents.*
9. *Motor-Vehicle Use: No motorized vehicles shall be ridden, brought, used, or permitted on any portion of the Preserve except for the following: maintenance purposes, mosquito abatement, emergency, or law enforcement situations.*
10. *Construction: Once adjacent development is complete, no construction shall be allowed except for the above mentioned purposes.*
11. *Non-native plants: No non-native plants will be planted in the Preserve.*

Preserve Inspections and Reporting

General Inspection: A general inspection will be conducted a minimum of twice per year, one during the summer and one during the winter. During the inspection, each of the following will be evaluated:

- *Erosion*
- *Fire-Hazard Reduction*
- *Fencing and Signage*
- *Trash Accumulation*
- *Unauthorized Motor Vehicle Use*

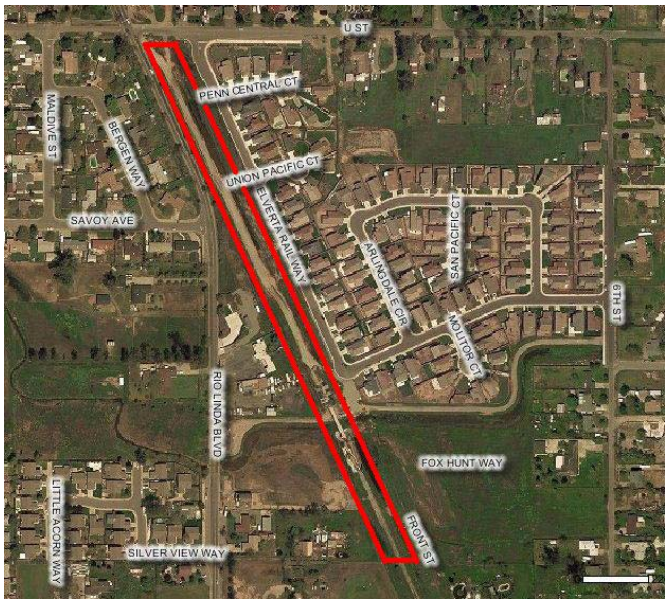
Biological Inspection: A biological inspection will be conducted twice per year: once during the spring, and once during the fall. The spring inspection is to assess the various habitats during the floristic season. The fall inspection is to assess upland habitats, problem areas, and success or restoration efforts. Although each inspection has a different focus, each of the following will be evaluated:

- *Habitat Function*
- *Thatch Accumulation*
- *Newly Introduced Non-Native Plant Species*
- *Preserve Function*

Annual Reporting Requirements: The monitoring biologist will create an annual report and submit it to the Corps of Engineers no later than December 31 of each year. The report will include:

- *A map of the Preserve*
- *Photos documenting the status of the Preserve*
- *A description of proposed activities and maintenance or management actions*
- *A description of actions for which the Corps of Engineers notification or approval was not needed but were carried out during the year*
- *Observations from the biological inspection*
- *Recommendations for altered management practices*

Fox Creek
Conservation Easement



APN	206-0260-009
Easement	County of Sacramento
Acreage	4.1
Facility Map Page	378-155 / 376-155
Thomas Guide Page	257-H1
Grantee	County of Sacramento

Purpose

The purpose of the Fox Creek conservation easement is to preserve, protect, and establish maintenance of the wetland area surrounding creek segment 53E15 of the NEMDC Tributary 3 watershed.

Appendix A

County of Sacramento
Storm Water Detention Basins

Facility Number	Name	APN	County Owned	Facility Map	Thomas Bros. Map Page	Wet / Dry	WQ / Flood Control Basin	Acreage	Side Slopes	Associated Pump Station	County Maintained	Maintenance Agreement
B-01	Unionhouse Creek / East Stockton Blvd	115-0210-030	Yes	292-167	338-C5	Dry	Dual	1.7	2:1	NA	Yes	SACDOT
B-03	Howe Avenue	277-0250-006; -009; -024	No	334-164	298-B3	Dry	Flood	10.8	3:1	D-05	Yes	NA
B-04	Manlove	075-0010-002	Yes	328-179	298-H6	Dry	Flood	2.3	3:1	D-10	Yes	NA
B-05	Wilhaggin	292-0180-021	No	328-176/9; 330-176/9	298-G5	Dry	Flood	13	UNK	D-43	Yes	NA
B-06	Silver Springs Ranch / Dierks Ranch	123-0220-062	Yes	290-200	339-G6	Wet	Dual	5.0	3:1	NA	Yes	HOA
B-25	Antelope North Road	203-0240-014	Yes	384-191	239-D5	Dry	Dual	2.2	3:1	NA	Yes	NA
B-38	North Metro Air Park	201-1020-073	Yes	374-125, 376-125	256-E4	Dry	Flood	23	4:1	D-49	Yes	NA
B-39	South Metro Air Park	201-1020-067	Yes	372-125, 374-125	256-E4	Wet	Dual	19	4:1	D-49	Yes	NA
B-78	Unionhouse Creek / Elk Grove Florin Road	121-0030-050; -051; -056	Yes	294-179	338-H4	Dry	Flood	5.0	UNK	NA	Yes	NA
B-79	Strawberry Creek / East Stockton Blvd	115-0130-032	Yes	288-167	338-C6	Dry	Flood	3.7	1:1	NA	Yes	NA
B-81	Unionhouse Creek / Lenhart	115-0210-034	Yes	292-167	338-C5	Dry	Flood	1.9	3:1	NA	Yes	NA
B-84	Bear Hollow	072-0370-096	Rancho Cordova	328-203/6	299-J5	Wet	Dual	24	3:1	D-44	Yes	NA
B-88	Hackberry	230-0860-005	No	358-191	279-C1	Dry	Flood	1.0	3:1	NA	No	NA
B-89	Hazelwood	271-0243-007 through 010	Yes	344-182	278-J6	Dry	Flood	1.7	3:1	NA	Trash rack	Parks
B-90	Silver Legends	122-0120-010; -036; -038	Yes	286-194	339-D7	Wet	Dual	2.2	UNK	D-22	Yes	NA
B-91	Laguna Creek / Polo Crosse	122-0420-022	No	290-200	339-F6	Dry	Dual	2.8	3:1	NA	Low flow easement	NA
B-92	Fox Creek	206-0033-004	No	376-155	257-H1	Dry	Dual	2.4	UNK	NA	Yes	NA
B-95	Robla Creek	214-0330-072	Yes	368-155	257-H4	Dry	Flood	2.1	UNK	NA	Yes	NA
B-96	Ottomon Hills	213-1030-018	Yes	374-227	260-H2	Dry	Dual	0.75	3:1	NA	Yes	NA
B-98	Anatolia North	067-0430-028	Rancho Cordova	318-215	320-D2	Wet	Dual	9.5	3:1	NA	Yes	NA
B-99	Anatolia South	067-0090-037	Rancho Cordova	318-218/5; 316-215	320-D3	Wet	Dual	36.7	3:1	NA	Yes	NA

Appendix B

COUNTY OF SACRAMENTO

Inter-Department Correspondence

MP mp
HN
KD KD FOR SIGNATURE

October 14, 2004

TO: Michael Peterson. Principal Civil Engineer
Department of Water Resources

FROM: Stephen Kenning, Senior Civil Engineer
Drainage Operations and Maintenance

SUBJECT: **MOU Between SacDOT and SacDWR**

Attached for your review are two identical copies of an MOU between SacDOT (Sacramento County Department of Transportation) and SacDWR (Sacramento County Department of Water Resources). Both copies have been reviewed by me, and have already been signed off by Tom Zlotkowski of SacDOT.

Please review the attached MOU and then forward to Keith DeVore for his signature. Send the original signed documents to Todd Peterson for filing and final distribution. Or Paul Brokken (5-7136) can pick-up the documents after they have been signed by Keith.

The purpose of the attached MOU is to allow SacDOT's landscape contractor to maintain SacDWR's stormwater detention basin located at on the west side of E. Stockton Boulevard, at the N/B Highway 99 off-ramp at Mack Road (across E. Stockton Boulevard from Costco). Piggybacking SacDOT's current contract will result in competitive pricing for the work, as well as minimizing the SacDWR staff time that would otherwise be needed to separately bid the work.

SacDWR's previous maintenance contract for this detention basin expired in July 2004. It was determined that SacDOT's current landscape contractor could perform the maintenance on this property for a lower annual fee than SacDWR paid for last year's contract landscape maintenance. Last year, SacDWR paid approximately $500 per month, while SacDOT's estimated monthly billing fee will be $378 per month. SacDOT will bill SacDWR annually. SacDOT has been utilizing this contractor for several years (California Landscape Associates, Inc.), and the contractor has been giving honest and reliable service.

Todd Peterson solicited a bid from MSA's Department of Parks and Recreation. Their bid for the landscape maintenance work at the subject stormwater detention was $1,200 per month.

Your prompt attention to this matter is appreciated.

CC: WITH AGREEMENT
-TED THATCHER, DWR

TP:pmb
Contract: E. Stockton Blvd Stormwater Detention Basin Landscape Maintenance
p:\shared\draino&m\maint\detention basins\dot mou\mou sacdot-sacdwr memo.doc

TRANSPORTATION DEPT.
SEP 1 2004

MEMORANDUM OF UNDERSTANDING

REGARDING: **Landscape Maintenance Agreement For E. Stockton Blvd Stormwater Detention Basin**

BETWEEN: **Sacramento County Department of Transportation**

AND: **Sacramento County Department of Water Resources**

DATE: **September 7, 2004**

RECEIVED
SEP 23 2004
SAC-DEPARTMENT OF WATER RESOURCES
DRAINAGE OPERATIONS & MAINTENANCE

A. GENERAL:

1. DEFINITIONS:
   SacDOT: Sacramento County Department of Transportation
   SacDWR: Sacramento County Department of Water Resources

2. PURPOSE:
   The purpose of this Memorandum is to agree upon and clarify the responsibilities and duties between SacDOT and SacDWR for landscape maintenance services at the E. Stockton Boulevard Stormwater Detention Basin site.

3. LOCATION:
   The detention basin is located on the west side of E. Stockton Boulevard, at the N/B Highway 99 off-ramp at Mack Road (across E. Stockton Boulevard from Costco). APN: 115-0210-030-0000. See attached Vicinity Map, "**Exhibit 1**".

4. BACKGROUND:
   SacDWR's previous landscape maintenance contract for the subject detention basin expired in July 2004. SacDWR would prefer to utilize SacDOT's expertise in contracting out landscape maintenance services.

B. RESPONSIBLITIES:

1. Landscape Maintenance services shall be consistent with the current level of service used throughout SacDOT's Contract Services Section privately contracted work. SacDOT will contract with a private company to perform the landscape maintenance services as follows:

- Removal of litter and debris from shrub areas and adjacent hardscapes, and weed control (weekly);

- Maintenance, repair, and replacement of irrigation heads, valves, backflow preventors, and controllers (weekly inspection);

- Shrub and tree maintenance, including pruning, fertilization, staking, stake removal, guying, and pest control (alternate months); and

- Plant material replacement (as needed or requested).

2. The landscape maintenance as detailed in this agreement does NOT include maintenance of the basin sideslopes or invert. The maintenance and removal of vegetation and trash in the basin sideslopes and invert shall be the responsibility of SacDWR.

3. The monthly maintenance cost for the above listed routine landscape maintenance shall be determined by the bid amount for the East Stockton Detention Basin site in the current contract.

4. Unscheduled work shall be performed as needed and shall not exceed 30% of the monthly maintenance without prior approval by SacDWR.

5. SacDOT administration costs are estimated at a total of 24 hours annually and are billable at the most current rate for the specific staff position performing the administration.

6. All costs shall be determined at the close of the fiscal year and reimbursement requests shall be prepared by DOT and forwarded to DWQ. The costs shall be identified by: monthly maintenance costs, unscheduled work or SacDOT staff time to administer the landscape maintenance services.

7. Utility costs shall be managed and paid by SacDWR.

C. MISCELLANEOUS:

1. This Agreement shall be in effect immediately and remain in effect until either Department decides to terminate this Agreement. The required termination notice lead time shall be dependant upon contractual obligations of the current executed contract with the vendor; currently a 30-day notice to remove a project site for a contract is required.

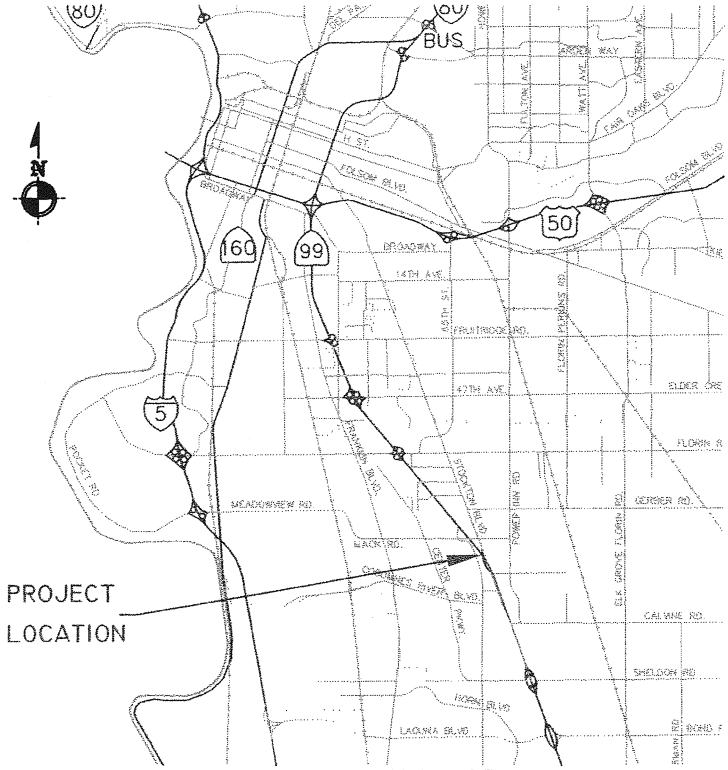
2. Modifications or amendments affecting this Agreement shall be in writing, and approved and executed by both parties.

3. This Agreement constitutes the understanding between SacDOT and SacDWR as to the subject matter contained herein.

H.S.
RGM

9/8/04
Thomas Zlotkowski, Director Date
SacDOT

10-28-04
Keith DeVore, Director Date
SacDWR



VICINITY MAP

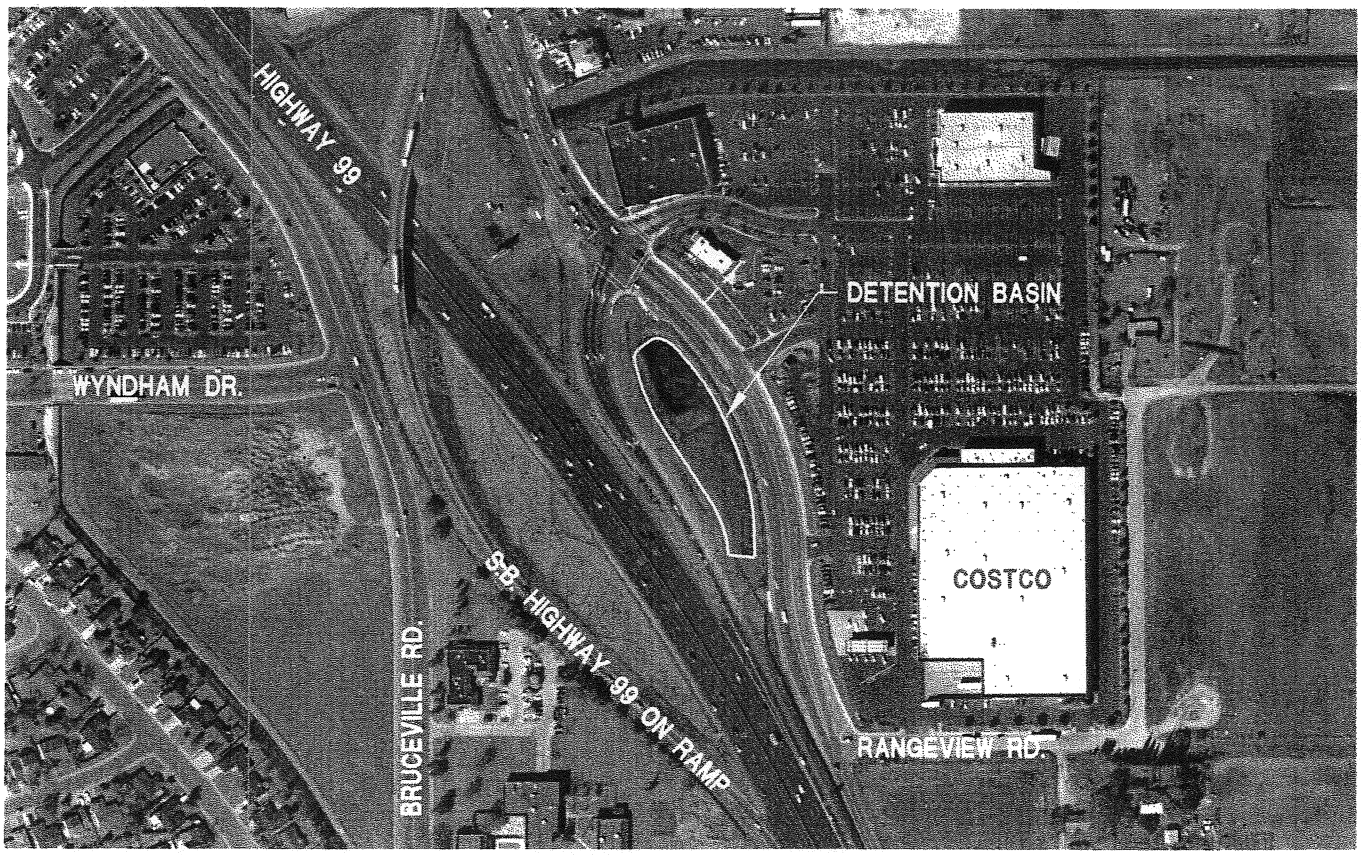
COUNTY OF SACRAMENTO

MUNICIPAL SERVICES AGENCY

DEPARTMENT OF WATER RESOURCES

DRAINAGE OPERATIONS & MAINTENANCE SECTION

DETENTION BASIN AT HIGHWAY 99



LOCATION MAP

THOMAS MAP 338-C5

"Exhibit 1"

P:\SHARED_FOLDERS\DRAINOMA\CONTRACT\CONSTRUCTION CONTRACTS\CONTRACTS PURCHASE ORDERS\MISC FOR PAUL\99 BASIN

FAXED 7-6-04

CALIFORNIA
LANDSCAPE ASSOCIATES INC.

MAILED

July 6, 2004

County of Sacramento
Attn: Bret Krieger
4100 Traffic Way
Sacramento, CA 95827

RE: Landscape Maintenance for East Stockton Detention Basin

Mr. Krieger:

As requested, the following are landscape maintenance estimate and related items to the site.

A weekly service for maintaining the site with trash pickup, irrigation management, shrub pruning up to 6 times per year along with general maintenance. This would include weed control and fertilizer.

Monthly cost: $378.00

Irrigation repairs & other:

Lateral line repair	Approx.	$35.00
Cap 7 emitter heads	Approx.	$42.00
Prune dead branches on some shrubs	Approx.	$38.00

Should you like to discuss this matter further, please contact our office. If you would like to proceed let our staff know ASAP. This would allow us to schedule our personnel.

Respectfully,

Todd F. Marentis
President

8671 Elder Creek Road, Suite 100 • Sacramento, CA 95828 • (916) 381-9999 • Fax (916) 381-9990
Contractors License #568804

JON – KEITH HAS SIGNED IT, READY TO RECORD MP

COUNTY OF SACRAMENTO

Municipal Services Agency Correspondence

DATE: 5/3/2007

TO: Ray Thompson
Deputy County Council

FROM: Jon Money
Associate Engineer

SUBJECT: **Maintenance Agreement – Silver Springs Ranch**

Ray,

Enclosed is a maintenance agreement for a detention basin in the Silver Springs Ranch subdivision that we have been trying to finalize for a number of years. Bill Forrest had negotiated most of the contract before he took a position with the City of Galt and had sent previous copies to County Council for review. The homeowner's association has finally signed off and I need your and Keith Devore's signatures to finalize the document.

Please review the attached document for any errors, sign and then forward to Keith for signature. You can then send it back to me or have your office record it. Please let me know if you have any additional questions.

Thanks,
Jon Money

RECEIVED
MAY - 3 2007
COUNTY COUNSEL

5/16/07

Keith:

I have approved this as to form – based mostly on the observation that it was signed by the other party in February and the problems I see with the document are probably insignificant in the large picture of needing to get this done.

Ray

Keith, this agreement identifies associations obligations & limits County's for installation of improvements w/in County land used for a detention basin. Please sign

MW

Advanced Property MANAGEMENT

RECEIVED
MAY 01 2007
Department of Water Resources
Drainage O & M

P.O. BOX 191825 SACRAMENTO CA 95819-7825 1-866-386-8580 ADVANCEDMGMT.COM

MEMORANDUM

Date: April 26, 2007

To: John Money
Department of Water Resources
From: Mariah Cook
Subject: Silver Springs Ranch Homeowner Association

Dear Mr. Money,

My supervisor, Marco Babich, asked me to mail these documents to you. If you have any questions, please do not hesitate to call him at 916-386-8580 x2 or email him at marco@advancedmgmt.com.

Regards,

Mariah Cook
Assistant Property Manager

OFFICIAL COUNTY BUSINESS-NO RECORDING
FEE REQUIRED PURSUANT TO GOVT CODE 6103

_____
SIGNATURE

ADDRESS: Steed Way
APN: 123-0220-062
DISTRICT: _____
AUTHORIZED BY: _____

RETURN TO:
COUNTY OF SACRAMENTO
DEPARTMENT OF WATER RESOURCES
MAIL CODE ~~01-301~~ 64-001
ATTN: ~~Bill Forrest~~ JON MONEY

SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY

MAINTENANCE AGREEMENT

THIS AGREEMENT (the "Agreement") made and entered into this 18th day of May 2005, by and between the **COUNTY OF SACRAMENTO, a political subdivision of the State of California** hereinafter called "County" and, **Silver Springs Ranch Homeowners Association** hereinafter called "Association."

RECITALS

A. The Association provides facilities of mutual benefit to the property owners of the subdivision known as Dierk's Ranch Subdivision Map (AKA Silver Springs Ranch). The Association will construct, reconstruct, repair and forever maintain thereon, a pedestrian path/walkway, landscaping, irrigation systems and post and cable fencing (the "Facilities"), on land deeded to the County of Sacramento for drainage purposes (APN 123-0220-062) (the "Basin").

B. County agrees to allow construction of the above-named Facilities within the Basin provided the Association enters into this Agreement to forever maintain said Facilities.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises herein, the parties agree as follows:

1. **Permit to Construct.** The County shall permit the construction and maintenance of the identified Facilities described in Recital A, above, on the Basin (APN 123-022-062). If any new facilities are to be constructed after the signature date of this Agreement, then the Association will obtain Water Agency Permits from the County.

2. **Agreement Binding On Successors In Interest.** This Agreement is an instrument affecting the title or possession of the real property. All the terms, covenants and conditions herein imposed shall be binding upon and inure to the benefit of the successors in interest of Association. Upon any sale or division of the real property, the terms of this Agreement shall apply separately to each parcel, and the owner of each parcel shall succeed to the obligations imposed on Association by this Agreement. As used in this Agreement, the term "Association" shall include all successors in interest to the above named Association. This Agreement shall be recorded in the office of the County Recorder.

3. **Association Maintenance Obligations.** Beginning as of the date hereof, Association, at Association's sole cost and expense, shall maintain the Facilities in good working order and repair such. This includes the maintenance of the entire perimeter of the Basin from the boundary line of the Basin parcel to two feet (2') from the top of the slope, including the landscaping, shredded bark and mulch, weed control, litter removal, irrigation system, pedestrian walkways and shoulders, and post and cable fencing. The open style wrought iron/tubular steel fencing that is the border of the detention basin and the surrounding private lots shall be the responsibility of the private lot owners. As point of information, the basin is engineered to never be dry. Mosquito abatement measures shall be the responsibility of the County and the applicable Vector Control District. Vegetation debris and sediment shall be disposed of properly off-site and not within the detention Basin parcel. The maintenance, repairs and locking of all post and cable fencing and gates shall be the responsibility of the Association. The Association may use "Round-Up" or similar formulated herbicides within the Basin but shall not apply such herbicides within the water or within 24 hours of expected rain The County shall have no obligation to maintain the identified Facilities.

4. **Indemnity.** The Association agrees to indemnify and to hold harmless the County, the Sacramento County Water Agency, a political subdivision of the State of California, their officers, employees, and agents from any and all losses, liability or damage that may result to either the Association, his assigns, successors in interest, tenants, or any third party as a direct or indirect result of the use, or maintenance of said facilities. Association shall defend, indemnify, and hold harmless County, its Board of Supervisors, officers, directors, agents, employees and volunteers from and against any and all demands, claims, actions, liabilities, losses, damages, and costs, including reasonable attorneys' fees, arising out of or resulting from the performance of this Agreement, regardless of whether caused in part by a party indemnified hereunder.

5. **County Maintenance Responsibilities**. The County only accepts maintenance responsibility for the flood control and stormwater quality treatment aspects of the detention Basin and the outfall drainage facilities. The basin will not be maintained for aesthetic enhancement. The County will not be responsible for litter removal anywhere with the detention Basin parcel. The County's maintenance obligations for the Basin starts from two feet (2') from the top of slope. Vegetation debris and sediment from the Basin shall be disposed of properly off-site and not within the Basin or Facilities. The County's maintenance responsibility of the Basin shall include the removal of bulrush, cattails, algae, and volunteer trees growing along the bank areas within the Basin. The County shall use reasonable care to avoid damaging or removing trees planted by Morrison Homes as part of the development of the Silver Springs/Dierks Ranch development. Volunteer (naturally occurring) trees that grow on the islands that are within the detention basin will not be trimmed or removed by the County. The County may use "Round-Up" or similar formulated herbicides within the Basin but shall not apply such herbicides within the water or within 24 hours of expected rain. The County shall utilize Aqua-Master for vegetation control within the water areas of the Basin. The County will attempt to coordinate maintenance activities with the Association to facilitate mosquito abatement activities. Association may hire a third party contractor to complete maintenance desired by Association but not completed by County.

6. **Waiver of Claims**. Association, its heirs, assigns, and successors in interest shall unconditionally waive any claim of liability on the part of the County, its officers, agents and employees for any property damage or personal injury arising out of, or in any way related to, the maintenance of the facilities by the Association.

7. **Authority**. Each party warrants that the person[s] signing this Agreement on behalf of the party is authorized to do so, and the party has full power and authority to make the agreements contained herein.

8. **Notices**. All notices, consents, approvals and other communications under this Agreement shall be in writing and shall be deemed to have been duly given or made (a) upon delivery if hand delivered; (b) one (1) day after delivery to any overnight courier service, fee prepaid; or (c) three (3) days after deposit with the United States Postal Service as registered or certified mail, postage prepaid, and in each case addressed as follows:

ASSOCIATION:

Silver Springs Ranch Homeowners Association
c/o Advanced Property Management
P.O. Box 191825
Sacramento, CA 95819-7825

Attn: Marco Babich
Telephone: 916-386-8580
Facsimile: 877-873-5516

COUNTY:

Principal Engineer
Drainage Division
Department of Water Resources
County of Sacramento
Attn: Michael Peterson
827 7th Street, Suite 301
Sacramento, CA 95814
Telephone: (916) 874-8913
Facsimile: (916) 874-8693

9. Entire Agreement. This Agreement constitutes the entire agreement between the parties hereto regardless of any prior oral or written memoranda or purported agreement, and this Agreement may only be modified in a writing that is signed by all of the parties hereto. This Agreement is binding upon the parties hereto and on their respective affiliates, successors, heirs, legal representatives, and assigns.

10. Further Acts. The parties agree to execute and deliver such further documents as may be necessary or appropriate to effectuate the purposes of this Agreement.

11. Construction. Each party was represented by legal counsel in the negotiation and execution of this Agreement or had opportunity to consult with an attorney of the party's choice. As a result of that representation or opportunity for representation, the terms of this Agreement were created out of the combined efforts of the parties and their attorneys, if any, and shall be construed neither for nor against either party.

12. Counterparts. This Agreement may be executed simultaneously in any number of counterparts, each of which shall be deemed an original, and all of which shall together constitute one and the same agreement.

In witness whereof, the parties have signed this Agreement effective as of the Date first written above.

COUNTY OF SACRAMENTO
A political subdivision of the State of California

By Keith DeVore
Keith DeVore, Director
Department of Water Resources

REVIEWED AND APPROVED BY
COUNTY COUNSEL
Ray C. Leong
Deputy County Counsel

Silver Springs Ranch Homeowner's Association

By Gail Lee Cretcher 2-16-07
President
See Attached Notarial Certificate

State of California)

)ss.

County of Sacramento)

On 2-17, ~~2005~~ 2007 before me, Greg Cameron Higley, personally appeared Carl Lee Carleton, ___ personally known to me - **OR** - ✓ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

GREG CAMERON HIGLEY
COMM. # 1512890
NOTARY PUBLIC-CALIFORNIA
SACRAMENTO COUNTY
COMM. EXP. SEPT. 12, 2008

(Notary Seal)

Signature of Notary

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of SACRAMENTO

On 2-12-07 (Date), before me, GREG CAMERON HIGLEY (Name and Title of Officer (e.g., "Jane Doe, Notary Public")),

personally appeared Gail Lee Castelin (Name(s) of Signer(s)),

☐ personally known to me

☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

GREG CAMERON HIGLEY
COMM. # 1512890
NOTARY PUBLIC-CALIFORNIA
SACRAMENTO COUNTY
COMM. EXP. SEPT. 12, 2008

WITNESS my hand and official seal

Place Notary Seal Above

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document
Title or Type of Document: Membership Agreement

Document Date: 2-16-07 Number of Pages: 6

Signer(s) Other Than Named Above: None

Capacity(ies) Claimed by Signer(s)

Signer's Name: Gail Lee Castelin
☐ Individual
☒ Corporate Officer — Title(s): President
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

Signer's Name: _____
☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____
Signer is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

© 2004 National Notary Association • 9350 De Soto Ave., P.O. Box 2402 • Chatsworth, CA 91313-2402 Item No. 5907 Reorder: Call Toll-Free 1-800-876-6827

Peterson

31

COUNTY OF SACRAMENTO

WATER RESOURCES DIVISION.....KEITH DEVORE, Chief
COUNTY ADMINISTRATION BUILDING Phone: (916) 874-6851
827 SEVENTH STREET, ROOM 301 Fax: (916) 874-8693
SACRAMENTO, CA 95814

www.sna.com/saccowr/wrd

PUBLIC WORKS AGENCY
WARREN H. HARADA, Administrator

CHERYL F. CRESON, Director
County Engineering
ROBERT F. SHANKS, Director
District Engineering
JOHN W. NEWTON, Director
General Services
PATRICK L. GROFF, Director
Public Works Administration

APPROVED
BY RESOLUTION #99-1555
BOARD OF SUPERVISORS

DEC 07 1999

Cindy A. Turner
By
Clerk of the Board

December 7, 1999

TO: Board of Supervisors

FROM: Department of District Engineering

SUBJECT: **AGREEMENT FOR MAINTENANCE OF HAZELWOOD AVENUE STORMWATER DETENTION FACILITY**

RECOMMENDATION:

It is recommended that your Board approve the attached Resolution authorizing the Chair to execute the attached Agreement for Maintenance of Hazelwood Avenue Stormwater Detention Facility.

DISCUSSION:

On May 18, 1999 your Board approved award of Contract 3341, the Hazelwood-Mission Storm Drain Project, to Azteca Construction. Construction of this project is scheduled for completion in early December, 1999. A portion of this project includes the construction of approximately two acres of landscaped storm drain detention basin. The detention basin is located at 4600 Hazelwood Avenue approximately 500 feet west of Mission Avenue. The detention basin design is done in cooperation with local residents, Mission Oaks Recreation and Park District, Sacramento County Regional Parks, and the Water Resources Division.

This project is a remedial drainage project in an established neighborhood. All of the participating parties determined that the detention basin should be an attractive open area with regular security patrols and maintained landscaping. The basin is designed to be a "dry" public green area most of the time and will only detain water for a limited amount of time during storm events. The detention basin is in the vicinity of public parks operated and maintained by Mission Oaks Recreation and Park District. Mission Oaks is a dependent district of the County of Sacramento.

The attached agreement provides for the County Stormwater Utility to reimburse Mission Oaks Recreation and Park District for the expense and administration of maintaining the Hazelwood detention basin during normal "dry" use. The services provided by Mission Oaks include landscape maintenance, utility costs, patrols by off duty Sheriff's deputies, and administrative

overhead. The agreement also states that County forces will clean up the basin after storm events which have floated in debris external to the landscaped basin area. The Mission Oaks Recreation and Park District Advisory Board of Directors approved and signed two copies of the agreement (attached) on November 2, 1999.

FINANCIAL CONSIDERATIONS:

The estimated average monthly cost for this service is $1,100. Funding for this service is budgeted for and will be paid for by the Stormwater Utility.

RECOMMENDATION:

It is recommended that your Board approve the attached Resolution authorizing the Chair to execute the attached Agreement for Maintenance of Hazelwood Avenue Stormwater Detention Facility.

Respectfully submitted,

Robert F. Shanks, Director
Department of District Engineering

APPROVED:

Terry Schutten
County Executive

By: _____
Warren H. Harada, Administrator
Public Works Agency

Contact for Additional Information:
Brett Forrester, Senior Civil Engineer, 874-8235

BF:JCF:jcf

cc: (6) Water Resources – Steve Podretti, Brett Forrester, Greg Ohanesian, Mike Peterson, Jay Fenske, and file

302/16.80

RECEIVED
DEC 28 1999
PUBLIC WORKS - WATER RESOURCES
DRAINAGE O & M

Document Approvals

For

Execute Agreement For Maintenance Of Hazelwood Avenue Stormwater Detention Facility (M. Johnson)

Status	User	Date
Approved	Warren H Harada	11/22/99

COUNTY OF SACRAMENTO

RESOLUTION NO. 99-1555

RESOLUTION TO EXECUTE THE AGREEMENT FOR MAINTENANCE OF HAZELWOOD AVENUE STORMWATER DETENTION FACILITY

WHEREAS, COUNTY desires to engage the services of the MISSION OAKS RECREATION AND PARK DISTRICT for maintenance of the Hazelwood Avenue Stormwater detention Facility; and

WHEREAS, DISTRICT desires to maintain the Hazelwood Avenue Stormwater Detention Facility; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute an agreement, in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, with MISSION OAKS RECREATION & PARK DISTRICT, a dependent district of the County of Sacramento, and to do and perform everything necessary to carry out the purpose of this resolution.

ON A MOTION BY Supervisor Johnson, seconded by Supervisor Collin, the foregoing resolution was passed and adopted this 7th day of December, 19 99, by the following vote, to wit:

AYES:	**Supervisors:**	Collin, Dickinson, Niello, Nottoli, Johnson
NOES:	**Supervisors:**	none
ABSENT:	**Supervisors:**	none
ABSTAIN:	**Supervisors:**	none

Muriel P. Johnson
Chair, Board of Supervisors

COUNTY OF SACRAMENTO CALIFORNIA

(SEAL)

ATTEST: Cindy H. Turner
Clerk, Board of Supervisors

In accordance with Section 25103 of the Government Code of the State of California a copy of this document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on

DEC 07 1999

By Wayne Dawkins
Deputy Clerk, Board of Supervisors

FILED

DEC 07 1999

BOARD OF SUPERVISORS

BY Cindy H. Turner
CLERK OF THE BOARD

AGREEMENT FOR MAINTENANCE OF HAZELWOOD AVENUE STORMWATER DETENTION FACILITY

This Agreement is made and entered into this 7th day of December, 1999, by and between the Water Resources Division of the Public Works Agency, County of Sacramento, a political subdivision of the State of California, hereinafter referred to as "COUNTY" and Mission Oaks Recreation and Park District, a dependent district of the County of Sacramento, and a political subdivision of the State of California, hereinafter referred to as "DISTRICT".

RECITALS

WHEREAS, COUNTY has constructed the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, COUNTY has determined that it is necessary to provide maintenance of the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, DISTRICT desires to maintain the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, COUNTY desires to engage DISTRICT to perform the needed services;

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, COUNTY and DISTRICT agree as follows:

I. INCORPORATION OF RECITALS

The foregoing recitals are hereby incorporated by reference.

II. TERM

This Agreement shall be effective as of the date first written above and shall remain in effect until and unless terminated by one or both parties of this Agreement.

III. SCOPE OF WORK

The District shall perform and be responsible for the following services:

A. Maintaining the quality of the landscaped areas equal to that provided other District parks, although mowing may be precluded during wet weather conditions due to the specific function of the facility.

B. Providing security patrols on a schedule consistent with that provided other District parks.

C. Providing for opening and closing the easternmost access gate daily, based on a schedule consistent with that provided other District parks.

D. Providing the County Public Works Agency with a gate key for access.

E. Cleaning up park-related debris, such as tree limbs and other debris, that are not floated in by storm water from an external source to the landscaped basin area.

The County shall perform and be responsible for the following services:

A. Coordinating with District staff the scheduling of the maintenance of the drainage structure by County crews to forestall damage to turf and irrigation heads.

B. Scheduling County crews to clean up and remove debris floated in by storm water from an external source to the landscaped basin area and notifying the District of such activities.

C. Either the District or the County may open the westernmost gate for the purpose of maintenance. The gate is to be locked after the work is completed.

IV. APPORTIONMENT OF COSTS

The County agrees to pay the district for the cost, including administrative overhead, of performing the duties outlined in Section III. "Scope of Work".

Maintenance and other related expenses shall be determined based on actual costs, with periodic adjustments to the Agreement for any anticipated increased expenses, such as those associated with the District's contractual agreement for landscape maintenance and utility costs, including water. Monthly adjustments may be made, as needed, for unanticipated expenses, such as repair of acts of vandalism or damage from a flood event.

V. INVOICES, PAYMENTS, AND NOTICES

A. DISTRICT shall submit periodic invoices, not more frequently than monthly, for the services actually rendered during the preceding period. COUNTY and DISTRICT shall mutually agree on the format, content, and supporting documentation for invoices that will provide sufficient project management information to identify the actual level of work effort and the actual expenditures on tasks and subtasks required by this Agreement. COUNTY shall pay, within thirty (30) days of receipt and approval, invoiced amounts that are undisputed. The parties agree to exercise good faith and diligence in the resolution of any disputed invoiced amounts.

B. Any invoice, payment, notice, demand, request, consent, or approval that either party hereto may or is required to give the other shall be in writing and shall be either personally delivered or sent by mail, addressed as follows:

TO COUNTY:	TO DISTRICT:
County of Sacramento Water Resources Division 827 Seventh Street, Room 301 Sacramento, CA 95814 ATTN: Brett Forrester	Mission Oaks Recreation and Park District 3344 Mission Avenue Carmichael, CA 95608 ATTN: Debby Walker

VI. INDEMNIFICATION

DISTRICT shall indemnify, defend, and hold harmless the COUNTY, its officers, agents, employees, and representatives from and against any and all claims, losses, costs, expenses, injuries, liabilities, damages, demands, and actions arising out of or resulting from the performance of this Agreement, caused by any negligent or willful act or omission of the DISTRICT, its officers, agents, employees, representatives, or anyone directly or indirectly acting on behalf of the DISTRICT.

COUNTY shall indemnify, defend, and hold harmless the DISTRICT, its officers, agents, employees, and representatives from and against any and all claims, losses, costs, expenses, injuries, liabilities, damages, demands, and actions arising out of or resulting from the performance of this Agreement, caused by any negligent or willful act or omission of the COUNTY, its officers, agents, employees, representatives, or anyone directly or indirectly acting on behalf of the COUNTY.

VII. APPLICABLE LAWS

This Agreement shall be deemed to be executed within the State of California and construed with and governed by the laws of the State of California. Any action arising out of this Agreement shall be filed in any appropriate Sacramento County Court having jurisdiction or, if appropriate, in the United States District Court for the Eastern District of California.

VIII. TERMINATION

A. Either party may terminate this Agreement upon the substantial failure of performance by the other party, provided such terminating party first transmits written notice of intent to terminate to the party failing to perform and allows such party a reasonable opportunity to correct said failure of performance.

B. COUNTY shall have the right to terminate this Agreement at any time by serving upon DISTRICT sixty (60) days advance written notice of termination. The notice shall be deemed served and effective for all purposes on the date it is deposited with the United States Postal Service, first class postage prepaid and addressed to DISTRICT at the address indicated in this Agreement.

IX. AMENDMENTS

Modification or amendments affecting the scope of work hereunder that result in an increase of the compensation to be paid by COUNTY to DISTRICT under this Agreement shall be in writing and executed by both parties.

XI. ENTIRE AGREEMENT

This Agreement, all exhibits attached hereto, all other terms or provisions incorporated herein by reference, and any notice to proceed issued in accordance with the terms hereto constitute the entire Agreement and understanding between the COUNTY and the DISTRICT as to the subject matter contained herein and supersede all prior understandings, agreements, and documentation relating to the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By _____
Chairperson of the Board of Supervisors
of the County of Sacramento

"COUNTY"

In accordance with Section 25103 of the Government Code of the State of California a copy of this document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on

DEC 07 1999

By _____
Deputy Clerk, Board of Supervisors

MISSION OAKS RECREATION & PARK DISTRICT

By _____
Thomas P. Kerr, Chairperson
Advisory Board of Directors

"DISTRICT"

(SEAL)

ATTEST: _____
Clerk of the Board of Supervisors

Approved as to form:

_____
Deputy County Counsel

The foregoing is a correct copy of a resolution adopted by the Board of Supervisors, Sacramento County, California
on December 7, 1999
Dated December 10, 1999
Clerk of said Board of Supervisors
By Wayne Dowling
Deputy

COUNTY OF SACRAMENTO

RESOLUTION NO. 99-1555

RESOLUTION TO EXECUTE THE AGREEMENT FOR MAINTENANCE OF HAZELWOOD AVENUE STORMWATER DETENTION FACILITY

WHEREAS, COUNTY desires to engage the services of the **MISSION OAKS RECREATION AND PARK DISTRICT** for maintenance of the Hazelwood Avenue Stormwater detention Facility; and

WHEREAS, DISTRICT desires to maintain the Hazelwood Avenue Stormwater Detention Facility; and

NOW, THEREFORE, BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute an agreement, in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, with MISSION OAKS RECREATION & PARK DISTRICT, a dependent district of the County of Sacramento, and to do and perform everything necessary to carry out the purpose of this resolution.

ON A MOTION BY Supervisor Johnson, seconded by Supervisor Collin, the foregoing resolution was passed and adopted this 7th day of December, 19 99, by the following vote, to wit:

AYES:	**Supervisors:**	Collin, Dickinson, Niello, Nottoli, Johnson
NOES:	**Supervisors:**	none
ABSENT:	**Supervisors:**	none
ABSTAIN:	**Supervisors:**	none

Muriel P. Johnson
Chair, Board of Supervisors

COUNTY OF SACRAMENTO (SEAL) CALIFORNIA

ATTEST: Cindy M. Turner
Clerk, Board of Supervisors

In accordance with Section 25103 of the Government Code of the State of California a copy of this document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on

DEC 07 1999

By Wayne Dowling
Deputy Clerk, Board of Supervisors

FILED

DEC 07 1999

BOARD OF SUPERVISORS

BY Cindy M. Turner
CLERK OF THE BOARD

AGREEMENT FOR MAINTENANCE OF HAZELWOOD AVENUE STORMWATER DETENTION FACILITY

This Agreement is made and entered into this 7th day of December, 1999, by and between the Water Resources Division of the Public Works Agency, County of Sacramento, a political subdivision of the State of California, hereinafter referred to as "COUNTY" and Mission Oaks Recreation and Park District, a dependent district of the County of Sacramento, and a political subdivision of the State of California, hereinafter referred to as "DISTRICT".

RECITALS

WHEREAS, COUNTY has constructed the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, COUNTY has determined that it is necessary to provide maintenance of the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, DISTRICT desires to maintain the Hazelwood Avenue Stormwater Detention Facility; and

WHEREAS, COUNTY desires to engage DISTRICT to perform the needed services;

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, COUNTY and DISTRICT agree as follows:

RECEIVED
DEPARTMENT OF PUBLIC WORKS
WATER RESOURCES DIVISION
NOV 08 1999
FILE

I. INCORPORATION OF RECITALS

The foregoing recitals are hereby incorporated by reference.

II. TERM

This Agreement shall be effective as of the date first written above and shall remain in effect until and unless terminated by one or both parties of this Agreement.

III. SCOPE OF WORK

The District shall perform and be responsible for the following services:

A. Maintaining the quality of the landscaped areas equal to that provided other District parks, although mowing may be precluded during wet weather conditions due to the specific function of the facility.

B. Providing security patrols on a schedule consistent with that provided other District parks.

C. Providing for opening and closing the easternmost access gate daily, based on a schedule consistent with that provided other District parks.

D. Providing the County Public Works Agency with a gate key for access.

E. Cleaning up park-related debris, such as tree limbs and other debris, that are not floated in by storm water from an external source to the landscaped basin area.

The County shall perform and be responsible for the following services:

A. Coordinating with District staff the scheduling of the maintenance of the drainage structure by County crews to forestall damage to turf and irrigation heads.

B. Scheduling County crews to clean up and remove debris floated in by storm water from an external source to the landscaped basin area and notifying the District of such activities.

C. Either the District or the County may open the westernmost gate for the purpose of maintenance. The gate is to be locked after the work is completed.

IV. APPORTIONMENT OF COSTS

The County agrees to pay the district for the cost, including administrative overhead, of performing the duties outlined in Section III. "Scope of Work".

Maintenance and other related expenses shall be determined based on actual costs, with periodic adjustments to the Agreement for any anticipated increased expenses, such as those associated with the District's contractual agreement for landscape maintenance and utility costs, including water. Monthly adjustments may be made, as needed, for unanticipated expenses, such as repair of acts of vandalism or damage from a flood event.

V. INVOICES, PAYMENTS, AND NOTICES

A. DISTRICT shall submit periodic invoices, not more frequently than monthly, for the services actually rendered during the preceding period. COUNTY and DISTRICT shall mutually agree on the format, content, and supporting documentation for invoices that will provide sufficient project management information to identify the actual level of work effort and the actual expenditures on tasks and subtasks required by this Agreement. COUNTY shall pay, within thirty (30) days of receipt and approval, invoiced amounts that are undisputed. The parties agree to exercise good faith and diligence in the resolution of any disputed invoiced amounts.

B. Any invoice, payment, notice, demand, request, consent, or approval that either party hereto may or is required to give the other shall be in writing and shall be either personally delivered or sent by mail, addressed as follows:

TO COUNTY:	TO DISTRICT:
County of Sacramento Water Resources Division 827 Seventh Street, Room 301 Sacramento, CA 95814 ATTN: Brett Forrester	Mission Oaks Recreation and Park District 3344 Mission Avenue Carmichael, CA 95608 ATTN: Debby Walker

VI. INDEMNIFICATION

DISTRICT shall indemnify, defend, and hold harmless the COUNTY, its officers, agents, employees, and representatives from and against any and all claims, losses, costs, expenses, injuries, liabilities, damages, demands, and actions arising out of or resulting from the performance of this Agreement, caused by any negligent or willful act or omission of the DISTRICT, its officers, agents, employees, representatives, or anyone directly or indirectly acting on behalf of the DISTRICT.

COUNTY shall indemnify, defend, and hold harmless the DISTRICT, its officers, agents, employees, and representatives from and against any and all claims, losses, costs, expenses, injuries, liabilities, damages, demands, and actions arising out of or resulting from the performance of this Agreement, caused by any negligent or willful act or omission of the COUNTY, its officers, agents, employees, representatives, or anyone directly or indirectly acting on behalf of the COUNTY.

VII. APPLICABLE LAWS

This Agreement shall be deemed to be executed within the State of California and construed with and governed by the laws of the State of California. Any action arising out of this Agreement shall be filed in any appropriate Sacramento County Court having jurisdiction or, if appropriate, in the United States District Court for the Eastern District of California.

VIII. TERMINATION

A. Either party may terminate this Agreement upon the substantial failure of performance by the other party, provided such terminating party first transmits written notice of intent to terminate to the party failing to perform and allows such party a reasonable opportunity to correct said failure of performance.

B. COUNTY shall have the right to terminate this Agreement at any time by serving upon DISTRICT sixty (60) days advance written notice of termination. The notice shall be deemed served and effective for all purposes on the date it is deposited with the United States Postal Service, first class postage prepaid and addressed to DISTRICT at the address indicated in this Agreement.

IX. AMENDMENTS

Modification or amendments affecting the scope of work hereunder that result in an increase of the compensation to be paid by COUNTY to DISTRICT under this Agreement shall be in writing and executed by both parties.

XI. ENTIRE AGREEMENT

This Agreement, all exhibits attached hereto, all other terms or provisions incorporated herein by reference, and any notice to proceed issued in accordance with the terms hereto constitute the entire Agreement and understanding between the COUNTY and the DISTRICT as to the subject matter contained herein and supersede all prior understandings, agreements, and documentation relating to the subject matter of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By _____
Chairperson of the Board of Supervisors
of the County of Sacramento

"COUNTY"

MISSION OAKS RECREATION & PARK DISTRICT

By _____
Thomas P. Kerr, Chairperson
Advisory Board of Directors

"DISTRICT"

(SEAL)

ATTEST: _____
Clerk of the Board of Supervisors

Approved as to form:

_____
Deputy County Counsel

County of Sacramento
Storm Water Utility

Standard Protocol for Application of Herbicides and Pesticides for use at Creeks, Channels, and Detention Basins Maintained by County Drainage Maintenance

Updated November, 2005

Prepared by
Department of Water Resources
Drainage Operations and Maintenance Section

TABLE OF CONTENTS

SECTION 1 - BACKGROUND 1

Aquatic Pesticide Application 1
Type of Aquatic Pesticide Used 1

SECTION 2 - PERMIT REQUIREMENTS 1

SECTION 3 - STANDARD PROTOCOL FOR APPLICATION OF HERBICIDES AND PESTICIDES 2

Best Mangement Prarctices (BMP) 2
Water Quality Assessment 3
Safety and Storage 3

SECTION 1 - BACKGROUND

Aquatic Pesticide Application

The County of Sacramento (County) uses the application of herbicides and pesticides to help limit growth of vegetation in drainage channels, detention basins, creeks and on levees. Application of herbicides and pesticides significantly reduces the need for hand and mechanical cleaning of the above mentioned drainage facilities. Applying herbicides and pesticides substantially helps to maintain the stormwater carrying capacity of County drainage facilities.

Type of Aquatic Pesticide Used

Glyphosate is the only type of aquatic pesticide applied by the County to drainage channels, detention basins, creeks, and levees maintained by the County. These applications are limited to the boundaries of the County's Stormwater Utility and the City of Rancho Cordova. Glyphosate is the active ingredient in Aquamaster™ manufactured by the Monsanto Company and Rodeo® manufactured by Dow Agrosciences. Glyphosate is a non-selective herbicide that kills vegetation that it comes in contact with.

SECTION 2 - PERMIT REQUIREMENTS

On 12 March 2001, the Ninth Circuit Court of Appeals ruled that discharges of pollutants from the use of aquatic pesticides to waters of the United States require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Consequently, the State Water Resources Control Board (SWRCB) developed an Aquatic Pesticide Permit (General Permit No. CAG990003) to cover short-term seasonal discharges by public entities of pollutants associated with the application of aquatic pesticide for resource or pest management to waters of the United States. An updated version of SWRCB's Aquatic Pesticide Permit (General Permit No. CAG990005) was completed in 2004. The basic requirements of this General Permit include the following:

1. The applicator must follow all pesticide label instructions and any Use Permits issued by a County Agricultural Commissioner (CAC);
2. The discharger must be licensed by the Department of Pesticide Regulation (DPR) or work under the supervision of someone who is licensed if the aquatic pesticide is considered a restricted material;
3. The discharger must comply with effluent limitations including developing and implementing an Aquatic Pesticides Application Plan;
4. The discharger must comply with applicable receiving water limitations; and
5. The discharger must comply with monitoring and reporting requirements.

The County submitted a Notice of Intent (NOI) application June 4, 2004 for coverage under this General Permit. Subsequently, the County submitted the *County of Sacramento Aquatic Pesticide Application Plan, July 2004* (APAP) to the Regional Water Quality Control Board (RWQCB) on July 29, 2004 and was issued a RWQCB facility identification number (WDID# A5A34NP00022).

The application plan requires that the County prepare and implement a standardized protocol for application of pesticides, herbicides (including pre-emergent), and fertilizers. (The County does not apply fertilizer to drainage facilities.) All aquatic applications of pesticides shall be conducted in accordance with the July 2004 APAP.

SECTION 3 - STANDARD PROTOCOL FOR APPLICATION OF HERBICIDES AND PESTICIDES

Best Mangement Prarctices (BMP)

During pesticide application BMPs shall be implemented by the County to maximize efficiency of control efforts and minimize adverse impacts to the environment. Visual observations are to be made after applications to assess pesticide effectiveness and impacts to the surrounding environment. In addition, annual water quality results will be reviewed to evaluate BMP efficiency. The County implements the aquatic pesticide application BMPs listed below.

1. Licensing, and Training. Section policy requires that the crew leaders applying pesticides be licensed by California Department of Pesticides Regulations. Sacramento County Channel Maintenance has one licensed Pest Control Advisors (PCA), 22 Qualified Applicator Certified holders, and 6 Qualified Applicator License holders. All employees that make aquatic applications must be licensed with a Qualified Applicator Certificate or Qualified Applicator License. All applicators must go through annual training. Training covers such topics as safe application techniques, proper use of application equipment, applicable laws and regulations (including water quality), and specific information about the use of aquatic and non-aquatic herbicides.

2. Pesticide Recommendations. Each pesticide application must be accompanied by a recommendation for use by a PCA. The PCA recommendation is written to allow only pesticide use that is consistent with the pesticide label.

3. Preliminary Site Evaluations are made at a minimum of once per year by the PCA to determine areas in need of treatment, suitability and location of a treatment site, and precautions to be followed during treatment.

4. Secondary Site Evaluations and Pre-treatment Monitoring are conducted by the applicator upon arrival at the site. Some factors considered are weed species present, growth stage, weed location, and weed density. These factors are used to determine whether mechanical, manual, or aquatic herbicide controls shall be used. If herbicide treatment is the preferred method, type of application and rate are recorded.

5. BMPs Done Prior to and During a Treatment. In general, the applicator considers site conditions, weather conditions, and water use in making the decision to proceed with treatment or to postpone an aquatic pesticide application.

    a) If the wind is high enough or becomes high enough to cause significant drift at the start or during an aquatic glyphosate application, the application is either postponed or terminated.

b) If it is raining or rain is expected shortly after a scheduled aquatic glyphosate application, the application is postponed. If the water level in the creek or channel is significantly higher than normal, the application is postponed.

c) If the applicator observes livestock feeding in the drainage area, lack of vegetative obstructions, children playing in the creek or channel, or water being pumped for irrigation purposes the application is postponed.

d) If it appears that there is a possibility of erosion or large scale soil movement the application will be postponed and the Pest Control Advisor will be notified.

e) Glyphosate will be used to spot-treat by applying the aquatic pesticide directly to the target vegetation while minimizing overspray. Control of vegetation is achieved while using the least amount of herbicide possible to achieve desired effects. Applications are made "spray to wet", not to the point of runoff. Only minor amounts of unavoidable glyphosate overspray and runoff from sprayed vegetation will come into contact with the water in the drainage channels.

6. Post Treatment Evaluation. The assessment of herbicide application efficacy normally begins one week after application and continues for the rest of the growing season. If a treatment is ineffective, a drainage area is modified by construction, or hazards to the application are identified, crews either take corrective action by modifying the application or remove that particular creek or channel segment from the application schedule.

Water Quality Assessment

When preparing a pesticide solution, applicators take into consideration recommendations from the manufacturer, as well as previous experience of certain types of vegetation. Based on this past experience with the amount of pesticide required at certain locations, glyphosate mixing ratios/concentrations used in the County service areas are to be at or below the manufacturer's recommended levels. By following BMP guidelines presented above, concentrations of glyphosate detected in the water bodies immediately following application, were below the federal drinking water standard.

Safety and Storage

Drainage maintenance staff stores no more than five 2 ½ gal containers of pesticides at any time. All material is stored either in a locked compartment on the applicator truck or in a locked indoor storage room. Pesticides are obtained for use from these areas or from a vendor on an as needed basis. Storage requirements stated on the pesticide label and MSDS must be closely followed. No fertilizer is stored or used.

All pesticides currently used by drainage maintenance staff are labeled Category III or Category IV – CAUTION! – the least toxic pesticide category. County drainage crews do not use, store, or handle any materials that are labeled Category I – DANGER!

The storage area is inspected weekly by drainage maintenance supervisors. It is inspected annually by the Sacramento County Agricultural Commissioner's Office.

County of Sacramento

Storm Water Utility

Procedures for Conducting On Going Screening for Illicit Connection

August 2004

Prepared by
Department of Water Resources
Drainage Operations and Maintenance Section

TABLE OF CONTENTS

SECTION I - BACKGROUND

SECTION II – PERMIT REQUIREMENTS

SECTION III - INITIAL FIELD SCREENING PROGRAM FOR SACRAMENTO COUNTY

SECTION IV – ON GOING SCREENING FOR ILLICIT CONNECTIONS

- **On Going Screening**
- **Locating Evidence of Illicit Connections During Regular/Routine Inspection and Maintenance Activities of Stormdrain Facilities**

SECTION V – INVESTIGATION OF SUSPECTED ILLICIT CONNECTIONS

- **Reporting to Stormwater Quality Staff for Further Investigation**
- **Tracing the Location of the Illicit Connection**

SECTION VI – ELIMINATION OF ILLICIT CONNECTIONS

- **Procedure for Elimination of Illicit Connections**

SECTION VII – RECORDKEEPING/REPORTING OF NON-PERMITTED AND PERMITTED CONNECTIONS

- **Recordkeeping Tools for Field Crews in Documenting Screening Activities**
- **Document Actions Taken of Illicit Connections**

SECTION VIII - STAFF TRAINING

- **Educate County Staff**

SECTION XI - STRATEGIES FOR REDUCING THE NUMBER OF ILLICIT CONNECTIONS

- **Stormwater Management Ordinance**
- **Public Outreach Element**
- **Public Notification Hotlines**
- **County Nuisance Hotline**

SECTION X - ENFORCEMENT OF ORDINANCES

- **Stormwater Ordinance**
- **Enforcement and Follow-up**

APPENDIX

INITIAL SCREENING PROGRAM FOR THE CITY OF CITRUS HEIGHTS

FIGURES

Figure 1 – Field Data Sheet, Ongoing Screening of Open Channels

Figure 2 – Field Data Sheet, Ongoing Screening of Stormdrain Pipe Systems

Figure 3 – Documentation of Facilities Initially Screened for Illicit Connections

Figure 4 - Field Data Sheet, Initial Screening of Stormdrain Pipe Systems

Figure 5 – Video Inspection of Pipe Suspected of Illicit Discharge (1 of 2)
Video Inspection of Pipe Suspected of Illicit Discharge (2 of 2)

Procedures for Conducting On Going Screening for Illicit Connection

SECTION I - BACKGROUND

The County of Sacramento (County) has a National Pollutant Discharge Elimination System (NPDES) permit that regulates Illicit Discharges/Connections to our municipal separate storm sewer system (MS4), or our storm drain system. We refer to this permit as the Municipal Stormwater Permit or MS4 Permit.

The County's MS4 Permit was issued in 1990 under Phase I stormwater permitting, at which time the Central Valley Regional Water Quality Control Board (RWQCB) adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Sacramento County was issued an MS4 permit jointly with the cities of Sacramento, Folsom and Galt.

The most current version of the MS4 Permit was adopted on December 6, 2002 and expires on December 1, 2007. The new cities of Citrus Heights, Elk Grove and Rancho Cordova have been added as co-permittees in the current MS4 Permit. The County currently provides all of the drainage maintenance and stormwater quality services to the City of Rancho Cordova. The County provides a portion of the drainage maintenance and stormwater quality services to the City of Citrus Heights. Each co-permittee must document compliance with the MS4 Permit, which means that any services provided by the County on behalf of these cities must be documented accordingly.

Illicit discharges are considered "illicit" because MS4s are not designed to accept, process, or discharge such non-storm water wastes. Illicit connections and illegal dumping are the main types of illicit discharges. Illegal dumping is the dumping of liquid or solid wastes into a storm drain system. Illicit connection is a piped connection allowing illicit discharges to flow into the storm drain system. The result is untreated discharges that contribute to high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving waters where it can impair beneficial uses. Federal regulations define an illicit discharge as "any discharge to a storm drain system (MS4) that is not composed entirely of stormwater…" with some exceptions. These exceptions are listed in Section IV of this document.

The County of Sacramento is to implement an Illicit Discharge Detection and Elimination Program containing measures to actively seek, investigate, eliminate, and enforce ordinances illicit connections.

SECTION II – PERMIT REQUIREMENTS

The Permit Provision 11d.i.a. states that agencies shall address Initial Field Screening of its storm drain systems for illicit connections in accordance with the following schedule.

- Open channels: No later than September 1, 2004.
- Underground pipes in priority areas no later than June 1, 2005.
- Underground pipes with a diameter of 36 inches or greater no later than June 1, 2006.

The Permit Provision 11d.i.b. states that agencies shall develop procedures to conduct on-going field screening activities during the life of the Order, including areas or locations that will be evaluated by such field screens.

Per Permit Provision 11.d.ii.a, upon the discovery or upon receiving a report of a suspected illicit connection, the permittees shall initiate an investigation within 21 days to determine the source of the connection, the nature and volume of discharge through the connection, and the responsible party for the connection.

Per Permit Provision 11.d.ii.b, upon confirmation of the illicit nature of a storm drain connection, the permittees shall ensure termination of the connection within 180 days, using enforcement authority as necessary.

Per Permit Provision 11.d.i.b as explained in Table 4.6.1 of July 2003 Stormwater Improvement Plan, the County will develop tools for use by field crews to record field screening activities associated with illicit connections.

The Permit Provision 11.c states that, b**y** June 1, 2003 and annually thereafter, each permittee shall train all their targeted employees who are responsible for identification, investigation, termination, cleanup, and reporting of illicit connections.

Sacramento County's July, 2003 Stormwater Improvement Plan (Table 4.6.1, 11.d.ii.b) outlines that the County will develop and submit written procedures and recordkeeping tools for use by field crews in documenting field screening activities and referring problems to the Stormwater Quality Group. These procedures shall include other subjects such as procedures for the elimination of illicit connections, strategies for controlling illicit connections, and enforcement of ordinances.

SECTION III - INITIAL FIELD SCREENING FOR ILLICIT CONNECTIONS

The County performed and completed initial field screening of open channels and pipe systems in 1993, 1994, and 1995. Completion of the screening was documented in the February 1996 final County Stormwater Management Plan Report of which the Board approved as complying with Provision 11.d.i.a. of the Permit. The City of Rancho Cordova was not a city when the current permit was issued and is represented by that same Initial Field Screening the County performed in the mid 1990's.
However, since Citrus Heights was already a City when the current permit was issued, they did not meet the initial field screening for illicit connections requirement. The Appendix will explain how the City of Citrus Heights is planning to satisfy the requirements of the Permit.

SECTION IV – ON GOING SCREENING FOR ILLICIT CONNECTIONS

On-Going Screening

The Sacramento County's On-going Screening Program for illicit connections encompasses the unincorporated area of Sacramento County as well as the Cities of Citrus Heights and Rancho Cordova. The County conducts open channel and pipe maintenance for the City of Rancho Cordova. The County conducts only the stormdrain pipe maintenance for the City of Citrus Heights and will only conduct the on-going screening associated with the pipe systems (and not the open channel system) for the City of Citrus Heights. The City of Citrus Heights will conduct screening of their open channel system.

The goals and objectives of the On-going Screening Program are to:

1. Locate Evidence of Illicit Connections During Regular Inspection and Maintenance Activities of Stormdrain Facilities.
2. Trace and identify locations of the source(s) that contribute pollutants to the known Illicit Connections.

County maintenance crews will conduct on-going screening for illicit connections to the piped and open channel storm drain systems. Field maintenance crews are trained to identify and locate evidence of potential illicit connections to the open channels and record the information on a Field Data Sheet shown in Figure 1. Stormdrain pipe systems are inspected when maintenance crews are performing their usual maintenance activities on such facilities as manholes, pipes, drainage inlets and open channels. This information will be recorded on a Field Data Sheet as shown in Figure 2.

When maintenance crews encounter illicit discharges that are known or suspected to contain hazardous substances, they will immediately report it to Sacramento County Hazardous Materials Division and response will be within one business day of discovery of a report of a suspected illicit discharge (Per Permit Provision 11.e.i) with activities to abate, contain, and clean up such illicit discharges.

When maintenance crews encounter illicit discharges that are not suspected to contain hazardous substances, staff will conduct investigation and termination per Permit Provisions 11.d.ii.a and 11.d.ii.b respectively. The investigation will occur within 21 days to determine the source, type, and volume of discharge, and responsible party of all identified illicit storm drain connections. Upon identification of source, nature and responsible party, termination of the illicit connection will occur within 180 days (per Permit Provision 11.d.ii.b), using enforcement authority as necessary.

Locating Evidence of Illicit Connections During Regular/Routine Inspection and Maintenance Activities of Stormdrain Facilities

County Maintenance Supervisors perform annual inspections of the creeks and open channels in the unincorporated portion of the County and in the City of Rancho Cordova (not in the City of Citrus Heights) to prepare their annual pesticide application and channel cleaning schedules. While they are inspecting the creeks and channels for recommended maintenance activities; stormdrain pipe system outfalls, minor channels and ditches will be inspected for evidence of illicit discharges/connections. Supervisors will be looking for indicators of illicit discharges such as untreated wastewater (e.g. toilet paper), stained and/or structurally damaged storm drain systems that could accept unauthorized non-stormwater flows. They will be observing for smells, color/clarity of water, flow estimation and other information such as is indicated in Figures 1 and 2 - Field Data Sheets for On-going Screening for Open Channels and Stormdrain Pipe Systems respectively. Maintenance supervisors are required to fill out "Field Data Sheets" when they see any evidence of illicit discharges from outfall pipes, channels, (major or minor) and ditches. The completed Field Data Sheets are provided to County Drainage Operations and Maintenance Section and Stormwater Quality Sections for further investigation and study.

Channel maintenance crews are trained to look for evidence of illicit discharges while performing their maintenance activities on or in the vicinity of outfall pipes, manholes, channels, and ditches. They will also be required to fill out Field Data Sheets when encountering suspected illicit pollutants. The completed Field Data Sheets will be forwarded to County Drainage Operations and Maintenance and Stormwater Quality Sections for further investigation and study.

Pipe maintenance crews perform video inspections of the stormdrain pipe systems when there is a suspected engineering or maintenance problem such as blockage due to roots, crushed pipe, or other problem. These video inspections are recorded on Field Data Sheets as shown in Figure 5. While performing these video inspections, crews observe for evidences of illicit discharges and are able to locate pipes that are not mapped on County Facility Maps that may be an illicit connection. County maintenance has one full time crew (40 hours/week) that is exclusively devoted to video inspection activities. Pipe maintenance crews will also be required to fill out a Field Data Sheet when encountering suspected illicit discharges/connections and forward the Field Data Sheets to County Drainage Operations/Maintenance and Stormwater Quality Sections for further investigation and study.

Sacramento County is performing a Sump Cleaning Program per Permit Provision 10e.ii that requires the County to prioritize catch basins and sumps for cleaning based on accumulation of waste and presence or absence of downsream Best Management Practices (BMP's). This Sump Cleaning Program consists of a sump inspection and cleaning program that furnishes additional opportunity to locate suspected illicit discharges/connections portions of the stormdrain system. This Program also requires the filling out of Field Data Sheets when encountering suspected illicit discharges and connections.

SECTION V – INVESTIGATION OF SUSPECTED ILLICIT CONNECTIONS

Reporting to Stormwater Quality Staff for Further Investigation

Stormwater Quality Staff (staff) and Drainage Operations and Maintenance staff receives reports of suspected illicit connections from field observations made by County maintenance personnel, the public, County Stormwater Monitoring Program and other methods. Staff then begins an investigation within 21 days.

The non-hazardous, non-stormwater discharges are typically investigated by staff or by the Environmental Management Department. Staff will conduct the actual investigation and will be supported by Drainage Operations and Maintenance personnel to conduct activities such as video inspection of stormdrain pipe systems to help pinpoint the location of an illicit connection. The investigation shall be followed up with enforcement action, when appropriate.

An illicit connection discharging possible hazardous materials is immediately referred to Sacramento County Transportation Hazardous Waste for investigation and cleanup. When the suspected illicit connection has an active discharge, Per Permit Provision 11.e.i, , abatement and cleanup of illicit discharges that are known or suspected to contain hazardous substances (as defined by California law), shall be responded to within one business day of discovery or a report of a suspected illicit discharge, with activities to abate, contain, and clean up such illicit discharges. For illicit discharges not known or suspected to contain hazardous substances, response occurs within five days of discovery or report, and at a minimum requirement the identified responsible party(s) to immediately cease such discharges.

Tracing the Location of the Illicit Connection

When there is evidence of unauthorized non-stormwater flows in a particular stormdrain system, various methods can be used to pinpoint the exact source of the discharge. Many techniques that can be used include manhole observation, video inspection, smoke testing, dye testing, and aerial infrared/thermal photography.

Sacramento County utilizes the key tracing technique of manhole observation in which dry weather flows are traced upstream along the conveyance system to bracket the location of the source. Upstream drainage inlets and manholes associated with the downstream evidence of pollutants are also surveyed to help bracket the location of the illicit connection. When the location of the illicit discharge source has been bracketed, video inspection is used to confirm and document the illicit connection.

When an illicit connection to the stormdrain system is located, it can receive discharges from several other sources connected to it. Smoke testing will be considered as a method of locating multiple sources contributing to an illicit connection. This technique is only used when after talking with business owners, residential property owners or anyone that may believe/indicate that there could be multiple sources contributing to the discharge of one illicit connection to the storm drain system. This technique involves injecting non-toxic smoke into the stormdrain pipes and then noting the emergence of smoke illicit connections

to the stormdrain systems. Smoke testing is typically used to survey an area all at once, in contrast to dye testing, which tests one building at a time.

Dye testing is used only when a particular building is isolated and determined to be the only contributing source to the illicit connection. It is also used as a final confirmation of the buildings that emitted smoke. This technique involves flushing non-toxic dye into toilets and sinks and observing sanitary sewer and stormdrain systems for the presence of dye. Prior to performing this test, building owners and occupants will be informed in advance and gain permission for entry. Local public health and state water quality staff will be notified so that they will be prepared to respond to citizens calling about any dye observed in surface waters.

SECTION VI – ELIMINATION OF ILLICIT CONNECTIONS

Procedure for Elimination of Illicit Connections

When the responsible party of an illicit connection or discharge is identified, the party will be educated on the impacts of their actions and be provided literature from the Stormwater Management Ordinance that states:

(a) It is unlawful for any person to establish, use or maintain, or cause to establish, use or maintain, any illicit connection. Illicit connections shall be subject to removal and abatement by the County pursuant to chapter 16.02 of this Code.
(b) The prohibition set forth in subsection (a) above shall apply to illicit connections in existence at the time that this Chapter becomes effective. Any person who maintains an illicit connection shall disconnect and discontinue use of such connection. Any person who maintains an illicit connection may apply to the County for a Sacramento County Water Agency Permit to continue the connection subject to applicable County Standards.

They will also be furnished information regarding Best Management Practices (BMP), as appropriate. Discussion will then cover the methods of eliminating the illicit connection, including disposal options, recycling, and possible connection to the sanitary sewer.

The responsible party is then officially notified to correct the problem. They are directed to proceed with disconnection procedures and remove the illicit connection. Follow-up activities will then take place until the connection has been terminated. Enforcement actions, as allowed by Sacramento County Code, Title 15.12 (Sacramento County Stormwater Management and Discharge Control Ordinance) will be exercised as necessary.

SECTION VII - RECORDKEEPING/REPORTING OF NON-PERMITTED AND PERMITED CONNECTIONS

Recordkeeping Tools for Field Crews in Documenting Screening Activities

Figures 1 through 5 are the primary record keeping tools for the Initial Screening of pipe systems for Citrus Heights and the County's On-going Screening for the unincorporated portion of the County and the city Rancho Cordova for open channels and pipe systems. This recordkeeping will enable the County to report the progress of our Illicit Connection Program in the October 1 Annual Reports submitted to the Regional Water Quality Board. This recordkeeping and reporting will demonstrate that Sacramento County is meeting Stormwater Permit compliance.

Document Actions Taken of Illicit Connections

The County documents the investigation, elimination, and enforcement of illicit connections. This information will be used to evaluate on an annual basis the patterns and trends of illicit connections in order to:

(1) Determine the appropriate frequency for repeat inspections of high, medium, and low priority areas based on an investigation of the municipality's entire drainage area.
(2) Review annually the internal investigation results and assess whether goals were met and what changes or improvements are necessary.
(3) Obtain feedback from complaining parties, other agencies, and citizens on response to their concern or complaint.
(4) Obtain feedback from personnel assigned to respond to, or inspect for, illicit connections.

The County maintains a comprehensive list of all permitted connections and the status of illicit connections under investigation to quantify our efforts and make improvements to the Illicit Connection Program.

SECTION VIII - STAFF TRAINING

Educate County Staff

The County retains staff and consultants with the experience and expertise needed to conduct meaningful outreach to various County audiences through workshops, correspondence, and educational materials so that all targeted staff receives the important message of protecting stormwater quality.

County maintenance personnel responsible for operating and maintaining County storm drain facilities are given annual training on procedures for detecting, investigating, cleanup, and reporting of illicit connections to the County's storm drain system. County maintenance crews are educated about how to identify suspected illicit connections and procedures for investigation.

SECTION IX - STRATEGIES FOR REDUCING THE NUMBER OF ILLICIT CONNECTIONS

Stormwater Management Ordinance

On June 16, 1998 the Sacramento Board of Supervisors Adopted the Stormwater Management Ordinance to the Sacramento County Code (Chapter 15.12.). The Ordinance fulfills a requirement of the National Pollutant Elimination System Permit for municipal stormwater discharges. This Ordinance makes most discharges to the stormdrain system illegal as listed below:

- Sanitary Wastewater
- Improper oil disposal
- Water from washing of concrete trucks
- Spills from roadway and other accidents
- Improper disposal of auto and household toxics
- Chemicals, hazardous materials, garbage
- Dewatering of construction sites
- Effluent from septic tanks
- Car wash wastewaters
- Laundry wastewaters
- Non-contact cooling water
- Radiator flushing disposal
- Metal plating baths

Allowable discharges to the stormdrains are:

- Waterline flushing
- Landscape irrigation
- Diverted stream flows
- Water from crawl space pumps
- Uncontaminated ground water infiltration
- Uncontaminated pumped groundwater
- Discharges from potable water sources
- Flows from riparian habit & wetlands
- De-chlorinated swimming pool discharges, and Street wash water
- Irrigation water
- Springs
- Footing drains
- Lawn watering
- Individual car washing
- Foundation drains
- Air conditioning condensation
- Rising ground waters

This stormwater Ordinance is the mechanism (law) which enables Sacramento County to prohibit illicit connections to the stormdrain system and empowers the County to enforce and remove illicit connections.

Public Outreach Element

Public Outreach targets everyone who lives or does business in Sacramento County. The basic message is that most non-stormwater discharges are illegal and that dumping into storm drain systems pollutes local waterways. People are educated on alternatives to illegal connections and discharges. The County conducts outreach to various County audiences through workshops, correspondence, and educational materials so that all receives the important message of protecting stormwater quality.

Public education has an important role to play in changing the habits of the public. The public, being educated about the hazards associated with illegal discharges, connections and improper disposal of wastes can be an effective tool when organized groups lobby for the

return of a stream or a reservoir to a clean and attractive condition. Public education helps to minimize future illicit connections and discharges to the storm drain system.

Sacramento County is involved in a continuing education program reaching the public in many ways including going to schools, industries, businesses, homeowners, developers, and contractors to educate about reducing pollution. Other outreach methods include Volunteer Programs such as Creek Week where the public can help clean local creeks and a Stenciling Program where groups such as the Boy Scouts will paint "No dumping –Drains to Creek" on storm drain inlets.

Public Notification Hotlines

Illicit discharges and connections can be reported to the drainage maintenance and flooding phone number, **875-RAIN.** This phone number is publicized by the Department of Water Resources Stormwater Program as the primary phone number for the public to report illegal discharges and connections. This phone number is intended for calls from the unincorporated areas of the County and the Cities of Citrus Heights and Rancho Cordova. As calls are received from the public reporting of illicit discharges and connections, County Stormwater staff initiates the investigations with the goal of eliminating non-authorized discharges and connections.

County Nuisance Hotline

The Nuisance Hotline, 875-5656, is operated by the County Consolidated Utility Billing Service (CUBS). It is used by many County agencies for receiving public complaints. Although 875-RAIN will be the number publicized by the Stormwater Program as the main number for reporting illegal discharges and connections, the CUBS Hotline will likely continue to receive such calls. Calls received by CUBS regarding hazardous materials discharged to the storm drain system are currently forwarded to the County Department of Transportation, and calls regarding non-hazardous materials being discharged to the storm drain system are referred to 875-RAIN.

SECTION X - ENFORCEMENT OF STORMWATER ORDINANCES

Stormwater Ordinance

On June 16, 1998 the Sacramento Board of Supervisors Adopted the Stormwater Management Ordinance to the Sacramento County Code (Chapter 15.12). Article 5, "Enforcement" states the enforcement powers of the Stormwater Ordinance as outlined below:

(a) The Administrator may deliver to the owner or occupant of any premises; or to any person responsible for an illicit connection; prohibited discharge, maintenance of a threatened prohibited discharge, failure to implement BMPs in accordance with Section 15.12.200 (b), or any other violation of the chapter a notice of non-Compliance.

(b) The Notice of Non-Compliance shall identify the provision that has been violated. The Notice of Non-Compliance shall state that continued noncompliance may result in additional enforcement actions, including the recovery of any costs incurred by the County.

(c) The Notice of Non-Compliance shall identify a compliance date that must be met; provided however, that the compliance date may not exceed (90) days unless the Administrator extends the compliance deadline an additional period not exceeding ninety (90) days when good cause exists for the extension.

Enforcement and Follow-up

After the responsible party is officially notified to remove the illicit connection and correction is not proceeding in the required time, then it may be necessary to use enforcement procedures as set forth below in the Stormwater Ordinance. The following enforcement steps will be exercised as necessary as set forth below by Sacramento County Code, Title 15.12 (Sacramento County Stormwater Management and Discharge Control Ordinance).

1. A notice of Violation (NOV) delivered to the violator that requires the violator to take such steps such as monitoring, elimination of an illicit connection, or payment/fine to have it removed by County forces including administrative costs.
2. The person receiving the NOV has an opportunity to appeal it.
3. If the person receiving the NOV does not appeal or loses the appeal and fails to correct the violation, the County may "take any and all measure necessary to abate the violation and/or restore the property".
4. Seek an injunction against the violator "restraining the person from activities which could create further violations and/or compelling the person to perform abatement or remediation of the violation.

APPENDIX
INITIAL FIELD SCREENING PROGRAM FOR THE CITY OF CITRUS HEIGHTS

The Permit Provision 12d.i.a. states that agencies shall address Initial Field Screening of its open channels and pipe storm drain systems for illicit connections in accordance with the following schedule.

- Open channels: No later than September 1, 2004
- Underground pipes in priority areas no later than June 1, 2005.
- Underground pipes with a diameter of 36 inches or greater no later than June 1, 2006.

The City of Citrus Heights maintains their own open channels and is responsible for the Initial Field Screening of their open channels. This Initial Field Screening Program of their open channels will be covered in the Annual Report prepared by Citrus Heights to be submitted to the Regional Water Quality Control Board October 1, 2004.

The County is currently under contract with the City of Citrus Heights to perform maintenance of their underground pipe system and will perform the Initial Field Screening of their pipe system as a part of the maintenance activities the County currently performs for the City. Storm drain systems that are outside public right of way (backyard and side yard) are identified as priority for the purposes of this program because those areas are considered to be more prone to illicit connections. Based on the manpower that the County of Sacramento is able to furnish to this field screening, the County will screen 25% of the priority pipe systems less than 36" in diameter no later than June 1, 2005. The balance of the unscreened storndrain systems will be screened at the rate of 25% of the remaining stormdrain systems in each of the following three years.

The Initial Field Screening of the storm drain pipe systems in Citrus Heights will consist of conducting manhole observations to locate storm drain system reaches with evidence of illicit discharge/connection. These manhole observations will be recorded on Field Data Sheets as shown on Figures 3 and 4. The manhole observations will begin at the manhole immediately downstream of priority areas (in the public right of way). If there is evidence of illicit discharge in this manhole, the inspector will then proceed to the next upstream manhole located in sideyard/backyard of residential or commercial property. These steps will be repeated until the inspector reaches the public right of way again or observes a manhole not having evidence of an illicit discharge/connection. When the inspector reaches a manhole not having evidence of an illicit discharge/connection, the source is likely to be located between the manhole with no evidence of illicit discharge and the next downstream manhole having evidence of an illicit discharge. This likely discharge pipe segment will be video inspected to confirm and locate the suspected illicit connection or infiltration and documented on Field Data Sheets as shown in Figure 5.

For illicit discharges that are known or suspected to contain hazardous substances, response will be within one business day of discovery or a report of a suspected illicit discharge (per Permit Provision 11 e.i) with activities to abate, contain, and clean up such illicit discharges.

Stormwater Quality staff will conduct investigation and enforcement per Permit Provisions 11 d.ii.a and 11 d.ii.b respectively. The investigation will occur within 21 days to determine the source, type and volume of discharge, and responsible party of all identified illicit storm drain connections. Upon identification of source, type and responsible party, termination of the illicit connection will occur within 180 days (per Permit Provision 11.d.ii.b), using enforcement authority as necessary.

Field crews will document their initial screening activities using forms similar to (Figure 3 – Documentation of Facilities Initially Screened for Illicit Connections, Figure 4 – Field Data Sheet for Initial Screening of Stormdrain Pipe Systems, Figure 5 – Video Inspection of Pipe Segment Suspected of Illicit Discharge/Inspection). All storm drain systems that have portions of the systems outside the right of way in Citrus Heights will be inspected for illicit discharges and connections according to the Permit schedule as described above.

A storm system map will be prepared showing the location of all storm drain systems (including all intake and discharge areas of the system) within the City. Illicit connections encountered during the Initial Field Screening Program will also be shown on the map. This map will formulate a better awareness of the locations of known illicit connections.

FIGURES 1 - 5

Illicit Connection Screening Program *Field Data Sheet*

GENERAL INFORMATION

watershed:	channel or pipe outfall: (circle)	date:
channel/channel segment no.:		time:
Thomas Guide: nearest street(s):		field crew:

OBSERVATIONS *Immediately report any hazardous conditions to HazMat at 386-6160.*

odor	none musty sewage rotten eggs sour milk oily other:
color	clear red yellow brown green grey other:
clarity	clear cloudy opaque suspended solids
floatables	none oily sheen garbage/sewage suds/foam other:
deposits/stains	none sediments oily crystals other:
vegetation	normal excessive growth inhibited growth zero growth
biological	none algae mosquito larvae fish giant squid
structural	normal concrete cracking/spalling metal corrosion other:

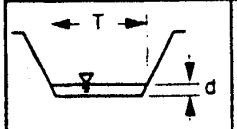
FLOW ESTIMATION

channel type: open channel outfall **flow observed?** yes no

FLOW

If flow can be accurately measured by capturing the water in a bucket, do so. Otherwise, measure the velocity and use the appropriate method below to estimate the flow cross sectional area.

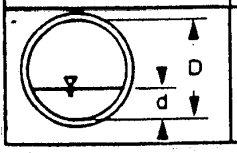
flow (bucket method)
Q = (gal) x 60
(sec)
Q = gpm



area
T = ft
d = ft
A = ft²

velocity
v = ft / sec

flow
Q = Av
Q = (ft²) x 449
x (fps)
Q = gpm



area
D = in.
d = in.
A = ft²

v = fps

COMMENTS

Data sheet completed by (signature): _____

Figure 1 – Field Data Sheet, Ongoing Screening of Open Channels

GENERAL INFORMATION

facility no._____ facility no._____	date:
outfall (y/n)	time:
Thomas Guide: nearest street(s):	field crew:

OBSERVATIONS *Immediately report any hazardous conditions to HazMat at 386-6160.*

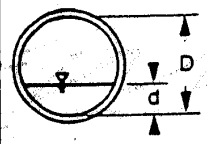
odor	none musty sewage rotten eggs sour milk oily other:
color	clear red yellow brown green grey other:
clarity	clear cloudy opaque suspended solids
floatables	none oily sheen garbage/sewage suds/foam other:
deposits/stains	none sediments oily crystals other:
vegetation	normal excessive growth inhibited growth zero growth
biological	none algae mosquito larvae fish giant squid
structural	normal concrete cracking/spalling metal corrosion other:

FLOW ESTIMATION

flow observed? yes no

If flow can be accurately measured by capturing the water in a bucket, do so. Otherwise, measure the velocity and use the appropriate method below to estimate the flow cross sectional area.

flow (bucket method)
Q = (gal) x 60
(sec)
Q = gpm



area
D = in.
d = in.
A = ft^2

velocity
$v = \frac{\text{ft}}{\text{sec}}$
v = fps

flow
Q = Av
Q = (ft^2) x 449
x (fps)
Q = gpm

COMMENTS

Data sheet completed by (signature): _____

Figure 2 – Field Data Sheet, Ongoing Screening of Stormdrain Pipe Systems

Facility

Date:_____

Facility No. (in right of way, manhole or DI)_____

Facility Type:_____

Does Facility have evidence of Illicit Connection? Y/N ____

1. **If yes, fill out Field Data Sheet– Initial Screening for Stormdrain Pipe Systems (Figure 4)**
2. **If yes, continue to next upstream facility (manhole or DI) in side yard or backyard.**
3. **If no, Stormdrain Pipe System is completed for Initial Screening**

Figure 3 - Documentation of Facilities Initially Screened for Illicit Connections

Illicit Connection Screening Program *Field Data Sheet*

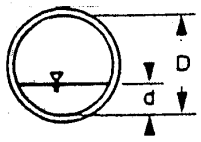
GENERAL INFORMATION

facility no._____ facility no._____	date:
outfall (y/n)	time:
Thomas Guide: nearest street(s):	field crew:

OBSERVATIONS *Immediately report any hazardous conditions to HazMat at 386-6160.*

odor	none musty sewage rotten eggs sour milk oily other:
color	clear red yellow brown green grey other:
clarity	clear cloudy opaque suspended solids
floatables	none oily sheen garbage/sewage suds/foam other:
deposits/stains	none sediments oily crystals other:
vegetation	normal excessive growth inhibited growth zero growth
biological	none algae mosquito larvae fish giant squid
structural	normal concrete cracking/spalling metal corrosion other:

FLOW ESTIMATION

flow observed? yes no *If flow can be accurately measured by capturing the water in a bucket, do so. Otherwise, measure the velocity and use the appropriate method below to estimate the flow cross sectional area.*		**flow** (bucket method) Q = (gal) x 60 (sec) Q = gpm
 **area** D = in. d = in. A = ft^2	**velocity** $v = \frac{ft}{sec}$ v = fps	**flow** Q = Av Q = (ft^2) x 449 x (fps) Q = gpm

COMMENTS

Data sheet completed by (signature): _____

Figure 4 – Field Data Sheet, Initial Screening of Stormdrain Pipe Systems

Figure 5 – Video Inspection of Pipe Suspected of Illicit Discharge (1 of 2)

Site Data and Photos: 372-155-425 to 372-15

Site ID	City	Street	Date	Time

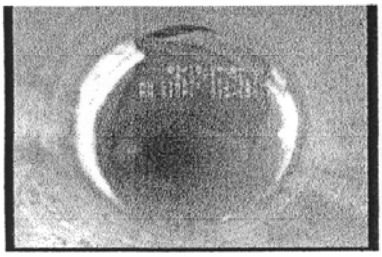
M.H. Start	M.H. Stop	Type of Pipe	Pipe Size(i/mm)

Operator	Surface Condition

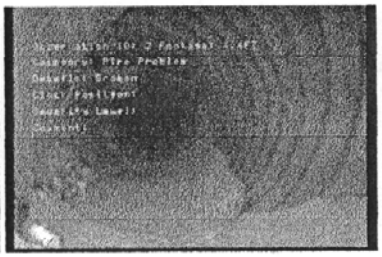
Comment

W/O#

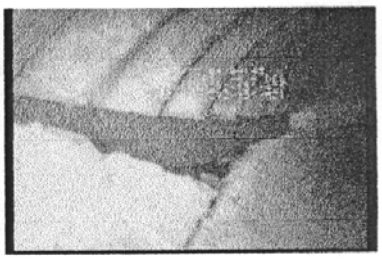
4.4 17262.bmp



9.0 17263.bmp



9.0 27263.bmp



Video Inspection of Pipe Suspected of Illicit Discharge (2 of 2)

Sacramento County Department of Transportation Hazardous Materials Program



April 2003

1. **Overview of Haz-Mat Program**
2. **Criteria for Defining a "Haz-mat"**
3. **Specific Procedures for Level I Haz-Mat Response**
    a. **Responsibilities**
    b. **Minor Spills**
    c. **Sharps Training**
    d. **Leaking Vehicles/Vehicle Accidents**
    e. **Automobile Batteries**
    f. **Illegal Dumping**
    g. **Material in a Storm Drain**
    h. **Material in a Creek**
4. **Level II Procedures**
5. **Supplies and Equipment**
6. **Disposal Procedures**
7. **Documentation Procedures**
8. **Communications**

Hazardous Materials Program

1. Overview of Haz-Mat Program

The Sacramento County Department of Transportation (SAC DOT) will respond to all hazardous material incidents that occur in or on County property or right of ways. This includes Parks**, sidewalks*, and creeks** as well as the roadway. The County also contracts with the City of Citrus Heights for its emergency Haz-Mat response. It is not within the scope of responsibility or capacity of SAC DOT to mitigate all Haz-Mat incidents. The County reserves the right to find and request mitigation/remediation from responsible parties. When possible the County will bill responsible parties for any clean up labor hours, materials, or other costs incurred as a result of a Haz-Mat response. The County of Sacramento Department of Transportation SAC DOT is not responsible for and is not required to respond to or clean up hazardous materials incidents that occur on property that is not owned by or within the a right of way of the Sacramento County Public Works Agency.

The current Sacramento County Department of Transportation SAC DOT Haz-Mat response team consists of 17 Highway Maintenance Supervisors, 2 Equipment Operators, 16 Senior Highway Maintenance workers, and a Highway Maintenance Worker/yardperson.
The equipment pool currently available consists of a sandtruck, 6 mobile sweepers with Haz-mat trained operators, 17 emergency response trucks, backhoes, dumptrucks, a vactor, and other highway maintenance equipment.

Sacramento County Department of Transportation SAC DOT maintains two emergency response materials storage containers. One is located in the SAC DOT auxiliary yard, and another inside the gated SAC DOT facility located at 4949 Roseville Rd. These containers hold stockpiles of absorbent, hydrophobic absorbent pads, baking soda (acid neutralizer), drums, pumps, and absorbent booms for the collection of hydrocarbon material.

Sacramento County Department of Transportation SAC DOT maintains two secure temporary emergency response storage areas for disposal of hazardous materials that are removed and/or swept up from the County right of way. A fire and spill safe locker is located at 4135 Traffic way. A roll away bin for storing contaminated absorbents is located at 4949 Roseville Road.

The goal of the SAC DOT Haz-Mat response team is public safety first, to protect the public from contamination or harm from hazardous materials incidents that fall under SAC DOT responsibility, to protect the environment from contamination and harm from hazardous materials whenever possible within the scope of its responsibilities, and to protect public property and individual property from damage whenever possible within the scope of its responsibilities and good common sense.

***On Road**: **is defined as any incident that is within the maintained road index ROW or on SAC DOT property.**

****Off Road**: **is defined as those incidents that involve DI's, MH's, creeks, or County property including parks and County buildings.**

2. Criteria for Defining a "Haz-Mat"

Hazardous Materials will be defined as " any material which because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment…"{California Health & Safety Code, Chapter 6.95, Section 255501(n)}

A list of hazardous materials can be found in California Health and Safety Code sections 25117 and 25115. The list includes but is not limited to cement above PH 12.5, motor vehicle fluids, paint, drug lab wastes, pool chemicals, hypodermic needles, pesticides, battery acid, and fuel.

Haz-mat incidents will be classified by level:

Level I

Level I is an incident that involves a known substance. Level I incidents include but are not limited to any spill, release, potential release, or dumping of Oil, fuel, hypodermic needles, paint, household products, motor vehicle fluids, food products, or any known substance or combination thereof that can be dealt with and/or cleaned up without a respirator being required, or require no more than level "D" protection. Level I incidents require minimal exclusion of the public beyond the perimeter of the scene. Level I responders shall be trained to a level that will meet or exceed the scope of training in SARA Title III (OSHA), Title 29 CFR Section 1910 for first responders. Level I incidents may be upgraded to level II.

Level II

Level II is any spill, release, potential release, or dumping that involves an unknown or potentially dangerous material. Level II incidents are those incidents that may require the use of special protective equipment, respirators, tools, or equipment.

- Incidents that require road closures or civilian evacuation.
- The hazardous material incident has become one of multiple agency involvement.
- Involves a fire.

Level II Haz-mats usually initiate a response from the Fire Department Hazardous Material Response Team. Level II responders shall be trained to a level that will meet or exceed the scope of training in SARA Title III (OSHA), Title 29 CFR Section 1910 for first responders. A level II Haz-mat may be upgraded to a Level III incident.

Level III

Level III incidents are hazardous materials incidents that may involve fires, evacuations, or road closures, and will require an incident command system. Level III incidents are Multi-agency in nature. Level III Haz-mats initiate a response from the Fire Department Hazardous Material Response Team Level III responders shall be trained to a level that will meet or exceed the scope of training in SARA Title III (OSHA), Title 29 CFR Section 1910.

3. Specific Procedures for Level I Haz-Mat Response

a). Responsibilities:

The community supervisors will be responsible to respond to all hazardous materials incidents in their designated community within the County Right Of Way or on County controlled or owned property during normal business hours.

The On-call supervisor shall be responsible for responding to and evaluating all incidents after hours. Any spill, release, or dumping of the above mentioned materials onto/into County right of way or property shall be considered a Haz-Mat incident. SAC DOT Haz-Mat responders will utilize any legal, safe, and cost effective method necessary within the scope of its authority to abate, minimize, prevent, and/or mitigate hazardous material incidents regardless of department controlling that right of way or property.

The on-call, regional, or first on scene SAC DOT supervisor will determine the level of SAC DOT response.

b) Minor Spills:

Minor spills of oil, gas, diesel, antifreeze, transmission fluid, and oil based paint in county right-of-way or on County controlled/owned property will be cleaned up with solid-a-sorb or an absorbent such as sand. It is necessary to clean these materials from County maintained public surfaces to prevent slip hazards, vehicle accidents, and contamination to the stormwater system. *Tow truck drivers should clean up an accident scene.* If there is a responsible party attempt to get them to contact a clean up company (see attached). EMD/Sheriff/Law Enforcement can assist in this effort.

After the absorbent is swept up it shall be packaged for transport, or transported in the hopper of a mobile sweeper, to the Haz-Mat bin at 4949 Roseville Rd.

If a spill contaminates soil, for example a roadside shoulder, the soil can be removed, bagged or loaded on a truck and disposed of in the Haz-Mat bin at Roseville Road and Watt Avenue. South area supervisors have the option of dropping off (half full, marked and labeled, as to the contents and origin, bags of used solid-a-sorb and/or soil at the haz-mat area located in the sign's maintenance yard to be transported to Roseville Road facility by the Yard person.

* Latex paint spills can be absorbed with solid-a-sorb solidified and disposed of in normal refuse destined for the landfill.
* Cement spills depending on the size can be picked up by a sweeper or by hand solidified and disposed of in normal refuse destined for the landfill or recycled.

Note: A "complete cleanup" on a spill will be when the pavement surface is dry. As the operator of the property (Right of Way) SAC DOT Haz-Mat responders have authority over how and when a spill or release is contained and/or cleaned up. Highway Patrol and Sheriff officers may assume command of any scene involving roads and /or property. Under most circumstances SAC DOT Haz-Mat responders will be required to authorize the expenditure of County funds for the cleanup and disposal costs and thus must exercise caution in response to demands from other agencies in regards to safety and expense.

c) Sharps: Usually refer to used hypodermic needles found by crews in the County right-of ways. Sharps pose a potential health hazard to the public from biological contamination. The definition of sharps is any device having acute edges or protuberances capable of cutting or piercing the skin. Examples include hypodermic needles, syringes, and blades such as

scalpels or knifes. Sharps constitute a hazard to public health and safety and when found on County Right Of Way are to be picked up with a long handled tool (not hands) and put into a sharps container. Sharps containers will be issued to Haz-Mat trained personnel by the Haz-Mat supervisor. Once a needle has been placed inside the sharps container it must be turned in for disposal to the Haz-Mat supervisor within 7 days. Isolyser kits contain an acid that neutralizes pathogens and may be used for 6 months. The Haz-Mat supervisor will dispose of turned in sharps in accordance with state law.

d) Leaking Vehicle/Vehicle Accidents: Leaking vehicles are a major point source of stormwater contamination, cause damage to the pavement surface, and present a hazard to motorists and pedestrian traffic. Many of these calls are associated with neighbors calling in on other neighbors because the leaking vehicle is creating an eye sore on their street.
The severity of the leak will dictate the action taken. If the leak is large and has been ongoing for a period of time solid-a-sorb may have to be used to clean up. If the leak is smaller it may be that no clean up is necessary.
The next step is to make contact with the owner of the vehicle. Direct the vehicle owner to have the leak fixed or to park the vehicle in the driveway. If the owner is not available, leave your business card and request they call you.

Note: If the vehicle's registration is expired call Zoning Enforcement (Vehicle Abatement) #875-5656, and report the vehicle to them. You will be asked for the location, make, model, color, and license plate number of the vehicle.

e) Automobile batteries: Contain acid and lead and must be removed from County right of way and be properly disposed of to prevent environmental contamination. Automobile batteries are handled in two ways. First, if the battery is intact with no leaks it can be picked up and dropped off in the Light Equipment battery room located on the south west side of the building. You must go to the front counter of the parts room <u>first</u> and notify the parts personnel. The second situation would involve a battery that is cracked and has leaking fluids. When a battery has liquid leaking from it, place the battery in a 5-gallon bucket and apply sodium bicarbonate to neutralize the spill. **Remember that acid/base reactions require the presence of water**. Buckets containing leaking batteries can be covered and dropped off at the Haz-Mat yard.

f) Illegal dumping of hazardous materials: These materials may pose an immediate and/or potential threat to the health and/or safety of the public and the environment. SAC DOT is not responsible for hazardous materials incidents that occur on private property.
If an illegal dump within the scope of authority and responsibility is deemed by a Haz-Mat team member to be an immediate threat to the public safety or health or the environment SAC DOT may be required to pick up and/or clean up the containers or material. If unknown, the materials may need to be categorized by Fire (Haz-Cat) in order to determine if the material is safe to transport the incident then becomes a level II; Notify EMD and deny entry of unauthorized personnel, protect yourself and others. Try to prevent any corruption of the scene, as the Sheriff may want to investigate the incident. When the material is deemed safe to transport bring it to 4135 Traffic Way and mark it with the date and location of the dump as well as the responders name or initials before placing it into the fire safe Haz-Mat shed G. Use the appropriate coding if the material is associated with a NCU.

g) Material in a storm drain: Is defined as any hazardous substance that intentionally or inadvertently has entered the underground storm drain system. In the underground system hazardous materials can pose a threat to the health and/or safety of the public and the environment. The Sacramento County Department of Water Quality, when operationally possible, will assist with the identification of facilities and cleanup of materials such as sewage spills and aggregate spills into storm drains and creeks. The Sacramento County Department of Water Quality will not assist in the cleanup of hazardous materials, which may be considered damaging to County equipment or hazardous to human health for which they have not been trained such as petroleum products. SAC DOT is not responsible for incidents within the underground drainage system that involve materials that have no explicit training requirements to handle such as aggregate or latex paint spills. Such spills or incidents once determined to not be a hazard to health or the environment will be referred to Water Quality for clean up as deemed appropriate by County Water Quality in accordance with stormwater protection guidelines or regular maintenance. Title 15, Section 15.12.100 of the Sacramento County Code prohibits discharges to the "County storm-water conveyance system." Section 15.12.140 prohibits threatened discharges (open buckets and barrels). Prevent further contamination of the system if possible by damming or diking the drain (the local fire department is an excellent resource for this type of activity. County Central can contact Fire if you require assistance) and cleaning up any contaminate in the gutter. If material has entered the underground system or is an aggregate material or sewage call Com. 3 and have them notify Water Quality for assistance/advice. SAC DOT responders who are not confined space trained may not remove the cover of a utility access hole or enter the underground system. If material has not entered the drain you can clean up the material with pads or absorbent. Dispose of absorbents in the bin at Roseville and Watt.

h) Material in a creek is presently within the scope of responsibility of SAC DOT. Call County Communications (Com 3) immediately and notify Water Quality, and the Haz-mat Supervisor for assistance. Hazardous materials that have reached a watershed pose the greatest risk of damage to public safety and the environment. Notify County Central of any such instances and have them call EMD/ Water Quality. County Water Quality will provide maps books and assistance such as sandbags and pumps for creeks and plugs for outfalls. County Water Quality Channel Maintenance personnel are not Haz-Mat trained and therefore should not be exposed to any material, which may be hazardous to human health regardless of level. Note the color of the contamination, the location and direction of flow, and give an estimate of the approximate density of the contaminate, if it floats or looks oily, if it appears miscible, and if the contamination is heavy or light. Notify Fish and Game/OES. Attempt to locate the source of the contamination. Search the creek up stream to the outfall, or drive around the neighborhood and look for contamination going into a storm drain. Highway Supervisors are responsible for calls in creeks in their areas. In the interest of public safety SAC DOT may be required to provide traffic control or other assistance. Hydrocarbon (oil/gas) absorbent booms are located in the storage shed at Roseville and Watt as well as in the Haz-Mat shed located in the auxiliary Yard. The Haz-Mat supervisor, the on-call supervisor and the yard person have keys to these sheds and may be called for assistance.

A Haz-Mat supervisor will respond to all:

- Level 3 Haz-mats
- Large containers
- Major incidents
- When assistance is needed.

4. Level II Procedures:

The On-call Supervisor will respond. County Fire usually will determine level II response. If the situation warrants call a Haz-Mat Supervisor for assistance. All Transportation On-call supervisors are trained to Level II response in SARA Title III (OSHA), Title 29 CFR Section 1910 for first responders. All On-call supervisors are capable of level II response. Because of the time consuming nature of level II response such as multiple agency involvement, jurisdictional complications, the need for underground system and creek maps and knowledge of various agencies as well as contracts it is at the discretion of the responding supervisor to call a Haz-mat supervisor for assistance as needed. The criteria to use in the abatement of level II Haz-mat incidents are:

- **Contact #950 or #760 if unsure as to how to proceed!!!!**
- Determine jurisdiction
- Determine extent of hazard
- Follow guidelines of importance- (Self, public, environment, property)-in that order.
- Notify appropriate agencies
- Coordinate containment effort
- Determine appropriate response effort
- Work within command system
- Protect the County's interests
- Try to locate responsible party
- Document response effort
- Use appropriate cost effective mitigation and/or remediation up to and including utilizing other agencies (the Sheriff, and the Department of Fish and Game) to compel responsible parties to hire a clean up company.
- File reports with appropriate agencies

5. Supplies and Equipment

- **148-702** F-350 Haz-mat response truck, Stocked with drums, test kits, absorbents, pumps, underground system mapbooks, sodium bicarb, and a 2-ton crane. Assigned to Mike. Garcia
- **135-705** F-250 Haz-mat response truck, absorbents, tools, maps, drum, buckets, and pumps. Used as yard person truck. Parked in space 34 when not in use.
- **17, 135 series supervisor's trucks stocked with solid a sorb, brooms, shovels and assorted tools.**
- **171-431** Sand spreader truck, loaded with sand, ready 24/7 parked in H warehouse.
- **779-582** mobile sweeper designated to yard. For sweeping up spills and absorbents

- **G-shed** Fire safe, spill contained locker with ventilator and alarm. Located on the West side of the lot at 4135 Traffic Way. Used to store emergency response generated hazardous waste. EPA# CAS111111034
- **F-shed** spill contained locker located at 3860 Branch Center Road, used for storage of absorbent pads, containerizing equipment, pumps, acid neutralizers, and visqueen used to abate hazardous material incidents.
- **H-warehouse** used to house sandtruck and to stockpile palletized absorbent.
- **On Call shed** located at 4949 Roseville Rd. used to store Palletized absorbent, absorbent pads, and tools.
- **On Call shed** located at 3860 Branch Center Rd. used to store palletized absorbent, absorbent pads, and tools.
- **10 Yard bin Located** at 4949 Roseville Rd, Contract with Safety Kleen (vendor) 10 yard hydraulic close top roll away bin used to temporarily (90 days) store fuel and oil spill contaminated soils and absorbent from Haz-mat response. EPA CAS111111034.
- **Sacramento County Department of Transportation,** Various backhoes, dumptrucks, Vactors, Pumps, Mobile Sweepers, and other types of highway construction equipment that can be utilized in an emergency situation.

The following are the recommended supplies needed to abate **minor hazardous material incidents** and are recommended to be on all on all supervisors' trucks.

- 2- 25 lbs. Bags of Solid-a-Sorb
- 1- park patrol grabber
- 1- box of garbage bags
- 1- grip tight battery carrier
- 1- push broom
- 1- square point shovel (An aluminum Snow type shovel is preferable)
- 1- 5 gallon plastic bucket with lid.
- 1- 1gallon container of sodium bicarbonate
- 1- Pack of PH paper
- 1- Sharps container
- 5- Absorbent pads

5. Disposal Procedures

Hazardous materials collected by the Sacramento County Emergency response effort shall be disposed of pursuant to the Code of Federal Regulations Title 40, and California Code of Regulations Title 22. Hazardous Waste that is generated by the SAC DOT emergency response effort shall be temporarily (<90 days) stored at 4135 Traffic way or 4949 Roseville road and disposed of as per contract under EPA # CAS111111034. Compressed Gas Cylinders can be disposed of by the rental company that owns them (AirGas, Coca-Cola) if the company can be contacted. Propane bottles can be disposed of per contract with Suburban Propane in Rancho Cordova. In accordance with SAC DOT SWPP place all haz-mat related containers into the fire safe spill containment shed located at 4135 Traffic Way.

7.
Documentation Procedures

Documentation **shall** be completed in the comments section of the appropriate:

1. *__Hansen Service Request__
2. Haz-mat Response Report

Documentation will include the following:

1. Your name
2. Date that you responded to incident
3. Incident location
4. Time you arrived and departed
5. Action(s) taken
6. On Road vs. Off Road
7. Type and amount of material
8. Supplies used
9. Responders that were present
10. Disposal of material

8.
Communications

All Haz-mat calls will be dispatched directly to the Community Supervisors. If the Community Supervisor is not available dispatch order will be as follows:

- Another Community Supervisor in close proximity.
- A Haz-Mat Supervisor, Mike Garcia or Glen Phillips
- Any Supervisor.

Central Communications shall be utilized to notify other agencies.
The Haz-Mat supervisor will distribute communications, prepare Water resources reports, quarterly and annual reports, annual Hazard communication, and provide guidance and support as necessary.
A copy of these procedures will be kept in the on-call box.
New phone lists will be distributed on an as needed basis. (See attached)

AREA PLAN FOR

EMERGENCY RESPONSE TO

HAZARDOUS MATERIALS INCIDENTS

IN SACRAMENTO COUNTY

SEPTEMBER, 2007

SACRAMENTO COUNTY
ENVIRONMENTAL MANAGEMENT DEPARTMENT
HAZARDOUS MATERIALS DIVISION
8475 JACKSON ROAD, SUITE 200
SACRAMENTO, CA 95826

(916) 875-8550

WWW.EMD.SACCOUNTY.NET

ACKNOWLEDGEMENT

Although the Sacramento County Environmental Management Department (EMD) is responsible for writing, maintaining and distributing the Area Plan for Emergency Response to Hazardous Materials Incidents, the completion of this task would not be possible without the cooperation and teamwork of several people representing local and state organizations. The result of this multi-agency effort is a concise, detailed document that outlines appropriate response actions to hazardous materials incidents within Sacramento County. EMD would like to specifically acknowledge the efforts of the following individuals who contributed significant time and energy in the review and editing of this document.

- Dr. Karen Tait, Sacramento County Health Department
- Mark Wells, Sacramento Metropolitan Fire District
- Mike Teague, Sacramento Metropolitan Fire District
- Ed Vasquez, Sacramento City Fire Department
- Rick Vasquez, Sacramento City Fire Department
- Jan Dunbar, Sacramento City Fire Department
- Jeff Welchman, Sacramento County Public Works – Dept. of Transportation

Sincerely,



Val F. Siebal, Director
Sacramento County Environmental Management Department

TABLE OF CONTENTS

Chapter	Title 19 Section		Page #
1	**2720**	**Proposed Area Plan**	**1**
		A. Description & Implementation of Area Plan	1
		B. Integrating Information from Business Plans	2
		C. Reporting Form for Area Plan	3
2	**2722**	**Emergency Response Procedures**	**3**
		A. Approach, Recognition, & Evaluation	3
		B. Monitoring & Decontamination for Emergency Personnel	8
		C. Monitoring & Decontamination for Emergency Equipment	12
3	**2723**	**Pre-Emergency Planning**	**14**
		A. Pre-incident Surveys of Business Sites	14
		B. Pre-Emergency Planning & Coordination	14
		C Emergency Funding & Access	15
		D. Disposal Facility & Emergency Response Contractor Access	16
		E. Integrated Response Management System	16
4	**2724**	**Notification & Coordination**	**21**
		A. Notification & Coordination	21
		B. Emergency Communications	21
		C. Responsibility Matrix	21
5	**2725**	**Training**	**54**
		A. Emergency Response Personnel Training	54
		B. Training Documentation	58
		C. Joint Field or Table Top Training Exercises	58
6	**2726**	**Public Safety & Information**	**60**
		A. Site Perimeter Security	60
		B. Safety Procedure Information	60
		C. Information Release Responsibility	61
		D. Medical & Health Facility Notification	62
		E. Evacuation Plans	63
7	**2727**	**Supplies and Equipment**	**71**
		A. Listing and Description of Emergency Response Supplies	71
		B. Testing and Maintenance of Emergency Response Supplies	71
8	**2728**	**Incident Critique and Follow-up**	**72**
		A. Critique	72
		B. Follow-Up	72

LIST OF APPENDICES

A – Guidelines for Declaring a County Health Emergency
**updated by Dr. Tait, August 2007*

B – Example Hazardous Material Incident Notification Diagrams

C – Hazardous Material Incident Response Emergency Telephone Numbers
**updated September 2007*

D – Example Incident Commander Checklists

E – Example Chemtrec Communication Forms

F – Examples of Hazardous Materials/Incident Report Forms

G – Procedures for Use of the State Emergency Reserve Account

H – Record of Revisions and Area Plan Distribution List

I – Glossary of Standardized Terms and Acronyms including Terrorism
**updated September 2007*

J – Agreements for the Formation and Maintenance of Hazardous Materials Incident Response Teams (HMRTs) within Sacramento County

K – Joint Agreements between EMD and Incorporated Cities in Sacramento

REFERENCES

The following documents were reviewed and referenced while gathering the information contained within this Plan.

- Sacramento City Multi-Hazard Emergency Operations Plan–- Revised April 2005
- California Hazardous Material Spill/Release Notification Guidance – November 2004
- Region IV LEPC Hazardous Emergency Plan –September 2006
- Sacramento County Area Plan – September 2003
- Hazardous Materials Incident Toolkit – OES – January 2006
- "Draft" Hazardous Materials Emergency Response Plan, Sacramento Fire Department, 2007
- "Draft" Sacramento Regional Mass Casualty Decon Protocol, September 2007

CHAPTER 1: PROPOSED AREA PLAN

(Title 19 CCR § 2720)

A. DESCRIPTION AND IMPLEMENTATION OF AREA PLAN

The use, storage and transportation of hazardous materials and the generation and transportation of hazardous wastes are issues of increasing importance in the protection of life, the environment and property in Sacramento County. The prevalence of businesses routinely storing and handling hazardous materials and hazardous wastes has prompted an increasing awareness and concern for the public's health and safety. Hazardous material emergencies may be the result of threatened releases, highway accidents, clandestine drug laboratories, train derailments, pipeline transportation accidents, fire and/or spills at fixed facilities or the result of a response to a weapons of mass destruction (WMD) incident. The Area Plan describes the responsibilities of local, state and federal agencies during incidents involving the release and/or threatened release of hazardous materials.

In California, all state agencies are required to use the Standardized Emergency Management System (SEMS), as outlined in Section 8607 of the California Government Code. SEMS standardizes the principles and methods of emergency response in California. The Incident Command System (ICS) operates under SEMS and is an efficient tool for responding to all types of incidents. All local fire departments use the ICS when responding to incidents. Under the Incident Command Structure, the Incident Commander (IC) has the primary responsibility and the authority to activate a response consistent with the Area Plan. On February 8, 2005, Governor Schwarzenegger issued Executive Order S-2-05, directing the Governor's Office of Emergency Services to integrate the National Incident Management System (NIMS) into SEMS. Integrating NIMS into SEMS provides statewide consistency with emergency response activities and a nationwide approach for federal, state, local, and tribal governments to work together more effectively and efficiently. It is the intent of this Area Plan to comply with NIMS wherever changes may have occurred.

The State legislature, in recognizing the risks that hazardous materials and wastes pose to emergency responders and the community, created a hazardous material disclosure program under Chapter 6.95, Section 25500, et seq., of the Health and Safety Code. This program requires the Sacramento County Environmental Management Department (EMD) to develop a Hazardous Material Emergency Response Area Plan (Area Plan) detailing the duties and responsibilities of governmental and other response agencies in a hazardous material incident. The Area Plan provides information for agencies involved in hazardous material response within Sacramento County.

There are several plans related to the Area Plan which deal with hazardous materials emergency response at the federal, state, regional and local levels. These plans include but are not limited to the National Contingency Plan, the California Hazardous Substances Response Plan, the Railroad Accident

Prevention and Immediate Deployment (RAPID) Plan, the Region IV Local Emergency Planning Committee (LEPC) Hazardous Material Emergency Response Plan and the Local Agencies' (both Cities and County) Emergency Plans. The National Contingency Plan addresses the hazardous material response procedures for the National and Regional Response Teams. The California Hazardous Substances Response Plan addresses the State's hazardous material response procedures. The purpose of the RAPID plan is to describe how state departments and agencies that are members of the Railroad Accident Prevention and Immediate Deployment Force will respond to assist local agencies and work cooperatively at large-scale hazardous material releases resulting from surface transportation accidents. This plan also describes how funds in the Hazardous Spill Prevention Account authorized by the Public Utilities Commission Regulations, Section 7714, will be used to train and equip state and local hazardous material response teams. The Region IV LEPC Hazardous Material Response Plan, as mandated by Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), describes hazardous material emergency response for the eleven Region IV counties: Alpine, Amador, Calaveras, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tuolumne, and Yolo. Lastly, the Local Agencies' Emergency Plans address many types of natural and man-made emergencies.

B. PROVISIONS FOR INTEGRATING INFORMATION FROM BUSINESS PLANS

The disclosure program requires businesses in Sacramento County that store hazardous materials and/or hazardous waste in quantities equal to or greater than 55-gallons of a liquid, 500-pounds of a solid, or 200 cubic feet of gas, to prepare a business emergency response plan (Hazardous Materials Plan) and submit the Plan to EMD. The intent of the disclosure program is to provide first responders with site-specific information such as chemical inventory, emergency phone numbers, and facility site maps indicating location and quantities of hazardous materials and wastes stored on site. The information is collected and verified by EMD for compatibility with the Area Plan.

EMD has identified business facilities that handle and store reportable quantities of hazardous materials and hazardous waste. EMD provides the Sacramento Regional Fire/EMS Communications Center with a bi-weekly update on CD-Rom which includes hazardous material business plans, hazardous material inventory sheets, site maps, and contingency plans. This information is also distributed to each of the fire department's Hazardous Materials Response Teams (HMRTs) and is maintained on EMD's incident response vehicle.

During a hazardous materials incident the information from the CD's may be used to supplement the Area Plan guidelines at fixed facilities. By developing hazardous material emergency response plans, both businesses and governmental agencies can be better prepared for a coordinated response to these hazardous material incidents, thereby minimizing potential risks to life, the environment and property.

C. REPORTING FORM FOR AREA PLAN

EMD, the Certified Unified Program Agency (CUPA) for Sacramento County, is responsible for meeting the reporting form requirements of the California Code of Regulations, Title 19, Chapter 2, Subchapter 3, Article 3. EMD will demonstrate compliance through the use of the "Optional Model Reporting Form" which serves as the Table of Contents for this Plan (page i).

CHAPTER 2: EMERGENCY RESPONSE PROCEDURES

(Title 19 CCR § 2722)

A. APPROACH, RECOGNITION, AND EVALUATION OF RELEASES AND THREATENED RELEASES BY EMERGENCY RESPONSE PERSONNEL

1. APPROACH

The first emergency personnel to arrive at an incident will act as the Incident Commander (IC) until relieved by a representative who has the appropriate IC authority as identified in the following section. First responders are trained to respond in a defensive manner. The primary responsibilities of these responders may include the following:

a. The order of completion of the tasks is incident specific and should be based on protecting life, the environment and property.

b. Isolate the scene and deny entry (establish zones).

c. Identify the product and product characteristics (if identification can be done safely - i.e., from a safe distance).

d. Establish a command post in the support zone using the SEMS (Standard Emergency Management System) Incident Command System. The command post is established upwind, uphill and/or upstream from the incident.

e. Assess the type of incident and request appropriate resources based on the level of emergency.

f. Ensure notification of all appropriate agencies.

g. If necessary, rescue victims if it can be done safely (i.e., if proper level of protection is available.)

h. Provide emergency medical care, including decontamination of exposed persons.

i. Determine need for protective actions (e. g., evacuation or sheltering in place.)

j. Conduct evacuation, if appropriate.

Perimeter security and traffic control is the responsibility of the law enforcement agency having traffic investigative authority and should be initiated as soon as possible to minimize contamination of citizens and to allow emergency response personnel to perform their tasks without interference.

The IC will be responsible for coordinating the multi-agency operations (i.e., fire, law enforcement, EMD, public works, etc.) and designating the safety officer. An example of the IC Checklist is included in Appendix D and may be used to facilitate this responsibility.

2. RECOGNITION

Recognizing the type and degree of hazard present is usually one of the first steps after arriving at an incident. The substance involved must be identified in order to respond appropriately to the hazards. Among the sources of hazardous material identification are the following:

a. Placards

b. Shipping manifests

c. Visual observation

d. Package labels

e. Container shapes, sizes and/or color

f. Information from drivers, shippers, operators, and/or witnesses

g. Chemtrec - Chemical Transportation Emergency Center provides two types of assistance during a hazardous material incident:

   (1) Relays information in regards to the specific chemical (see Appendix E for optional Chemtrec Communication Form.)

   (2) Will contact manufacturer or other expert for additional information or on-site assistance.

The IC may use the above resources to identify the substance involved (if the identification can be done safely i.e. from a safe distance). On Level II incidents, the Sacramento Area Hazardous Materials Response Teams (HMRT's) will provide sample retrieval, material identification and/or categorization. These units have equipment available for sampling, monitoring and identification testing. This equipment will be used to evaluate the extent of the release. The EMD IR Team representative is available to provide technical support. The full extent of EMD's responsibilities is explained in further detail in Chapter 4 of this Plan. HMRT units have the equipment available to respond to most Level III incidents. If the incident requires additional personnel or equipment beyond the capabilities of the fire departments HMRT unit(s) the IC may exercise Sacramento County's Mutual Aid agreement or the State Master Mutual Aid Agreement to which all counties are signatories**.**

3. EVALUATION

The level of response may vary due to differing perceptions of the incident by response personnel, based upon on their experience and training. In Sacramento County, three (3) levels of hazardous material emergencies have been developed to assist in determining the level of response needed during a hazardous material incident. The identified response criteria include:

- Tools and equipment needed;
- Intervention expertise needed;
- Protective clothing;
- Extent or evacuation;
- Extent of special intervention activities;
- Extent of local, state, or federal assistance required;
- Extent of injury or death;
- Extent of decontamination procedures.

a. **Level I Incident (Minor)**

(1) Spills, leaks, and ruptures involving known hazardous materials which can be reasonably contained, extinguished, and/or abated utilizing existing equipment, supplies and resources immediately available to the First Responders – Operational (F.R.O.) of the fire department having jurisdiction; and

(2) Hazardous materials incidents which do not exceed the necessity to utilize standard structural/flammable liquid protective equipment immediately available to the first responder, and/or

(3) Hazardous material incidents which may require the removal and evacuation of civilians within the immediate designated perimeter of the incident scene.

b. **Level II Incident (Moderate)**

(1) Hazardous material incidents which may require the use of any kind of specialized protective clothing, equipment, tool, instrument, knowledge or expertise of the HMRT, and which is not available to and beyond the scope of training of the First Responder – Operational of the agency having jurisdiction; and/or

(2) Hazardous material incidents which can only be identified, tested, sampled, contained, extinguished, and/or abated utilizing the expertise and resources of the HMRT; and/or

(3) Hazardous material incidents which, based upon the hazard threat of the substance, require evacuation of civilians within the area of the fire department having jurisdiction; and/or

(4) Hazardous material incidents that are permitted to burn for a controlled period of time or are allowed to consume themselves, or which may require special extinguishing techniques and objectives.

c. **Level III Incident (Major – Catastrophic)**

(1) Hazardous material incidents that can only be contained and/or abated by utilizing the highly specialized equipment, services, or supplies available from special municipal, environmental, and industrial response personnel and teams who are in support of the activities of the HMRT. Such equipment, techniques, and qualified personnel are in excess of or are in addition to those available from the on-scene HMRT and/or

(2) Fires involving hazardous materials that are allowed to burn due to ineffectiveness or dangers of the use of extinguishing agents, or the unavailability of water, the threat of large container failure by explosion, detonation, or, or a container failure has already occurred; and/or

(3) Hazardous material incidents which require evacuation of people from large geographical area extending across jurisdictional boundaries; and/or there are serious injuries or deaths as a result of the hazardous material incident.

4. DISPATCH/NOTIFICATION PROCEDURES FOR HAZARDOUS MATERIAL INCIDENTS:

Each level of a Hazardous Materials Incident has a minimum deployment of resources that are required. These requirements are subject to change as policies in the fire departments are updated and/or revised and therefore are not detailed here. Fire Dispatch maintains the call down lists for hazardous material incidents and will be advised by fire personnel of any changes. Additional personnel from other agencies may be added to the call down list maintained by fire dispatch and notified of the incident.

EMD IR Team Notification: An alpha-numeric pager is the primary method of alerting the EMD IR Team members of a hazardous materials incident. The dispatch center will be given a call back telephone number or radio contact. A page will be sent out to the EMD IR team member on call. The alerted IR Team member will contact the County Central operator to obtain information regarding the incident and confirm they are

responding. EMD should be notified of any incident, including but not limited to a fire or possible release that occurs at a facility which stores or generates hazardous materials or hazardous waste.

All other agencies will be contacted by the dispatch center of the agency having jurisdiction on an as-needed basis, as determined by the IC. Individuals working for agencies that may be required to respond to a hazardous materials incident should only respond to an incident if requested by the IC.

In the event of a spill involving hazardous material or hazardous waste which constitutes an immediate threat to public health, EMD will coordinate and function as a liaison with the County Health Officer to initiate actions to declare a county health emergency. Appendix A provides guidelines for such a declaration.

B. MONITORING AND DECONTAMINATION GUIDELINES FOR EMERGENCY RESPONSE PERSONNEL

1. GENERAL

Decontamination (or contamination reduction) is the physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a hazardous material incident.

At every incident involving hazardous materials there is a possibility that response personnel and their equipment will become contaminated. The contaminant poses a threat, not only to the persons contaminated, but also to other personnel who may subsequently have contact with them or the equipment. Emergency response personnel and equipment are subjected to various degrees of chemical contamination as a result of exposures encountered at hazardous material incidents. Response personnel can become contaminated in a number of ways, including exposures to vapors and gases, walking or driving through released liquids, powders, or contaminated soils, and from contact with other contaminated personnel, victims, or equipment.

A committee comprised of local responding agencies was formed to create the Regional Mass Casualty Decontamination Protocol. This document has been completed and is currently being reviewed for adoption by local agencies. This document will be incorporated into the Area Plan once it has been adopted.

2. TYPES OF DECONTAMINATION

Decontamination (decon) can be divided into three types which are described as follows:

a. First Responder or Emergency Decon - refers to decon that is urgent, field expedient and there is an immediate need to remove

contaminants. Most often it is done to civilians or response personnel who have had direct exposure to hazardous solids, liquids, mist, smoke and certain gases, and who are displaying related symptoms. It is a two stage process: the first stage consists of clothing removal (privacy will be provided only if it will not delay the decontamination process), and a gross contaminants removal with copious amount of water; the second stage is a soap-and-water scrub and rinse. Exposures to the eyes might involve flushing for longer durations. Provide emergency covering (i.e., emergency blankets and sheets for the victims). The environment and personal modesty are not of primary importance when there are potentially life-threatening injuries/exposures; however, emergency decon should, if possible, take place in the least environmentally sensitive area. Once adequate resources are available, and incident conditions will allow, steps should be taken as soon as possible to minimize the impact of such emergency operations on the environment. Rescuers should don the best available PPE when performing Emergency Decon.

b. Technical (Primary) Decon - refers to that form of decon which is provided to personnel working in the Exclusion Zone or Contamination Reduction Zone. Although accelerated, it is a more thorough and detailed process than emergency decon. It is organized and conducted by hazmat teams or specially trained decon teams. A Contamination Reduction Corridor is established prior to entry of a hazmat team and is conducted within the Contamination Reduction Zone. This generally includes Hazmat Entry and Decon Teams working in Level A or Level B protective clothing. Primary decon provides for the collection of the contaminants for analysis, treatment or proper disposal.

c. Mass Casualty Decon - refers to decon provided to civilians that may have been exposed to hazardous chemicals, but are not displaying any related symptoms of exposure. Secondary Decon may also be used following Emergency Decon for victims displaying related symptoms. In Secondary Decon there is time to contain runoff water and provide for modesty. This level of decon might involve the use of tents, trailers, tarps, containment basins and/or showers. Secondary Decon is time consuming for victims with immediate life-threatening injuries/ exposures.

3. EXTENT OF DECONTAMINATION REQUIRED

Decontamination procedures should be tailored to the specific hazards of the incident and may vary in complexity and number of steps, depending on the degree of hazard and the employee's exposure to the hazard. Decontamination procedures for personnel and personal protective equipment will vary depending upon the specific hazardous material or symptoms of exposure, since one procedure or method may not work for

all substances. Evaluation of decontamination methods and procedures should be performed, as necessary, to assure that employees are not exposed to hazards by reusing personal protective equipment.

To achieve plan objectives and protect responders from harm or risk as a result of exposure to hazardous materials, the following general guidelines should be used when the decision to decontaminate personnel and/or equipment is made by the IC and/or the EMD IR team member. In general, the HMRT units may complete decon for all responding agencies. If decontamination guidelines are not specified by the IC, each responding agency is responsible for decontaminating their own equipment based on the policies and procedures developed by their department. The exact procedure to use must be determined after evaluating a number of factors specific to the incident. The following factors must be considered when determining which decontamination process to use:

a. Prevention of further contamination. Minimizing contact with potential contaminants is essential to keep the incident from escalating.

b. The physical and chemical properties of the hazardous material. The very properties that make a chemical more hazardous also make it more difficult to decon. Gases are more likely to permeate clothing and skin tissue. Liquids are harder to see and remove than powders and other solid materials. Low-viscosity liquids may permeate more readily than high-viscosity liquids. Soluble materials will be easier to decon than non-soluble materials.

c. The amount and location of contamination. The more of the body that has been contaminated, the more involved the decon process will be. If contaminants are located near the face, there is a greater likelihood of harm due to inhalation or ingestion. If a product is located in other body cavities, folds, nails or hair, there is greater likelihood of permeation into the body. For this reason it is recommended to start decon with the head and then work down. Eyes, ears, nose, mouth, hair, armpits, etc., need to be thoroughly decontaminated, and open wounds need to be completely irrigated.

d. Contact time and temperature. The longer a contaminant is in contact with an object, the greater the probability and extent of contamination. For this reason, minimizing contact time is one of the most important objectives of decon. Temperature will also increase vapor production, which may in turn affect the rate of permeation.

e. Level of protection and work function. The Technical/Reference Specialist and the Decon Team Leader will determine the level of protective clothing needed for the Decon Team. Risk factors may

include but are not limited to; physical state of material, the likelihood of contamination and the task to be performed.

f. Reasons for leaving the hazard site. People with life-threatening medical emergencies may need very rapid emergency decon.

4. DECONTAMINATION PROCEDURES

Decontamination shall be performed whenever contamination is suspected. Decontamination is the responsibility of each responding agency. Decisions to decontaminate personnel should be made by or in conjunction with the IC.

The Contamination-Reduction Corridor will be established at all hazardous materials incidents, involving entry operation or decontamination for victims, responders, or equipment. The Decontamination Leader, in conjunction with the Technical/Reference Specialist, and the Assistant Safety Officer-Hazardous Materials will determine the extent of preparation for decontamination based on the hazard evaluation.

Fire department personnel trained to the First Responder Operation Decon level may be used to staff the decontamination area. Such personnel will be at the same level of protection or one level lower than the Entry Team.

All personnel and equipment entering the Exclusion Zone will be decontaminated and evaluated following final exit, if the material is hazardous and exposure is possible. Personnel exposed to toxic material(s) will take a shower following the operation in addition to on-site decontamination. The waste water generated during the decontamination process will be evaluated by the EMD IR team member who will give recommendations for disposal of the wastes generated and coordinate disposal operations with the appropriate hazardous waste disposal contractor.

a. General Decontamination Procedures – The organization setting up the decon area will have its own decontamination policies and procedures. Every incident will have unique situations and these procedures should be modified to meet the specific needs of the incident.

b. Decontamination During Medical Emergencies - In a properly functioning hazardous material response, victims will be decontaminated in the contamination reduction zone by properly suited and protected emergency responders (Primary or Secondary Decontamination). If needed, Primary or Secondary Decontamination will include removal of clothing, flushing affected skin and hair with water, and if needed, a mild soap and water wash.

5. BASELINE/ANNUAL MEDICAL MONITORING FOR EMERGENCY RESPONSE PERSONNELL

All agencies sending personnel to respond to hazardous materials incidents in Sacramento County are responsible for following the medical monitoring programs as outlined in their policies and procedures.

C. MONITORING AND DECONTAMINATION GUIDELINES FOR EMERGENCY RESPONSE EQUIPMENT

1. GENERAL

Emergency response personnel and equipment are subjected to various degrees of chemical contamination as a result of exposures encountered at hazardous material incidents.

a. Decontamination of Equipment – Measures should be taken to prevent contamination of sampling and monitoring equipment. Sampling devices typically become contaminated, but monitoring instruments, unless they are splashed, usually do not. Once contaminated, instruments are difficult to clean without damaging them. Any delicate instrument which cannot be decontaminated easily should be protected while it is being used.

Decontamination equipment, materials and supplies are generally selected based on risk assessment. In the event that decon is necessary, the HMRT unit would be equipped with the materials necessary for use during most hazardous materials incidents.

b. Sanitizing of Personal Protective Equipment - Respirators, reusable protective clothing, and other personal articles must be decontaminated and sanitized. The inside of masks and clothing becomes soiled due to exhalation, body oils, and perspiration. The manufacturer's instructions should be used to sanitize the respirator mask. If practical, protective clothing should be machine washed after a thorough decontamination; otherwise it must be cleaned by hand. Each responding agency is responsible for decontaminating their own equipment based on the policies and procedures developed by their department.

c. Persistent Contamination - In some instances, clothing and other equipment will become contaminated with substances that cannot be removed by normal decontamination procedures. A solvent may be used to remove such contamination from equipment if it does not destroy or degrade the protective material. If persistent contamination is expected, disposable garments should be used. Testing for persistent contamination of protective clothing and

appropriate decontamination must be done by qualified laboratory personnel.

2. DISPOSAL OF CONTAMINATED MATERIALS

All materials and equipment used for decontamination must be disposed of properly. Clothing, tools, buckets, brushes, and all other contaminated equipment that can not be decontaminated on-site must be secured in drums or other containers and labeled. Clothing not completely decontaminated on-site should be secured in plastic bags and disposed of with the clean up contractor.

Contaminated wash and rinse solutions should be contained by using step-in-containers (for example, decon pool) to hold spent solutions. Another containment method is to dig a trench about 4 inches deep and line it with plastic. In both cases, the spent solutions are transferred to drums, which are labeled and disposed of with other substances on-site by the clean up contractor.

CHAPTER 3: PRE-EMERGENCY PLANNING

(Title 19 CCR § 2723)

A. PRE-INCIDENT SURVEYS OF BUSINESS SITES

EMD inspects all businesses in Sacramento County that are regulated by Chapters 6.5, 6.7, and 6.95 of the Health and Safety Code at a minimum, every three years. Due to the frequency of these inspections, EMD has deemed pre-incident surveys unnecessary

EMD provides the fire department's communication center with CD-ROMs which contain information on local businesses within their jurisdiction including hazardous material inventories, emergency phone numbers, and site maps. EMD has also identified businesses that handle and store extremely hazardous materials and present the greatest risk to emergency responders. These are facilities which exceed threshold amounts of extremely hazardous substances and are required to prepare a Risk Management Plan (RMP). A current list of these facilities may be obtained by contacting EMD.

It is the responsibility of each fire jurisdiction to determine the necessity of pre-fire inspections.

B. PRE-EMERGENCY PLANNING AND COORDINATION AMONG EMERGENCY RESPONSE PERSONNEL WITHIN THE JURISDICTION

Pre-emergency planning shall include coordination and training of emergency response personnel between responding agencies.

EMD will coordinate training on the final Area Plan to ensure all agencies that might have responsibilities during a hazardous materials incident response are aware of the requirements.

1. AREA PLAN REVISIONS

The Area Plan will be completely reviewed and revised every three years by EMD as required by the California Code of Regulations, Title 19, Chapter 4, Article 3, Section 2721. During the revision process EMD will request input from the participating agencies on the Area Plan Distribution List (Appendix H) which includes all appropriate city, county, and state agencies. In the interim, the Plan will be maintained through the coordination with local, state and federal agencies in addition to reviewing actual responses and the ongoing collection of new data. Any changes will be reviewed and approved by the appropriate agencies. Revisions will be routed to all agencies on the Area Plan Distribution List and forwarded to the Governor's Office of Emergency Services. These revisions will be recorded in the Record of Revisions (Appendix H) and will be available for review in electronic format on the County's website at http://www.emd.saccounty.net.

C. LOCAL, STATE AND FEDERAL EMERGENCY FUNDING AND ACCESS

1. FUNDING

The IC will, under advice from the EMD IR Team Member, take all necessary steps to ensure restoration of the scene to a normal condition after a hazardous material incident. The responsible party for the clean-up will be the agency that has jurisdiction where the incident initially occurred, or the identified responsible party (i.e. property owner) even if the contamination has migrated off-site. Steps include, but are not limited to:

a. If the incident occurs on a State highway, the CHP is the designated IC and will notify the California Transportation Agency (CalTrans) in order to obtain their services for clean up.

b. If the incident occurs on a County road or on private property, the IC or designee will contact the responsible party, i.e., trucking company, chemical company, facility owner, property owner, etc., and inform them of their obligation to mitigate the incident and give them the opportunity to provide their own clean up service and/or contract with a registered hazardous waste hauler.

c. For a minor incident on private property or on a public road, when a responsible party cannot be reached or is uncooperative, the IC, through consultation with EMD will explore alternate clean-up options. If unavailable, EMD will make contact with the DTSC Duty Officer to access funding and determine if substance triggers the hazardous waste criteria (see Appendix G).

d. For a major incident requiring a costly clean-up, if a cooperative, responsible party cannot be contacted, State or Federal Superfund funding should be considered. EMD can assist in this effort.

The IC or designee will consult with EMD and the clean up crews to confirm adequacy of the clean up procedures, which may involve removal or treatment of the waste. The clean up should include any on- or off-road contamination which may have occurred.

If mitigation cannot be completed, post "Warning Hazardous Material" signs or tape in a conspicuous location near the incident until clean up is accomplished. This decision will be made by the IC, in conjunction with the EMD IR Team Member.

The IC has overall responsibility to maintain surveillance of the scene and ensure adherence to applicable regulations and may delegate this responsibility to another agency (i.e. EMD, Public

Works, etc.) once the incident has been contained, and declared to be in the "Recovery Phase".

2. RECOVERY OF DAMAGES AND CLEAN UP COSTS

Spills or incidents occurring on private property shall be the responsibility of the property owner and/or the responsible party causing the spill. All costs associated with response and recovery from a spill or incident, be it public or private, shall be the responsibility of the property owner and/or the responsible party causing the spill.

3. ENFORCEMENT

When on-scene operations are directed by city or county personnel, any required post incident enforcement shall be taken through the appropriate public agency having jurisdiction. In situations where a State or Federal response team directs on-scene operations, that team shall be responsible for enforcement of appropriate laws and regulations.

D. ACCESS TO STATE APPROVED AND PERMITTED HAZARDOUS WASTE DISPOSAL FACILITIES AND EMERGENCY RESPONSE CONTRACTORS

It is the responsibility of the IC to make certain that the spilled material is to be transported in an approved manner and in accordance with the Code of Federal Regulations, Title 49 and the California Code of Regulations, Title 22. The EMD IR Team Member will be available for advice on these technical issues as well as locations of approved hazardous waste disposal sites. A current list of emergency clean-up companies and registered hazardous waste haulers can be obtained by contacting EMD.

E. INTEGRATED RESPONSE MANAGEMENT SYSTEM

1. ORGANIZATION

The local organization which will respond to a hazardous material incident is structured to provide a multi-agency response using the National Incident Management System (NIMS). Integrating NIMS into the previous Standard Emergency Management System (SEMS) provides statewide consistency with emergency response activities and a nationwide approach for federal, state, local, and tribal governments to work together more effectively and efficiently. It is the intent of this Area Plan to comply with NIMS wherever changes may have occurred. All local fire departments use the Incident Command System (ICS) when responding to incidents. Under ICS, the Incident Commander (IC) has the primary responsibility and the authority to activate a response consistent with the Area Plan.

The system is designed to minimize duplication of effort by giving each person a structured role in the organization, and each organization its piece of the larger response. This system clearly defines the chain of

command and limits the control of any one individual. For major incidents, State assistance would be accessed to provide support to local response as coordinated through the IC. The level of the response, skills necessary to abate the problem, and agencies participating in the emergency organization, will be geared to the nature of each specific hazardous material incident. On incidents involving multiple agencies or jurisdictions, the use of a unified command structure is mandatory.

The Sacramento County Office of Emergency Services is responsible for overall pre-emergency planning and coordination among the various emergency responder agencies within the incorporated cities and unincorporated areas of Sacramento County. This includes the coordination of emergency assistance between jurisdictions. This responsibility also lies with the Region IV LEPC, as required by SARA Title III and the Community Right to Know Act.

Roles and responsibilities of the various agencies that might respond to a hazardous materials incident are identified in Chapter 4 of this Area Plan. Appendix I identifies a list of acronyms and standardized terms used during hazardous material incidents.

2. ROLE DEFINITIONS IN THE INCIDENT COMMAND SYSTEM (ICS)

In California, the Firescope Incident Command System (ICS) is the required structure to be used by response agencies involved in a hazardous materials incident. ICS provides the framework from which all response agencies, as well as the responsible party, can work together in an efficient and effective manner in accordance with NIMS. The ICS is the standardized management system utilized in handling emergencies and ICS is applicable to large and small hazardous material incidents. The ICS system consists of procedures for controlling personnel, facilities, equipment and communication.

a. Incident Commander (IC)

The IC shall employ overall management, coordination and responsibility over a hazardous material incident, including a WMD event. The IC shall be responsible for the identification of incident resources and needs, the procurement of the resources so as to abate the incident, and protect life, environment and property.

The IC shall not be responsible for the detailed direction of technical or specialized procedures, but shall oversee that these procedures are carried out when needed. Scene management decisions are to be made with the assistance of the Operation's Chief, expert advisors, and/or specialty employees.

The IC shall be:

California Highway Patrol (CHP): On State highways and county roads in unincorporated areas.

Sheriff: Off highway in the unincorporated areas.

Police Departments: All incidents within city limits except in the City of Sacramento where it is the Sacramento Fire Department.

Other: The IC shall be the designated emergency response official on the scene in the absence of law enforcement, provided that the jurisdiction has prepared a written agreement prior to an incident.

b. Operations Chief (Ops Chief)

The Ops Chief is the designated fire official responding to the scene of a hazardous material incident, including events involving WMD. The Ops Chief will provide resources to assist in securing and maintaining immediate control of the incident until the situation has been stabilized.

The Ops Chief shall be responsible for directing the efforts of, and be responsible for, but not limited to, rescue and first aid; suppression activities; containment; cleanup; personnel protection and safety; and coordinating incident efforts with the IC.

c. Hazardous Materials Group Supervisor

The Hazardous Materials Group Supervisor reports to the Operations Section Chief. The Hazardous Materials Group Supervisor is responsible for the implementation of the phases of the Incident Action Plan dealing with the Hazardous Materials Group operations. The Hazardous Materials Group Supervisor is responsible for the assignment of resources within the Hazardous Materials Group, reporting on the progress of operations and the status of resources within the Group. The Hazardous Materials Group Supervisor directs the overall operations of the Hazardous Materials Group.

d. Safety Officer

The IC will designate the safety officer. This person is responsible for assuring the overall safety of all operations performed at the incident by all agencies. This will be done with respect to the highest levels of safety and health. The Safety Officer will report directly to the IC.

e. Emergency Medical Services (EMS)

EMS personnel will work under the direction of the IC to provide emergency medical care to victims. These emergency incidents are either on or off the highway which results in injuries requiring on-scene medical care.

f. EMD Incident Response Team

EMD maintains an Incident Response Team staffed with Environmental Specialists assigned to the department's Hazardous Materials Division, who also act as representatives of the County Health Officer. One Environmental Specialist maintains on-call status at all times and is activated through the Sacramento County Operations Center. EMD personnel, in conjunction with the IC and the Ops Chief, are responsible for determining when the area is safe for re-entry and/or the incident is mitigated, in addition to hazardous waste disposal operation supervision in the “Recovery Phase”.

g. Public Information Officer (PIO)

This person is designated by the IC for the collection of facts, circumstances, and events which have transpired since onset of the incident. Under the direction of the IC, the PIO will compile and present the information to the media. This includes the briefing and update of media personnel on actions taken or to be taken. When possible this should be accomplished in an area away from the command post. No one at the scene should be authorized to talk to the media except the PIO or IC.

h. Federal On-Scene Coordinator (FOSC)

Under the National Contingency Plan (NCP), the Federal On Scene Coordinator (FOSC) is the senior official for all response efforts. These responsibilities are shared between the U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (USEPA). The USCG is the lead for response and recovery efforts at oil and hazardous materials incidents in the coastal zone, while the USEPA is the lead for oil and hazardous materials incidents in the inland zone. Boundaries between the USCG and the USEPA zones can be found in the Regional Contingency Plan and in each of the three California Coastal Marine Area Contingency Plans. In some circumstances, the FOSC may be a representative from the Department of Defense or Department of Energy, dependent upon agency jurisdiction.

The FOSC is the pre-designated federal official responsible for directing and coordinating responses to releases of hazardous substances to the environment and discharges of oil to navigable waters of the United States in the inland areas. Pursuant to Section 300.135 of NCP, the FOSC promotes the use of a Unified Command System that brings together the functions of the federal government, state government, local government, and the responsible party to achieve an effective and efficient response. The goal of the Unified Command (UC) is to reach a consensus whenever possible, but the FOSC always retains the authority to take all actions that he or she deems necessary to mitigate the effects of the spill. The FOSC, the state/local government representatives, and the responsible party, are all involved with varying degrees of responsibility, regardless of the size and severity of the incident. The FOSC in every case retains the authority to direct the spill response. In many situations, the FOSC may choose to monitor the actions of the responsible party and/or state/local governments and provide support and advice where appropriate. However, under the Clean Water Act, Section 311 (c)(2) the FOSC must direct responses to spills that pose a substantial threat to the public health, or welfare of the United States.

Typically, the FOSC will receive spill notification from the National Response Center (NRC), the Governor's Office of Emergency Services (OES) Warning Center and/or the Responsible Party (RP) and assesses the level of federal response required for the incident. For a Level One Incident, the FOSC may follow-up on the initial notification and contact the local responders to determine the status of the incident and whether federal assistance is needed. For Level Two Incidents, the FOSC may respond or dispatch a Superfund Technical Assistance and Response Team (START) unit from San Francisco, California or Long Beach, California to monitor the response and provide technical assistance to the local responders. For Level Three Incidents, the FOSC will respond to the incident. In most cases, the FOSC will mobilize START and the USCG Pacific Strike Team. If the incident exceeds the capabilities of the local and State jurisdictions, and the responsible party cannot mobilize sufficient resources, the FOSC will also mobilize the Emergency Response and Removal Support (ERRS) cleanup contractor. The mobilization of federal cleanup resources does not replace the ICS or UC, but will integrate into the existing ICS where appropriate.

Chapter 4: NOTIFICATION AND COORDINATION

(Title CCR 19 § 2724)

A. NOTIFICATION OF AND COORDINATION WITH EMERGENCY RESPONSE PERSONNEL

1. ACTIVATION

The Sacramento Area Plan shall be activated by the IC to the degree necessary, whenever a hazardous material or WMD incident occurs. This plan covers hazardous material incidents that occur in any part of the county or cities, including but not limited to releases to the air, land, or waters throughout the county, including rivers, reservoirs, canals, groundwater, storm drains and sewers.

2. NOTIFICATION

County Communications will be the central notification point for all hazardous material incidents involving county responders (excluding fire and law enforcement personnel). The IC will make the determination regarding who is to be notified. It is assumed the general public will use 911 to report incidents.

The public agency first on-scene should request needed resources through their dispatch and take whatever immediate counteractions necessary to contain and reduce the spread of the material and its effects within the training limitations of the responding personnel.

Hazardous Material Incident Notification Diagram - See Appendix B.

Emergency Telephone Numbers - See Appendix C.

B. EMERGENCY COMMUNICATIONS DURING AN EMERGENCY RESPONSE

1. COMMUNICATIONS

Coordination of all communication should be the responsibility of the appropriate Dispatch Centers. The primary means of communication during an incident or potential incident will be through the use of the primary 800 MHz radio frequencies licensed to the various public emergency response agencies in Sacramento County. Notification and requests for assistance will be handled through each agencies appropriate dispatch centers.

C. RESPONSIBILITY MATRIX

The following section details the roles and responsibilities of the Agencies that may respond to a hazardous materials incident. The descriptions below were

reviewed by each respective agency during the revision process and were current at the time this Area Plan revision was completed.

LOCAL AGENCIES

1. Law Enforcement - The law enforcement agency having the investigative authority on the scene will become the IC and will have the duties of establishing the Command Post, traffic control, and providing security to the scene and the surrounding area. The IC will be responsible for coordinating the efforts of the various agencies which may be involved in the incident and will maintain contact with Emergency Dispatch.

   a. **SHERIFF'S DEPARTMENT**

      Primary Responsibilities:

      (1) For incidents that occur off-highway, within the unincorporated area of Sacramento County, the Sheriff's Department will serve as IC.

      (2) The Sheriff's Department will provide pertinent informational data concerning the incident, when requested, to the State Office of Emergency Services, and the Sacramento County Emergency Operations Coordinator.

      (3) For incidents that occur upon a highway, or within incorporated limits of a city, the Sheriff's Department will assist the IC upon request.

      (4) The Sheriff's Department responsibility for an incident occurring off-highway in unincorporated areas of the County shall include but not necessarily be limited to:

         (a) Overall incident management as per Section 2454 of the California Vehicle Code (CVC), including establishing the On-Scene Command Post, if the scope of the incident indicates a need.

         (b) Notification of all public and private agencies concerned with the emergency. (Sheriff's Dispatch will assist in notification upon request.)

         (c) Obtaining and relaying technical information.

         (d) Coordinating all communication from the scene to all emergency responders.

(e) Identification of hazardous materials from bills of lading, placards, or other papers.

(f) Coordinate the rescue of injured persons and insuring that medical care is provided.

(g) Coordinate spectator and traffic control.

(h) Evacuation, if necessary.

(i) Resolving role and authority conflicts when there is a disagreement between two or more emergency responders.

(j) Handle media inquiries. All news releases concerning overall operations shall be made by the IC or his designated representative. The IC shall confer with allied agency supervisors regarding news releases or inquiries regarding their operations.

(k) Provide the County Office of Emergency Operations with a copy of the final after action report.

(l) Provide explosive ordinance disposal response when requested.

After Hours Notification: Sheriff Officer's are available on a 24-hour basis and may be contacted through their dispatch or by calling 911.

b. **DISTRICT ATTORNEY'S OFFICE – ENVIRONMENTAL PROSECUTION INVESTIGATION UNIT**

Primary Responsibilities:

(1) The D.A. Investigator, although a law enforcement officer under Penal Code 830.1, will not assume primary first responder responsibilities nor assume Incident Command responsibilities, but will gather preliminary incident data for a civil and criminal prosecution assessment and advise the Environmental Prosecution Unit's Deputy District Attorney of the data.

(2) The D.A. Investigator will respond to requests for assistance by calling fire dispatch, the Incident's Ranking Fire Official or the Incident Commander within any incorporated or unincorporated area of Sacramento County and assess the need for a response to the scene

based on the initial circumstances, which may indicate a need for a civil or criminal investigation. If the D.A. Investigator is not available at the time of the incident, contact may be made with the Deputy District Attorney assigned to the Environmental Crimes Unit through the Sacramento County Operator.

(3) The D.A. Investigator will assist first responders on an advisory basis and as a liaison with law enforcement, other investigative and regulatory agencies on an as needed basis when the incident requires the need for those resources.

(4) The D.A. Investigator will provide pertinent informational data concerning the incident, when requested, to the State Governor's Office of Emergency Services in the event no other law enforcement agency is present at the scene and no other responders have done so.

(5) The D.A. Investigator will maintain Level "B" Personal Protective Equipment (PPE) training and equipment to perform "Hot Zone" entries in furtherance of his duties.

(6) The D.A. Investigator's responsibility for an incident occurring in the incorporated or unincorporated areas of the County shall include but not necessarily be limited to:

(a) An initial assessment of the incident to consider whether a civil or criminal investigation would be appropriate from the District Attorney's Office perspective.

(b) Notification of public agencies through Fire or Sheriff's Communications to facilitate the response of necessary agencies when it is required to begin a civil or criminal investigation.

(c) Obtaining and relaying investigative information to the Environmental Prosecution Deputy District Attorney.

(d) Assist with evacuation or life saving measures, only if necessary, as this is the usual responsibility of the primary first responders.

(e) Assist law enforcement or other investigative agencies with the facilitation of search and arrest warrants, if necessary, and perform follow-up investigation on cases after the initial investigation

by a law enforcement, fire, investigative or regulatory agency has been facilitated.

After Hours Notification: The Environmental Crimes Criminal Investigator will be paged through fire dispatch for all Level II and Level III Incidents.

c. **MUNICIPAL (CITY POLICE DEPARTMENTS) - INCLUDING ALL INCORPORATED CITIES IN SACRAMENTO COUNTY**

Primary Responsibilities:

(1) Upon a street, roadway or highway when the police department has primary traffic investigative authority (2454 CVC) and off-highway within the City, the Police Department shall serve as IC, except in the City of Sacramento.

(2) Functional responsibilities include:

(a) Overall incident management as per 2464 CVC, including establishing an on-scene command post if the scope of the incident indicates a need.

(b) Notification in accordance with the Notification Sections and Responsibilities Chart in Appendix B.

(c) Obtaining and relaying technical information.

(d) Coordinating all communications from the scene to all emergency responders.

(e) Identification of hazardous materials from bills of lading, placards, papers, and other sources.

(f) Rescue of the injured and providing medical care.

(g) Removal of disabled vehicles.

(h) Spectator and short-term traffic control.

(i) Investigation.

(j) Resolving role and authority conflicts when there is a disagreement between two or more emergency responders.

(k) Handle press inquiries. All news releases concerning overall operations shall be made by the IC or his designated representative. The IC shall

confer with allied agency supervisors regarding news releases or inquiries regarding their operations.

(l) Provide for a joint agency incident evaluation and critique as the scope of the incident warrants.

After Hours Notification: City Police Officer's may be contacted for response by contacting their dispatch or by calling 911.

2. Fire Service - The designated Fire Department official responding to the scene will become the Operations Chief and should utilize all available expertise and equipment for identification and containment of the incident.

a. **FIRE SERVICES (ALL FIRE DEPARTMENTS/DISTRICTS WITHIN SACRAMENTO COUNTY)**

Primary Responsibilities: The primary functions may be different between Fire Districts/Departments due to the level of training of its personnel and the equipment available

(1) Fire prevention, suppression, and prevention of explosions.

(2) Provide extrications, rescue, and emergency first aid for victims. Primary responsibility for rendering or ensuring that medical care is transferred to other emergency medical personnel upon their arrival, when the other emergency medical personnel are the "more medically qualified licensed health care professionals," per California Health & Safety Code (H&SC) Section 1482.5.

(3) Contain hazardous conditions within the limitations of the resources available.

(4) Provide a Safety Officer and advise of proper safety procedures.

(5) For all incidents occurring within the City of Sacramento (except on freeways), the Fire Department will serve as Incident Commander and will establish and maintain the Field Command Post.

Secondary Responsibilities:

(1) Assisting the "most medically qualified licensed emergency health care professional" with first aid for the injured.

(2) Identification of hazardous material.

(a) Utilization of safety suits and self-contained breathing apparatus to enter the hazardous zone.

(b) Obtain physical evidence to assist in identifying material, including bills of lading, invoice, placarding, and package labels.

(3) Provide technical manuals to determine emergency procedures for specific types of hazardous materials.

(4) Provide emergency lighting and generators.

(5) Advise Incident Commander of feasibility of necessity to evacuate area.

(6) Advise IC on safety of area for re-entry by civilian population.

(7) Provide copy of incident report to County Emergency Operations Division.

(8) Fire District personnel will conduct pre-incident site familiarization surveys.

b. **HAZARDOUS MATERIALS RESPONSE TEAM (HMRT)**

(1) The HMRT may be requested by Fire Services in accordance with the Sacramento HMRT Mutual Aid Joint Powers Agreement (Appendix J).

(2) The HMRT responds to all Level II and Level III incidents. Upon arrival the HMRT will immediately report to the Fire Department IC/Ops Chief and establish a Haz Mat Group, as identified in the Incident Command System. If applicable, the Fire Department Ops Chief shall regularly consult with the Law Enforcement IC responsible for overall scene management to insure appropriate coordination of all objectives and operations.

After Hours Notification: The fire department may be contacted for response through fire dispatch or by calling 911.

3. Local Support Agencies – The following agencies may be called upon for assistance during an incident at the request of the IC. Representatives from these agencies shall report to the command center to notify the IC of their arrival.

a. **ENVIRONMENTAL MANAGEMENT DEPARTMENT (EMD)**

EMD is authorized to take any preventative measure that may be necessary to protect and preserve the public from any health and/or environmental hazard.

EMD will respond at the request of the IC and will provide technical assistance to the IC. In the event of a spill involving hazardous materials which constitute an immediate threat to public health, EMD will work with the County Health Officer to initiate actions to declare a county health emergency. Appendix A provides guidelines for such a declaration. EMD will contact OES for spill notification during hazardous materials incidents if this has not already been done.

(1) **Hazardous Materials Division:**

Primary Responsibilities:

(a) Provide advice and consult with the Incident Commander on public health and environmental issues during an incident.

(b) Represent the County Health Officer during hazardous material incidents.

(c) Supervise and approve the post-incident environmental clean-up when required.

(d) Investigate, gather evidence, and write reports for environmental crimes cases.

(e) Maintain and update the Sacramento County Area Plan.

(f) As appropriate, may request the Sacramento Area HMRT to respond to an incident through the County Communications Center.

(g) When necessary, may contact Cal/EPA to access State Emergency Reserve Account and/or notify the OES State Warning Center.

(h) Receive notification and respond as necessary to after hours Environmental Health Division emergencies.

Secondary Responsibilities:

(a) During large incidents, EMD personnel may act as the liaison between Unified Command and other responding agencies.

After Hours Notification: The EMD Hazardous Materials Incident Response Team is on call twenty-four hours a day and responds to all Level II and III incidents. They can be reached via pager through the County Communication Center.

(2) **Environmental Health (EH) Division**

Primary Responsibilities:

Environmental Health Division can provide advice, assistance and inspection in the following program areas:

(a) Food protection, food safety, and food borne illness investigations for retail food facilities, including restaurants, markets, delis, coffee houses, bars, public and private schools, mobile food vendors, and temporary events;

(b) Recreational Health including public pools, spas and public beaches;

(c) Noise and noise level violations;

(d) Farm Labor Camp inspections;

(e) Detention Facility inspections;

(f) Smoking Control including Tobacco Retailers and Environmental Tobacco Smoke; and

(g) Tattoo & Body Art.

Secondary Responsibilities:

(a) EH may assist the local health officer during investigations involving major food borne illnesses cases.

After Hours Notification: The Environmental Health Division does not assign personnel to be on-call after hours. The Hazardous Materials Incident Response Team member on-call will

be notified for a health related issue and will attempt to contact personnel who have volunteered to be available during an emergency.

(3) **Water Protection Division:**

The Water Protection Division can provide advice, assistance and inspection in the following program areas:

(a) Public and private water systems and drinking water safety;

(b) Cross connection control;

(c) Reclaimed water; and

(d) Septic Tanks, septic cleaners, and septic waste hauling.

After Hours Notification: The Water Protection Division does not assign personnel to be on call after hours. The Hazardous Materials Incident Response Team member on-call will be notified for a water protection related issue and will attempt to contact personnel who have volunteered to be available during an emergency.

b. **COUNTY COMMUNICATIONS CENTER**

The County Communications Center is part of an integrated statewide communications network with the capability to contact City, County, State, and Federal Emergency Service Personnel.

Primary Responsibilities:

(1) The County Communications Center has an emergency notification system which provides the County with the capability of contacting designated local emergency officials twenty-four hours per day.

(2) In the event of an emergency incident involving suspected hazardous materials, the County Communications Center will assist the Incident Commander in alerting local County officials by means of the County's telephone, radio, and pager systems.

(3) EMD Haz Mat Incident Response Team will be notified via pager and fax when an OES Spill Report is received by the County Communications Office.

(4) Sacramento County Communications Center has home numbers for all responsible employees.

After Hours Notification: County Operators provide assistance on a twenty-four hour basis and can be reached at (916) 875-6900.

c. **COUNTY EMERGENCY OPERATIONS OFFICE**

Primary Responsibilities:

(1) The Sacramento County Emergency Operations Office has responsibility for overall emergency incident planning, Operational Area response coordination, emergency activation and management of the Emergency Operations Center within the County.

(2) The Sacramento County Emergency Operations Office reviews the Sacramento County Emergency Operations Plan.

(3) The Sacramento County Emergency Operations Office Alert Officer is on-call twenty-four hours per day and will respond to incidents upon request. The Alert Officer is to be notified of all Level III hazardous materials incidents, any incident that involves or may involve loss of life, significant property damage, or require care and shelter of the public for greater than 12 hours, and incidents that impact multiple jurisdictions or disciplines that are outside of the typical incidents responded to by the law, fire and other first response organizations. This notification shall be made through the County Operator.

(4) The Sacramento County Emergency Operations Office will assist in notifying affected County agencies as necessary.

(5) The Sacramento County Emergency Operations Office will request mutual aid resources needed for the response other than those that would normally be obtained through law, fire, or medical mutual aid systems.

After Hours Notification: The Alert Officer of the Emergency Operations Office is notified by the County Communications Center for all after hours incidents or request for information and assistance.

d. **SACRAMENTO COUNTY MUNICIPAL SERVICES AGENCY, DEPARTMENT OF TRANSPORTATION (SacDOT)**

The Sacramento County Board of Supervisors has delegated responsibility for responding to and mitigating hazardous material incidents occurring on a public right of way, within the unincorporated area of the County to the Municipal Services Agency, Department of Transportation (SacDOT). Some incorporated cities have contracted with SacDOT to assist in the clean-up of hazardous material incidents in their jurisdiction. SacDOT currently provides contracted Haz Mat service to the City of Rancho Cordova.

Primary Responsibilities:

(1) SacDOT has authority under the Streets and Highways Code to remove or cause to be removed any "encroachment" on County maintained roadways or right of ways. Responsibility for removing a spilled cargo is thus implied.

(2) SacDOT will respond to hazardous materials incidents within County roadway and storm drain systems, and on County controlled property such as County parks. It is not within the scope of SacDOT authority to mitigate all hazardous materials incidents, such as those occurring on private property, or on right-of-ways that have not been accepted by the County for maintenance.

(3) SacDOT will provide barricades and other physical traffic control devices during long-term road closure or restriction.

(4) SacDOT has twenty-four hour response capability and will use County resources or contracted services to isolate the area, deny entry to the public, and abate the hazard. For Level II and III incidents, SacDOT will participate as needed as part of a Unified Command System in order to classify unknown substances and implement the containment and removal of the material.

(5) SacDOT personnel are not trained or equipped to enter areas that have the potential to be immediately dangerous to life or health. SacDOT employees are not equipped with air monitoring devices or self-contained breathing apparatuses, which precludes them from entering confined spaces and areas that may produce a respiratory hazard or possible oxygen deficient or explosive environment.

(6) SacDOT will rely on the department that is responsible for the operation of the contaminated system or property to open service entrances, identify system routes, provide physical barriers to the spread of the incident, and mitigate any non-hazardous materials.

(7) SacDOT reserves the right to demand immediate mitigation from the party(s) responsible for causing a hazardous materials incident. When possible, SacDOT will bill the responsible party(s) for any costs incurred by SacDOT.

(8) SacDOT reserves the authority to close or restrict the use of a County highway to all traffic as per H&SC Section 942.5, and will provide traffic control as warranted.

After Hours Notification: SacDOT has twenty-four hour response capability and can be reached by contacting the County Communications Operator at (916) 875-6900.

e. **SACRAMENTO COUNTY MUNICIPAL SERVICES AGENCY, DEPARTMENT OF WATER QUALITY (DWQ)**

(1) **County Sanitation District 1 (CSD-1):**

(a) Responsible for the operation and maintenance of local sanitary sewer collections system (mainlines, collector pipes, and pump stations), which include most unincorporated areas of Sacramento County, the cities of Elk Grove, Citrus Heights, and Rancho Cordova, and portions of the City of Sacramento and Folsom.

(b) CSD-1 has 300 filled sand bags prepared to be used at any time.

(c) CSD-1 has confined spaces personnel that are trained and are fully equipped for entry into the CSD-1 sewer collection system.

After Hours Notification: CSD-1 employees are available on a twenty-four hour basis and may be contacted via the County Communications Center at (916) 875-6900.

(2) **Sacramento Regional County Sanitation District (SRCSD):**

(a) Responsible for the operation and maintenance for the County interceptor conveyance system (pipelines from 36-inch to up to 12 feet in diameter)

that conveys wastewater from CSD-1 and the cities of Sacramento, Folsom and West Sacramento, large sewage pump stations, and the Sacramento Regional Wastewater Treatment Plant (SRWTP) in Elk Grove. The SRWTP uses and stores significant amounts of chlorine and sulfur dioxide. Large amount of oxygen and digester gas (methane) are also found in this facility. The sewage pump stations use and store bioxide, sodium hypochlorite and diesel fuel.

(b) SRCSD has personnel trained to respond to chlorine and sulfur dioxide leaks at the SRWTP.

(c) SRCSD has personnel (SRWTP and Interceptors) that are trained and are fully equipped in confined space entry into SRCSD facilities.

After Hours Notification: SRCSD employees are available after hours and may be contacted by calling the SRWTP Plant Control Center at (916) 875-9400 or (916) 875-9406, or through the County Communications Center at (916) 875-6900.

(3) **Wastewater Source Control Section (WSCS)**

(a) Responsible for assessment of pollutant loading to the SRWTP, by providing initial review of requests for the discharge of pollutants other than septage related to emergency incidents.

(b) WSCS staff are on-call to respond to suspect or actual deleterious discharges to the CSD-1 and SRCSD collection systems or the SRWTP. Response actions may include "on-the-spot" sampling, site inspection, and enforcement action.

After Hours Notification: County Communications does not maintain a stand-by list for WSCS, however several managers are available on standy-by and can be contacted via an Emergency Contact List maintained by EMD.

e. **SACRAMENTO COUNTY MUNICIPAL SERVICES AGENCY, DEPARTMENT OF WATER RESOURCES (DWR)**

Primary Responsibilities:

(1) Responsible for the protection, improvement, and guarantee of a safe water supply.

(2) DWR personnel are available to render assistance in ensuring availability of a safe water supply from all DWR owned and operated facilities.

(3) DWR requests notification of all incidents involving hazardous materials which affect or may affect any DWR owned and operated water supply facilities.

After Hours Notification: DWR employees are available after hours and may be contacted by calling the County Communications Center at (916) 875-6900.

g. **SACRAMENTO COUNTY MUNICIPAL SERVICES AGENCY DEPARTMENT OF WATER RESOURCES (DWR) STORMWATER QUALITY SECTION**

Primary Responsibilities:

(1) Stormwater Quality staff is responsible for protecting the County storm water conveyance system and the waters of the state from any discharges that cause, or threaten to cause, a condition of pollution, contamination, or nuisance.

(2) Stormwater Quality staff will conduct investigations and coordinate with appropriate agencies to determine the source and or responsible party in order to conduct administrative enforcement.

(3) Stormwater Quality staff requests notification of all incidents involving hazardous materials which affect or may affect the stormwater conveyance system or waters of the state throughout Sacramento County.

After Hours Notification: DWR employees are available after hours and may be contacted by calling the County Communications Center at (916) 875-6900.

h. **AGRICULTURAL COMMISSIONER (AG. COM.)**

The county Agricultural Commissioner is responsible for enforcement of all state and federal regulations relating to the use of herbicides, insecticides, pesticides, and rodenticides. The county commissioner provides technical advice at the scene and may assist in cleanup as necessary.

Primary Responsibilities:

(1) The Agricultural Commissioner has general responsibility to provide for proper and safe pesticide use while protecting employees that handle pesticides, the public,

and the environment from potential adverse effects due to pesticides.

(2) The Agricultural Commissioner will provide technical assistance on pesticide-related incidents.

(3) The Agricultural Commissioner will assist in identification of unknown substances suspected of being pesticides.

(4) The Agricultural Commissioner will investigate and prosecute cases involving violation of law pertaining to the use of pesticides.

(5) The Agricultural Commissioner has access to the "California Department of Pesticide Regulation" for medical consultants and toxicologists, and to the Pesticide Analysis Laboratory and will provide information on general levels of toxicity, pesticide manufacturer's label reference library, and pesticide computer registration for specific identifications information.

(6) The Agricultural Commissioner shall be notified of a release of a pesticide (i.e. chlorine) in order to conduct an accident investigation into the release.

(7) The Agricultural Commissioner shall implement and follow minimum standard protocols for responding to pesticide drift emergencies. At the time of the revision of this Area Plan, the regulations regarding these standards are in the process of being amended by the Governor's Office of Emergency Services. The protocols will be incorporated into this Area Plan once approved.

After Hours Notification: The County Ag Dept. does not assign personnel to be on-call after business hours, however phone numbers of key Ag Dept. management personnel are available on the emergency contact list updated and maintained by EMD in the event an incident requires Ag support.

i. **SACRAMENTO COUNTY PUBLIC HEALTH**

The Health Officer or designee must be notified by the responding agency of human exposure to any toxic chemical (including pesticides) infectious agent, or radiation resulting from a release of material into the environment. The release may be accidental or may be the result of a deliberate act. Depending on the incident, the role of Public Health may include:

(1) Declaration of a local health emergency by the Health Officer whenever a release of a hazardous material has occurred and when in the Health Officer's judgment such a release constitutes an immediate threat to the public health.

(2) Declaration that it is safe to reoccupy the incident area as part of the recovery operation.

(3) Coordination with law enforcement (FBI and local enforcement) for the investigation of human disease if it appears that biological, chemical, or radioactive agents may have been used for purposes of terrorism or with other criminal intent.

(4) Coordination with the Sacramento Public Health Laboratory for the testing and processing of human and environmental specimens as indicated.

(5) Coordination of Emergency Medical Services that may be required.

(6) Monitoring public health effects as indicated.

The Health Officer has delegated authority to the Director of Environmental Health to carry out Public Health activities that are specific to the field of environmental health, including investigation and remediation of hazardous material and food safety concerns. The Director of Environmental Management (or designee) confers with the Health Officer (or designee) as necessary to assure that their combined efforts address the overall public health priorities defined by the Health Officer.

The Health Officer or designee must be notified of instances of possible bioterrorism. In most cases, hazardous materials incident response specialists will identify such situations when responding to the scene where a suspicious substance has been received and determined by law enforcement to represent a potential threat warranting further investigation. The role of the Health Officer includes:

(1) Development and maintenance of protocols delineating the role of public health in responding to incidents of possible terrorist release of hazardous substances.

(2) Coordination with Environmental Management Incident Response Personnel, law enforcement (generally the Federal Bureau of Investigations as the lead federal investigative agency responding to terrorism), and other

responders on the scene to facilitate laboratory testing of evidence and management of exposed persons.

(3) Provision of Public Health laboratory services using appropriate chain-of-custody procedures and testing protocols, including those established under the Laboratory Response Network of the Centers for Disease Control.

(4) Notification of potentially exposed persons of the laboratory test results to the extent necessary to provide reassurance or recommend protective medical interventions to prevent illness that might result from the exposure.

The Health Officer provides authorization for re-occupancy of facilities or other areas that have been evacuated as the result of an official action of an emergency response or other authorized agency, the Environmental Management Department, or following an order of the Health Officer pursuant to Penal Code section 409.5.

(1) The Environmental Management Department Hazardous Materials Division has delegated authority to authorize re-occupancy on behalf of the Health Officer under circumstances where training and testing capabilities lead to a clear determination of the hazardous substance, correction of the problem that resulted in the evacuation, and determination that the substance no longer constitutes a danger.

(2) Prior to a re-occupancy decision, the Health Officer must be consulted under circumstances in which the potential hazard is not clearly identified and/or when the evacuated site cannot be declared safe for occupancy without further action. In this case, the Environmental Management Department and Health Officer will develop a plan as necessary to (a) perform additional environmental testing, and (b) undertake decontamination measures to render the premises safe. Additional agencies such as the Environmental Protection Agency will be engaged when necessary.

(3) In situations where a business owner or private citizen initiates an evacuation out of concern for a possible hazardous substance that is *not* substantiated by hazardous materials specialists or the Public Health Officer, re-occupancy does not require authorization by the Health Officer. The party responsible for the facility may use discretion in re-occupying the facility and may choose

to engage the assistance of a private industrial hygienist in making that decision.

After Hours Notification: The County Health Officer (or designee) is available on a twenty-four hour basis and may be contacted via pager through the County Communications Office at (916) 875-6900.

j. **SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT (SMAQMD)**

SMAQMD and the regional Air Quality Management District (AQMD) are responsible for the control of air pollution from stationary sources.

Primary Responsibilities:

(1) The SMAQMD is responsible for protecting air quality in the County of Sacramento.

(2) The SMAQMD should be notified of any incident which releases air pollutants into the atmosphere.

(3) The SMAQMD can assist in the investigation of incidents to determine if any federal, state, or local air quality regulations have been violated.

After Hours Notification: Management staff at SMAQMD are available after hours and may be contacted via pager through the County Communications Office (916) 875-6900.

STATE AGENCIES

a. **CALIFORNIA HIGHWAY PATROL (CHP)**

The California Highway Patrol (CHP) functions as the Incident Commander or part of the Unified Command for hazardous materials incidents that occur on all state freeways and state buildings and grounds, even if located within political boundaries of a city.

Primary Responsibilities:

(1) Upon a highway within Sacramento County (excluding incorporated cities) and on all freeways, CHP will serve as Incident Commander and statewide information, assistance, and notification coordinator.

(2) Upon a highway, outside of CHP area of responsibility (upon City streets, etc.), CHP will serve as a statewide information assistance and notification coordinator.

(3) CHP will assume responsibilities as State Agency Coordinator (SAC) at incidents on all highways within the County.

(4) CHP will provide assistance and support as requested at all non-highway incidents.

(5) At an on-terminal (loading, unloading or temporary storage) incident, the CHP Motor Carrier Safety Regulations Unit may seek prosecution for violations. The CHP will not assume responsibility for scene management.

(6) The CHP's functional responsibilities for on-highway hazardous materials incidents within a CHP area of responsibility shall include but not necessarily be limited to:

(a) Overall Incident management as per 2454 CVC, including establishing the On-Scene Command Post, if the scope of the incident indicates a need.

(b) Statewide information, assistance and notification duties.

(c) Notification of agencies in accordance with the "Hazardous Material Incident Notification Diagram" outlined in Appendix B.

(d) Obtaining and relaying technical information.

(e) Coordinating all communications from the scene to all emergency responders.

(f) Identification of hazardous materials from bill of lading, placards, papers, or other sources.

(g) Rescue of the injured, and providing medical care.

(h) Removal of disabled vehicles.

(i) Spectator and short-term traffic control.

(j) Investigation.

(k) Resolving role and authority conflicts when there is a disagreement between two or more emergency responders.

(l) Handle media inquiries. All news releases concerning overall operations shall be made by the Incident Commander of his designated representative. The Incident Commander shall confer with allied agency supervisors regarding news release or inquiries regarding their operations.

(m) Provide for a joint agency incident evaluation and critique as the scope of the incident warrants.

After Hours Notification: CHP officers are available on a twenty-four basis and may be contacted by calling 911.

b. **GOVERNOR'S OFFICE OF EMERGENCY SERVICES (OES)**

The Governor's Office of Emergency Services is responsible for general planning, notification and coordination of State agencies mutual aid response to hazardous material incidents.

Primary Responsibilities:

(1) Updates and maintains that State of California Hazardous Material Incident Contingency Plan, with technical inputs from the State Interagency Advisory Committees.

(2) Provides guidance on the emergency response system within which CHP takes responsibility for incidents on highways within CHP jurisdiction.

(3) Coordinates with CHP to notify or alert the State and Federal agencies regarding an incident.

(4) Provides training assistance in local jurisdictions including preparation and distribution of special notices concerning unusual incidents or response techniques.

(5) Coordinates public information and press releases with local, State and Federal agencies.

(6) Coordinates State Mutual Aid.

Secondary Responsibilities:

(1) In cases where radioactive material is involved, OES when requested by the State Department of Health Services will:

(a) Assist in coordinating State radiological monitoring of areas, personnel and equipment in support of County authority.

(b) Assist in assessing the radiological situation.

(c) Operate the California State Warning Center (located at State OES).

(d) Provide dosimeters and portable radiation detection equipment to State and local agencies which have emergency response assignments.

(e) During major incidents, the OES will furnish such communication facilities as mutually determined by the Department of Health Services, OES representative, and the State Agency Coordinator.

After Hours Notification: OES maintains a twenty-four hour spill notification hotline which receives and notifies the appropriate agencies of all reported hazardous materials incidents. During a hazardous materials emergency, state agencies may be contacted after hours by calling the California State Warning Center at (800) 852-7550.

c. **CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS)**

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining the state highway system. In coordination with other response agencies they ensure proper cleanup and restoration of the highway within its rights-of-way. Caltrans is responsible to determine the degree and type of maintenance required to restore the flow of traffic while protecting the health, safety, convenience, and welfare of the general public.

The cleanup of contamination or repair of damaged property outside the state right-of-was, even if the incident commences from within the rights-of-way, is not legally or financially the responsibility of Caltrans. Within the state highway right-of-way, Caltrans will perform the following:

Primary Responsibilities:

(1) During hazardous materials incidents upon State highways, Caltrans may contain, remove or authorize a private company to contain or remove all materials spilled on the highway under the authority of H&S Code Section 91 and CVC Section 23113.

(2) Caltrans is empowered to direct the method of abatement of the hazardous materials.

(3) Caltrans may close a State highway to all traffic as authorized by H&S Code Section 124. Caltrans will assist CHP in traffic control and routing requirements and provide long-term traffic control as per the Joint Operational Policy State dated July 30, 1971 (Highway Patrol G.O. 100.43m Annex A).

(4) Caltrans will assist and may utilize the services of emergency response contractors to aid in identification and clean-up of any spilled substances that are on state property only. The party responsible for the spill is liable for the removal and/or clean-up of any spilled substance that migrates from state property to private property.

After Hours Notification: Caltrans has twenty-four hour response capability and all necessary equipment for road repair and/or maintenance. Caltrans personnel may be contacted via the Caltrans dispatch operator.

d. **STATE WATER RESOURCES CONTROL BOARD (SWRCB)**

The primary responsibility of the State Water Resources Control Board (SWRCB) is to protect the state's surface, coastal, and ground water resources. This involves a proactive role in providing technical assistance to the Liaison Officer and the State Department of Toxic Substances Control in evaluating the potential impact of hazardous materials spills to water resources.

Primary Responsibilities:

(1) Provide expert advice concerning the potential impact of a hazardous material incident on water resources, including the nature of potential effects and expected timing.

(2) Conduct water sampling, monitoring, analysis and assessment activities to assist in the evaluation or mitigation of the problem.

(3) Designate areas for disposal on contaminated oil or hazardous debris removed during clean-up of a spill.

(4) Advise the State Agency Coordinator of critical water uses in the area that might be affected by the spill so that countermeasures can be implemented.

(5) Assist the Department of Health Service in advising critical water users of the situation.

(6) Utilizing statutory and regulatory authority to effect clean-up impose cease and desist or abatement order; release available funding for appropriate activities, assess fines and press for recovery of costs abatement, mitigation, or contract clean-up.

After Hours Notification: During a hazardous materials emergency, SWRCB may be contacted after hours by calling the California State Warning Center at (800) 852-7550.

e. **CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)**

The Department of Water Resources (DWR) has primary responsibility to protect the operation and water quality of the State Water Project from pollutants. This includes providing water of a quality that can be used for agriculturan, recreational, municipal, and industrial purposes.

Primary Responsibilities:

If the system is, or is likely to be, affected by a hazardous material incident, the DWR will:

(1) Investigate necessary corrective actions to mitigate any incident affecting the project.

(2) Provide access routes to the project and a list of protection priorities to mitigate the spread of any pollutant affecting the project.

f. **CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS (DIR), DIVISION OF OCCUPATIONAL SAFETY & HEALTH)**

Primary Responsibilities**:** The primary responsibility of the Division of Occupational Safety & Health Administration (CalOSHA) is to prevent and regulate occupational exposures and injuries in the workplace.

Secondary Responsibilities: DIR has responsibilities for accidents at industrial sites in which workers are killed or injured and will respond to hazardous material incidents with industrial site origins. The DIR will:

(1) Assist the Incident Commander in evaluating the health hazards of toxic materials at incidents involving industrial sites.

(2) Recommend personnel protective measures for use by response personnel cleaning up an incident.

(3) Provide radiological monitoring and assessment when requested by Radiological Health Services.

After Hours Notification: During a hazardous materials emergency, DIR may be contacted after hours by calling the California State Warning Center at (800) 852-7550.

g. **CALIFORNIA DEPARTMENT OF FISH AND GAME (DFG)**

The California Department of Fish and Game (DFG) has public trust responsibility for the state's fish, wildlife, and their habitat. The mission of DFG is to preserve, protect, and enhance the state's living natural resources and the habitat on which these resources depend.

Primary Responsibilities:

(1) DFG is tasked with enforcement of State law relating to protection of fish and game, their habitat and other natural resources.

(2) DFG shall be notified of any incident which may contaminate any waterway with substances or materials that are deleterious to fish, plant or bird life.

(3) DFG can provide recommendations to minimize injury to wildlife and their habitat from hazardous material incidents and subsequent clean-up efforts.

(4) DFG will supervise and approve clean-up of incidents affecting the fish and wildlife reserves.

(5) DFG will function as State agency coordinator for off-highway hazardous material incidents and oil spills.

(6) In the event of an oil spill into marine waters, DFG will activate the State's Oil Spill Contingency Plan.

After Hours Notification: DFG personnel are available on a twenty-four hour basis and may be contacted through the California Sate Warning Center or by contacting the DFG dispatch operator.

h. **CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION (DPR)**

The Department of Pesticide Regulation (DPR), under Cal/EPA, is the designated state agency responsible for regulating the registration, sale, and use of agricultural chemicals (including pesticides, fertilizers, and livestock drugs) prior to entering the waste stream. DPR has no regulatory responsibility during hazardous materials emergencies. DPR and the County Agricultural Commissioner have the responsibility to investigate any complaint or incident concerning pesticide exposure and may take regulatory and enforcement action.

The Department has legal authority to abate (through cease and desist orders) any situation involving pesticides which pose an immediate hazard to the public or the environment. The department is notified through the Sacramento County Agricultural Commissioner for all incidents involving pesticides or potential contamination of agricultural products.

Primary Responsibilities:

(1) Upon request from the Agricultural Commission, provide technical assistance on pesticide related incidents.

(2) Advise State and local authorities of the agricultural aspects related to contaminated farm lands, feed, farm animals, etc. Develop, with the assistance of the County Agricultural Commission, lists of dairies, stock ranches and farms that may require monitoring or sampling following a release of hazardous materials.

(3) Support actions required to reduce contamination of agricultural animals and products. Included are activities relating to sampling of food and fodder in coordination with the State Department of Health Services.

(4) Assist the Sacramento County Agricultural Commissioner in quarantining contaminated food and fodder.

(5) Provide technical assistance and information to farmers concerning the impact of environmental contamination of farm products.

(6) Monitor environmental contamination of farm properties in support of Department of Health Services and local authority.

After Hours Notification: During a hazardous materials emergency, DPR may be contacted after hours by calling the California State Warning Center at (800) 852-7550.

i. **CALIFORNIA DEPARTMENT OF HEALTH SERVICES, RADIOLOGICAL HEALTH BRANCH (RHB)**

The CDHS Radiological Health Branch (RHB) has statutory responsibility to regulate the use of radioactive materials through licensing and compliance programs. The RHB has responsibility for licensing and control of all radioactive material in California, excluding nuclear power, Department of Defense materials and Federal Department of Energy sponsored activities.

Primary Responsibilities:

(1) Be responsible for monitoring the radioactive environment, personnel and equipment in support of local authority.

(2) Provide for laboratory analysis of air, water, food and fodder samples taken by State and local authority.

(3) Establish and direct measures to mitigate the radiological impact on the public (the Department of Food and Agriculture and the Sacramento County Agricultural Commissioner may assist in the prevention of the consumption of unacceptable contaminated food and fodder).

(4) Establish human exposure criteria and assess the public health impact of radiation levels.

(5) Recommend measures or limit the spread of radioactive contamination.

(6) Direct and assist local Emergency Response personnel in defining and establishing contaminated areas.

(7) Identify laboratories capable of providing radiological support.

(8) Direct and assist in collection of ingestion pathway samples.

(9) Establish procedures and recommendations for use of substances to prevent or reduce the effects of contamination.

(10) Participate in local emergency response training programs.

(11) Request Federal Department of Energy radiological assistance when deemed necessary.

After Hours Notification: During a hazardous materials emergency, state agencies may be contacted after hours by calling the California State Warning Center at (800) 852-7550.

j. **CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC)**

The Department of Toxic Substances Control (DTSC) is the primary lead for the handling, storage, treatment, and disposal of hazardous wastes. In addition, it coordinates emergency funding for off-highway emergency response incidents, clandestine drug lab cleanups (including abandoned hazardous wastes resulting from these labs), and oversees the cleanup of sites contaminated with hazardous substances.

Primary Responsibilities:

(1) Respond to incidents involving facilities or activities, where the division has permitting or enforcement responsibilities to ensure compliance with regulations.

(2) Assess and provide financial support for emergency response and clandestine drug lab, pre-incident needs in the form of equipment, training, and general preparedness.

(3) Evaluate and fund requests for financial assistance for off-highway emergency response incidents and clandestine drug lab clean-ups, if funding criteria are met.

(4) Issue emergency Environmental Protection Agency (EPA) identification numbers for non-responsible party incidents or clandestine drug lab clean-ups where funding has been approved.

(5) Provide or facilitate access to technical advice regarding the safe handling or suitable disposal of toxic materials and alternative funding sources, if appropriate.

After Hours Notification: The Duty Officer for Emergency Response Personnel can be contacted after hours by calling (800) 852-7550

k. **CALIFORNIA AIR RESOURCES BOARD (ARB)**

The Air Resources Board is mandated to protect and enhance the ambient air quality of the state. The ARB fulfills this responsibility through local and regional air pollution control authorities.

The ARB can assist first responders during the release of toxic industrial chemicals or fires that may impact nearby communities. The Board conducts assessments in communities beyond the hot zone to supplement local Hazmat team's efforts near the incident.

Primary Responsibilities:

The ARB has the following capabilities that can be called upon at the request of local governments:

(1) Plume modeling of the event using either direct the application of in house models, or in conjunction with Lawrence Livermore Labs.

(2) Meteorological assessments including deployment of meteorological instrumentation if needed to facilitate plume modeling.

(3) Emissions characterization.

(4) Air monitoring including air toxics using a trailer assets and/or portable detectors.

5) Analytical laboratory capability to analyze air samples.

(6) On-site communications center to coordinate ARB efforts with Incident Command.

After Hours Notification: If assistance is required the Sacramento Air Quality Management Department (SMAQMD) has the ability to contact ARB personnel after hours.

FEDERAL AGENCIES

a. DEPARTMENT OF DEFENSE (DOD)

Primary Responsibilities: The Department of Defense (DOD) will provide assistance in investigations to evaluate the magnitude and severity of discharges or releases on or adjacent to resources under the jurisdiction of DOD. The DOD also documents damage to natural resources under their management authority. DOD will provide a Federal On-Scene Coordinator (FOSC) for releases of hazardous substances, pollutants, or contaminants from DOD facilities and vessels. USEPA or USCG will act as FOSC for oil discharges from DOD facilities or vessels.

Secondary Responsibilities: Assistance from the DOD may be available for very large, slow-developing hazardous material incidents if a State of Emergency has been declared. To the

extent that military capabilities are not compromised, as directed by the Governor, the DOD will:

(1) Assist in the evaluation of the threatened areas.

(2) Provide assistance to civil law enforcement operations, including access control of restricted or evacuated areas.

(3) Assist in caring for people from evacuated areas by:

(a) Providing and operating field kitchens or field operations as available.

(b) Providing shelter and feeding at available Military Department facilities.

(c) Providing assistance to American National Red Cross (ANRC) and local welfare agencies.

(4) Provide medical assistance;

(5) Assist in the clearance of rubble and debris;

(6) Provide assistance in communications;

(7) Provide air and surface transportation of authorized personnel, equipment and supplies. Assist in the distribution of equipment and supplies;

(8) Provide technical advice and resources for handling and disposing of explosives.

After Hours Notification: If the IC determines the need for federal assistance during a hazardous materials emergency, the required agency can be contacted by calling the National Response Center (NRC) at (800) 424-8802.

b. **FEDERAL BUREAU OF INVESTIGATIONS (FBI)**

(1) Assume the lead Federal agency in Crisis Management and assigned with the primary responsibility to respond to terrorism threats or incidents.

(2) Provide assistance with designated and specialized response units in the areas of sampling, detection, and identification of the nuclear, biological, and chemical agents. Certain response units are also equipped with a variety of personal protective equipment (Level A-C) and rescue apparatus.

(3) Provide other specialized units responsible for crime scene documentation and evidence collection in support of the criminal investigations, intelligence collection and analysis, and critical incident response group to conduct tactical and crisis management efforts.

After Hours Notification: If the IC determines the need for federal assistance during a hazardous materials emergency, the required agency can be contacted by calling the National Response Center (NRC) at (800) 424-8802

c. **FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)**

Primary Responsibilities: The Federal Emergency Management Agency (FEMA), under the Department of Homeland Security (DHS) is the federal lead for the management of Presidentially declared disasters and coordinates with other Federal agencies for disaster response and recovery activities. Administer the Federal Disaster Assistance Program. Currently, the Federal Response Plan (FRP) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency.

The FRP includes Emergency Support Function (ESF) #10, Hazardous Materials (Primary Agency USEPA), which provides federal support to state and local governments in response to an actual or potential discharge and/or release of hazardous materials following a major disaster or emergency. As an element of the FRP, SFT #10 may be activated under one of the following conditions:

(1) In response to a disaster for which the President (through FEMA) determines that federal assistance is required to supplement the response efforts of the affected State and local government, under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; or

(2) In anticipation of a major disaster or emergency that is expected to result in a declaration under the Stafford Act.

(3) After a Presidential Declaration of Emergency, FEMA will also:

(a) Coordinate all disaster relief assistance.

(b) Provide technical or advisory assistance.

(c) Remove debris.

(d) Provide temporary housing assistance.

(e) Assist with the distribution of supplies.

(f) Provide general assistance.

(4) Provide hazardous materials and related training through the National Emergency Training Center's resident and non-resident programs, and through its administration of SARA Title III training grant contracts with the state.

After Hours Notification: If the IC determines the need for federal assistance during a hazardous materials emergency, the required agency can be contacted by calling the National Response Center (NRC) at (800) 424-8802.

VOLUNTEER AGENCIES

a. AMERICAN RED CROSS

The American Red Cross provides relief for persons affected by disasters including providing food, clothing, and lodging; supplemental medical and nursing assistance, various family services, and rehabilitation. During disasters, the Red Cross operates independently of, but coordinates with, local government.

The American Red Cross is a humanitarian organization, led by volunteers, that provides relief to victims of disasters and helps people prevent, prepare for, and respond to emergencies. It does this through services that are consistent with its congressional charter and the fundamental principles of the International Red Cross movement. American Red Cross Services Provide:

Primary Responsibilities:

(1) Direct assistance to individuals and families in meeting crises and emergencies.

(a.) Provide shelter and care to citizens forced to evacuate homes.

(b) Provide licensed nurses and mental health workers to meet immediate needs.

(2) Provide on-site feeding to disaster workers engaged in the abatement of the hazardous materials incident.

(3) Instruction to promote health and safety.

(4) An organizational structure through which people can help one another locally, nationally, and internationally.

(5) Provide the services of our Emergency Communications Response Vehicle. This vehicle provides service and data via satellite in the form of 10 IP wireless phones and 6 wireless laptop computers. The vehicle also has an auxiliary AC generator of 8,500 watts and a cooling capacity to run up to 48-hours without refueling. In addition, it has interagency operable capabilities.

After Hours Notification: The local Red Cross office is typically contacted by Fire Dispatch and does have personnel available to respond after hours if required.

CHAPTER 5: TRAINING

(H&SC Title 19 § 2725)

A. TRAINING RESPONSE PERSONNEL TO RESPOND TO A RELEASE OR THREATENED RELEASE OF HAZARDOUS MATERIAL

1. Training Requirements for Local Hazardous Material Response Agencies

According to federal (CFR Title 29, Section 1910.120) and state (CCR Title 8, Section 5192) regulations, there are five levels of "employees who participate, or are expected to participate, in emergency response…" These are minimum levels of training and should be considered the basis for all responders. Training should be based on the hazards that are expected to be encountered, and higher degrees of initial and continuing training are recommended.

Hazardous material emergency response training may be accomplished through various methods including, but not limited to classroom training, field exercises, and incident critiques. Pursuant to standards set by Cal/OSHA (CCR Title 8, Section 5192) employees who are responsible for responding to hazardous material emergency situations that may expose them to hazardous substances must be trained in how to respond to expected emergencies. For further guidance regarding additional training needs and frequency of training, see CCR Title 8, Section 5192. The intent of this Area Plan is to identify the minimum training requirements as set forth in the regulations. Each agency is responsible for documenting and tracking the training of their employees according to internal policies and procedures.

Activities required when responding to incidents can be divided into five broad, interacting elements:

a. Recognition: Identification of the substance involved and the characteristics which determine its degree of hazard.

b. Evaluation: Impact or risk the substances pose to public health and the environment.

c. Control: Methods to eliminate or reduce the impact of the incident.

d. Information: Knowledge acquired concerning the conditions or circumstances particular to an incident.

e. Safety: Protection of responders from harm or risk.

There are five levels of training that must be provided to emergency response staff potentially exposed to hazardous materials.

2. The Five Levels of Training are Identified as Follows:

a. Level 1: First Responder (Awareness Level)

First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the authorities of the release. First responders at the awareness level shall have sufficient training or shall have had sufficient experience to objectively demonstrate competency in the following areas:

(1) An understanding of what hazardous materials are and the risks associated with them in an incident;

(2) An understanding of the potential outcomes associated with an emergency created when hazardous materials are present;

(3) The ability to recognize the presence of hazardous materials in an emergency;

(4) The ability to identify the hazardous materials, if possible;

(5) An understanding of the role of the first responder awareness level individual in the employer's emergency response plan, including site security and control, and the U.S. Department of Transportation's Emergency Response Guidebook; and

(6) The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

b. Level 2: First Responder (Operations Level)

First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas, in

addition to those listed for the awareness level, and the employer shall so certify:

(1) Knowledge of the basic hazard and risk assessment techniques.

(2) Know how to select and use proper PPE provided to the first responder operational level.

(3) An understanding of basic hazardous materials terms.

(4) Know how to perform basic control, containment, and/or confinement operations and rescue injured or contaminated persons within the capabilities of the resources and PPE available with their unit.

(5) Know how to implement basic equipment, victim, and rescue personnel decontamination procedures.

(6) An understanding of the relevant standard operating procedures and termination procedures.

c. Level 3: Hazardous Materials Technicians

Hazardous Materials Technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release to plug, patch, or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least 24 hours of training equal to the first responder operations level and, in addition, have competency in the following areas, and the employer shall so certify:

(1) Knowledge of how to implement the employer's emergency response plan;

(2) Knowledge of the classification, identification, and verification of known and unknown materials by using field survey instruments and equipment;

(3) Ability to function within an assigned role in ICS;

(4) Knowledge of how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician;

(5) Understanding of hazard and risk assessment techniques;

(6) Ability to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit;

(7) Understanding and the ability to implement decontamination procedures;

(8) Understanding of termination procedures; and

(9) An understanding of basic chemical and toxicological terminology and behavior.

d. Level 4: Hazardous Materials Specialist

Hazardous Materials Specialists are individuals who respond with, and provide support to, hazardous materials technicians. Their duties parallel those of the hazardous materials technician. However, their duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with federal, state, local, and other government authorities in regard to site activities. Hazardous Materials Specialists shall have received at least 24 hours of training equal to the Technician level and, in addition, have competency in the following areas, and the employer shall so certify:

(1) Knowledge of how to implement the local emergency response plan;

(2) Understanding of the classification, identification, and verification of known and unknown materials by using advanced survey instruments and equipment;

(3) Knowledge of the State Emergency Plan;

(4) Ability to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist;

(5) Understanding of in-depth hazard and risk techniques;

(6) Ability to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available;

(7) Ability to determine and implement decontamination procedures;

(8) Ability to develop a site safety and control plan; and

(9) Understanding of chemical, radiological, and toxicological terminology and behavior.

e. Level 5: On-Scene Incident Commander

Incident Commanders who will assume control of the incident scene beyond the first responder awareness level will receive at least 24 hours of training equal to the Level 2: first responder (operations level) and, in addition, have competency in the following areas (and the employer will so certify):

(1) Know and be able to implement the employer's ICS;

(2) Know how to implement the employer's emergency response plan;

(3) Knowledge of the state emergency response plan and of the Federal Regional Response Team;

(4) Know how to implement the local emergency response plan;

(5) Know and understand the hazards and risks associated with employees working in chemical protective clothing; and

(6) Know and understand the importance of decontamination procedures.

B. TRAINING DOCUMENTATION

State law (CCR Title 8, Section 5192,) requires documentation for hazardous materials response training. Each agency will be responsible for maintaining the documentation on employee hazardous materials training. Each agency's training officer is responsible for the maintenance and completeness of these training files. A training log should be maintained listing each employees annual refresher due date.

C. JOINT FIELD OR TABLE TOP TRAINING EXERCISES

Region IV LEPC receives Federal Grant money to conduct this training.

The County Emergency Operations Office is responsible for emergency management training and exercise. The County Emergency Operations Office is to be notified of anticipated training and exercises being planned within the county. The Emergency Operations Office will coordinate and involve supporting agencies as needed to support the training or exercise. The Emergency Operations Office will be provided a copy of the "After Action Report" to

document the Exercise. As part of that responsibility, the County Emergency Operations Office participates in the grant distribution for our Operational Area.

CHAPTER 6: PUBLIC SAFETY AND INFORMATION

(Title 19 CCR § 2726)

A. SITE PERIMETER SECURITY AND SAFETY DURING A RELEASE OR THREATENED RELEASE

1. Law Enforcement:

Law enforcement includes CHP, the County Sheriff's Department and Police Departments from the cities of Sacramento, Citrus Heights, Elk Grove, Rancho Cordova, Folsom, and Galt. The authority for the management of the scene of an on-highway spill or disaster is vested in the appropriate law enforcement agency having primary traffic investigative authority on the highway where the spill occurs.

With the exception of the City of Sacramento, the law enforcement agency with jurisdictional authority is typically the IC during a hazardous materials incident, and the local fire department assumes the role of operations manager. The IC has the duties of establishing the Command Post, traffic control, and providing security to the scene and surrounding area. When necessary the IC will be responsible for instructing the PIO to execute the evacuation notification and the re-entry notification. The IC is responsible for coordinating the efforts of the various agencies which may be involved in the incident.

B. INFORMING BUSINESS PERSONNEL AND THE AFFECTED PUBLIC OF SAFETY PROCEDURES TO FOLLOW DURING A RELEASE OR THREATENED RELEASE

1. General:

Informing business personnel and the affected public of safety precautions, and/or evacuation procedures to follow during a release or threatened release of a hazardous material, shall be the responsibility of the Sacramento County Sheriff's Department for unincorporated areas and local police departments within the incorporated cities. At the request of the IC assistance shall be provided from other appropriate local response agencies. The following procedures should be followed to ensure that adequate and accurate information is disseminated to the general public in a timely manner:

a. Unless otherwise stated, the central point for the release of information to the public concerning safety procedures and/or evacuation warnings during a hazardous material incident will be the IC or his/her designated representative at a location well away from the incident.

b. Where it appears that evacuation of the public from a hazardous material incident is imminent, the following should be considered as a minimum:

(1) Persons being asked to evacuate should be told where to go and how to get there.

(2) The public should be told what Emergency Alerting System (EAS) station to listen to.

(3) Local Office of Emergency Services will be responsible for arranging for shelter and necessary conveniences.

(4) A public address system will be used to inform the public and businesses where to evacuate to or instructed to shelter in place.

2. Reception Centers:

Sacramento County and cities have a "Memorandum of Understanding" with all school districts to use public schools as reception centers where the American Red Cross will provide registration and locator services in mass evacuation situations. County Social Services Department will be responsible for arranging other temporary housing and issuance of emergency food stamps when needed. The county fairground, local churches and volunteer private homes are potential housing resources.

3. Responding Agency Responsibilities:

Each agency shall perform those tasks charged to that agency related to the emergency operation and shall confer with the IC for coordination of those tasks. The IC may request assistance from private agencies on an as need basis.

C. DESIGNATION OF RESPONSIBILITY FOR COORDINATING RELEASE OF INFORMATION TO PUBLIC AND THE EMERGENCY ALERTING SERVICE (EAS)

1. Information/Media Relations:

Providing factual and timely information to the media is an extremely important function. To provide inaccurate information or appear disinterested in assisting media representatives at the scene of a hazardous material incident would be counterproductive.

Therefore, it will be necessary to identify a SAFE area for the media to be properly briefed and escorted if necessary to ensure they receive accurate data without jeopardizing the effectiveness of the emergency operations.

2. Responsibilities and Operating Concerns:

The IC will designate a Public Information Officer (PIO) who would become the only source of information to be released to the news media. This person would be responsible for:

a. The activation of the Emergency Alerting Service (EAS), if deemed necessary by IC.

b. Preparing the EAS announcement.

c. Maintaining a current status of all activities involving the hazardous material incident.

d. Insuring that all releases to the media and public are coordinated among all participating agencies.

3. News Media Ingress to Hazardous Material Incident Scenes:

The California Penal Code, Section 409.5(d) permits members of the news media to enter hazardous substance spill incidents.

Once properly identified with a valid press card, the news media shall be advised that entering the scene may be hazardous to their health and safety, and should exercise due caution before entering.

The press shall be immediately advised of the danger and a recommendation made that all personnel remain at a safe distance. Equipment and/or personnel subjected to possible contamination, resulting from encroachment upon contaminated area or other events, will be considered to be contaminated and decontamination measures taken.

D. INFORMING MEDICAL AND HEALTH FACILITIES OF THE NATURE OF THE INCIDENT AND THE SUBSTANCE(S) INVOLVED

1. The IC will be responsible for notifying the medical facility of any exposure or possible exposure to hazardous substance(s). The IC should provide the medical facility with as much information prior to victim(s) arrival at the medical facility.

2. UC Davis is the Disaster Control Facility. The Disaster Control Facility will be responsible on a 24 hour basis for:

a. Coordinating the means of transportation of casualties and medical resources to health care facilities.

b. Coordinating the relocation of patients from damaged or untenable health care facilities.

c. Communicating with regional poison control centers, to obtain toxicological or any other pertinent information they may provide or have access to.

3. Emergency Medical Services (EMS) is responsible on a 24 hour basis for:

a. Coordinating disaster medical care operations within the county.

b. Coordinating the procurement and allocation of critical public and private medical and other resources required to support disaster medical care operations in the affected area.

c. Maintaining liaison with the appropriate American Red Cross Chapter and volunteer services agencies within the jurisdiction.

d. Maintaining liaison with the IC or designated contact for other relevant emergency services such as: communications, fire and rescue, health, law enforcement and traffic control, transportation, welfare, etc.

e. Requests for additional medical transportation resources, if local resources are insufficient, will be made through the EMS Agency.

f. Communicating with other EMS Agencies on matters requiring assistance from their jurisdictions, state or federal governments.

E. EVACUATION PLANS

1. General Procedures:

The decision to evacuate due to a hazardous material incident is determined by the IC with assistance from the Environmental Management Department and/or the County Health Officer and will be based upon the following factors:

a. Type of hazardous material involved

b. Condition of the material

c. Duration and amount of release

d. Condition of containment devices

e. Wind speed, direction and potential changes

f. Weather conditions: temperature, relative humidity, barometric pressure

An evacuation should be implemented if sufficient time exists to complete the evacuation before the hazard reaches any part of

the evacuation area, and if the evacuation would cause a lesser risk to public health and safety than sheltering-in-place. Fire agencies, EMD and the Sacramento Metropolitan Air Quality Management District (SMAQMD) have the ability to determine evacuation distances. Fire agencies may use the evacuation distances referenced in the Department of Transportation's Emergency Response Guidebook. The Emergency Response Guidebook can serve as a guide to first responders (law enforcement, fire, health, transportation) for initial action to be taken at a hazardous material incident; including basic emergency actions and evacuation distances for various materials.

2. Evacuation Responsibilities:

a. Incident Commander (IC)

(1) Takes appropriate actions to see that information on the evacuation is disseminated to all individuals within the area to be evacuated. Law enforcement personnel will not be utilized for evacuation in areas where protective clothing is required.

(2) Identifies area to be evacuated and specifies lines of the perimeter.

(3) Coordinates to initiate the evacuation.

(4) Ensures that evacuation information is continuously disseminated to the Emergency Operations Center (EOC) and other agencies.

(5) Verifies whether the evacuation is emergency or precautionary.

(6) Takes measures to prevent and control against looting in the evacuation area.

b. County Office of Emergency Services

(1) Coordinates shelter locations and evacuation routing and transportation needs as part of the Operational Area Emergency Operations Center activity.

(2) Notifies appropriate individuals on the Disaster Alert Roster.

(3) Notifies the State Office of Emergency Service of the situation and provides appropriate updates.

(4) Provides continuous monitoring of the situation to ensure that activities are proceeding as directed and that agencies involved in the support operation are informed of the status of the evacuation.

(5) Maintaining liaison with the IC or designated contact for emergency services such as communications, fire and rescue.

c. American Red Cross

(1) Opens shelters as requested and provides staffing as determined.

(2) Provides information to the EOC on the status of the shelter and its occupants.

(3) Coordinates the decimation of information to the public with the EOC and the PIO.

(4) Mass Care is the function and process by which Red Cross provides for immediate emergency needs of disaster victims or emergency workers in a disaster-affected area in the most expeditious manner, without identifying specific needs of individuals or families on a case-by-case basis. Mass Care assistance is provided through any necessary combination of three integrated elements – individual or congregate temporary shelters, fixed or mobile feeding operations, and the direct distribution of relief supplies.

(a) Sheltering - Sheltering may include congregate sheltering or the use of commercial facilities, such as motels and hotels, as shelters for individuals or families. Shelters may be open in anticipation of a disaster, during an evacuation, or after a disaster occurs. Shelters are intended as a safe haven from impending disaster and/or short-term emergency housing until disaster victims can return to their homes or locate alternate housing after a disaster. Whether before or after a disaster, shelters will be located in safe areas and provide appropriate services.

(b) Feeding - Feeding operations will provide regular meals in shelters and appropriate food service at additional fixed sites or via mobile distribution for victims in the affected area. Food will meet public health and nutritional requirements, and to the extent possible, match the religious and cultural sensitivities of those being served.

c. School Districts

(1) Coordinates with American Red Cross on the availability of schools to be used as shelters.

(2) Coordinates with the EOC on public information.

3. Shelter Locations and Transportation:

a. Evacuation procedures will be coordinated between the IC or a designated representative, and the County Office of Emergency Services. Together, these representatives will select the most appropriate area for establishing a shelter. The County Office of Emergency Services will coordinate with the American Red Cross and the appropriate schools districts to select the best location within the area which has been identified for sheltering. Upon determination of the shelter location, the Offices of Emergency Services (OES) will coordinate with the IC to establish evacuee pick-up points.

b. Sheltering information including evacuation centers and evacuee pick-up points will be disseminated to the following:

(1) Incident Site

(2) Evacuation Section

(3) News Media via Public Information Officer

(4) Other agencies as appropriate

4. Post Evacuation:

a. Once the evacuation area is determined to be safe, EMD will work with the County Health Officer to advise the IC that it is safe for the evacuees to return. The IC should advise the EOC of the actions to be taken prior to the removal of barricades or collapse of the evacuation perimeter. The EOC will coordinate with the emergency shelters to develop plans for returning the shelter inhabitants to the evacuated area. The PIO is responsible for disseminating post evacuation information to the news media.

b. Depending on the incident, EMD and the County Health Officer will provide post information to evacuees regarding their evacuated areas. This may include information on:

(1) Cleaning procedures for clothing, cooking utensils and furniture

(2) Handling of food substances

(3) Care of pets

(4) Care of plants

(5) Lingering or long term health effects

c. After the incident conclusion, the County Office of Emergency Services will assemble information from the Red Cross, and other agencies participating in the evacuation for the consolidation of appropriate formal records.

5. Sheltering in Place:

a. Sheltering-in-place is a viable alternative to evacuation for incidents involving a short-term, unexpected toxic airborne release, when there is little or no time for notification and evacuation. Sheltering-in-place requires that people stay indoors and make their homes and buildings airtight. This can be done by closing doors, windows and vents and by closing air conditioning and heating systems until the toxic cloud passes. Once the toxic cloud has passed, the concentration of toxic material indoors may be higher than outdoors, due to infiltration. It may then be necessary for the occupants to move outdoors.

b. Considerations:

(1) The decision to shelter-in-place is the IC's responsibility and should be based on the following:

(a) Material released

[1] type

[2] concentration

[3] estimated duration of the release

(b) Location of the release

(c) Toxicological effects

(d) Atmospheric conditions

[1] wind direction

[2] speed

[3] stability

[4] weather

[5] temperature

[6] dispersion patterns

(e) Time of Day

(f) Number of people at risk

(g) Type of population (ambulatory, non-ambulatory)

(h) Location of population

(i) Emergency response and response time

(j) Time necessary to conduct evacuation

(k) Adequacy of the shelters

6. Instructions for the Public:

(a) The effectiveness of sheltering-in-place is dependent on initial public information and periodic informational updates. The public should be instructed to do the following:

(1) Close all internal and external doors and close and lock all windows

(2) Stop drafts: use wet towels in gaps under doors and duct tape around sides/cracks on doors and windows.

(3) Turn off outside ventilation and close vents to the outside.

(4) Turn off all sources of ignition, if it is safe to do so.

(5) Turn off home air-conditioners and switch inlets to closed position. Seal any gaps around air-conditioners windows units with tape, plastic sheeting, paper, or aluminum wrap.

(6) Turn off and cover exhaust fans in kitchens, bathrooms, dryer vents and other spaces.

(7) Turn off clothes dryer.

(8) Close fireplace dampers.

(9) Hold a wet cloth or handkerchief over nose and mouth.

(10) For a higher degree of protection, stay in the bathroom, close the door, and turn on the cold water in the shower using a strong spray to "wash" the air.

(11) If an explosion is possible outdoors, close drapes, curtains, and shades over windows. Stay away from windows to prevent potential injury from flying glass.

(12) Minimize the use of elevators in buildings. Elevators tend to "pump" outdoor air through a building as they travel up and down.

(13) Once the toxic cloud passes and all steps have been taken to ensure that the incident will not recur, the ventilation must be increased by opening windows and doors, turning on ventilation systems and moving occupants outdoors.

(14) Other specifics related to the incident.

6. Re-Occupancy Guidelines:

(a) The Health Officer provides authorization for re-occupancy of facilities or other areas that have been evacuated as the result of an official action of an emergency response or other authorized agency, the Environmental Management Department, or following an order of the Health Officer pursuant to Penal Code section 409.5.

(1) The Environmental Management Department Hazardous Materials Division has delegated authority to authorize re-occupancy on behalf of the Health Officer under circumstances where training and testing capabilities lead to a clear determination of the hazardous substance, correction of the problem that resulted in the evacuation, and determination that the substance no longer constitutes a danger.

(2) Prior to a re-occupancy decision, the Health Officer must be consulted under circumstances in which the potential hazard is not clearly identified and/or when the evacuated site cannot be declared safe for occupancy without further action. In this case, the Environmental Management Department and Health Officer will develop a plan as necessary to (a) perform additional environmental testing, and (b) undertake decontamination measures to render the premises safe. Where necessary, additional agencies, such as the Environmental Protection Agency, will be engaged.

(3) In situations where a business owner or private citizen initiates an evacuation out of concern for a possible hazardous substance that is *not* substantiated by hazardous materials specialists or the Public Health Officer, re-occupancy does not require authorization by the Health Officer. The party responsible for the facility may use discretion in re-occupying the facility and may choose to engage the assistance of a private industrial hygienist in making that decision.

CHAPTER 7: SUPPLIES AND EQUIPMENT

(Title 19 CCR § 2727)

A. EMERGENCY RESPONSE SUPPLIES AND EQUIPMENT SPECIFICALLY DESIGNATED FOR POTENTIAL EMERGENCIES IN THE JURISDICTION

This section contains information on equipment and supplies maintained by Sacramento County's HMRT's. The EMD IR Team is most likely to respond as a technical reference to a level II hazardous material incident and does not typically carry spill response equipment. The fire departments, public works departments and Caltrans have the ability to clean up small petroleum hydrocarbon releases on roadways and on the right of way. These agencies are capable of responding in various degrees and have designated staff to test, maintain and decontaminate equipment on a regular basis.

Agency equipment lists are subject to change as new technology is developed and roles and responsibilities change. A current list of supplies which are available for use during an emergency response may be obtained by contacting the individual agency.

B. TESTING AND MAINTENANCE OF EMERGENCY SUPPLIES AND EQUIPMENT

Fire protection agencies will be responsible for maintaining and testing Self Contained Breathing Apparatus (SCBAs) and structural fire fighting equipment. This equipment will be tested and maintained according to manufacturer's specifications.

All other agencies that maintain equipment and supplies available for response to a hazardous materials incident are responsible for the testing and maintenance of this equipment. Responding agencies must ensure there are adequate emergency supplies on hand at all times.

CHAPTER 8: CRITIQUE AND FOLLOW-UP

(Title 19 CCR § 2728)

A. CRITIQUE

When applicable, interagency incident critiques will be held to provide a means to determine the efficiency of the response efforts and provide methods of improving safety and incident operations. The critique is held to determine:

1. What went wrong?
2. What went right?
3. What was learned?
4. Can we improve our operations in the future?
5. Should the plan be changed?
6. Determine what costs were incurred.
7. Gather reports from all involved.

The critique should not be used to point accusing fingers and to lay blame on any one person or agency.

B. FOLLOW-UP

Based on the outcome of the critique it should be determined what items need to be checked on and who should conduct the follow-up, i.e.:

1. Recovery of agency costs
2. Enforcement actions if necessary
3. Corrections in plans and procedures
4. Agency responsibilities

APPENDIX A

GUIDELINES FOR DECLARING A COUNTY HEALTH EMERGENCY

GUIDELINES FOR DECLARING A COUNTY HEALTH EMERGENCY

AUTHORITY

These guidelines are promulgated pursuant to Section 101075 et seq of the California Health and Safety Code.

CRITERIA FOR DECLARATION OF A Local HEALTH EMERGENCY BY THE HEALTH OFFICER.

The health officer may declare a local health emergency in the jurisdiction or affected area of the County whenever the Health Officer reasonably determines that the release or escape of hazardous waste or medical waste, or waste which may become hazardous waste or medical waste, poses an immediate threat to public health, or if there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, noncommunicable biologic agent, toxin, or radioactive agent.

1. "Hazardous materials" means the materials identified above, including:

    a. systemic poisons, carcinogens, mutagens, teratogens, and biologic toxins;

    b. corrosive substances;

    c. flammable substances;

    d. irritants;

    e. strong sensitizers;

    f. substances which generate pressure through decomposition;

    g. radioactive materials;

    h. infectious substances;

    i. reactive substances.

2. "Hazardous waste" means a waste, or combination of wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may do any of the following:

    a. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness,

    b. Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

3. “Medical waste” means waste which meets both of the following requirements:

   a. The waste is composed of waste which is generated or produced as a result of any of the following actions:

      i. Diagnosis, treatment, or immunization of human beings or animals;

      ii. Research pertaining to the activities specified in (a)(i);

      iii. The production or testing of biologicals;

      iv. The accumulation of properly contained home generated sharps waste that is brought by a patient, a member of the patient’s family, or by a person authorized by the enforcement agency, to a point of consolidation approved by the enforcement agency pursuant to Section 117904 or authorized pursuant to Section 118147 of the Medical Waste Management Act (H&SC 117600-118360);

      v. Removal of a regulated waste, as defined in Section 5193 of Title 8 of the California Code of Regulations, from a trauma scene by a trauma scene waste management practitioner.

   b. The waste is either of the following:

      i. Biohazardous waste; or

      ii. Sharps waste.

4. "Waste," for the purpose of this plan, means either of the following:

   a. Any material for which no use or reuse is intended and which is to be discarded.

   b. Any material which spills, escapes, or is released from any manufacturing, industrial, commercial, or other plant, facility, or process, or which escapes or is released from the transporting or transferring from one place to another, or during the pumping, processing, storing, or packaging, or which enters or may enter an unconfined air space or a surface water course which is not totally contained on the contiguous property of such plant, facility or process, or which enters, or may enter, the groundwater underlying such plant, facility, or process.

Spills, releases, or introduction of any hazardous material identified above do not necessarily call for the declaration of a local health emergency. In order for such a declaration to be made, the following criteria should be met:

(A) If the released hazardous material is hazardous waste or medical waste, the material and the nature of its release must constitute an immediate threat to the public health. Such a threat exists with respect to hazardous waste if any of the following conditions exist:

1. The released material, if of a known composition, is, or may be, present in an uncontrolled environment in concentrations which may meet the above stated definition of a hazardous waste.

2. The released material, if of a known or unknown composition, has produced, or alleged to have produced, symptoms of acute toxicity among persons exposed to it.

3. The released material, if of an unknown composition, is a product or by-product of an industrial process or a reaction of materials known or suspected to contain a hazardous material, and which may be present in an uncontrolled environment in concentrations which could meet the above stated definition of a hazardous waste.

(B) If hazardous material is a contagious, infectious, or communicable disease, chemical agent, non-communicable biologic agent, toxin, or radioactive agent, there must be an imminent and proximate threat of the introduction of such material that poses an immediate threat to public health.

(C) The declaration by the Health Officer of a local health emergency is recommended when it appears to the Health Officer that any of the following may be necessary or advisable to provide an adequate response to the release of hazardous material:

1. Health Officer supervision and control over County environmental health and sanitation programs and personnel as needed to ensure availability of field staff to respond to the emergency. (Authority H&S Code §101310)

2. Enhanced compliance of affected parties in carrying out required actions including disclosure of information regarding the released materials and cooperation regarding testing of the materials.

3. Resources available through mutual aid and other sources of disaster assistance when local resources are considered insufficient to fully respond to the event.

PROCEDURE AND RESPONSIBILITIES FOR IDENTIFYING A POTENTIAL LOCAL HEALTH EMERGENCY INVOLVING A HAZARDOUS MATERIALS RELEASE

(A) Receipt of Initial Report:

1. Telephone reports and electronic reports of hazardous materials releases will be received according to procedures established in this plan.

2. Upon receipt of the telephone report or electronic report, the responsible agency will obtain as much information pertinent to the release as possible.

3. The Director of the Environmental Management Department (EMD) or designee shall be informed, as soon as is reasonably possible after receipt of the initial report that a hazardous materials release has occurred.

(B) Investigation:

1. After receipt of the initial report, the responsible agency representative will respond to the scene of the incident when appropriate and will obtain necessary further information to recommend immediate life-protective measures and to provide pertinent information to the Health Officer regarding the need to declare a local health emergency.

2. The responsible agency representative will provide all available information obtained to the Director of EMD or designee as soon as is reasonably possible.

3. The responsible agency will, if possible, collect samples of the released material for subsequent laboratory analysis.

4. The Director of EMD or designee shall make or cause to be made an investigation, including an on-the-scene investigation when appropriate, for the purpose of obtaining available medically related information and other pertinent information from alleged victims, medical personnel treating victims, owners of the hazardous material involved, or any other person(s) who may have information pertinent to the situation.

(C) Evaluation of Situation:

1. Upon receiving the investigation report, the Director of EMD or designee shall evaluate the emergency situation and, when appropriate, shall consult with the Health Officer or designee to assist the Health Officer in determining whether a local health emergency declaration is advisable.

2. All responding hazardous materials agencies report any hazardous releases to the State OES Warning Center.

PROCEDURES FOR DECLARING A LOCAL HEALTH EMERGENCY

A. Declaration of a Local Health Emergency

1. If the Health Officer determines that declaration of a local health emergency is necessary, he/she shall immediately do so verbally, followed as soon as possible by a written declaration containing the following information:

a. The circumstances leading to the declaration, including the nature of the hazardous material released, if known, and the act or accident causing the release.

b. A precise delineation of the area(s) affected by the release.

c. The occurrence of any injuries or illnesses attributed to the release.

d. The potential risk created by the release, if known.

e. The reasons the declaration is necessary.

f. The anticipated period of time the declaration will remain in effect.

g. The measures necessary to abate the emergency, to the extent known at the time of the declaration.

2. Initiate ratification of the declaration of local health emergency per Section B below on the same day that the declaration is made.

3. The verbal and written declaration shall be immediately issued to the following parties:

a. The person(s) or firm(s) believed to be responsible for the hazardous material.

b. The responsible Public Safety Agency(ies).

c. The County Office of Emergency Services.

d. The Emergency Medical Services Agency.

e. The County Board of Supervisors.

f. The Sacramento County Counsel.

g. The State Health Officer

h. The City Managers/Administrators (as applicable).

i. The news media, if appropriate (Released through IC).

j. Other persons requesting copies, if appropriate.

If terrorism or a crime is believed to be involved, the Health Officer, in cooperation with the investigating law enforcement agency, may restrict notification and disclosure of information to the Board of Supervisors and such other persons and agencies as is appropriate under the circumstances.

4. The Health Officer shall issue progress reports at reasonable intervals to the parties listed in A(3) (b)-(h) and to A(3)(a),(i) and (j) as appropriate. If terrorism or a crime is believed to be involved, the Health Officer, in cooperation with the investigating law enforcement agency, may restrict notification and disclosure of information to the Board of Supervisors and such other persons and agencies as is appropriate under the circumstances.

5. Termination of a Local Health Emergency Lasting Seven (7) Days Or Less

   The local health emergency shall be terminated at the earliest possible date that conditions warrant termination. For a local health emergency lasting seven days or less, the Health Officer shall terminate the local health emergency and shall notify the parties listed above in A(3) (b)-(h), and A(3)(a),(i) and (j) as appropriate, of such termination. The Health Officer shall request removal from the Board of Supervisors' agenda of any pending request for Board ratification per (B) below when the declaration has been terminated by the Health Officer.

(B) Ratification and Review by Board of Supervisors of Local Health Emergencies Extending Beyond Seven (7) Days

1. If, in the opinion of the Health Officer, it is necessary to extend the local health emergency beyond seven (7) days, he/she shall prepare a request to place ratification of the declaration of the local health emergency on the Board of Supervisors' agenda before expiration of 7 days from when the declaration was made.

2. The request for ratification shall contain a complete description of the events constituting the emergency, the nature of the public health hazard, the reasons for the declaration by the Health Officer, the reasons the declaration must be extended, and an estimate of how long the emergency will continue.

3. Copies of the request for ratification shall be distributed to the parties named in A(3) above.

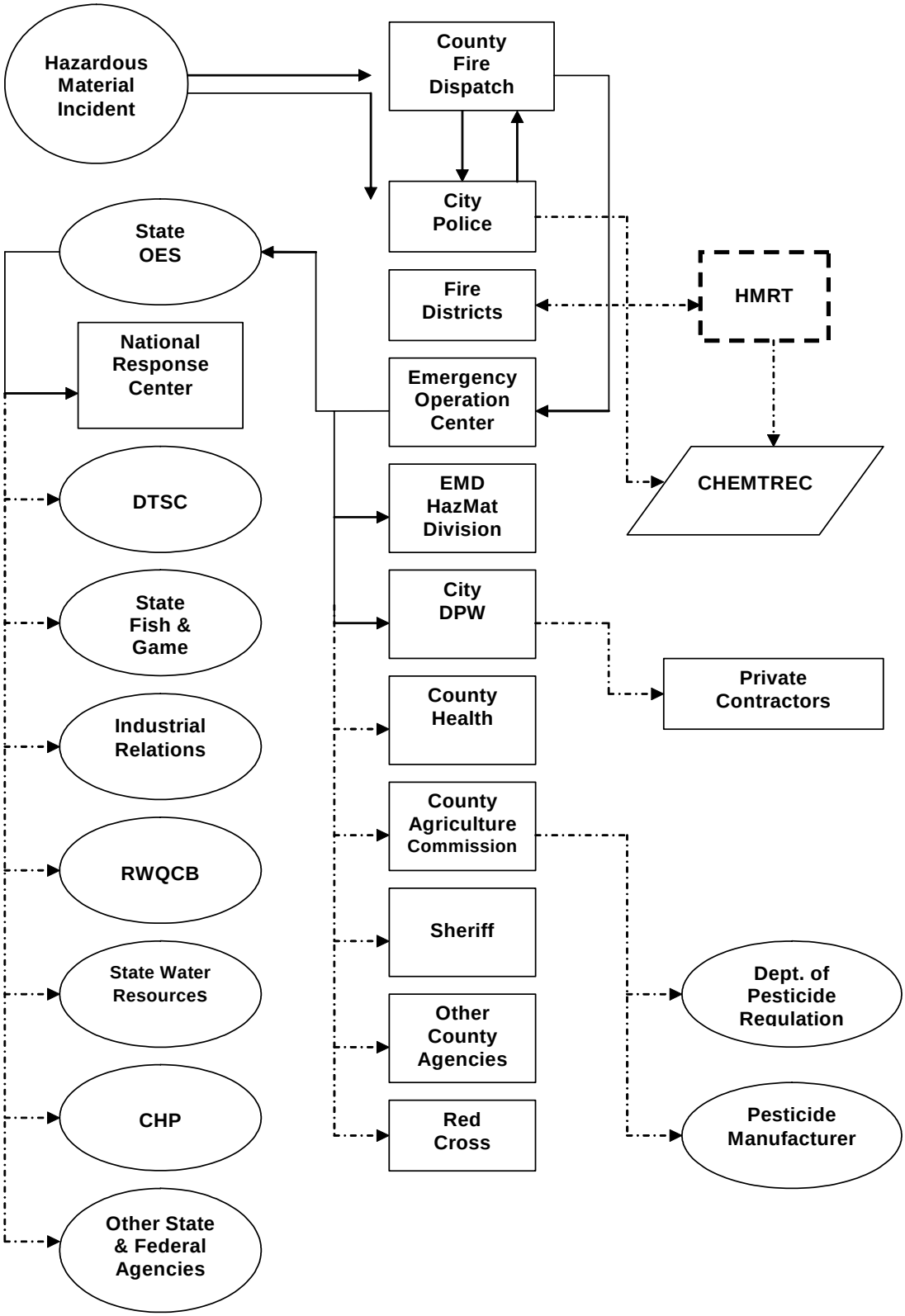
4. Should the declaration be ratified, the Health Officer shall present progress reports to the Board on the state of the emergency not less than every fourteen (14) days for review by the Board of Supervisors, with his/her recommendation as to whether the local health emergency should be continued or terminated. Copies of such progress reports shall be distributed to the parties named in A(3) above.

5. The Board of Supervisors shall proclaim a termination of a local health emergency that has been ratified by the Board at the earliest possible date that conditions warrant termination

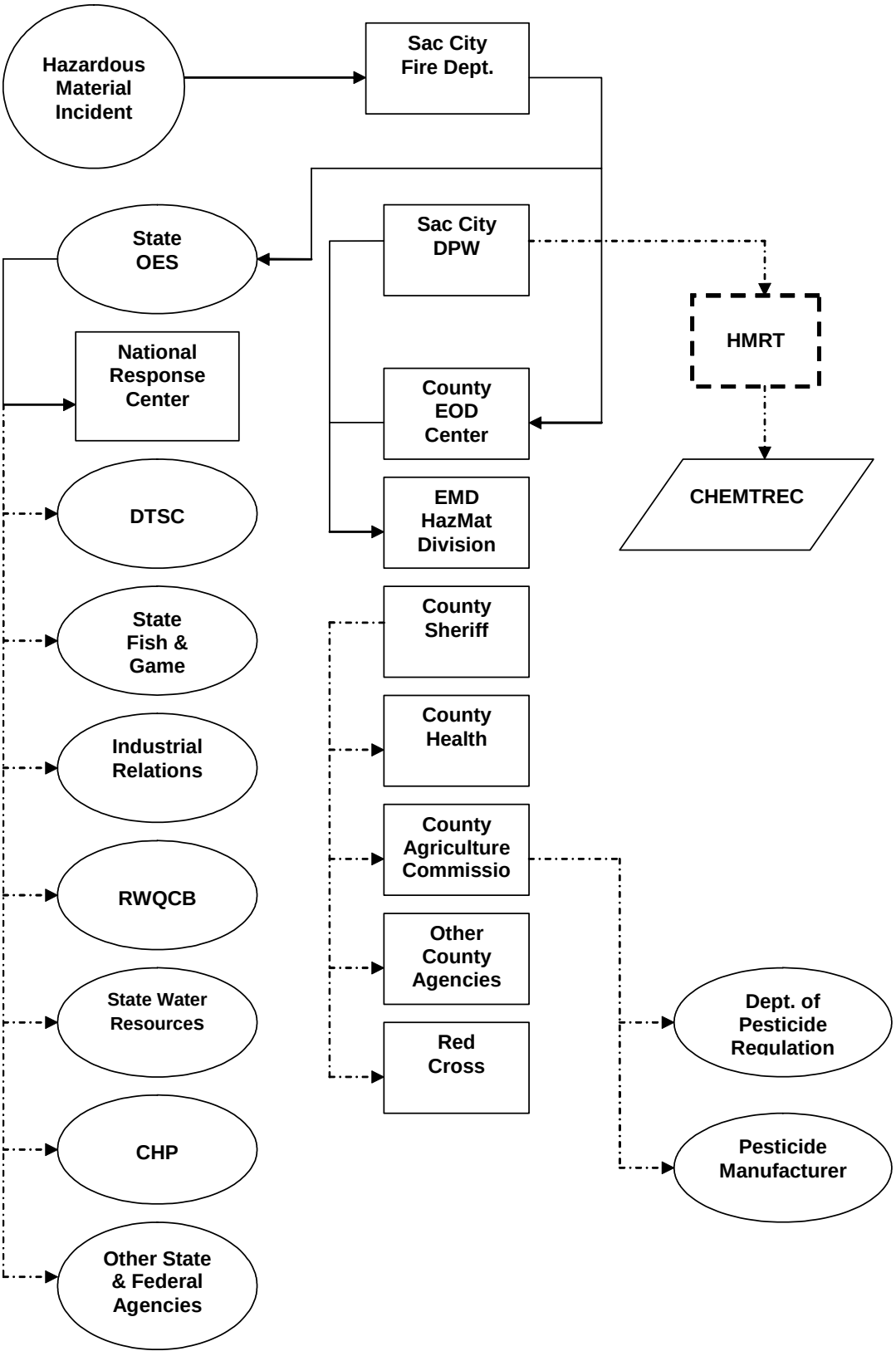
APPENDIX B

EXAMPLE HAZARDOUS MATERIAL INCIDENT NOTIFICATION DIAGRAMS

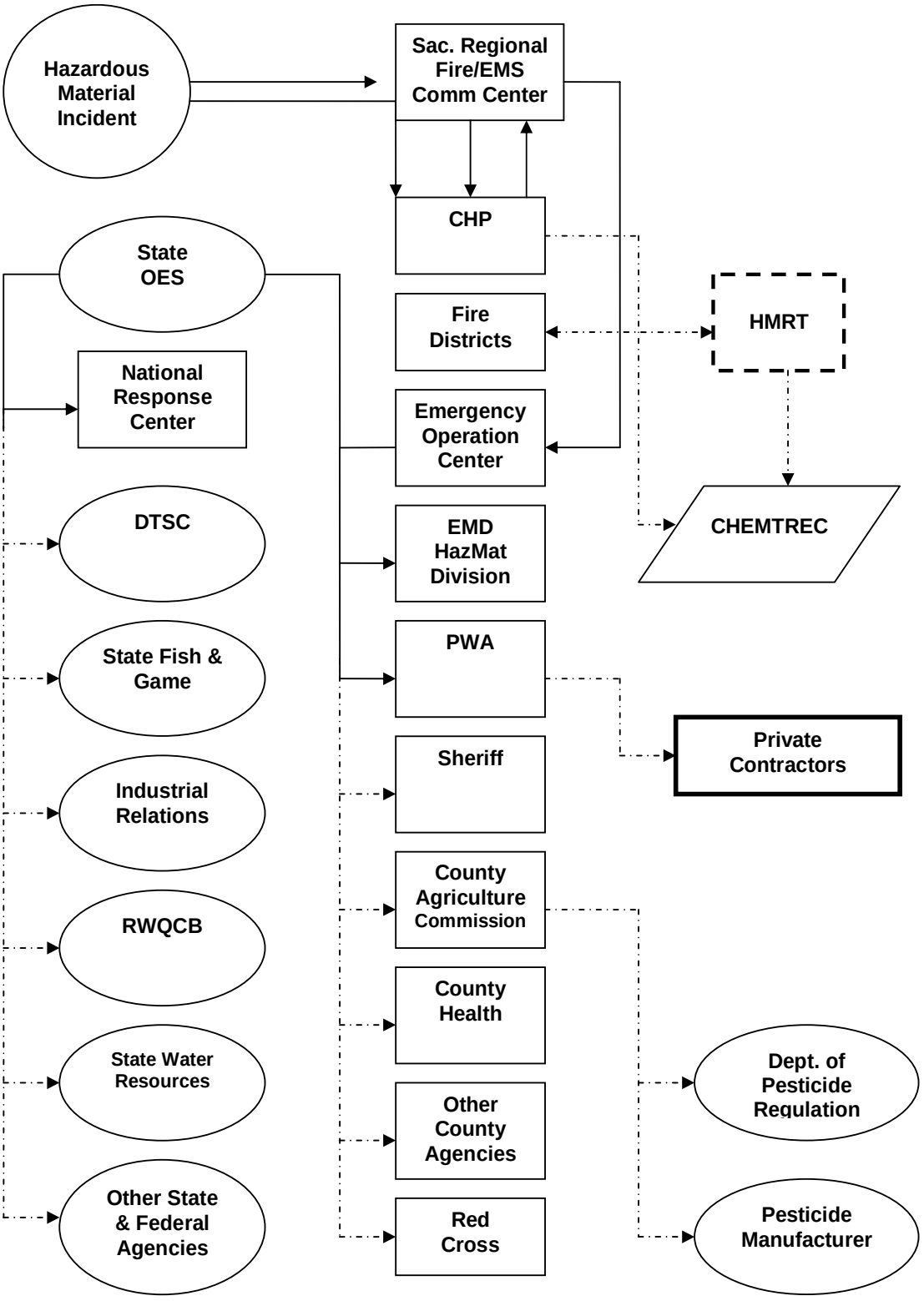
SACRAMENTO COUNTY NOTIFICATION TREE
"CITIES OF FOLSOM, GALT, ISLETON, RANCHO CORDOVA, CITRUS HEIGHTS & ELK GROVE"



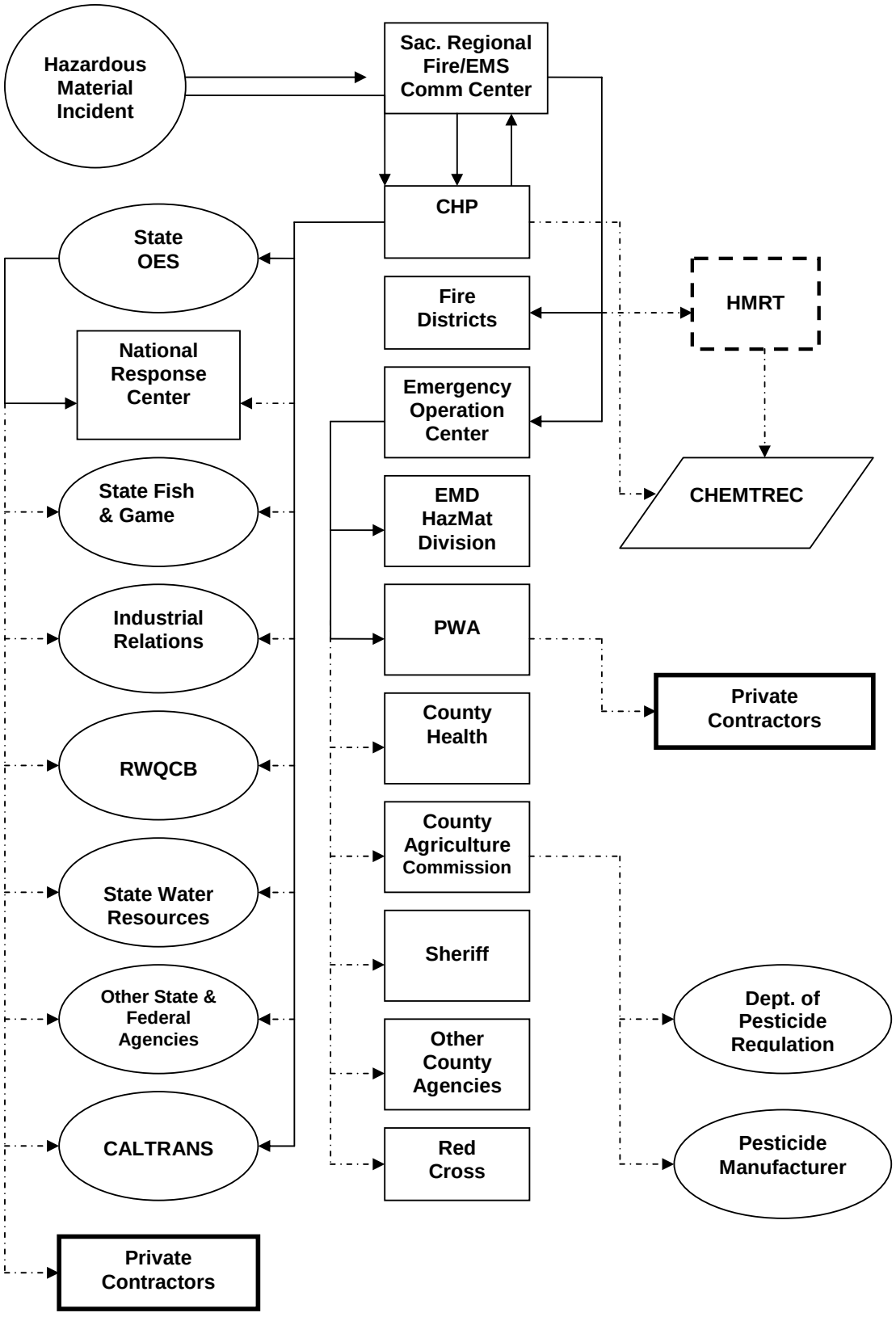
SACRAMENTO CITY NOTIFICATION TREE
(EXCLUDING FREEWAYS)



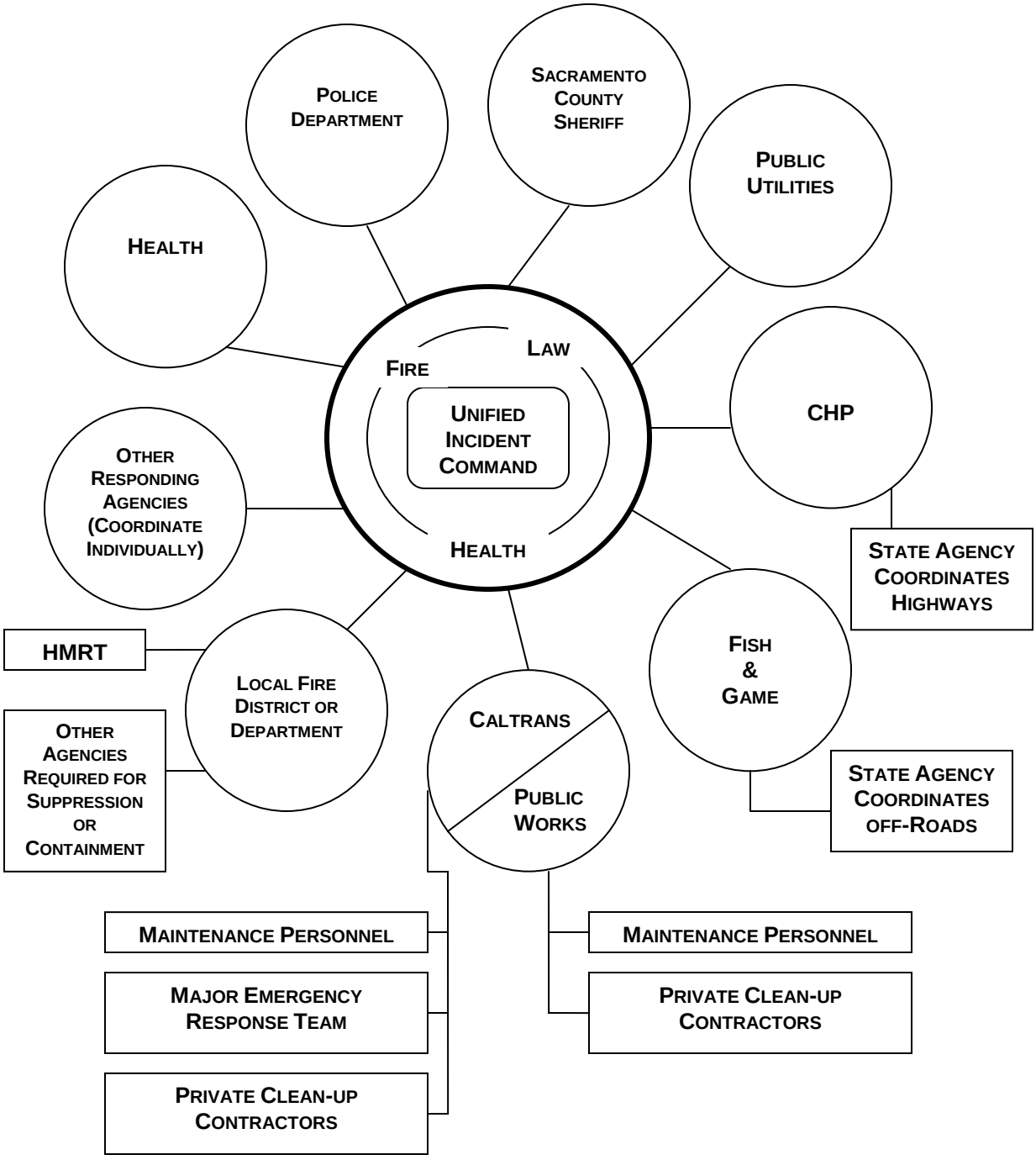
SACRAMENTO COUNTY NOTIFICATION TREE
"ON ROAD UNINCORPORATED AREA"



SACRAMENTO COUNTY NOTIFICATION TREE "ON-HIGHWAY" (INCLUDES FREEWAYS)

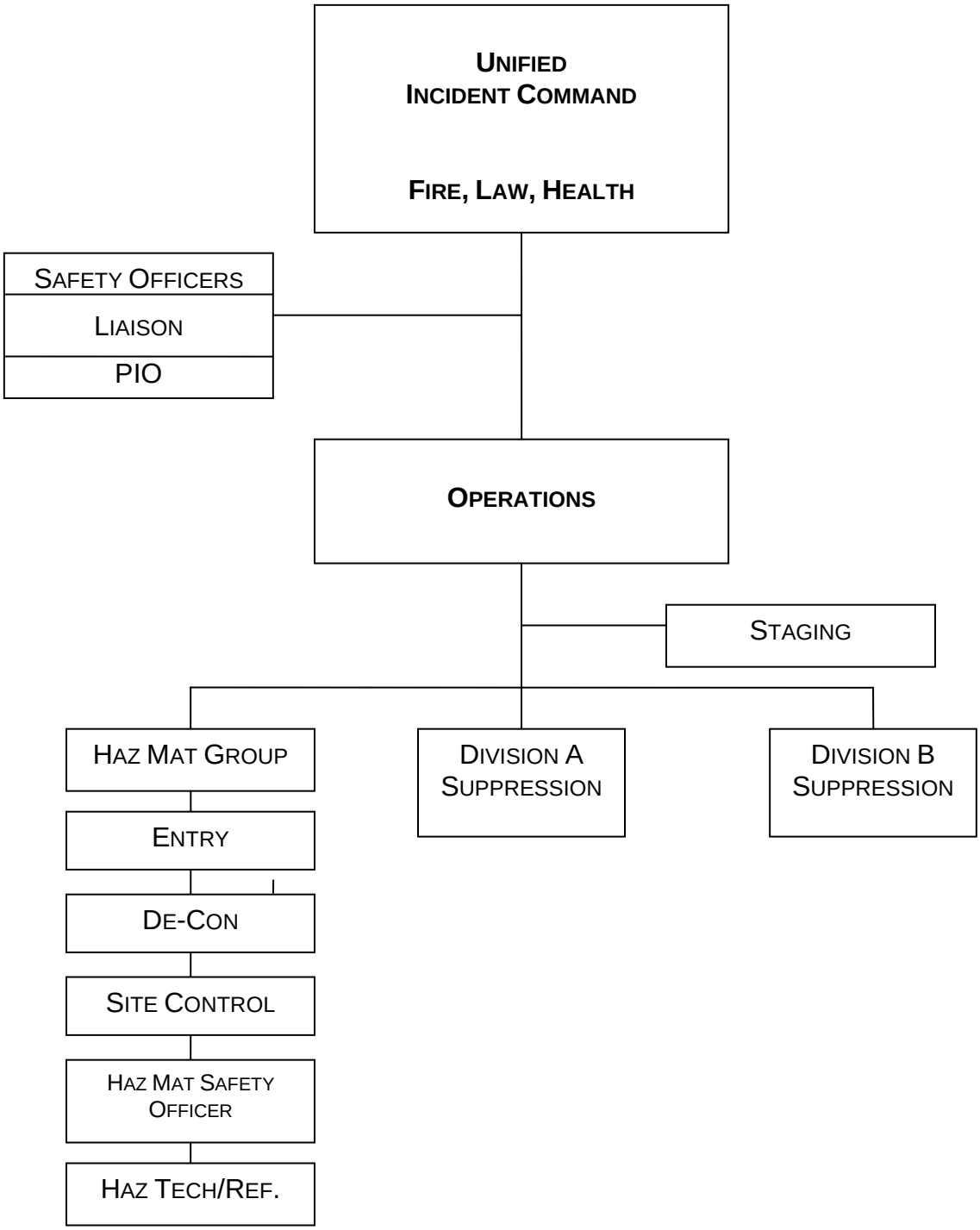


INFORMATION FLOW CHART



This chart is an example of the information flow that may be typical during a Hazardous Materials Incident.

INCIDENT COMMAND OPERATION FLOW CHARTS FOR HAZ MAT LEVELS I, II, III



APPENDIX C

HAZARDOUS MATERIAL INCIDENT RESPONSE EMERGENCY TELEPHONE NUMBERS

HAZARDOUS MATERIAL INCIDENT RESPONSE EMERGENCY TELEPHONE NUMBERS

☎ IMPORTANT TELEPHONE NUMBERS ☎

FOR **IMMEDIATE** NOTIFICATION OF A HAZARDOUS MATERIALS INCIDENT, THE FOLLOWING AGENCIES MUST BE CALLED ACCORDINGLY:

- **Local Government ..... 911** (*or appropriate local number*)
- **State Government (OES Warning Center)..... (800) 852-7550 or (916) 845-8911**
- **On Highway Spills (Call CHP)..... 911** (*or appropriate local number*)
- **Federal Government (National Response Center) ..... (800) 424-8802** or **(202) 426-2675**

LOCAL AGENCIES

(Telephone #'s are Area Code 916 Unless Otherwise Specified)

AGENCY	PHONE #	COMMENTS
SACRAMENTO COUNTY COMMUNICATIONS CENTER	875-6900 – 24-hr	Will contact all county services after hours when needed
FIRE DEPARTMENTS		**ADDRESS**
Sac Metro Fire	228-3035	2101 Hurley Way, Sac, CA 95825
Sac City Fire	433-1300	5770 Freeport Blvd., #200, Sac, CA 95822
Courtland	755-1210	11751 Riverside Ave., Courtland, CA 95615
Delta	(707) 374-2233	350 Main St., Rio Vista, CA 94571
Elk Grove	685-9502	8788 Elk Grove Blvd., Elk Grove, CA 95624
Folsom City Fire	355-7250	48 Natoma St., Folsom, CA 95630
Galt City Fire	(209) 745-1001	208 A St., Galt, CA 95632
Herald Fire District	(209) 748-2322	12746 Ivy Road, Herald, CA 95632
Isleton City Fire	777-7776	P.O. Box 716, Isleton, CA 95641
Walnut Grove Fire District	776-2151	14450 Thorton Rd., Walnut Grove, CA 95690
Wilton Fire	687-6920	9800 Dillard Rd., Wilton, CA 95693
LAW ENFORCEMENT		
CHP	453-2400	861-1299 – 24hr
County Sheriff	874-5111 (emergencies)	874-5115 (non-emergencies)
Elk Grove City Police	875-0501	8380 Laguna Palms Way, EG, CA 95758
Folsom City Police	355-7230	46 Natoma, Folsom, CA 95630
Citrus Heights City Police	727-4790	6237 Fountain Square Dr., CH, CA 95621
Galt City Police	(209) 366-7000	455 Industrial Drive, Galt, CA 95632
Isleton City Police	777-7770	210 Jackson Blvd., Isleton, CA 95641
Sacramento City Police	264-5471	5770 Freeport Blvd., #100, Sac, CA 95822
Rancho Cordova Police	875-9600	10361 Rockingham Dr., Sac, CA 95827

LOCAL AGENCIES (CONT.)

(Telephone #'s are Area Code 916 Unless Otherwise Specified)

AGENCY	PHONE #	COMMENTS
PUBLIC WORKS		*****These incorporated cities have contracted with Sacramento County PW for hazardous material spill response.
Sacramento County (Trans)	875-5171	
Sacramento City	264-5011 (24-HOUR)	
Citrus Heights	725-2448	
Elk Grove	683-7111	
Folsom	355-7272	
Galt	(209) 366-7230	
Rancho Cordova*****	361-8700	
COUNTY AG DEPARTMENT	875-6603	
COUNTY HEALTH DEPARTMENT Health Officer (Dr. Trochet)	875-5881	**FOR AFTER HOURS CALLS CONTACT THE COUNTY COMMUNICATIONS OFFICE** 875-6900
COUNTY ENVIRONMENTAL MANAGEMENT DEPARTMENT	875-8550	
Director	875-8444	
Div. Chief – Haz Mat	875-8469	
Div. Chief – Env. Health	875-8409	
Incident Response Team	423-7911 (24-hour pager)	
COUNTY EMERGENCY OPERATIONS OFFICE	874-4670	
COUNTY WATER QUALITY Sewer - 875-6730	Storm Drain -875-RAIN (875-7246)	
SAC CITY PUBLIC WORK – STORM DRAINS	264-5371	

OTHER TELEPHONE NUMBERS: State Agencies

AGENCY	PHONE NUMBER	AGENCY ROLE
Air Resources Board (ARB)	VIA THE OES WARNING CENTER: (800) 852-7550	Protects and enhances the ambient air quality of the state, through local and regional air pollution authorities.

OTHER TELEPHONE NUMBERS: State Agencies

AGENCY	PHONE NUMBER	AGENCY ROLE
California Coastal Commission (CCC)	(415) 904-5200 **PAGER**: (415) 201-5792	Responsible for planning, permitting and enforcement of development of California's coastline; issues emergency permits to expedite response activities and provides technical advice during an oil/hazardous materials spill.
California Integrated Waste Management Board (CIWMB)	(916) 341-6454	Oversees household hazardous waste (HHW) programs within California; coordinates with counties requesting HHW assistance.
Department of Fish & Game, Office of Spill Prevention & Response (OSPR)	OSPR COMMUNICATION CENTER: (916) 445-0045	Natural Resource Trustee for the state of California; ensures that fish, wildlife and their habitats are protected & any issues are addressed by the IC/UC during response and cleanup phases; ensures that cleanup, remediation and restoration are done appropriately.
Division of Oil, Gas, & Geothermal Resources (DOGGR)	**District #6** (Sacramento)**:** (916) 322-1110	Responsible for preventing damage to life, health, property, and the environment resulting from oil, gas and geothermal drilling, production, or plugging and abandonment operations.
Department of Health Services (DHS)	(916) 323-9869	Ensures the safety and reliability of the public water supplies; ensures the safety of interim/emergency water supplies; interfaces with local governments for safe drinking water, food, and medical.
Department of Toxic Substances Control (DTSC)	(916) 255-6504	Protects human health and the environment; provides local assistance from requests via the Hazardous Waste Account; regulatory authority for emergency removals; coordinates the RAPID Force.
	TOXICS HOTLINE: (800) 258-6942	To report violations of hazardous waste laws.

NOTE: ***STATE AGENCIES can also be accessed via the OES Warning Center at (800) 852-7550***

OTHER TELEPHONE NUMBERS: Federal Agencies

AGENCY	PHONE NUMBER	AGENCY ROLE
U.S. Environmental Protection Agency, Region IX (USEPA)	**GENERAL NUMBER**: (800) 321-7349 or (415) 947-8000	**FOSC** for inland hazardous materials and oil spills; ensures that response actions are taken to control and remove discharges of oil and hazardous materials into the inland zone. Under CERCLA/OPA '90, provides limited, pre-declaration assistance for hazardous materials release assessment and cleanup.
	EPA SPILL PHONE: (415) 947-4400	For spills of oil or hazardous materials.
	SARA TITLE III HOTLINE: (800) 424-9346	For questions on the federal Emergency Planning and Community Right-to-Know Act.
U.S. Coast Guard (USCG)	**MARINE SAFETY OFFICE:** **San Francisco** (510) 683-6470	**FOSC** for marine hazardous materials and oil spills; ensures that response actions are taken to control and remove discharges of oil and hazardous material releases into the coastal zone; access to OPA '90 (oil) and CERCLA (hazardous materials) funding; control of navigable waterways.
Federal Emergency Management Agency, Region IX (FEMA)	**24-HOUR DUTY OFFICER** (510) 627-7250	Administers the Federal Disaster Assistance Program; supports state and local response efforts upon request after declaration of an emergency; provides federal funding for hazardous materials response & cleanup efforts (ESF #10).

NOTE: ***FEDERAL agencies can also be accessed via the National Response Center at (800) 424-8802***

OTHER TELEPHONE NUMBERS

AGENCY	PHONE NUMBER	AGENCY ROLE
Poison Control Centers	(800) 876-4766	Provides: regional hospital capabilities for hazardous materials victims; poison/exposure information to hospital staff, emergency response personnel, and the general public; assist with drug identification for law enforcement agencies.
CHEMTREC	(800) 424-9300	Provides: emergency information for chemical releases & fire control measures; precautionary information; assist with chemical identification if unknown; notification of manufacturer and/or shipper.

☎ IMPORTANT TELEPHONE NUMBERS ☎

for EMERGENCY FUNDING

When accessing emergency funding. The Responsible Party (RP) is liable for the costs associated with the abatement and mitigation of a hazardous material spill. If the RP is unknown, unwilling or unable to provide a safe and adequate response, government may have to ensure the protection of the public health and safety, and the environment by providing abatement and mitigation of the spill. The following telephone numbers are provided to assist responding agencies.

Remember: Use the responsible party and local resources first, before calling on state and federal resources!

State:

IMPACT	AGENCY AND FUND NAME	TELEPHONE NUMBER
Human Health & **Environment**	**Department of Toxic Substances Control** Emergency Reserve Account	(916) 323-3600 or (800) 260-3972 … ask for the DTSC Duty Officer
Illegal Drug Labs	**Department of Toxic Substances Control** Illegal Drug Lab Cleanup Account	(916) 255-6504 or (800) 260-3972 … ask for the DTSC Duty Officer
Fish, Wildlife, and/or H**abitat**	**Department of Fish and Game** Fish and Wildlife Pollution Account	(916) 445-0045 OSPR 24-hour Communication Center
Marine Oil Spill	**Office of Spill Prevention and Response** Oil Spill Response Trust Fund	(916) 445-0045 OSPR 24-hour Communication Center
Surface and Groundwater Spills	**State Water Resources Control Board** Water Pollution Cleanup and Abatement Account	(916) 327-4428

NOTE: ***STATE AGENCIES can also be accessed via the OES Warning Center at (800) 852-7550***

☎ IMPORTANT TELEPHONE NUMBERS ☎
(CONT.)

Federal:

IMPACT	AGENCY AND FUND NAME	TELEPHONE NUMBER
Oil Spill	Oil Spill Liability Trust Fund	Accessed by the FOSC (USEPA or USCG)
Hazardous Materials	Superfund (CERCLA)	Accessed by the FOSC (USEPA or USCG)

NOTE: ***FEDERAL agencies*** ***can be accessed via the National Response Center at (800) 424-8802***

APPENDIX D

EXAMPLE INCIDENT COMMANDER (IC) CHECKLISTS

INCIDENT COMMANDER (IC) CHECKLIST

❒ **ASSUME COMMAND OF SCENE**

❒ **ESTABLISH COMMAND POST**

- ❒ Report Command Post Position
- ❒ Request Mobile Command Vehicle
- ❒ Establish Communications with Dispatch
- ❒ Establish Com w/Sac County Comm. Center

❒ **NOTIFY APPROPRIATE AGENCIES**

- ❒ Fire Service
- ❒ Law Enforcement
- ❒ OES (State/Local)
- ❒ Hazardous Materials Division
- ❒ Public Health
- ❒ Public Works/CalTrans

❒ **ESTABLISH SCENE CONTROL**

- ❒ Cordon Off Area
- ❒ Traffic Control/Rerouting
- ❒ Crowd Control – Establish Limit Lines
- ❒ Appoint Safety Officer

❒ **REQUEST ADDITIONAL SUPPORT**

- ❒ Fire
- ❒ Law Enforcement
- ❒ Medical
- ❒ Other

AGENCIES INVOLVED NOTIFIED ☑	RESPONDING TIME	
	NOTIFIED	ARRIVED
❒ C.H.P		
❒ Sheriff		
❒ Police		
❒ Fire		
❒ C.D.F.		
❒ OES		
❒ Emergency Ops.		
❒ H.M.D.		
❒ CalTrans		
❒ Public Works		
❒ Ag. Comm		
❒ Water Agency		
❒ Public Utility		
❒ Fish & Game		
❒ Coast Guard		
❒ Red Cross		
❒ Water Resources		
❒ Air Resources		
❒ EPA		
❒ National Guard		
❒ Health Services		
❒ Food & Ag.		
❒ Radiological		
Other:		
_____		
_____		

INCIDENT COMMANDER (IC) CHECKLIST (CONT.)

❒ EVACUATION ORDERED

- ❒ Warning/Notification
  - ❒ Law Enforcement
  - ❒ OES (State and/or Local)
- ❒ Shelter
  - ( ) Red Cross
  - ( ) School
  - ( ) Churches
- ❒ Security
- ❒ Transportation/Evacuees
  - ( ) School Districts
  - ( ) Bus Companies
- ❒ Livestock, Pets

❒ PRODUCT IDENTIFICATION

- ❒ HMRT
- ❒ Ag. Commissioner
- ❒ Local Laboratories
- ❒ Shipping Documents
- ❒ Private Contractor

❒ REMOVAL/CLEAN-UP

- ❒ State Highways – CalTrans
- ❒ County Roads – County PW
- ❒ Unincorporated Area – Off Road County PW
- ❒ Incorporated Area – City PW
- ❒ Private Land

❒ TERMINATE ON-SCENE ACTIVITY

- ❒ Release Support Agencies/Notify Dispatch
- ❒ Clean-up Approved by EMD/Hazmat
- ❒ Conduct Final Briefing – News Media

NOTES: _____

_____

_____

_____

_____

_____

_____

APPENDIX E

EXAMPLE CHEMTREC COMMUNICATION FORMS

CHEMTREC COMMUNICATION FORM

Phone: 1-800-424-9300

SUGGESTIONS:

This is an optional reporting form. Complete all appropriate items below before calling Chemtrec. – Starred items (*) are essential.

INFORMATION TO BE PROVIDED

I. Time initial call placed _____

*2. What happened? _____

*3. Where _____

*4. When _____

*5. Chemical(s) involved (if unknown provide items 10 thru 14)

_____

_____

_____

_____

*6. Prevailing weather conditions _____

*7. Nature of surrounding area _____

*8. Who caller is and where located _____

*9. How and where telephone contact can be re-established with caller or another response party at the scene _____

CHEMTREC COMMUNICATION FORM (CONT.)

For more detailed assistance or if chemicals are unknown, provide as much of the following information as possible:

10. Rail car or truck number _____

11. Type and condition of container(s) _____

12. Shipper or manufacturer _____

13. Carrier _____

14. Consignee and destination _____

CHEMTREC SHOULD PROVIDE

Product _____

Common Name(s) _____

Physical Appearance and Form _____

Nature of the product _____

Hazard Information:

Fire Hazard _____

Explosion Hazard _____

Health Hazard _____

Reaction with water _____

Environmental/Pollution Hazards _____

_____

_____

CHEMTREC COMMUNICATION FORM (CONT.)

Immediate Action

Spill or Leak _____ Fire _____

Flash Point _____ Ignition Temperature _____

Specific Gravity _____ Vapor Density _____

Evacuation _____

_____

_____

_____

_____

Water Pollution Control _____

_____

_____

_____

_____

Other Information _____

_____

_____

_____

_____

APPENDIX F

EXAMPLE HAZARDOUS MATERIALS – INCIDENT REPORTS

The forms shown in this Appendix are used by various Sacramento agencies in order to collect and archive information regarding incidents involving hazardous materials. The following are examples of the Sacramento Metropolitan Fire Department's Hazardous Materials Report, EMD's Incident Response Report, and the City of Sacramento's Hazardous Materials Incident Response Report. In some cases, these forms contain confidential details that may not be available to the public in their entirety. Questions regarding the information contained in these reports should be directed to the responsible agency.

Sacramento Metropolitan Fire District
HAZARDOUS MATERIALS
SITE-SAFETY/INCIDENT ACTION PLAN

Date: _____ Time: _____ Incident Number_____

Incident Location: _____ OES Control Number_____

Initial Incident Assessment

Brief Description of incident: _____
_____

Material(s) Involved

Chemical(s) Believed to be involved: _____ Physical State: _____ Est. of Vol. Released: _____

Associated Hazard(s): _____ Type of Container: _____ Amt. Remaining in Container: _____

Incident Command Positions

1. Incident Commander:	2. HAZ-MAT Safety:
3. Operations:	4. Staging:
5. HM Group Supervisor:	6. Technical Reference:
7. Entry Team Leader:	8. Safe Refuge Area Mgr
9. De-Con Team Leader:	10. PIO
11. Site-Access Control Leader:	12. Environmental Management Division
13. Medical Group Supervisor:	14. Law Enforcement

ENTRY PLAN

Entry Team Leader: _____

Entry Team Goal: _____

- All personnel operating within the Exclusion (HOT) Zone shall be in Level____ Personal Protective Equipment with _____ inner and _____ outer gloves.

Communications

- Tactical Channel for Haz-Mat Incident _____
- Tactical Channel for Entry Team _____

Operational Period

Entry Team time "ON AIR" guideline: _____minute SCBA (-) _____ walk in (-)_____ walk out (-)_____ Decon (-) _____ work load (10 heavy, 5 mod,0 light) (-) _____temperature (10 hot, 5 mod, 0 cool) = _____ min

IE: 60 min SCBA – 2 min walk in – 2 min walk out – 5 min Decon – 5 wk load – 10 temp = 31 min "on-air"

Time In: _____ **Time Out: _____**

Entry Team 1: Objective / Assignment

1. _____ _____
2. _____ _____
3. _____ _____

Entry Team 2: Objective / Assignment

1. _____ _____
2. _____ _____

Back-Up Team: Objective / Assignment

1. _____ _____
2. _____ _____

Emergency Operations

Hand Signals may be required to communicate, signals shall be as follows:

- One Hand Waving above head = OK (YES)
- One Hand Waving at waist level = NO (NEGATIVE)
- Two Hands Above Head = NEED HELP!

In the event of an emergency, all personnel operating in the Exclusion Zone shall immediately report to the designated "SAFE REFUGE AREA" which is located: _____

Entry Team Safety

☐ Entry Team Briefed on Effects of Chemical(s) / Action Plan Reviewed

☐ Safety Officer Briefed on Effects of Chemical(s) / Action Plan Reviewed

☐ EMS Personnel Briefed:

- ☐ on effects of chemical(s) / Action Plan Reviewed
- ☐ treatment procedures
- ☐ medical monitoring procedures review procedures sheet

☐ Pre-entry Physicals Conducted (see attached sheet)

☐ Protective Clothing Determined for specific chemical

Protective suit type & # :_____Last tested date:_____

☐ Level of Protection ☐ A ☐ B ☐ C ☐ D

☐ Post-entry Physicals Conducted (see attached sheet)

☐ Post-transport Decon Required for:

☐ Rescuers ☐ Vehicles ☐ Equipment

☐ Receiving Hospital Notified of Decon Requirements and Procedures:

- ☐ Personnel ☐ isolated area required?
- ☐ Equipment ☐ isolated area required?

☐ Suit compatibility researched

☐ Uniform removed & Nomax coveralls on

☐ Visual check of protective suit

- ☐ zippers fully closed
- ☐ No obvious damage to suit
- ☐ Double gloves & overbooties used
- ☐ Glove & overbooties ends taped closed
- ☐ Respirator checked

DECONTAMINATION PLAN

De-Con Team Leader_____

- All Personnel operating within the Contamination Reduction (Warm) Zone shall be in level _____ Personal Protective Equipment with _____ inner and _____ outer gloves.

De-Con Team Members:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

De-Con Method:

1. Absorption
2. Dilution
3. Discard
4. Neutralization

<u>De-Con Corridor:</u>

⇒ Emergency De-Con

⇒ Gross/ 1 Wash/ Rinse

⇒ Gross/ 2 Wash/ Rinse

De-Con Solution: _____



ENTRY / DE-CON TEAM

PRE/POST VITAL SIGNS

NAME	Age/ Weight	Max Heart Rate	Pulse	B/P	Body Oral Temp.	Pulse after 1 min.	Pulse after 3 min.	B/P	Body Oral Temp.

Personnel exhibiting ANY of the following characteristics shall not be allowed to operate within the EXCLUSION (HOT) or CONTAMINATION REDUCTION (WARM) ZONE!

- *Pulse rate in excess of 70% of calculated maximum heart rate, or irregular without history of. Calculated maximum heart rate = 220 minus individuals age.*
- *Resting heart rate greater than 110bpm. (after 3 min rest)*
- *A difference of less than 10bpm between the maximum heart rate and the resting heart rate.*
- *Blood Pressure greater than 150/105 or a 20 or more point deviation from their normal BP*
- *Respirations rate of greater than 24*
- *Oral temperature of greater than 99.5 F or less than 97.0 oral*
- *Loss of greater than 2% pre hydration weight*

PERSONAL PROTECTIVE EQUIPMENT

NAME	SUIT #	BOOT #	GLOVE #	CHEMICAL

Medical Monitoring Leader Checklist

Nature Of Incident:_____

_____

Location:_____

Medical Monitoring Leader :_____

☐ Medical Monitoring Leader Identified

☐ Medical Monitoring Team Personnel / Assignments

1._____ / _____

2._____ / _____

3._____ / _____

4._____ / _____

Command

Haz-Mat Group Supervisor:_____

Safety Officer-Haz-Mat:_____

Operations Sections Chief:_____

Decon Team Leader:_____

Medical Group Supervisor:_____

Command post location:_____

Site Set-up

- ❒ Treatment and Triage Site Set-up (patients)
- ❒ Location (describe area, shoud be close to decon): _____

  _____
- ❒ Medical Evaluation Site Set-up (pre-and pst-entry evaluations)

  Location (describe area, should be close to Haz Mat units): _____

  _____
- ❒ Command, Entry, Safety, and Decon Officers Notified of Location
- ❒ Medical Evaluation and Treatment Supplies and Equipment Available
- ❒ Transport Vehicle Available (one must be an ALS unit)
  - ❒ Unit number_____
  - ❒ Unit number_____
  - ❒ Unit number_____
  - ❒ Unit number_____
  - ❒ Other (helicopter, etc.)_____

    _____
- ❒ Protective Clothing for EMS Personnel Determined
- ❒ Level of protection:
- ❒ Primary Receiving Hospital Defined
  (Check with Haz-Mat Group Supervisor)
- ❒ Receiving Hospital Notified of Decontamination Procedures
  (consult Decon Team Leader for recommendations)

Chemical Information

❒ Name(s) of Chemicals Involved (obtained from research)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

❒ Signs/Symptoms of Exposure and Onset

Chemical(s) name:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

❒ Additional Chemicals Listed in Notes Section

Medical Treatment

❒ Exposure Treatment ❒ Protocol

❒ Physician contacted Who? _____ Time_____

1. _____

2. _____

3. _____

4. _____

❒ Antidotes

1. _____ 3. _____

2. _____ 4. _____

❒ Contraindications

1. _____ 3. _____

2. _____ 4. _____

❒ Facility Contacted for Treatment/Antidote Information

❒ Poison control center

❒ Other: _____

Facility: _____ Phone Number: _____

Contact person:_____

Facility: _____ Phone Number: _____

Contact person:_____

❒ Availability of Drugs / Antidotes Established

Locations: _____

_____

WEATHER

Time:_____ Wind Speed:_____ Wind Direction:_____

Temp:_____ RH:_____ Cloud Cover: Clear - Part - Complete

Inversion: Y – N Ceiling: _____ Open Country or Urban Forest

Identified Chemical(s) Hazard Assessment

Reference: List 3_____

1) Chemical Name: _____ Shipping/Generic Name: _____
DOT Hazard Class: _____ U.N. Number:_____ CAS Number:_____
Type of Container: _____ Product Form: Gas Liquid Solid (circle one)
Est. Amount of Product Released: _____ Container Volume (Potential):_____
Mfg./Shipper: _____ Contact Person: _____ Phone: _____
Boiling Point: _____ Flash Point: _____ Ignition Temp: _____IDLH: _____
Heavier / Lighter ----Than Air Heavier / Lighter ----Than Water
Water Soluble: Yes / No Water Reactive: Yes / No
Field ID: PH_____ Oxidizer: Yes / No Flammability: Yes / No Toxicity: Yes / No

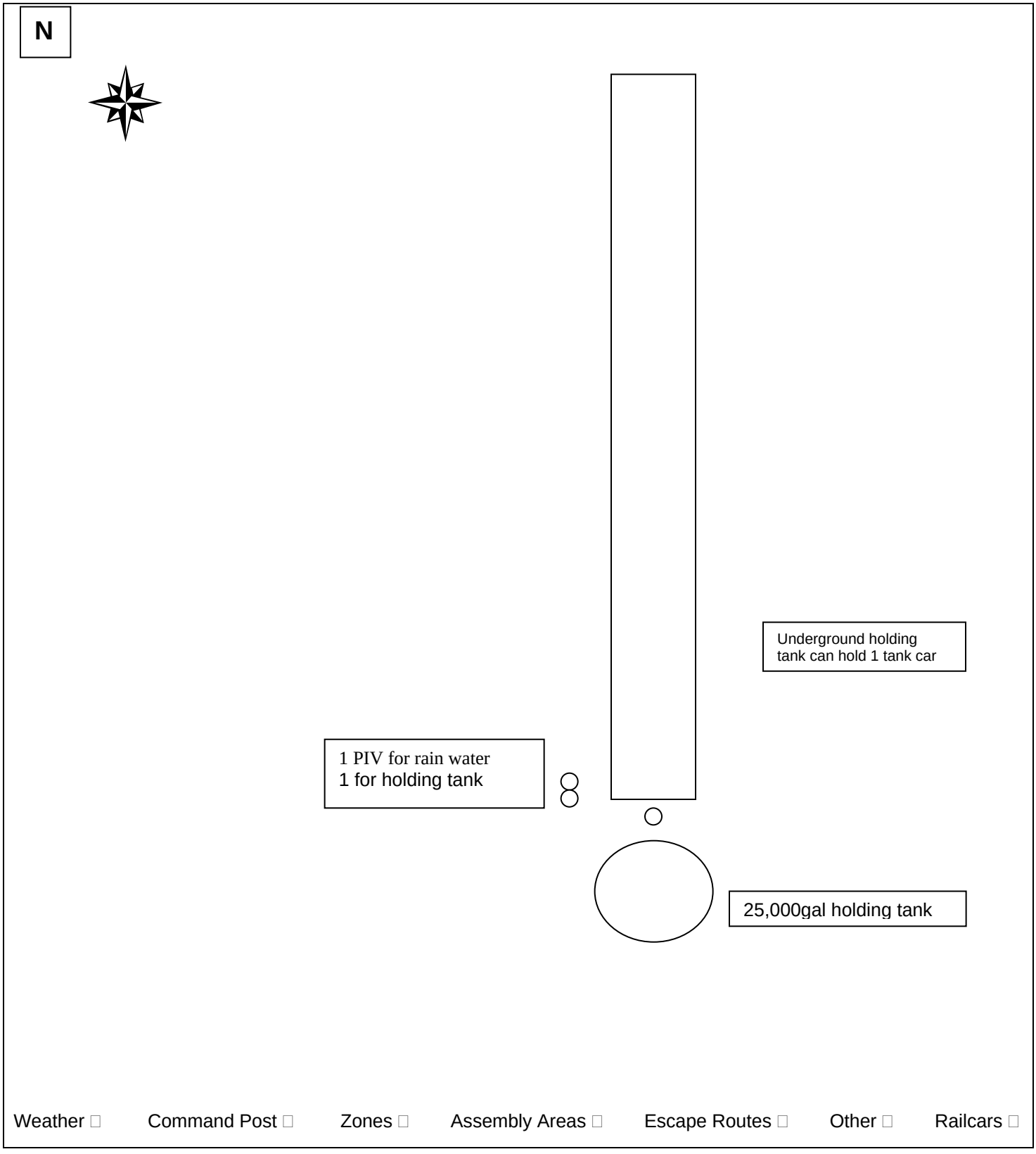
Reference: List 3_____

2) Chemical Name: _____ Shipping/Generic Name: _____
DOT Hazard Class: _____ U.N. Number:_____ CAS Number:_____
Type of Container: _____ Product Form: Gas Liquid Solid (circle one)
Est. Amount of Product Released: _____ Container Volume (Potential):_____
Mfg./Shipper: _____ Contact Person: _____ Phone: _____
Boiling Point: _____ Flash Point: _____ Ignition Temp: _____IDLH: _____
Heavier / Lighter ----Than Air Heavier / Lighter ----Than Water
Water Soluble: Yes / No Water Reactive: Yes / No
Field ID: PH_____ Oxidizer: Yes / No Flammability: Yes / No Toxicity: Yes / No

Reference: List 3_____

3) Chemical Name: _____ Shipping/Generic Name: _____
DOT Hazard Class: _____ U.N. Number:_____ CAS Number:_____
Type of Container: _____ Product Form: Gas Liquid Solid (circle one)
Est. Amount of Product Released: _____ Container Volume (Potential):_____
Mfg./Shipper: _____ Contact Person: _____ Phone: _____
Boiling Point: _____ Flash Point: _____ Ignition Temp: _____IDLH: _____
Heavier / Lighter ----Than Air Heavier / Lighter ----Than Water
Water Soluble: Yes / No Water Reactive: Yes / No
Field ID: PH_____ Oxidizer: Yes / No Flammability: Yes / No Toxicity: Yes / No

SITE MAP U.P.R.R. HAZ-MAT TRACK



SITE MAP



Weather □ Command Post □ Zones □ Assembly Areas □ Escape Routes □ Other □ North □

INCIDENT DE-BRIEF

_____ Chemicals were involved in this incident. Common signs and symptoms _____Any personnel who believe they may have been exposed to or contaminated by a substance involved shall complete a fire department exposure report and notify the Supervisor Immediately.

Incident Termination

The completed Site-Safety Plan, as well as all other supporting documentation completed by those assigned ICS Positions, shall be forwarded to the Incident Commander. The IC will utilize the information for the Incident report, then forward the documentation to the HAZ-MAT BC.

Incident Evaluation

All personnel involved in this incident are encouraged to send an informal summary evaluation of the incident to the HAZMAT Captain via e-mail within one week. Please include "Lessons Learned" both good and bad. This information will be use to compile an "Incident Evaluation".

END OF SHORT SITE SAFETY PLAN

GEOGRAPHIC (SITE) HAZARD INFORMATION

☐ Waterway at Risk

_____

_____

With any significant release, notify Regional Water Quality Control Board @ 255-3000

☐ School or Public Assembly at Risk

_____

_____

for any Haz-Mat within ¼ mile of a school, the School Superintendent must be notified.

☐ Transportation Route at Risk

_____

_____

_____

☐ Private property

Responsible: _____

Authority/Position: _____

Phone: _____

Air Quality Risk (Plume)

_____

Notification of Other Agencies

☐ State Warning Center: (800) 852-7550
Spoke with: _____ Notified @_____hrs ETA: _____

☐ Sacramento County Office of Emergency Services (OES): (916) 874-4670
Spoke with: _____ Notified @_____hrs ETA: _____

☐ Sacramento County Environmental Health Department: (916) 875-8550
Spoke with: _____ Notified @_____hrs ETA: _____

☐ California Department of Fish and Game: (916) 324-9829
Spoke with: _____ Notified @_____hrs ETA: _____

☐ California EPA Toxic Substance Control: (916) 255-3545
Spoke with: _____ Notified @_____hrs ETA: _____

☐ United States Coast Guard National Response Center: (800) 424-8802
Spoke with: _____ Notified @_____hrs ETA: _____

☐ United States Environmental protection agency spill notification: (800) 424-8802
Spoke with: _____ Notified @_____hrs ETA: _____

☐ California Highway Patrol

☐ Placer County Sheriffs Department

☐ City Police Department

☐ CALTRANS

☐ City/County Water Departments

☐ City/County Waste Water Department

☐ _____

☐ _____

MEDICAL PLAN

Medical Group Leader: _____

ALS Ambulance Provider: _____

AMB. Requested @ _____ AMB. Arrived@ _____AMB. Personnel Briefed @_____

AMB Unit/Personnel: _____

Receiving Hospital: _____

Hosp. Pre-Alerted @ _____ Spoke With: _____

Hosp. Notified of Termination of Incident @ _____ Spoke With: _____

Emergency Room Numbers

➢ Sutter Rsvl. Med. Ctr.	(916) 781-1800
➢ Sutter Auburn	(530) 823-5860
➢ Kaiser North	(916) 973-6626
➢ Kaiser Roseville	(916) 784-5380
➢ Sutter General	(916) 733-3003
➢ Mercy San Juan	(916) 537-5121
➢ UCD Medical Center	(916) 734-3790
➢ Poison Control Cntr.	(800) 342-9293

END OF METRO FIRE HAZARDOUS MATERIALS SITE-SAFETY/INCIDENT ACTION PLAN

EXAMPLE OF EMD HAZARDOUS MATERIALS INCIDENT REPORT

COUNTY OF SACRAMENTO • ENVIRONMENTAL MANAGEMENT DEPARTMENT • HAZARDOUS MATERIALS DIVISION
8475 Jackson Road Suite 230 • Sacramento, CA 95826 • Phone (916) 875-8550 • FAX (916) 875-8513

HAZARDOUS MATERIALS INCIDENT REPORT

PE #: REPORT #:

RECEIPT INFO: DATE REC'D: | TIME REC'D: | BY: | ASSIGNED TO: | ☐ DTSC Referral

DATE: DATE OF OCCURRENCE: | TIME ARRIVED: | TIME CLEARED:

TYPE: ☐ Incident/Emergency ☐ Complaint ☐ UST Unauth. Release Report ☐ Prop 65 Report ☐ Stand-by Call

REPORT #:

LOCATION: ADDRESS: | CITY: | ZIP CODE:
BUSINESS NAME (If Applicable): | PHONE #:

REPORTING PARTY: NAME: ☐ Anon/Unknown ☐ Agency:
ADDRESS: | CITY: | ZIP CODE: | PHONE #:

INITIAL INCIDENT REPORT / COMPLAINT: DESCRIBE:

ACTION TAKEN: DESCRIBE:

RESPONSIBLE PARTY / SUSPECT INFO: NAME: ☐ Responsible Party ☐ Suspect ☐ None / Unavailable
ADDRESS: | CITY: | ZIP CODE: | PHONE #:

CHEMICAL: CHEMICAL NAME: ☐ Not Hazardous | AMOUNT: ☐ Gal ☐ Lbs ☐ Ft^3 | PHYSICAL STATE: ☐ Liquid ☐ Solid ☐ Gas ☐ Sludge
HAZARDOUS PROPERTY:
☐ Combustible ☐ Flammable ☐ Toxic ☐ Corrosive ☐ Reactive ☐ Irritant ☐ Radioactive ☐ Explosive ☐ Unk ☐ None

ENVIRONMENT: ENVIRONMENT THREATENED OR AFFECTED:
☐ Storm Drain ☐ Sewer ☐ Residential Property ☐ Creek / River ☐ Business Property ☐ Air ☐ Roadway ☐ Other: ☐ Public Soil

PUBLIC HLTH: IS SUBSTANTIAL INJURY TO PUBLIC HEALTH LIKELY?: ☐ Yes ☐ No | IF YES, NUMBER OF PERSONS AFFECTED:

INCIDENT CAUSE: ☐ Accident ☐ Intentional ☐ Abandonment ☐ Vehicle Accident ☐ Drug Lab ☐ Threatened Release ☐ Other:_____ | ENTERED:

CLEAN UP: ☐ No Further Action/Cleaned Up By:_____ ☐ Pending Clean Up By:_____ | UPDATED:

NOTIFICATION / ON-SCENE RESPONDENTS: ☐ HMRT:_____ ☐ Sheriff/Police/CHP ☐ Fire Dept:_____ ☐ Public Works:_____ ☐ Fish & Game ☐ Code Enforcement ☐ Env. Health ☐ Cal Trans ☐ Other:_____
Outside Agency Report #s:_____ | COMPLAINT NUMBER#

HAZARDOUS MATERIALS SPECIALIST: | DATE: | SUPERVISOR'S INITIALS: | ☐ BILL

WHITE – FILE YELLOW – BINDER PINK – FILE MANAGER 10/20/2003 W:\DATA\FORMSARCHIVE\HMD\IR\2004 INCIDENT REPORT.DOC

City of Sacramento
Hazardous Materials Incident Response Report

Report Prepared By: **Date of Report Preparation:**

Date of Incident:

Time of Incident:

Initial Report of Incident Received From (who, what, where, when, how, phone number):

County Responder Information

Name	Organization	Office Phone No.	Cell Phone No.

City Responder Information

Name	Organization	Office Phone No.	Cell Phone No.

Description of Incident (who, what, where, when, why):
Who:

What:

Where:

When:

Why:

Haz Cat results (from Fire Department or County) (include who did the testing and a hard copy of any results):

Billing Information (name, address and phone number):

City of Sacramento
Hazardous Materials Incident Response Report

Response Action(s) Taken (who, what, where, when):

Reports to Regulatory Agency(ies)(include time, whom you spoke with and what they advised):

Organization	Contact Name and Title	Phone Number	Comments

Follow-up Required (what, by whom and due date):

1.

2.

3.

4.

Chain-of-Custody for Haz Mat Scene

	Printed Name	Signature	Organization or Department	Date	Time
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Notes:

APPENDIX G

PROCEDURES FOR USE OF STATE EMERGENCY RESERVE ACCOUNT

PROCEDURES FOR USE OF STATE EMERGENCY RESERVE ACCOUNT

(A) General

Section 25354, California Health and Safety Code, authorizes the disbursement of funds from the California Environmental Protection Agency (CAL EPA), Department of Toxics Substance Control, (DTSC) Emergency Reserve Account (ERA). CAL EPA may expend funds available in the Reserve Account for the purpose of taking corrective action necessary to remedy or prevent an imminent emergency resulting from a fire or explosion of, or human exposure to, hazardous substances. This includes "midnight dumping" of barrels or discharges of fluids; spill situations without a responsible party or other actions needed to prevent potential emergencies (e.g. fencing, guard service, sampling, or immediate remedial measures for dangerous sites with uncooperative responsible parties). In some instances, emergency response associated with illegal drug laboratory wastes is eligible for funding.

Verification of hazards and utilization of emergency reserve account funds are the joint responsibility of the County Office of Emergency Services and the Environmental Management Department (EMD). EMD works jointly with CAL EPA in overseeing corrective actions and the work of cleanup contractors.

Prior authorization for funding is a must, and no retroactive payments are made by the state.

(B) Criteria for Requesting Funds

Before requesting assistance, local agencies should determine:

1. If the material is a hazardous substance.

2. The quantity released or spilled.

3. The hazard characterization (the substance should be identified to show toxicity, demonstrate a pH of greater than 12.5 or less than 2, be reactive, or flammable).

4. Location of the incident relative to waterways, the public, and sensitive environmental areas.

5. Whether the property is publicly or privately owned (areas under the control of state or federal agencies will not usually be eligible for funding).

6. That potential responsible party or alternative funding is not available.

(C) Special Conditions for Use of State Funds

1. ALL INCIDENTS MUST BE REPORTED TO DTSC IN ADVANCE OF FUNDS BEING OBLIGATED AND THE DTSC DUTY OFFICER IS THE ONLY PERSON THAT CAN AUTHORIZE A CONTRACTOR TO RESPOND.

2. In instances where hazardous wastes have been abandoned on property where the owner is clearly not the perpetrator and the wastes do not have an identifiable owner, state funding may be requested.

3. Funding for drug laboratory waste cleanup will only be approved when such wastes are found abandoned in an area accessible to the public or are associated with a clandestine drug laboratory in an area accessible to the public. Cleanup of materials found associated with planned law enforcement action, including contaminated appurtenances, will not be financed by DTSC if such materials can be secured as evidence or from public access.

4. In emergencies with a responsible party who is willing to be accountable, but the cleanup contractors will not do the work because of questionable credit histories, the responsible party may be backed up by the assurance of ERA funding in the event of failure to pay.

5. Potentially dangerous situations involving uncooperative responsible parties may be stabilized by the state to prevent emergencies.

6. Cleanup of the following materials involved in incidents will not be funded unless special circumstances exist which are determined by DTSC to represent a significant threat to human health (e.g., larger volumes or the presence of PCB's confirmed by laboratory analysis):

   - Waste oil
   - Diesel fuel
   - Fuel tank spills from vehicular accidents
   - Radioactive waste
   - Infectious waste
   - Latex paint
   - Household hazardous materials

7. Properties owned by the Federal Government or by the State of California will not be eligible for funding. The specific agency in control of the property will bear responsibility for the cleanup unless a clear emergency exists which the responsible agency is unable to address in a proper and timely manner. In remote areas or other instances where ownership is uncertain, the ERA may be used if a delay to verify ownership would create an endangerment.

8. Releases on state highways or within state highway right-of-ways will be handled by the California Department of Transportation (CALTRANS).

Reports of such releases should be addressed to OES who will in turn notify CALTRANS.

(D) To Request Funding

Contact the County Office of Emergency Services (through Communications), or the Governor's Office of Emergency Services 24-hour toll free number (800) 852-7550, and request that the Warning Control Officer contact the on-call Duty Officer in the CAL EPA, Department of Toxic Substance Control to seek approval for assistance from the reserve account. The Duty Officer will contact the local agency making the request as soon as he/she is notified.

(E) Reporting Requirements

1. As a condition of receiving funding, requesting agencies must complete an "Emergency Response Incident Report" and the "Cleanup Work log" (see attached). Manifests, contractor's service orders, and photographs must also be submitted.

2. Responsible party information collected during or after the incident investigation has been completed must be submitted to the state.

3. Responsible party information may include the names and addresses of property leaseholders, property owners, assessor parcel numbers, vehicle licenses or identification numbers, names of registered owners and driver's license numbers.

4. Other details that may be available at the scene of an incident and need to be reported include the following:

    - names affiliations of other agency personnel responding to the incident.
    - names/address of witnesses
    - container label information
    - container label information
    - bills of lading
    - other evidence, e.g. cancelled checks, old letters and/or medical prescriptions.

CLEANUP WORK LOG

Parties of Cleanup:	
Contractor:	
Contractor's Representative:	
Time of Contractor Arrival:	Time of Equipment Arrival:
Description of Extent of Contamination:	
Soil:	
Water:	
Air:	
Other:	
Description of Cleanup Procedures Used:	

Equipment Utilized			Labor Utilized		
Description	Time		Job Classification	Time	
	Arrive	Depart		Arrive	Depart

Materials Utilized		Materials Utilized	
Description	Number of Units	Description	Number of Units

(Use additional sheets for the above information **IF** needed.)

Quantity of Hazardous Materials Removed (Identification procedures. Lab results if available):	
Registered Hauler Utilized:	Hauler Number:
Material Transported To:	Manifest Number:
Time and Date Job Was Completed:	
Current Status of Site:	
Reported By:	Agency:

EMERGENCY RESPONSE INCIDENT REPORT

State Duty Officer:	ERER#:
Date of Incident:	Time:
Descriptive Location:	
Address:	Zip:
Description of Incident:	
Substances Released:	

If a Department of Health Services Contractor is not used, complete the information in this box.

Estimated Cost of Cleanup: _____
Contractor Utilized: _____
Justification of Contractor Choice: _____
Justification of Contractor Choice: _____

Quantity:
Characteristics of Released Substance(s):

RESPONSIBLE PARTY		
NAME	**ADDRESS**	**PHONE #**

Description of initial Mitigation Measurer (evacuation, crowd control, substance identification):	
Reported by:	Title:
Agency:	
I certify that this release or spill required immediate corrective action necessary to remedy or prevent an emergency resulting from a fir or an explosion of, or human exposure to hazardous substance.	
	Signature: Agency:

APPENDIX H

RECORD OF REVISIONS AND AREA PLAN DISTRIBUTION LIST

The first Notice of Revision to the Sacramento County 2003 Area Plan was mailed out in February of 2007. Each of the agencies identified on the following table were given copies of the 2003 Area Plan and asked to submit comments and/or suggested changes. The updated Area Plan was completed in September 2007. Sacramento County is mandated by law to revise the Area Plan every three years. Any revisions to the Plan prior to the 2010 review date will be identified in this section.

Any changes, updates or corrections that are required prior to the 2010 review date should be forwarded to:

Heather Tanner
Environmental Specialist III
Sacramento County EMD
8475 Jackson Road, Suite #230
Sacramento, CA 95827
(916) 875-8477
tannerh@saccounty.net

AREA PLAN DISTRIBUTION CONTACT LIST

LOCAL PARTICIPANTS	
Elk Grove Community Svcs. District Fire Dept. Steve Foster, Fire Chief (405-7100) 8820 Elk Grove Blvd., Elk Grove, Ca 95624	**City of Folsom Fire Dept.** Eric Dutton, Fire Chief 48 Natoma St., Folsom, CA 95630
Galt Fire Protection District James Templeton, Fire Chief (209-743-1001) 208 A St., Galt, CA 95632	**Isleton Fire Protection District** George Apple, Fire Chief PO Box 716, Isleton, CA 95641
Sacramento Metro Fire District Don Mette, Fire Chief (566-4000) 2101 Hurley Way, Sacramento, CA 95825	**Wilton Fire Protection District** Tom Dark, Fire Chief (687-6920) 900 Dillard Road, Wilton, CA 95693
Herald Fire Protection District Glen Hendrickson, Fire Chief PO Box 52, Herald, CA 95638	**Courtland Fire Protection District** Stan Eddy, Fire Chief (775-1210) PO Box 163, Courtland, CA 95615
Walnut Grove Fire Protection District Joe Sanchez, Fire Chief PO Box 41, Walnut Grove, CA 95690	**Delta Fire Protection District** Mark Nelson, Fire Chief (374-2233) 350 Main St., Rio Vista, CA 94571
Sac City Haz Mat Coordinators Rick Vasquez, Rodney Tatahishi (264-1958) 3230 J St., Sacramento, Ca 95816	**Sacramento City Fire Department** Forrest Adams, Fire Chief 5770 Freeport Blvd., Suite #200, Sacramento, CA 95822
Sacramento County Operations (OES) Rick Martinez (874-4670) 711 G. St., Room 209A, Sacramento, CA 95814	**County Communications (MC #60-008)** Jim Campbell (875-6900) 3700 Branch Center, Sacramento, CA 95827
County PW – Water Resources Ken Ballard (874-4680) MC #01-301	**County PW – Water Quality (MC 60-008)** Glen Del Sarto (875-6554) 9660 Ecology Lane, Sacramento, CA 95827
County Ag Department Julie Jensen (875-6603) 4137 Branch Center, Sacramento, CA 95827	**Sacramento Metro Air Quality Mngmt District (SMAQMD)** Kevin Leonard 777 12th St., 3rd Floor, Sacramento, Ca 95814
County Health Dept. Dr. Karen Tait 7001-A E. Parkway #600A, Sacramento, CA 95823	

AREA PLAN DISTRIBUTION CONTACT LIST

LAW ENFORCEMENT	PUBLIC WORKS
Sacramento City Police Department (264-5471) 5770 Freeport Blvd., #100, Sacramento, CA 95822	**City Public Works – Risk Management** Laura Fisher (433-2276) 5730 24th St., Bldg #1, Sacramento, CA 95822
City of Elk Grove Police Department Edwin Flint, Chief 9250 Bond Road, Elk Grove, CA 95624	**City of Elk Grove, Public Works** 8401 Laguna Palms Way, Elk Grove, Ca 95758
City of Citrus Heights Police Department Henry Serrano, Chief 6237 Fountain Square Drive, Citrus Heights, CA 95621	**Citrus Heights Operations & Maintenance Dept.** Paul Elwood (727-4770) 6237 Fountain Square Drive, Citrus Heights, CA 95621
City of Folsom Police Department 46 Natoma Street Folsom, CA 95630	**City of Folsom, Haz Mat Division** Darin Ajax (355-8361) 50 Natoma St., Folsom, CA 95630
Sacramento County Sheriff Cpt. Larry Saunders (977-1819) 300 Fulton, Sacramento, CA 95821	**County PW – Transportation** Jeff Welchman (875-5125) MC #71-003
City of Rancho Cordova Police Department 10361 Rockingham Drive Sacramento, CA 95827	
STATE PARTICIPANTS	
California Highway Patrol (CHP) 11336 Trade Center Drive PO Box 640, Rancho Cordova, Ca 95741	**CA Department of Fish & Game** Carol Ozz/Paul Hamilton 1416 9th St., Sacramento, CA 95814
Inland Region HQ, OES Mike Warren 3650 Schriever Ave., Mather, CA 95655	**Cal Trans** Janeen Rich (263-3257) 3940 Rosin Ct., Sacramento, CA 95834
State Water Resources Control Board (SWRCB) Water Quality Stanley Martinson, Chief 1001 I St., PO Box 100, Sacramento, Ca 95814	**Dept. of Water Resources (DWR)** Thomas Hannigan, Director PO Box 942836, Sacramento, Ca 94236
California Air Resources Control Board (CARB) Jim Ryden, Division Chief, Enforcement Division HQ Building, 1001 I Street PO Box 2815, Sacramento, CA 95812	**Department of Industrial Relations (DIR)** Office of the Director 455 Golden Gate Ave., San Francisco, CA 94102
Department of Pesticide Regulations (DPR) Eric Smith (372-6892) 3050 Beacon Blvd., #103, W. Sacramento, CA 95691	**Dept. of Health Services** Emergency Preparedness Office (EPO) Patricia Felton, Asst. Dpty Directory 601 N. 7th St., Sacramento, Ca 95814

AREA PLAN DISTRIBUTION CONTACT LIST

PRIVATE SECTOR	
American Red Cross – Emergency Svcs. Rick Neville, Director ES (368-3146) 8928 Volunteer Lane, Sacramento, CA 95826	**CA National Guard**

APPENDIX I

HAZARDOUS MATERIALS EMERGENCY RESPONSE
GLOSSARY OF STANDARDIZED TERMS AND ACRONYMS

HAZARDOUS MATERIALS EMERGENCY RESPONSE
GLOSSARY OF STANDARDIZED TERMS AND ACRONYMS

ABATEMENT - The actions taken to reduce the amount, degree of the hazard, or intensity of the release or threatened release of a hazardous material.

ABSORBENT MATERIAL - A material designed to pick up and hold liquid hazardous material to prevent contamination spread.

ABSORPTION - 1) The process of absorbing or "picking up" a liquid hazardous material to prevent enlargement of the contaminated area; 2) Movement of a toxicant into the circulatory system by oral, dermal, or inhalation exposure.

ACCEPTABLE RISK - A risk judged to be outweighed by corresponding benefits or one that is of such a degree that it is considered to pose minimal potential for adverse effects.

ACCESS CONTROL POINT - The point of entry and exit that regulates traffic to and from control zones.

ACGIH - See American Conference of Governmental Industrial Hygienists.

ACID - A hydrogen-containing corrosive material that reacts with water to produce hydrogen ions; a proton donor.

ACUTE EFFECT - An adverse action on a human or animal, generally after a single significant exposure, which may be mild or severe. (See Chronic Effect.)

ACUTE EXPOSURE - Exposure that is short in duration.

ACUTE RELEASE - Release of a hazardous material that is short in duration.

ACUTE TOXICITY - Any harmful effect produced by a single short-term exposure that may result in severe biological harm or death.

ADJUVANT - A substance used in pesticide formulation to aid its action. (Also used in the manufacture of drugs.)

ADMINISTERING AGENCY (AA) - The designated unit of a county or city tasked to administer the local implementation of the State and Federal hazardous material emergency planning and community right-to-know programs. Also known as Certified Uniform Program Agencies (CUPAs).

ADSORPTION - Process of adhering to a surface.

AEROSOLS - Liquid droplets, or solid particles dispersed in air, that are of fine enough particle size (0.01 to 100 microns) to remain dispersed for a period of time.

AFTER ACTION REPORT - A post-incident analysis report generated by a responsible party or responding agency after termination of a hazardous material incident describing actions taken, materials involved, impacts, etc.

AGENCY SPECIFIC PLAN - An emergency plan written by and addressing an individual agency's response actions, capabilities and resources.

AIHA - See American Industrial Hygiene Association.

AIRBORNE POLLUTANTS - Contaminants that are carried/released into the atmosphere or air.

AIR MODELING - Mathematical models used to predict movement and concentrations of chemicals in the atmosphere.

AIR MONITORING -To measure, record, and/or detect pollutants in ambient air.

AIR PURIFYING RESPIRATORS (APR) - Personal Protective Equipment; a breathing mask with specific chemical cartridges designed to either filter particulates or absorb contaminants before they enter the worker's breathing zone. They are intended to be used only in atmospheres where the chemical hazards and concentrations are known.

AIR PURIFYING RESPIRATOR - POWERED - An APR with a portable motor to force air through the filtering/purifying cartridges for use only in atmospheres where the chemical hazards and concentrations are known.

AIR QUALITY MANAGEMENT DISTRICT - A local/regional air pollution agency responsible for regulation and monitoring of air quality.

ALKALI - A hydroxide containing (-OH) corrosive material that is soluble in water, neutralizes acids, and is irritating or destructive to tissue.

AMBIENT AIR QUALITY - Quality of the surrounding atmosphere or circulating air.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH) - A professional society of persons responsible for full-time industrial hygiene programs, who are employed by official governmental units. Its primary function is to encourage the interchange of experience among governmental industrial hygienists, and to collect and make available information of value to them. ACGIH promotes standards and techniques in industrial hygiene, and coordinates governmental activities with community agencies.

AMERICAN INDUSTRIAL HYGIENE ASSOCIATION (AIHA) - An organization of professionals trained in the recognition and control of health hazards and the prevention of illness related thereto. It promotes the study and control of environmental factors affecting the health of industrial workers, and provides information and communication services pertaining to industrial hygiene.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) - The Institute serves as a clearinghouse for nationally coordinated voluntary safety, engineering and industrial standards developed by industrial firms, trade associations, technical societies, consumer organizations, and government agencies.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) - The Society establishes voluntary consensus standards for materials, products, systems, and services. Sponsors research projects, develops standard test methods, specifications, and recommended practices now in use.

ANHYDROUS - Free from water, dry.

AREA PLAN - A document established to facilitate emergency response to a release or threatened release of a hazardous material within a city or county. (California Health and Safety Code, Section 25503, Chapter 6.95)

ASBESTOS - A silicate of calcium or magnesium mineral, the friable form occurring in threadlike fibers; noncombustible and a nonconductor of electricity; a known carcinogen.

ASBESTOSIS - A disease of the lungs caused by the inhalation of fine airborne fibers of asbestos.

ASPHYXIANT - A vapor or gas that can cause unconsciousness or death by suffocation (lack of oxygen).

ASSESSMENT - The process of determining the nature and degree of hazard of a hazardous material or hazardous materials incident.

ASSISTING AGENCIES - Any agency that assists the jurisdictional agency at the scene of a hazardous materials incident by providing a service or support not within the immediate responsibility or capability of the agency having jurisdiction. (Sacramento Fire Department HMRT)

ASSOCIATION OF AMERICAN PESTICIDE CONTROL OFFICIALS, INC. - This association consists of officials charged by law with active execution of the laws regulating the sale of economic poisons, and of deputies designated by these officials employed by State, Territorial, dominion, or Federal agencies.

ASSOCIATION OF AMERICAN RAILROADS - A central coordinating and research agency of the American railway industry.

AUTHORITY HAVING JURISDICTION - 1) Provides for the position of Incident Commander at the scene of a hazardous materials incident occurring within their jurisdictional authority boundaries. 2) The organization, office, or individual responsible for approving the equipment, an installation, or a procedure. (NFPA)

BASE (CHEMICAL) - A hydroxide containing (-OH) corrosive material that when in a water solution is bitter, more or less irritating, or caustic to the skin.

BASE (ICS) - The location at which the primary logistics functions are coordinated and administered. The ICS may be collocated with the ICP.

BIOASSAY - Determination of the relative strength and toxicity of a substance (such as a drug) by comparing its effect on a test organism with that of a standard preparation.

BIOACCUMULATION - Absorption and storage of toxic chemicals from the environment in an organism, usually in body fat.

BIOHAZARD - Infectious agents presenting a risk or potential risk to living organisms, either directly through infection or indirectly through disruption of the environment.

BIOHAZARD AREA - Any area in which work has been, or is being performed, with infectious agents or materials.

BIOLOGICAL AGENTS - Biological materials those are capable of causing acute or long-term damage to living organisms. (NFPA 1990, 1-3)

BIOLOGICAL HALF-LIFE - The time required for a living organism to eliminate half of a substance which it takes in.

BIOLOGICAL TREATMENT - A process by which waste is rendered less hazardous, or is reduced in volume, by relying on the action of microorganisms.

BLASTING AGENT - A material designed for blasting which has been tested and found to be so insensitive that there is very little probability of accidental initiation to explosion or of transition from deflagration to detonation.

BOILING LIQUID EXPANDING VAPOR EXPLOSION (BLEVE) - A container failure with a release of energy, often rapidly and violently, which is accompanied by a release of gas to the atmosphere and propulsion of the container or container pieces due to an overpressure rupture.

BOOM - A floating physical barrier serving as a continuous obstruction to the spread of a contaminant.

BOOTIE - A sock like over-boot protector worn to minimize contamination.

BREAKTHROUGH TIME - The elapsed time between initial contact of the hazardous chemical with the outside surface of a barrier, such as protective clothing material, and the time at which the chemical can be detected at the inside surface of the material.

BREATHING ZONE AIR SAMPLE - A sample collected in the breathing area of a worker to assess exposure to airborne contaminants.

BUDDY SYSTEM - A system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. [8 CCR 5192 (a)(3)]

BUFFER ZONE - The area of land that surrounds a hazardous waste facility on which certain usages and activities are restricted to protect the public health and safety, and the environment from existing or potential hazards caused by the migration of hazardous waste.

BUREAU OF ALCOHOL, TOBACCO AND FIREARMS (ATF) - The Federal bureau that enforces and administers firearms and explosive laws, as well as those covering the production, use and distribution of alcohol and tobacco products.

BUSINESS PLAN - A written plan and inventory developed by a business for each facility, site, or branch that provides emergency response guidelines for a release of hazardous materials meeting the requirements of H&SC 25504.

CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM (CalARP) - The California Accidental Release Prevention (CalARP) Program is the federal Accidental Release Prevention (ARP) Program with some state specific requirements. On January 1, 1997, Chapter 6.95, Sections 25531 to 25545.3 HSC repealed statutes for California's former Risk Management and Prevention (RMPP) Program and mandated the new CalARP program.

CALIFORNIA AIR RESOURCES BOARD (ARB) - The State board that enforces and implements California and Federal air pollution control laws.

CALIFORNIA DEPARTMENT OF FISH AND GAME (DFG) - The State department which enforces provisions of the State Fish and Game Code that prohibits pollution of habitats, waters and ocean waters; and acts as the State Liaison Officer at major off highway hazardous materials incidents.

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION (CDF) - A State resources department that protects unincorporated lands from wildfire and responds to public safety emergencies.

CALIFORNIA DEPARTMENT OF HEALTH SERVICES (DHS) - The State department containing the Radiological Health Branch, Office of Drinking Water and Office of Risk Assessment in addition to medical and health services.

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) - The State department responsible for regulation of storage, transport, treatment, and disposal of hazardous waste; and oversight of remediation and long-term clean up of sites contaminated with hazardous substance.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (Caltrans) - The State department responsible for planning, designing, constructing, operating, and maintaining the State's highway system. It will ensure, in cooperation with other public and private agencies, the identification and containment of hazardous materials and restoration of orderly traffic flow. It will contract with cleanup companies to assist with cleanup.

CALIFORNIA DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (Cal/OSHA) - The State division responsible for enforcement of worker safety laws.

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (Cal/EPA) - The State agency consisting of the Departments of Toxic Substances Control and Pesticide Regulation, the Office of Environmental Health Hazard Assessment, the Department of Water Resources and Regional Water Quality Control Boards, the Air Resources Board and the Integrated Waste Management Board. Cal/EPA sets the policy and direction that the member organizations pursue.

CALIFORNIA FIRE MUTUAL AID PLAN - A pre-plan agreement comprised of fire jurisdictions within the State of California to respond and assist in the event of any incident that has been determined to be outside the local fire jurisdiction's capabilities.

CALIFORNIA HAZARDOUS MATERIALS INCIDENT REPORTING SYSTEM (CHMIRS) - A mandatory post-incident reporting system to collect statistical data on hazardous material incidents in California. This data includes a description of the disaster, the location, the time and date, the state and local agencies responding, the actions taken by the agencies, and the agency, which had primary authority for responding to the disaster. (Chapter 6.95 of the Health and Safety Code, Title 19 CCR, and Government Code Section 8574.8 (d))

CALIFORNIA HIGHWAY PATROL (CHP) - The State agency with primary responsibility for traffic supervision and control on all State highways constructed as freeways, all State-owned vehicular crossings, and on most State and county highways and roadways in unincorporated areas of the State. The department enforces hazardous materials transportation laws and acts as Incident Commander, Liaison Officer, and the Statewide information, assistance, and notification coordinator for all hazardous materials incidents within its jurisdiction.

CALIFORNIA LAW ENFORCEMENT MUTUAL AID PLAN - Establishes the State policy for law enforcement mutual aid and outlines the procedures for coordination of alerting, dispatching, and utilization of law enforcement personnel and equipment resources.

CALIFORNIA OFFICE OF EMERGENCY SERVICES (OES) - The State agency responsible for administration of Health and Safety Code Chapter 6.95 and Title 19 CCR, and development of Statewide disaster response plans, and coordination of Statewide mutual aid.

CALIFORNIA SPECIALIZED TRAINING INSTITUTE (CSTI) - The organization within the Governor's Office of Emergency Services with the responsibility to standardize curriculum and certify instructors, students, and classes in the area of hazardous materials emergency response for the public and private sectors.

CALIFORNIA STATE EMERGENCY PLAN - The document established pursuant to Section 8568 of the California Government Code that addresses the State's response to extraordinary emergency situations associated with natural disasters, technological incidents, and war emergency operations.

CALIFORNIA STATE FIRE MARSHAL (SFM) - A division of the Department of Forestry and Fire Protection for the safety of all interstate and intrastate hazardous liquid pipelines in California.

CANADIAN TRANSPORT EMERGENCY CENTER (CANUTEC) - A 24 hour, government sponsored hot line for chemical emergencies (the Canadian version of CHEMTREC.)

CARBOY - A container, usually encased in a protective basket or crate, used to ship hazardous materials, particularly corrosives.

CARCINOGEN - An agent that produces or is suspected of producing cancer. (FEMA HMCP)

CASCADE SYSTEM - Several air cylinders attached in series to fill Self Contained Breathing Apparatus (SCBA) bottles.

CATASTROPHIC INCIDENT - An event that significantly exceeds the resources of a jurisdiction.

CEASE AND DESIST ORDER - Legal direction to stop any and all activities.

CELSIUS (CENTIGRADE) C - The internationally used scale for measuring temperature, in which 100o is the boiling point of water at sea level (1 atmosphere), and 0o is the freezing point.

CENTER FOR DISEASE CONTROL (CDC) - The federally funded research organization tasked with disease control and research.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) - The law that may require Environmental Impact Reports (EIRs) at sites where significant activities occur.

CFR - 1) Crash, Fire, Rescue personnel; trained in aircraft fire fighting and rescue; 2) Code of Federal Regulations; enforced by federal and state agencies and contains roles for the function of federal government.

CGA - See Compressed Gas Association.

CHEMICAL ABSTRACTS SERVICE (CAS) NUMBER - A numbering system assigned by the American Chemical Society often used by local and State hazardous materials compliance legislation for tracking chemicals in the workplace and in the community.

CHEMICAL HAZARDS RESPONSE INFORMATION SYSTEM/HAZARD ASSESSMENT COMPUTER SYSTEM (CHRIS/HACS) - Developed by the Coast Guard, HACS is a computerized model of the CHRIS manuals (containing chemical-specific data), and is used by Federal on-scene coordinators during a chemical spill/response.

CHEMICAL MANUFACTURERS ASSOCIATION (CMA) - The parent organization that operates CHEMTREC.

CHEMICAL PROTECTIVE CLOTHING MATERIAL - Any material or combination of materials used in an item of clothing for the purpose of isolating parts of the wearer's body from contact with a hazardous chemical. (NFPA 1991,1-3)

CHEMICAL PROTECTIVE SUIT - Single or multi-piece garment constructed of chemical protective clothing materials designed and configured to protect the wearer's torso, head, arms, legs, hands, and feet. (NFPA 1991, 1-3)

CHEMICAL RESISTANCE - The ability to resist chemical attack. The attack is dependent on the method of test and its severity is measured by determining the changes in physical properties. Time, temperature, stress, and reagent may all be factors that affect the chemical resistance of a material.

CHEMICAL RESISTANT MATERIALS - Materials that are specifically designed to inhibit or resist the passage of chemicals into and through the material by the processes of penetration, permeation or degradation.

CHEMICAL TRANSPORTATION EMERGENCY CENTER (CHEMTREC) - The Chemical Transportation Center, operated by the Chemical Manufacturers Association (CMA), can provide information and technical assistance to emergency responders. [Phone number (800) 424-9300]

CHEMNET - A mutual aid network of chemical shippers and contractors. It is activated when a member shipper cannot respond promptly to an incident involving chemicals. (Contact is made through CHEMTREC.)

CHLOREP - The chlorine emergency plan, established by the Chlorine Institute, enables the nearest producer of chlorine to respond to an incident involving chlorine. (Contact is made through CHEMTREC.)

CHLORINE KITS - Standardized kits commercially manufactured by contract with the Chlorine Institute to provide equipment to control or stop leaks in chlorine cylinders, tanks, and transportation tank cars.

CHRONIC EFFECT - Delayed or slowly developing harm resulting from a chemical exposure, which is often hard to recognize.

CLANDESTINE LABORATORY - An operation consisting of a sufficient combination of apparatus and chemicals that either have been or could be used in the illegal manufacture/synthesis of controlled substances.

CLEAN AIR ACT - A set of national standards for ambient air quality that defines the principal types and levels of pollution that should not be exceeded. This law requires States to develop "State implementation plans" for achieving the ambient air standards in each air quality control region in the State.

CLEANUP - Incident scene activities directed toward removing hazardous materials, contamination, debris, damaged containers, tools, dirt, water, and road surfaces in accordance with proper and legal standards, and returning the site to as near a normal state as existed prior to the incident. (Sacramento Fire Department HMRT)

CLEANUP COMPANY (HAZARDOUS WASTE) - A commercial business entity available for hire to specifically remove, transport, and/or dispose of hazardous wastes; and when appropriate, must meet California Highway Patrol and Department of Toxic Substances Control requirements.

CLEANUP OPERATION - An operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment. (8 CCR 5192(a)(3))

CLEAN WATER ACT (CWA) - Federal legislation to protect the nation's water and set State water quality standards for interstate navigable waters as the basis for pollution control and enforcement. The main objective is to restore and maintain the chemical, physical and biological integrity of the Nation's waters.

COLD ZONE - The area outside of the warm zone. Equipment and personnel are not expected to become contaminated in this area. This is the area where resources are assembled to support the hazardous materials operation.

COLORIMETRIC TUBES - Glass tubes containing a chemically treated substrate that reacts with specific airborne chemicals to produce a distinctive color. The tubes are calibrated to indicate approximate concentrations in air.

COMBINED LIQUID WASTE SAMPLER (COLIWASSA) - A tool designed to provide stratified sampling of a liquid container.

COMBUSTIBILITY - The ability of a substance to undergo rapid chemical combination with oxygen, with the evolution of heat.

COMBUSTIBLE LIQUID - Liquids with a flashpoint above 100o F. (49 CFR 173.120 (b)(2).)

COMBUSTION PRODUCT - By-products produced or generated during the burning or oxidation of a fuel.

COMMAND - The act of directing, ordering, and/or controlling resources by virtue of explicit legal, agency, or delegated authority. (NIIMS)

COMMAND POST - The location from which the primary command functions are executed, usually co-located with the incident base.

COMMUNITY AWARENESS AND EMERGENCY RESPONSE (CAER) - A program developed by the Chemical Manufacturers Association (CMA) to provide guidance for chemical plant managers to assist them in taking the initiative in cooperating with local communities developing integrated hazardous materials response plans.

COMMUNITY RIGHT-TO-KNOW - Legislation requiring business establishments to provide chemical inventory information to local agencies or the public.

COMPANY (FIRE USAGE) - Any piece of fire response equipment having a full complement of personnel. (NIIMS)

COMPATIBILITY - The matching of protective chemical clothing to the hazardous material involved to provide the best protection for the worker.

COMPATIBILITY CHARTS - Permeation and penetration data supplied by manufacturers of chemical protective clothing to indicate chemical resistance and breakthrough time of various garment materials as tested against a battery of chemicals. This test data should be in accordance with ASTM and NFPA standards.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) - Known as CERCLA or SUPERFUND, it addresses hazardous substance releases into the environment and the cleanup of inactive hazardous waste sites. It also requires those who release hazardous substances, as defined by the Environmental Protection Agency (EPA), above certain levels (known as "reportable quantities") to notify the National Response Center.

COMPRESSED GAS - Any material or mixture having an absolute pressure exceeding 40 p.s.i. in the container at 70^{o} F or, regardless of the pressure at 70^{o} F, having an absolute pressure exceeding 104 p.s.i. at 130^{o} F; or any liquid flammable material having a vapor pressure exceeding 40 p.s.i. absolute at 100^{o} F as determined by testing. Also includes cryogenic or "refrigerated liquids" (DOT) with boiling points lower than -130^{o} F at 1 atmosphere.

COMPRESSED GAS ASSOCIATION (CGA) - An association of firms producing and distributing compressed, liquefied, and cryogenic gases; also manufacturers of related equipment. CGA submits recommendations to appropriate government agencies to improve safety standards and methods of handling, transporting, and storing gases; acts as advisor to regulatory authorities and other agencies concerned with safe handling of compressed gases; collaborates with national organizations to develop specifications and standards of safety.

COMPUTER AIDED MANAGEMENT OF EMERGENCY OPERATIONS (CAMEO) - A computer data base storage-retrieval system of pre-planning and emergency data for on-scene use at hazardous materials incidents.

CONFINEMENT - Procedures taken to keep a material in a defined or localized area.

CONSIGNEE - The addressee to whom the item is shipped.

CONTACT - Being exposed to an undesirable or unknown substance that may pose a threat to health and safety. (Sacramento Fire Department HMRT)

CONTAINER - Any device, in which a hazardous material is stored, transported, disposed of, or otherwise handled.

CONTAINER, INTERMODAL, ISO - An article of transport equipment that meets the standards of the International Organization for Standardization (ISO) designed to facilitate and optimize the carriage of goods by one or more modes of transportation without intermediate handling of the contents and equipped with features permitting ready handling and transfer from one mode to another. Containers may be fully enclosed with one or more doors, open top, tank, refrigerated, open rack, gondola, flatrack, and other designs. Included in this definition are modules or arrays that can be coupled to form an intrinsic unit regardless of intention to move single or in multiplex configurations.

CONTAINMENT - All activities necessary to bring the incident to a point of stabilization and to establish a degree of safety for emergency personnel greater than existed upon arrival.

CONTAMINATION - An uncontained substance or process that poses a threat to life, health, or the environment. (NFPA 472, sections 1-3)

CONTAMINATION CONTROL LINE - The established line around the contamination reduction zone that separates it from the support zone.

CONTAMINATION REDUCTION ZONE - Term used by the Coast Guard to identify the area of moderate hazard where threat of contamination spread to the immediate surrounding area is low. It is the area immediately outside of the inner hot zone. (See Warm Zone.)

CONTINGENCY PLAN - A pre-planned document presenting an organized and coordinated plan of action to limit potential pollution in case of fire, explosion, or discharge of hazardous materials; defines specific responsibilities and tasks.

CONTROL - The procedures, techniques, and methods used in the mitigation of a hazardous materials incident, including containment, extinguishment, and confinement.

CONTROL ZONES - The designation of areas at a hazardous materials incident based upon safety and the degree of hazard. (NFPA 472, sections 1-3) (See Support Zone, Warm Zone, Hot Zone, and Decontamination Corridor.)

COORDINATION - To bring together, in a uniform and controlled manner, the functions of all agencies on scene. (Sacramento Fire Department HMRT)

CORROSIVE - The ability to cause destruction of living tissue or many solid materials surfaces by chemical action.

COST RECOVERY - A procedure that allows for the agency having jurisdiction to pursue reimbursement for all costs associated with a hazardous materials incident. (Sacramento Fire Department HMRT)

COUNCIL ON ENVIRONMENTAL ALTERNATIVES (CEA) - Encourages people to conserve, rather than consume, their environment. The Council concentrates on the area of energy, and provides specific recommendations that encourage individuals to recognize and assume responsibility for environmentally sound choices available to them.

CRYOGENIC - Gases, usually liquefied, that induce freezing temperatures of -150^{o} F and below (liquid oxygen, liquid helium, liquid natural gas, liquid hydrogen, etc.).

DAMAGE ASSESSMENT - Gathering information on the type, extent, and costs of damage after an incident.

DAMMING - A procedure consisting of constructing a dike or embankment to totally immobilize a flowing waterway contaminated with a liquid or solid hazardous substance. (EPA, 600/2-77-277)

DANGEROUS WHEN WET - A label required for water reactive materials (solid) being shipped under U.S. DOT, ICAO, and IMO regulations. A labeled material that is in contact with water or moisture may produce flammable gases. In some cases, these gases are capable of spontaneous combustion. (49 CFR 171.8)

DECLARED EMERGENCY - An action taken by a jurisdiction according to the California Emergency Services Act and local ordinances in response to the impact of a real or threatened hazard that exceeds local resources.

DECONTAMINATION (DECON) - The physical and/or chemical process of reducing and preventing the spread of contamination from persons and equipment used at a hazardous materials incident. (Also referred to as “contamination reduction”.) (NFPA 472, 1-3)

DECONTAMINATION CORRIDOR - A distinct area within the warm zone that functions as a protective buffer and bridge between the hot zone and the cold zone, where decontamination stations and personnel are located to conduct decontamination procedures. (Sacramento Fire Department HMRT)

DECONTAMINATION OFFICER - A position within the FIRESCOPE ICS HM-120 that has responsibility for identifying the decontamination corridor location & types of decontamination, assigning stations, and managing all decontamination procedures.

DECONTAMINATION TEAM - A group of personnel and resources operating within a decontamination corridor.

DEGRADATION - The loss in physical properties of an item of protective clothing due to exposure to chemicals, use, or ambient conditions.

DELAYED TOXIC EXPOSURE EFFECT - The condition in which symptoms of an exposure are not present immediately after the exposure, but are delayed for a relatively short period of time (such as pulmonary edema a few hours after an inhalation exposure).

DELETERIOUS SUBSTANCES - Substances not normally harmful to humans that may be harmful to the environment.

DEPARTMENT OF COMMERCE (DOC) - A Federal agency whose primary mission is to encourage, serve and promote economic development and technological advancement.

DEPARTMENT OF Defense (DOD) - The Federal entity that provides the military forces needed to deter war and protect the security of our country.

DEPARTMENT OF ENERGY (DOE) - The Federal agency which provides the framework for a comprehensive and balanced national energy plan through coordination and administration of the energy functions of the federal government; and to be responsible for long term, high risk research, development and demonstration of energy technology, the marketing of federal power, energy conservation, the nuclear weapons program, regulation of energy production and use, and a central energy data collection and analysis program.

DEPARTMENT OF JUSTICE (DOJ) - The Federal department which serves as counsel for the citizens of the Nation; represents them in enforcing the law in the public interest; through its thousands of lawyers, investigators, and agents it plays a key role in protection against criminals and subversion, in insuring healthy competition of business in our free enterprise system, in safeguarding the consumer, and in enforcing drug, immigration, and naturalization laws; plays a significant role in protecting citizens through its efforts for effective law enforcement, crime prevention, crime detection, and prosecution and rehabilitation of offenders; conducts all suits in the Supreme Court in which the United States is concerned; and represents the Federal Government in legal matters.

DEPARTMENT OF LABOR (DOL) - The purpose of the Department of Labor is to foster, promote, and develop the welfare of the wage earners of the United States, to improve their working conditions, and to advance their opportunities for profitable employment.

DEPARTMENT OF STATE (DOS) - This department advises the President in formulation and execution of foreign policy; promotes long-range security and well-being of the United States; determines and analyzes the facts relating to American overseas interest, makes recommendations on policy and future action, and takes the necessary steps to carry out established policy; engages in continuous consultation with the American public, the Congress, other U.S. departments and agencies, and foreign governments.

DEPARTMENT OF TRANSPORTATION (DOT) - This agency assures the coordinated, effective administration of the transportation programs of the Federal government and develops national transportation policies and programs conducive to the provision of fast, safe, efficient and convenient transportation at the lowest possible cost.

DESICCANT - A substance, such as silica gel, that removes moisture (water vapor) from the air to maintain a dry atmosphere in containers of food or chemical packaging.

DETECTORS -

Combustible Gas Indicator (CGI) Detector: Measures the presence of a combustible gas or vapor in air.

Corrosivity (pH) Detector: A meter or paper that indicates the relative acidity or alkalinity of a substance, generally using an international scale of 0 (acid) through 14 (alkali-caustic). (See pH.)

Flame Ionization Detector (FID): A device used to determine the presence of hydrocarbons in air.

Gas Chromatograph/ Mass Spectrometer Detector (GC/MS): An instrument used for identifying and analyzing organics.

Heat Detector: An instrument used to detect heat by sensing infrared waves.

Photoionization Detector (PID): A device used to determine the presence of gases/vapors in low concentrations in air.

Radiation Beta Survey Detector: An instrument used to detect beta radiation.

Radiation Dosimeter Detector: An instrument that measures the amount of radiation to which a person has been exposed.

Radiation Gamma Survey Detector: An instrument used for the detection of ionizing radiation, principally gamma radiation, by means of a gas-filled tube.

Temperature Detector: An instrument, either mechanical or electronic, used to determine the temperature of ambient air, liquids, or surfaces.

DHS - See California Department of Health Services.

DIKE - An embankment or ridge, natural or man-made, used to control the movement of liquids, sludges, solids, or other materials.

DIKE OVERFLOW - A dike constructed in a manner that allows uncontaminated water to flow unobstructed over the dike while keeping the contaminant behind the dike.

DIKE UNDERFLOW - A dike constructed in a manner that allows uncontaminated water to flow unobstructed under the dike while keeping the contaminant behind the dike.

DISPERSION - To spread, scatter, or diffuse through air, soil, surface or ground water.

DISPOSAL DRUM - A reference to a specially constructed drum used to overpack damaged or leaking containers of hazardous materials for shipment.

DIVERSION - The intentional, controlled movement of a hazardous material to relocate it into an area where it will pose less harm to the community and the environment. (Sacramento Fire Department HMRT)

DIVISION - That organizational level within the ICS having responsibility for operations within a defined geographic area. The "Division" Officer directs approximately 5 Companies, and answers to the "Operations" Officer.

DOSE - The amount of substance ingested, absorbed, and/or inhaled per exposure period.

DOUBLE GLOVING - A set of gloves worn over those already in place for enhanced protection.

DOWNWIND - In the direction in which the wind blows.

DUST - Solid particles generated by handling, crushing, grinding, rapid impact, detonation, and decrepitation of organic or inorganic materials such as rock, ore, metal, coal, wood, and grain.

ECOLOGY - A branch of science concerned with the interrelationship of organisms and their environments.

ECONOMIC POISON - As defined in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), an economic poison is "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, or weeds, or any other forms of life declared to be pests... any substance intended for use as a plant regulator, defoliant, or desiccant." As defined, economic poisons are generally known as pesticides.

ECOSYSTEM - A habitat formed by the interaction of a community of organisms with their environment.

EDEMA - The swelling of body tissues resulting from fluid retention.

EMERGENCY MEDICAL SERVICES (EMS) - Functions as required to provide emergency medical care for ill or injured persons by trained providers.

EMERGENCY MEDICAL SERVICES AGENCY - Plans and coordinates local public and private emergency medical services systems. Sets the local standards for medical care and transport of victims. California Health and Safety Code Section 1058 vests authority for patient care management in the most qualified medical care provider.

EMERGENCY MEDICAL SERVICES AUTHORITY (EMSA) - The State agency responsible for developing general guidelines for triage and handling of contaminated/exposed patients; develops and promotes hazardous materials training for emergency medical responders in the field and hospital emergency rooms; identifies and coordinates the procurement of medical assistance, supplies, and hospital beds when local and/or regional resources are depleted; and coordinates the evaluation of casualties to other areas of the State.

EMERGENCY OPERATIONS CENTER (EOC) - The secured site where government officials exercise centralized coordination in an emergency. The EOC serves as a resource center and coordination point for additional field assistance. It also provides executive directives to and liaison for State and federal government representatives, and considers and mandates protective actions.

EMERGENCY OPERATIONS PLAN - A document that identifies the available personnel, equipment, facilities, supplies, and other resources in the jurisdiction, and states the method or scheme for coordinated actions to be taken by individuals and government services in the event of natural, man-made, and attack related disasters.

EMERGENCY RESERVE ACCOUNT FOR HAZARDOUS MATERIAL INCIDENTS - A fund administered by the California Department of Toxic Substances Control to finance actions only for the purpose of remediation or prevention of threats of fire, explosion or human health hazards resulting from a release or potential release of a hazardous substance. (Health and Safety Code 25354)

EMERGENCY RESPONSE - Response to any occurrence, which has or could result in a release of a hazardous substance. (8 CCR 5192), (19 CCR 2402)

EMERGENCY RESPONSE ORGANIZATION - An organization that utilizes personnel trained in emergency response. (19 CCR 2402)

EMERGENCY RESPONSE PERSONNEL - Personnel assigned to organizations that have the responsibility for responding to different types of emergency situations. (NFPA 1991, 1-3)

EMPTY PACKAGING - Any packaging having a capacity of 110 gallons or less that contains only the residue of a hazardous material in table 2 of 49 CFR 172.504.

ENDOTHERMIC - A process or chemical reaction, which is accompanied by absorption of heat.

ENGINE (FIRE USAGE) - Any emergency response vehicle providing specified levels of pumping, water, hose capacity, and personnel.

ENTRY POINT - A specified and controlled location where access into the hot zone occurs at a hazardous materials incident.

ENTRY TEAM LEADER - The entry leader is responsible for the overall entry operations of assigned personnel within the hot zone. (FIRESCOPE ICS-HM)

ENVIRONMENTAL PROTECTION AGENCY (EPA) - The purpose of the Environmental Protection Agency (EPA) is to protect and enhance our environment today and for future generations to the fullest extent possible under the laws enacted by Congress. The Agency's mission is to control and abate pollution in the areas of water, air, solid waste, pesticides, noise, and radiation. EPA's mandate is to mount an integrated, coordinated attack on environmental pollution in cooperation with State and local governments.

EPA - See Environmental Protection Agency.

ETIOLOGICAL AGENT - A viable microorganism or its toxin, which causes or may cause human disease.

EVACUATION - The removal of potentially endangered, but not yet exposed, persons from an area threatened by a hazardous materials incident. (FIRESCOPE ICS-HM)

EXPLOSIVE ORDNANCE DISPOSAL (EOD) - Military or civilian bomb squads.

EXTREMELY HAZARDOUS SUBSTANCES (EHS) - Environmental Protection Agency (EPA) uses this term for chemicals that must be reported pursuant to SARA, Title III. The list of these substances and the threshold planning quantities are identified in 40 CFR 355. Releases of extremely hazardous substances as defined by EPA must be reported to the National Response Center. In California, the term Acutely Hazardous Material (AHM) is used. They are identical to the EHS in 40 CFR.

EXTREMELY HAZARDOUS WASTE - Any hazardous waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling injury or serious illness caused by the hazardous waste or mixture of hazardous wastes because of its quantity, concentration or chemical characteristics.

EXCLUSION ZONE - See Hot Zone.

EXOTHERMIC - A process or chemical reaction, which is accompanied by the evolution of heat.

EXPLOSION-PROOF EQUIPMENT - Instruments whose enclosure is designed and constructed to prevent the ignition of an explosive atmosphere. Certification for explosion proof performance is subject to compliance with ASTM standards.

EXPLOSIVE - Any chemical compound, mixture, or device, of which the primary or common purpose is to function by explosion, i.e., with substantial instantaneous release of gas and heat. (49 CFR 173.50)

EXPOSURE - The subjection of a person to a toxic substance or harmful physical agent through any route of entry.

FAHRENHEIT - The scale of temperature in which 212o is the boiling point of water at 760 mm Hg and 32o is the freezing point.

FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT (FIFRA) - An act that requires pesticides to be registered and labeled, makes it illegal to detach or destroy pesticide labels, and provides for pesticide inspections. An amendment to FIFRA now requires EPA to determine whether a pesticide "will perform its intended function without causing unreasonable adverse effects on the environment" or human health.

FEDERAL WATER POLLUTION CONTROL ACT (WPCA) - See Clean Water Act.

FIBROSIS - A condition marked by an increase of interstitial fibrous tissue.

FILTER CANISTER - A container filled with sorbents and catalysts that removes gases and vapors from air drawn through the unit. The canister may also contain an aerosol (particulate) filter to remove solid or liquid particles. (Air purifying canister type breathing apparatus are not approved for use during emergencies by the fire service in California.)

FIRST RESPONDER - The first trained person(s) to arrive at the scene of a hazardous materials incident. May be from the public or private sector of emergency services.

FIRST RESPONDER, AWARENESS LEVEL - Individuals who are likely to witness or discover a hazardous substance release who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. (8 CCR 5192(q)(6))

FIRST RESPONDER, OPERATIONS LEVEL - Individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. (8 CCR 5192(q)(6))

FLAMMABLE LIQUID - Any liquid having a flash point below 100o F (37.8o C). (49 CFR 173.115(a))

FLAMMABLE RANGE - A mixture of flammable gas, as mixed with air, expressed as a percent. Each gas has a range including a lower limit and upper limit and between these limits the mixture is flammable (explosive).

FLAMMABLE SOLID - Any solid material, other than one classed as an explosive, which under conditions normally incident to transportation is liable to cause fires through friction, retains heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious transportation hazard. Included in this class are spontaneously combustible and water-reactive materials. (49 CFR 173.150)

FLASHPOINT - The minimum temperature of a liquid at which it gives off vapors sufficiently fast to form an ignitable mixture with air and will flash when subjected to an external ignition source, but will not continue to burn.

FOOD AND DRUG ADMINISTRATION (FDA) - Performs, directs, and coordinates detection and control activities which protect consumers against adulterated, misbranded, or falsely advertised foods, drugs, medical devices, and hazardous products.

FULL PROTECTIVE CLOTHING - Protective clothing worn primarily by fire fighters which includes helmet, coat, pants, boots, gloves, and self-contained breathing apparatus designed for structural fire fighting. It does not provide specialized chemical protection.

FULLY ENCAPSULATING SUITS - Chemical protective suits that are designed to offer full body protection, including Self Contained Breathing Apparatus (SCBA), are gas tight, and meet the design criteria as outlined in NFPA Standard 1991.

FUME - Airborne dispersion consisting of minute solid particles arising from the heating of a solid material such as lead, in distinction to a gas or vapor. This physical change is often accompanied by a chemical reaction, such as oxidation. Fumes flocculate and sometimes coalesce. Odorous gases and vapors should not be called fumes.

GAS - A state of matter in which the material has very low density and viscosity; can expand and contract greatly in response to changes in temperature and pressure; easily diffuses into other gases; readily and uniformly distributes itself throughout any container. A gas can be changed to a liquid or solid state by the combined effect of increased pressure and/or decreased temperature.

GELLING - A process of adding a specific material that is designed to coagulate a liquid facilitating its isolation and removal.

GROUNDING - Method whereby activities that may generate static electricity will be prevented from discharging a spark and thereby not produce an ignition point.

GROUP - Groups are established to divide the incident into functional areas of operation.

HABITAT - The native environment of an animal or plant; the natural place for life and growth of an animal or plant.

HALONS - Fire suppressing gases that are composed of straight chain carbon atoms with a variety of halogen atoms attached.

HALOGENS - A chemical family that includes fluorine, chlorine, bromine, and iodine.

HAZARD - Any situation that has the potential for causing damage to life, property, and/or the environment.

HAZARD CLASS - The classification of hazardous materials as categorized and defined by the Department of Transportation in 49 CFR. The Hazardous Materials Table (49 CFR Part 172.101) designates specific materials as hazardous for the purpose of transportation. It also classifies each material and specifies requirements pertaining to its packaging, labeling, and transportation.

Class 1: Explosives
Division 1.1 Explosives with a mass explosion hazard
Division 1.2 Explosives with a projection hazard
Division 1.3 Explosives with predominantly a fire hazard
Division 1.4 Explosives with no significant blast hazard
Division 1.5 Very insensitive explosives
Division 1.6 Extremely insensitive explosive articles

Class 2: Gases
Division 2.1 Flammable gases
Division 2.2 Nonflammable gases
Division 2.3 Poison gas
Division 2.4 Corrosive gases

Class 3: Flammable liquids
Division 3.1 Flashpoint below -18^{o}C (0^{o}F)
Division 3.2 Flashpoint -18^{o}C and above, but less than 23oC (73^{o}F)
Division 3.3 Flashpoint 23^{o}C and up to 61^{o}C (141^{o}F)

Class 4: Flammable solids; spontaneously combustible materials; & materials that are dangerous when wet
Division 4.1 Flammable solids
Division 4.2 Spontaneously combustible materials
Division 4.3 Materials that are dangerous when wet

Class 5: Oxidizers and organic peroxides
Division 5.1 Oxidizers
Division 5.2 Organic peroxides

Class 6: Poisons and etiologic materials
Division 6.1 Poisonous materials
Division 6.2 Etiologic (infectious) materials

Class 7: Radioactive materials
Any material, or combination of materials, that spontaneously gives off ionizing radiation. It has a specific activity greater than 0.002 microcuries per gram.

Class 8: Corrosives
A material, liquid, or solid that causes visible destruction or irreversible alteration to human skin or a liquid that has a severe corrosion rate on steel or aluminum.

Class 9: Miscellaneous
A material which presents a hazard during transport, but which is not included in any other hazard class (such as a hazardous substance or a hazardous waste).

ORM-D: Other regulated material
A material, which, although otherwise subjected to regulations, presents a limited hazard during transportation due to its form, quantity and packaging.

HAZARDOUS AIR POLLUTANT - An airborne pollutant that may cause or contribute to an increase in mortality or serious illness.

HAZARDOUS CHEMICAL - A term used by the United States Occupational Safety and Health Administration (OSHA) to denote any chemical that would be a risk to employees if exposed in the workplace. The list of hazardous chemicals is found in 29 CFR.

HAZARDOUS MATERIAL (HAZARDOUS MATERIALS) - A substance or combination of substances which, because of quantity, concentration, physical, chemical or infectious characteristics may cause, or significantly contribute to an increase in deaths or serious illness; and/or pose a substantial present or potential hazard to humans or the environment.

HAZARDOUS MATERIAL CATEGORIZATION (HAZCAT) - A field analysis process to determine basic hazardous materials hazard classification and some chemical and physical properties of unknowns.

HAZARDOUS MATERIALS EMERGENCY - The release or threatened release of a hazardous material that may impact the public health, safety and/or the environment.

HAZARDOUS MATERIAL INCIDENT CONTINGENCY PLAN (HMICP) - The State's hazardous materials emergency plan published by OES from 1991 to 2004 pursuant to Government Code §8574.17.

HAZARDOUS MATERIALS INCIDENT TOOL KIT (TOOL KIT) - The reference document born from the split of the HMICP and the STDCP.

HAZARDOUS MATERIALS RESPONSE TEAM (HMRT) - An organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. A Hazardous materials Team may be a separate component of a fire brigade or a fire department or other appropriately trained and equipped units from public or private agencies.

HAZARDOUS MATERIALS RESPONSE TEAM -- TECHNICIAN LEVEL - Consists of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), trained to function at the hazardous materials incident at the Technician Level in accordance with NFPA 472, Chapter 3 (1990). Additionally, personnel on the team are capable of the following:

The ability to carry out the duties of these positions as identified in FIRESCOPE ICS-HM-120:

a. Group Supervisor

b. Entry Leader

c. Hazardous Material Safety Officer

d. Site Access Control Officer

e. Decontamination Leader

f. Technical Specialist-Hazardous Material Reference

Note: Multiple positions can be handled by one person dependent upon the complexity and/or severity of the incident.

Members are assigned positions in accordance with 8 CCR 5192 appropriately trained to include but not be limited to entry with splash protective clothing:

a. Entry Team - 2

b. Backup Team – 2

HAZARDOUS MATERIALS RESPONSE TEAM -- SPECIALIST LEVEL - Consists of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), trained to function at the hazardous materials incident at the Specialist Level in accordance with NFPA Standard 472, Chapter 4 (1990). Additionally, personnel on the team are capable of the following:

The ability to carry out the duties of these positions as identified in FIRESCOPE ICS-HM-120:

a. Group Leader

b. Entry Team Leader

c. Hazardous Material Safety Officer

d. Site Access Control Officer

e. Decontamination Leader

f. Technical Specialist-Hazardous Material Reference

Note: Multiple positions can be handled by one person dependent upon the complexity and/or severity of the incident.

Members are assigned positions in accordance with 8 CCR 5192 appropriately trained for entry with vapor protective clothing:

a. Entry Team - 2

b. Backup Team – 2

HAZARDOUS MATERIALS RESPONSE TEAM -- SPECIALTY - Consists of an organized group of employees, designated by the employer in compliance with 8 CCR 5192(q)(6), who are trained in the hazards of specific hazardous substances, and/or specific techniques or support services, and/or the provision of specialized technical advice and assistance in compliance with 8 CCR 5192(q)(5). The Team is capable, either within their own team or in agreement with a Hazardous Materials Response Team on scene, of the following:

The ability to carry out the duties of these positions as identified in FIRESCOPE ICS-HM-120:

a. Group Supervisor

b. Entry Team Leader

c. Hazardous Material Safety Officer

d. Site Access Control Officer

e. Decontamination Leader

f. Technical Specialist-Hazardous Material Reference

Note: Multiple positions can be handled by one person dependent upon the complexity and/or severity of the incident.

Members are assigned positions in accordance with 8 CCR 5192 appropriately trained to include but not be limited to entry with splash protection:

a. Entry team - 2

b. Backup team – 2

HAZARDOUS SUBSTANCE - Hazardous Substance, as used by the California Department of Toxic Substances Control, encompasses every chemical regulated by both the Department of Transportation (hazardous materials) and the Environmental Protection Agency (hazardous waste), including emergency response (8 CCR 5192).

HAZARDOUS WASTE - 1) Waste materials or mixtures of waste which require special handling and disposal because of their potential to damage health and/or the environment; 2) The Environmental Protection Agency uses the term hazardous waste for chemicals that are regulated under the Resource Conservation and Recovery Act and are listed in 40 CFR 261.33 (d). Environmental Protection Agency or California Department of Toxic Substances Control regulated hazardous waste, when in transport, must also meet 49 CFR parts 170 through 179.

HAZARDOUS WASTE LEACHATE - Any liquid that has percolated through or drained from hazardous waste placed in or on the ground.

HAZARDOUS WASTE MANAGEMENT DECONTAMINATION LEADER - Systematic control of the collection, source separation, storage, transportation, processing, treatment, recovery, and disposal of hazardous wastes. (ICS-HM-222-3)
Reports to the Hazardous Materials Group Supervisor. The Decontamination Leader is responsible for the operations of the decontamination element, providing decontamination as required by the Incident Action Plan.

HAZARDOUS WASTE MANIFEST, UNIFORM - • Review Common Responsibilities. The shipping document, originated and signed by the waste generator or an authorized representative, that contains the information required by law and must accompany shipments of hazardous waste. (40 CFR 262, Subpart B) • Establish the Contamination Reduction Corridor(s). Identify contaminated people and equipment.

HAZARDOUS WASTE SITE - Maintain control of movement of people and equipment within the Contamination Reduction Zone. A location where hazardous wastes are located, and there is either a threat of a release or an actual release of these wastes which may have an adverse effect on public health or the environment. • Maintain communications and coordinate operations with the Entry Leader. Maintain communications and coordinate operations with the Site Access Control Leader and the Safe Refuge Area Manager (if activated).

HEALTH HAZARD, CHEMICAL - Coordinate handling, storage, and transfer of contaminants within the Contamination Reduction Zone. Any chemical or chemical mixture, whose physical or chemical properties may cause acute or chronic health effects [8 CCR 5192 (a)(3)]. • Maintain Unit/Activity Log (ICS Form 214).

HEAVY METAL - A high-density metallic element that may demonstrate health hazards as a result of exposure and may contribute to contamination of the environment. This includes chromium (Cr), beryllium (Be), lead (Pb), mercury (Hg), zinc (Zn), copper (Cu), cadmium (Cd) and others.

HEPATOTOXIC - A substance that negatively affects the liver. An agricultural chemical intended for killing plants or interrupting their normal growth. (See Pesticides.)

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC) - A procedure used in organics analysis to separate chemical mixtures based on differential ionic absorption to various substrates.

HOT TAPPING - A sophisticated method of welding on and the cutting of holes through liquid, compressed gas vessels, and piping for the purpose of relieving pressure and/or removing product.

HOT ZONE - An area immediately surrounding a hazardous materials incident, which extends far enough to prevent adverse effects from hazardous materials releases to personnel outside the zone. This zone is also referred to as the “exclusion zone”, the “red zone”, and the “restricted zone” in other documents. (NFPA 472, 1-3)

HAZARDOUS MATERIALS TRANSPORTATION ACT (HMTA) - The Hazardous Materials Transportation Act of 1975 (HMTA), is the major transportation-related statute affecting transportation of hazardous cargoes. Regulations apply to ". . . any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials."

HYGROSCOPIC - A substance that has the property of absorbing moisture from the air, such as silica gel.

HYPERGOLIC - Two chemical substances that spontaneously ignite upon mixing.

IGNITABLE MATERIAL - Any material having, as a liquid, a flash point less than 140o F or, if not a liquid, is capable of causing fire through friction, absorption of moisture or spontaneous chemical changes.

IGNITION TEMPERATURE - The minimum temperature at which a material will initiate or maintain combustion.

IMMEDIATELY DANGEROUS TO LIFE OR HEALTH (IDLH) - An atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere. (8 CCR 5192(a)3)

INFORMATION OFFICER (IO) - The individual assigned to act as the liaison between the Incident Commander and the news media, as well as other groups.

INCIDENT - An event involving a hazardous material or a release or potential release of a hazardous material.

INCIDENT ACTION PLAN (IAP) - A plan developed at the field response level that contains objectives reflecting the overall incident strategy and specific tactical actions and supporting information for the next operational period. The plan may be oral or written.

INCIDENT COMMAND - A disciplined method of management established for the specific purpose of control and direction of resources and personnel.

INCIDENT COMMANDER (IC) - The individual responsible for overall management of the incident at the field level.

INCIDENT COMMAND POST - See Command Post.

INCIDENT COMMAND SYSTEM (ICS) - The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, with responsibility for the management of resources to effectively accomplish stated objectives pertinent to an incident.

INCOMPATIBLE WASTE - Waste unsuitable for commingling with another waste or material.

INDUSTRIAL WASTES - Unwanted materials produced in or eliminated from an industrial operation.

INFECTIOUS WASTE - Waste containing pathogens; may consist of tissues, organs, body parts, blood, and body fluids.

INGESTION - The process of taking substances such as food, drink, and medicine into the body through the mouth.

INHIBITOR - A chemical added to another substance to prevent or slow down an unwanted or sudden occurrence of chemical change.

INORGANIC COMPOUNDS - Chemical compounds that do not contain the element carbon with the exception of carbon oxides and carbon sulfides.

INSECTICIDE - A chemical product used to kill and control insects. (See Pesticides.)

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA) - An association of air carriers that develop guidelines for transportation of cargo.

INTERNATIONAL CIVIL AVIATION ORGANIZATION (ICAO) - An organization that develops the principles and techniques of international air navigation and fosters the planning and development of international air transport so as to insure safe and orderly growth.

INVESTIGATE - To systematically search or inquire into the particulars of an incident, and collect the necessary evidence to seek criminal and/or civil prosecution.

IRRITANT - A material that has an anesthetic, irritating, noxious, toxic, or other similar property that can cause extreme annoyance or discomfort. (49 CFR)

ISOLATING THE SCENE - Preventing persons and equipment from becoming exposed to a release or threatened release of a hazardous material by the establishment of site control zones.

JURISDICTION SPECIFIC PLAN - A plan that details emergency activities, capabilities, responsibilities and resources within an area, agency, facility or political subdivision.

LABPACK - Putting multiple small containers of chemicals with compatible chemical characteristics in a disposal drum with absorbent material.

LACRIMATION - Tearing produced by eye irritation.

LC50 **(lethal concentration, 50%) -** The amount of a toxicant in air that is deadly to 50% of the exposed lab animal population within a specified time.

LD50 **(lethal dose, 50%) -** The amount of a toxicant administered by other than inhalation which is deadly to 50% of the exposed lab animal population within a specified time.

LEAK - The uncontrolled release of a hazardous material that could pose a threat to health, safety, and/or the environment.

LEAK CONTROL COMPOUNDS - Substances used for the plugging and patching of leaks in non-pressure containers.

LEAK CONTROL DEVICES - Tools and equipment used for the plugging and patching of leaks in non-pressure and some low-pressure containers, pipes, and tanks.

LEVEL OF PROTECTION - In addition to appropriate respiratory protection, designations of types of personal protective equipment to be worn based on NFPA standards.

- ***Level A*** - Vapor protective suit for hazardous chemical emergencies.
- ***Level B*** - Liquid splash protective suit for hazardous chemical emergencies.
- ***Level C*** - Limited use protective suit for hazardous chemical emergencies.

Level One Incident :
Hazardous materials incidents which can be correctly contained, extinguished, and/or abated utilizing equipment, supplies, and resources immediately available to first responders having jurisdiction, and whose qualifications are limited to and do not exceed the scope of training as explained in 8 CCR 5192, or California Government Code (CGC), Chapter 1503, with reference to "First Responder, Operational Level".

Level Two Incident:
Hazardous materials incidents which can only be identified, tested, sampled, contained, extinguished, and/or abated utilizing the resources of a Hazardous Materials Response Team, which requires the use of specialized chemical protective clothing, and whose qualifications are explained in 8 CCR 5192, or California Government Code (CGC), Chapter 1503, with reference to "Hazardous Materials Technician Level".

Level Three Incident :
A hazardous materials incident which is beyond the controlling capabilities of a Hazardous Materials Response Team (Technician or Specialist Level) whose qualifications are explained in 8 CCR 5192, or California Government Code, Chapter 1503; and/or requires the use of two or more Hazardous Materials Response Teams; and/or must be additionally assisted by qualified specialty teams or individuals.

LOCAL DISASTER PLAN - A plan developed and used by local government for extraordinary events.

LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) - A committee appointed by a State emergency response commission, as required by SARA Title III, to formulate a comprehensive emergency plan for its corresponding Office of Emergency Services mutual aid region.

LOCAL GOVERNMENT - Local agencies as defined in Government Code § 8680.2 and special districts as defined in California Code of Regulations, Title 19 Division 2, Chapter 5, CDAA, § 2900 (y).

LOCALIZED EXPOSURE - Contact with a limited area, usually an external body surface.

LOGISTICS CHIEF - That organizational position within the ICS having responsibility for summoning and managing support, apparatus, equipment and personnel.

LOWER EXPLOSIVE LIMIT (LEL) - The lowest concentration of the material in air that can be detonated by spark, shock, or fire, etc.

MACROENCAPSULATION - The isolation of a waste by embedding it in, or surrounding it with, a material that acts as a barrier to water or air (e.g., clay and plastic liners).

MANIFEST, UNIFORM HAZARDOUS WASTE - A document required by 40 CFR 262 to accompany any shipment of hazardous waste from the point of generation to the point of final disposal/destruction. (See Shipping Papers and Hazardous Waste Manifest, Uniform)

MARKING - The required descriptive name, instructions, cautions, weight, or specifications or combination thereof on containers of hazardous materials/hazardous waste.

MATERIAL SAFETY DATA SHEET (MSDS) - A document which contains information regarding the specific identity of hazardous chemicals, including information on health effects, first aid, chemical and physical properties, and emergency phone numbers.

MELTING POINT - The temperature at which a material changes from a solid to a liquid.

MICROORGANISM - A living organism not discretely visible to the unaided eye.

MIDNIGHT DUMPING - Illegal disposal of hazardous materials.

MIST - Suspended liquid droplets generated by condensation from the gaseous to the liquid state or by breaking up a liquid into a dispersed state, such as by splashing, foaming, or atomizing. A mist is formed when a finely divided liquid is suspended in air.

MITIGATION - Any action employed to contain, reduce, or eliminate the harmful effects of a spill or release of a hazardous material.

MONITORING - The act of systematically checking to determine contaminant levels and atmospheric conditions.

MONITORING ENVIRONMENTAL CONTAMINATION - Use of instruments and other techniques to determine the presence or levels of hazardous materials.

MONITORING EQUIPMENT - Instruments and devices used to identify, qualify, and/or quantify contaminants.

MUTAGEN - A substance capable of causing genetic damage.

MUTUAL AID - An agreement to supply, if available, specifically agreed upon aid or support in an emergency situation between two or more agencies, jurisdictions, or political sub-divisions without the expectation of reimbursement.

NARCOSIS - Stupor or unconsciousness produced by chemical substances.

NATIONAL CONTINGENCY PLAN (NCP) - Created by CERCLA to define the federal response authority and responsibility for oil and hazardous material spills.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) - An international voluntary membership organization to promote improved fire protection and prevention, establish safeguards against loss of life and property by fire, and writes and publishes the American National Standards.

NATIONAL INTERAGENCY INCIDENT MANAGEMENT SYSTEM (NIIMS) - A standardized systems approach to incident management that consists of five major sub-divisions collectively providing a total systems approach to all-risk incident management.

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH) - A Federal agency, which, among other activities, tests and certifies respiratory protective devices, air-sampling detector tubes, and recommends occupational exposure limits for various substances.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) - The agency responsible to serve as scientific support coordinator for a federal on scene coordinator. Assists in oil spill and air toxics modeling and meteorological monitoring and oceanic research.

NATIONAL PESTICIDE TELECOMMUNICATIONS NETWORK (NPTN) - The 24-hour national hotline (800) 858-PEST operated by the Texas Tech University School of Medicine providing toll-free information about pesticide safety, application, chemistry and toxicology to callers in the U.S., Puerto Rico, and the Virgin Islands. Questions are answered directly or via next day mail.

NATIONAL RESPONSE CENTER (NRC) - A communications center operated by the United States Coast Guard headquarters located in Washington, DC. They provide information on suggested technical emergency actions, and must be notified by the spiller within 24 hours of any spill of a reportable quantity of a hazardous substance.

NECROSIS - Death in a particular part of a living tissue.

NEPHROTOXIC - A substance that negatively affects the kidneys.

NEUROTOXIC - A substance that negatively affects the nervous system.

NEUTRALIZATION - The process by which acid or alkaline properties of a solution are altered by addition of certain reagents to bring the hydrogen and hydroxide concentrations to equal value (pH 7 is neutral).

NON-FLAMMABLE GAS - Any material or mixture, in a cylinder or tank, other than poison or flammable gas, having an absolute pressure in the container exceeding 40 p.s.i at 70^{o} F, or having an absolute pressure exceeding 104 p.s.i at 130^{o} F. (49 CFR)

NORTH AMERICAN (NA) IDENTIFICATION NUMBER - A four-digit number, preceded by “NA”, used in the United States and Canada to identify a hazardous material or group of hazardous materials in transportation.

NOT OTHERWISE SPECIFIED (NOS or n.o.s.) - In shipping regulations, the term is used for classes of substances to which restrictions apply, but for which the individual members of the class are not listed in the regulations.

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) - Component of the United States Department of Labor; an agency with safety and health regulatory and enforcement authorities for most United States industries, businesses and States.

ODOR THRESHOLD - The lowest concentration in the atmosphere that can be detected by the human sense of smell. Often a poor indicator of toxicity risk.

OFFICE OF HAZARDOUS MATERIALS SAFETY (OHMS) - A Federal agency tasked with the research and recommended revisions to 49 CFR.

OIL - Any of numerous mineral, vegetable, and synthetic substances and vegetable and animal fats those are generally slippery, combustible, viscous, liquid or liquefiable at room temperature.

OIL SPILL CLEANUP AGENT - Any material used in removing oil from the environment, including inert sorbent materials, approved chemical dispersants, surface collecting agents, sinking agents, and biological additives.

OLFACTORY - Pertaining to the sense of smell.

ON-SCENE COORDINATOR (OSC) - As explained in the National Contingency Plan, it is the pre-designated Federal official who coordinates Federal activities at a hazardous material incident, and monitors the incident for compliance with Federal pollution laws.

OPERATIONS - The coordinated tactical response of all field operations in accordance with the Incident Action Plan.

ORAL TOXICITY - Adverse effects resulting from taking a substance into the body through the mouth.

ORGANIC PEROXIDE - Strong oxidizers, often chemically unstable, containing the -o-o- structure. They react readily with solvents or fuels resulting in an explosion or fire.

OVERPACK - An enclosure used to consolidate two or more packages of hazardous material. “Overpack” does not include a freight container.

OXIDIZER - A chemical, other than a blasting agent or explosive, that initiates or promotes combustion in other materials thereby causing fire either of itself or through the release of oxygen or other gases. (49 CFR 173.151)

OXYGEN DEFICIENCY - A concentration of oxygen insufficient to support life.

OXYGEN DEFICIENT ATMOSPHERE - An atmosphere that contains an oxygen content less than 19.5 % by volume at sea level.

PACIFIC STRIKE TEAM - The National Strike Force pollution control team equipped and trained to assist in responses to oil or chemical incidents occurring in the western United States and administered by the United States Coast Guard.

PALLETS - A low portable platform constructed of wood, metal, plastic, or fiberboard, built to specified dimensions, on which supplies are loaded, transported, or stored in units.

PARTS PER BILLION (ppb) - A unit for measuring the concentration of a particular substance equal to one (1) unit combined with 999,999,999 other units.

PARTS PER MILLION (ppm) - A unit for measuring the concentration of a particular substance equal to one (1) unit combined with 999,999 other units.

PATHOGEN - Any disease producing organism, including viruses.

PCB CONTAMINATED ELECTRICAL EQUIPMENT - Any electrical equipment, including transformers, that contains at least 50 ppm but less than 500 ppm of PCBs. (40 CFR 761.3)

PCB ITEM - An item containing PCBs at a concentration of 5 ppm or greater. (40 CFR 761.3)

PCB TRANSFORMER - Any transformer that contains 500 ppm of PCBs or greater. (40 CFR 761.3)

PENETRATION - The movement of liquid molecules through a chemical protective clothing, suit, garment or material.

PERMEATION - The movement of vapor or gas molecules through a chemical protective garment material.

PERMEATION KITS - Kits assembled for the purpose of testing on-site an unknown liquid substance for permeability of chemical protective clothing.

PERMISSIBLE EXPOSURE LIMIT (PEL) - The employees' permitted exposure limit to any material listed in Table Z-1, Z-2, or Z-3 of OSHA regulations, section 1910.1000, Air Contaminants.

PERSISTENT TOXIC SUBSTANCE - A material or waste that resists natural degradation or detoxification and may present long term health and environmental hazards.

PERSONAL PROTECTIVE EQUIPMENT (PPE) - Equipment provided to shield or isolate a person from the chemical, physical, and thermal hazards that may be encountered at a hazardous materials incident. Adequate personal protective equipment should protect the respiratory system, skin, eyes, face, hands, feet, head, body, and hearing. Personal protective equipment includes- personal protective clothing, self-contained positive pressure breathing apparatus, and air purifying respirators. (NFPA 472, 1-3)

PESTICIDES - A chemical or mixture of chemicals used to destroy, prevent, or control any living organism considered to be a pest.

pH - A numerical designation of the negative logarithm of hydrogen ion concentration. A pH of 7.0 is neutrality; higher values indicate alkalinity and lower values indicate acidity.

PLUGGING AND PATCHING KITS - Kits commercially available or privately assembled for the purpose of providing capabilities for emergency plugging and patching of leaking containers, pipes, and tanks.

PLUME - A vapor, liquid, dust, or gaseous cloud formation that has shape and buoyancy.

PNEUMONITIS - Inflammation of the lungs characterized by an outpouring of fluid in the lungs.

POISON CONTROL CENTERS - California is served by four certified and designated regional poison control centers. Each PCC is available 24 hours a day and can provide immediate health effects, scene management, victim decontamination, and other emergency medical treatment advice for hazardous materials emergencies. A physician specializing in medical toxicology is available for back-up consultation.

POLLUTION - Contamination of air, water, land, or other natural resources that will or is likely to create a public nuisance and cause health and environmental harm.

POLYCHLORINATED BIPHENYL (PCB) - One of several aromatic compounds containing two benzene nuclei with two or more chlorine atoms.

POLYMERIZATION - A chemical reaction, usually carried out with a catalyst, heat, or light, and often under high pressure, which generates high temperature and when uncontrolled may be violent.

POST EMERGENCY RESPONSE - That portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and cleanup of the site has begun.

POST-INCIDENT ANALYSIS - The termination phase of an incident that includes completion of the required forms and documentation for conducting a critique.

PRE-INCIDENT PLANNING - The process associated with preparing for the response to a hazard by developing plans, identifying resources, conducting exercises, and other techniques to improve an agency's or organization's response capabilities.

PREVENTION PLAN - See California Accidental Release Prevention Program (CalARP).

PRODUCT SUBSTITUTION - Replacing a hazardous substance in a process with a less hazardous substance.

PROPER SHIPPING NAME - The DOT designated name for a commodity or material. (49 CFR 172.101)

PROPOSITION 65 - California Safe Drinking Water Act of 1986.

PROTECTIVE CLOTHING - See Personal Protective Equipment (PPE).

PULMONARY - Pertaining to the lungs.

PYROPHORIC - A substance that ignites spontaneously in dry or moist air at or below 130o F. (49 CFR 173.115(c))

QUALITATIVE FIT TEST - A physical testing of a breathing apparatus face piece to the wearer, performed in an atmosphere of amyl acetate or irritant smoke to evaluate whether the wearer can detect the contaminant, indicating mask leakage and improper fit.

RADIATION ABSORBED DOSE (RAD) - A basic unit of absorbed dose of ionizing radiation.

RADIOACTIVE - The spontaneous disintegration of unstable nuclei accompanied by emission of nuclear radiation.

RADIOACTIVE MATERIAL (RAM) - Any material, or combination of materials, that spontaneously emits ionizing radiation and has a specific activity greater than 0.002 microcuries per gram. (49 CFR 173.389)

RECORDER - See Technical Specialist - Hazardous Materials Reference.

RECOVERY DRUM - See Disposal Drum.

REFERENCE LIBRARY - A selection of chemical textbooks, reference books, microfiche, and computer data programs typically carried by a hazardous materials response team.

REGIONAL PLAN - A hazardous material plan developed pursuant to SARA Title III.

REGIONAL RESPONSE TEAM - Composed of representatives of the Federal agencies and a representative from each State in the ten Federal EPA regions as specified in the NCP.

REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) - This agency in conjunction with the State Water Resources Control Board (SWRCB) is charged with managing statewide water quality.

RELEASE, THREATENED RELEASE - The actual or potential spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles of any hazardous material.

REMEDIAL ACTION - Actions taken to mitigate the effects of a release or threatened release of a hazardous material to protect health or the environment.

REMOVAL ACTION - See Mitigation.

REPORTABLE INCIDENT - Any incident that has or may impact the public health, safety or the environment, or is otherwise required by law to be reported.

REPORTABLE QUANTITY (RQ) - The designated amount of a specific material that if spilled or released requires immediate notification to the National Response Center (NRC). (49 CFR 172.101, 40 CFR 117.3, 173. and 302.6)

RESCUE - The removal of victims from an area determined to be contaminated or otherwise hazardous by appropriately trained and equipped personnel.

RESIDUE - A material remaining in a package after its contents have been emptied and before the packaging is refilled, or cleaned and purged of vapor to remove any potential hazard.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) - The Federal framework for the proper management and disposal of hazardous wastes. This program is administered by EPA and may be delegated to the States.

RESPIRATORY PROTECTIVE EQUIPMENT - See SCBA and Air Purifying Respirators.

RESPONSE - That portion of incident management where personnel are involved in controlling a hazardous material incident. (NFPA 472, 1-3)

RESPONSIBLE PARTY (RP) - A legally recognized entity (person, corporation, business, or partnership, etc.) that has a legally recognized status of financial accountability and liability for action necessary to abate and mitigate adverse environmental and human health and safety impacts resulting from a non-permitted release or discharge of hazardous material; the person or agency found legally accountable for the cleanup of the incident.

RISK ANALYSIS - A process to analyze the probability that harm may occur to life, property, and the environment and to note the risks to be taken to identify the incident objectives.

RISK MANAGEMENT - Decision-making process which involves such considerations as risk assessment, technological feasibility, economic information about costs and benefits, statutory requirements, public concerns, and other factors.

RISK MANAGEMENT PREVENTION PLAN (RMPP) - This program has been replaced by the California Accidental Release Prevention Program (CalARP).

ROENTGEN - A measure of the charge produced in air created by ionizing radiation, usually in reference to gamma radiation.

ROENTGEN EQUIVALENT MAN (REM) - The unit of dose equivalent; takes into account the effectiveness of different types of radiation.

RUPTURE - The physical failure of a container or mechanical device, releasing or threatening to release a hazardous material.
(Sacramento Fire Department HMRT)

SAFETY OFFICER - Selected by the Incident Commander, a person at an emergency incident responsible for assuring that all overall operations performed at the incident by all agencies present are done so with respect to the highest levels of safety and health. The Safety Officer shall report directly to the Incident Commander.

SALVAGE DRUM - See Recovery Drum.

SAMPLE - To take a representative portion of the material for evidence or analytical purposes.

SARA TITLE III REGIONAL PLAN - See Regional and Local Plan.

SCBA - See “Self Contained Breathing Apparatus”.

SCENARIO - An outline of a natural or expected course of events.

SCENE - The location impacted or potentially impacted by a hazard.

SECONDARY MATERIALS - Spent materials, sludges, by-products, scrap metal and commercial chemical products recycled in ways that differ from their normal use.

SELECTIVE TOXICITY - The capacity of a chemical to injure one kind of living matter without harming another, even though the two may be in intimate contact.

SELF CONTAINED BREATHING APPARATUS (SCBA) - A positive pressure, self-contained breathing apparatus (SCBA) or combination SCBA/supplied air breathing apparatus certified by the National Institute for Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration (MSHA), or the appropriate approval agency for use in atmospheres that are immediately dangerous to life or health (IDLH). (NFPA 1991, 1-3)

SENSITIZER - A substance which on first exposure causes little or no reaction in humans or test animals, but which on repeated exposure may cause a marked response not necessarily limited to the contact site.

SHELTERING IN PLACE/IN PLACE PROTECTION - To direct people to quickly go inside a building and remain inside until the danger passes.

SHIPPING PAPERS - Generic term used to refer to documents that must accompany all shipments of goods for transportation. These include Uniform Hazardous Waste Manifests, Bills of Lading, Consists, etc. Shipping papers are intended to describe what hazardous materials are contained within the shipment, if any.

SHORT TERM EXPOSURE LIMIT (STEL) - See Threshold Limit Value –Short Term Exposure Limit (TLV-STEL).

SITE - Any facility or location within the scope of 8 CCR 5192(a)(3).

SKIMMER - Physical systems whereby a liquid phase is recovered from another liquid phase due to polarity differences and stored or transferred for further processing. Typical use is to remove petroleum products floating on a water body.

SLUDGE - Accumulated solids, semisolids, or liquid waste generated from wastewaters, drilling operations, or other fluids.

SMOKE - An air suspension (aerosol) of particles, often originating from combustion or sublimation.

SOLIDIFICATION - Process whereby a contaminant is permanently immobilized in a substrate to prevent future migration away from the container.

SOLUBILITY - The ability or tendency of one substance to blend uniformly with another.

SOLVENTS - A liquid substance capable of dissolving or dispersing one or more other substances to form a uniformly dispersed mixture.

SPILL - The release of a liquid, powder, or solid hazardous materials in a manner that poses a threat to air, water, ground, and to the environment.
(See Incident)

SPILLER - See Responsible Party.

SPONTANEOUSLY COMBUSTIBLE - See Pyrophoric.

STABILIZATION - The period of an incident where the adverse behavior of the hazardous material is controlled. (NFPA 472, 1-3)

STAGING AREA - The area established for temporary location of available resources closer to the incident site to reduce response time.

STATE WARNING CENTER, CALIFORNIA STATE WARNING CENTER, OES WARNING CENTER - The Governor's Office of Emergency Services Warning Center facilitates emergency communications with government agencies at all levels. The California State Warning Center monitors seismic activity, weather and other conditions that could cause a disaster and is the central reporting office for any release or threatened release of a hazardous material. The California State Warning Center is the initial contact point in the state to initiate coordination and begin to mobilize federal, state and local agencies during a disaster.

STORAGE - Containment of hazardous materials on a temporary basis in such a manner as to not constitute disposal of such materials.

STRICT LIABILITY - The responsible party is liable even though they have exercised reasonable care.

SUPERFUND AMENDMENTS & REAUTHORIZATION ACT (SARA) - Created for the purpose of establishing Federal statutes for right-to-know standards, emergency response to hazardous materials incidents, re-authorized the Federal superfund, and mandated States to implement equivalent regulations/requirements.

SUPPORT ZONE - See Cold Zone.

SURFACE IMPOUNDMENT - A natural depression, human made excavation or diked area designed to hold an accumulation of liquid wastes or waste containing free liquids.

SYNERGISTIC EFFECT - The combined effect of two chemicals that is greater than the sum of the effect of each agent alone.

SYSTEMIC - Pertaining to the internal organs and structures of the body.

SYSTEMIC TOXIC EXPOSURE - Toxic effects to the body as a whole spreading via the bloodstream and often displaying delayed symptoms.

TEAM LEADER - See Entry Team Leader.

TECHNICAL SPECIALIST -- HAZARDOUS MATERIALS REFERENCE - Person assigned to document activities of the Hazardous Material Team and gather information relevant to the chemicals involved and their hazards.

TERATOGEN - A substance or agent that can result in malformations of a fetus.

TERATOGENICITY - Ability to produce birth defects.

TERMINATION - That portion of incident management where personnel are involved in documenting safety procedures, site operations, hazards faced, and lessons learned from the incident. Termination is divided into three phases- Debriefing, Post-Incident analysis, and Critique. (NFPA 472, 1-3) (See Post-Incident Analysis.)

THIEVING ROD - A glass rod used like a COLIWASSA, except the liquid is contained in the tube by a vacuum pressure.

THRESHOLD - The point where a physiological or toxicological effect begins to be produced by the smallest degree of stimulation.

THRESHOLD LIMIT VALUE (TLV) - The value for an airborne toxic material that is to be used as a guide in the control of health hazards and represents the concentration to which nearly all workers may be exposed 8 hours per day over extended periods of time without adverse effects.

THRESHOLD LIMIT VALUE - CEILING (TLV-C) - The concentration that should not be exceeded during any part of the working exposure.

THRESHOLD LIMIT VALUE - TIME WEIGHTED AVERAGE (TLV-TWA) - An exposure level under which most people can work consistently for 8 hours a day, day after day, with no harmful effects.

THRESHOLD LIMIT VALUE SHORT TERM EXPOSURE LIMIT (TLV-STEL) - A 15-minute time-weighted coverage exposure which should not be exceeded at any time during a work day, nor repeated more than 4 times per day, even if the 8-hour time-weighted average is within the Threshold Limit Value (TLV).

THRESHOLD PLANNING QUANTITY (TPQ) - The quantity designated for each extremely hazardous substance that triggers a required notification by facilities to the State emergency response commission that such facilities are subject to reporting under SARA Title III.

TOTALLY ENCAPSULATED SUITS - Special protective suits made of materials that prevent toxic or corrosive substances or vapors from coming in contact with the body. (See Fully Encapsulated Suit.)

TOXIC - Poisonous; relating to or caused by a toxin; able to cause injury by contact or systemic action to plants, animals or people.

TOXIC CHEMICALS - EPA uses this term for chemicals whose total emissions and releases must be reported annually by owners and operators of certain facilities that manufacture, process or otherwise use a listed toxic chemical as identified in SARA Title III.

TOXICITY - A relative property of a chemical agent that refers to its harmful effect on some biological mechanism and the conditions under which this effect occurs.

TRAFFIC CONTROL/CROWD CONTROL - Action(s) by law enforcement to secure and/or minimize exposure of the public to unsafe conditions resulting from emergency incidents, impediments and congestion.

TREATMENT - Any method, technique, or process which changes the physical, chemical, or biological character or composition of any hazardous waste, or removes or reduces its harmful properties or characteristics for any purpose.

UNITED NATIONS (UN) IDENTIFICATION NUMBER - When UN precedes a four-digit number, it indicates that this identification number is used internationally to identify a hazardous material.

UPPER EXPLOSIVE LIMIT (UEL) - The highest concentration of the material in air that can be detonated.

UPWIND - In or toward the direction from which the wind blows.

VAPOR - An air dispersion of molecules of a substance that is normally a liquid or solid at standard temperature and pressure.

VAPOR DISPERSION - The movement of vapor clouds in air due to turbulence, gravity, spreading, and mixing.

VAPOR PROTECTIVE SUIT - See Levels of Protection.

VULNERABILITY - The susceptibility of life, the environment, and/or property, to damage by a hazard.

WARM ZONE - The area where personnel and equipment decontamination and hot zone support takes place. It includes control points for the access corridor and thus assists in reducing the spread of contamination. This is also referred to as the "decontamination", "contamination reduction", "yellow zone", or "limited access zone" in other documents. (NFPA 472, 1-3)

WATER REACTIVE - Having properties of, when contacted by water, reacting violently, generating extreme heat, burning, exploding, or rapidly reacting to produce an ignitable, toxic, or corrosive mist, vapor, or gas.

Glossary of Terms: Terrorism

ACETYLCHOLINE - A chemical neurotransmitter produced by nerve cells acting as a chemical "messenger" to stimulate the heart, skeletal muscles, and numerous secretory glands.

ACETYLCHOLINESTERASE - An enzyme that normally hydrolyzes the neurotransmitter acetylchloline, thereby stopping its activity, but can be inhibited by organophosphates, carbamates and certain other "nerve agents".

AEROBIC - Capable of living and growing only in the presence of free oxygen.

ANTHRAX - A rod shaped aerobic bacteria Bacillus Anthracis that is spore producing and exists in three forms; The pulmonary form is usually 100 % lethal.

ANTIBIOTIC - A substance that inhibits the growth of or kills micro-organisms.

ANTIPERSONNEL - Agents those are effective directly against humans.

ANTITOXIN - A substance found or introduced into the blood serum or other body fluid that is specifically antagonistic to a toxin.

ASEPTIC - Free from infection.

ATROPINE - Therapeutic drug used as an antidote for nerve agents, is very effective in blocking the effects of excess acetylcholine.

BACILLUS - A rod-shaped bacterium.

BACTERIA - Single celled living microscopic organism varying in size from 0.5µm to 5 µm with a nucleus, intracellular structure, and a cell wall capable of duplicating itself through cell division. Some types of bacteria can transform into spores that may last for years or decades. Some types of bacteria can produce highly lethal toxins (Botullinum).

BACTERIAL AGENT - A pathogenic substance that can cause disease in humans and animals by means of two mechanisms; By invading living tissue or by producing poisonous toxins, or both.

BIOLOGICAL AGENT - Usually refers to all agents that may cause disease or death including bacteria, virus, and toxins.

BIOLOGICAL TOXIN - A chemical substance produced by a living organism, such as bacteria, plant, animal or insect, that by itself can be highly lethal, such as botullinum or ricin.

BIOLOGICAL WARFARE - The intentional use of biological agents as weapons to kill or injure humans, animals, or plants, or to damage equipment.

BIOLOGICAL WARFARE AGENT - Military use of living organisms or their toxins with the intent to cause death, disability, or damage to humans.

BLISTER AGENT - Substances that cause blistering and destruction of the skin through liquid or aerosol contact.

BLOOD AGENT - An antiquated military term implying that the site of action of cyanides is in the blood, but more accurately is described as an oxygen blocker for every cell in the body, beginning with the blood.

BOTULISM - Poisoning by botulinum toxin that is produced by the bacillus Clostridium Botulinim is anaerobic, and is usually 65% lethal.

BRITISH ANTI-LEWISITE - Therapeutic drug used as an antidote for Lewisite, is a heavy metal chelator, not often used, results are not guaranteed.

CARDIAC - Pertaining to the heart.

CARRIER - An individual who harbors specific disease organisms without showing symptoms, thus serving as a means of conveying infection.

CELL - A small mass of protoplasm, generally including a nucleus, surrounded by a semi-permeable membrane.

CHEMICAL AGENT - A chemical substance that is intended for use in military operations to kill, seriously injure, or incapacitate people through its physiological effects; See also *Chemical Warfare Agent*.

CHEMICAL WARFARE AGENTS - A chemical substance that is intended for use in military operations to kill, seriously injure or incapacitate, and are usually divided into 5 groups: Nerve, Blood, Respiratory (choking), Incapacitating, and Blister (vesicants).

CHEMOTHERAPY - The treatment of disease by chemicals that affect the causative organism unfavorably without seriously reacting on the patient.

CHOKING AGENTS - Substances that irritate, inflame, or cause physical injury to the tissues of the respiratory system, throat, nose and mouth.

CHOLERA - An acute infectious gastrointestinal disease with a mortality rate as high as 30%.

COMMUNICABLE - Capable of being transmitted from one individual to another.

CONTAGIOUS - Transmissible from one individual to another.

CUTANEOUS - Pertaining to the skin.

CYANOGEN CHLORIDE (CK) - A *blood agent* chemical warfare agent, causing almost immediate respiratory and cardiac failure within minutes of inhalation; Not as lethal as hydrogen cyanide.

CYTOTOXIN - A toxin that causes cellular destruction or interfere with metabolic processes, particularly with the respiratory and circulatory systems.

DIARRHEA - Abnormal frequency and liquidity of intestinal discharges.

DIAZEPAM - Therapeutic drug used as an antidote for nerve agents, is very effective as an anti-convulsant and to reduce brain damage.

DISEASE - Illness or sickness.

DISINFECTANT - An agent, usually chemical, that destroys infective agents.

DISTILLED MUSTARD (HD) - A *vesicant* chemical warfare agent used in WWI this sulfur mustard causes severe dermal and eye destruction and burns; is an oily liquid with a garlic odor.

ENCEPHALITIS - Inflammation of the brain.

EDEMA - Excessive accumulation of fluid in body tissue or body cavities.

ENDEMIC - Native to or prevalent in a particular district or region; having a low incidence but is constantly present in a given community or environment.

ENDOTOXIN - A toxin that is produced within a micro-organism and retained within the cell until it disintegrates.

EPIDEMIC - An outbreak of disease that spreads rapidly and attacks many individuals in the same region at the same time.

ERYTHEMA - Reddening of skin resembling a good case of sunburn; Typical of moderate exposure to *Mustard Substances* and *Lewisite.*

EXOTOXIN - A toxin excreted by a living organism.

H = Refers to a Levinstein mustard, a series of persistent blister agents that include distilled mustard (HD), and the nitrogen mustards (HN-1, HN-2, and HN-3).

HYDROCYANIC ACID (AC) - A *blood agent* chemical warfare agent causing almost immediate respiratory and cardiac failure within minutes of inhalation; Most lethal of the cyanides; Also known as hydrogen cyanide.

INCAPACITATING AGENTS - A group of chemical warfare agents intended to incapacitate rather that injure or kill, by causing severe eye and nasal distress and irritation; Popular with law enforcement for riot control; Examples are Mace and Pepper Spray.

INFECTION - Invasion of body tissues by organisms, usually pathogenic, which multiply and cause disease.

INFECTIOUS DISEASE - One that is caused by a living agent, such as bacteria, protozoa, virus, or fungi, and may or may not be contagious.

INVASIVENESS - The ability of a micro-organism to enter the body and spread throughout the tissues.

INTOXICATION - Poisoning.

INTRAVENOUS - Within the vein.

LACRIMATOR - A compound that causes a large flow of tears and irritates the skin; A Tearing Agent.

LETHAL AGENTS - Biological or chemical agents that could cause significant human mortality.

LEWISITE (L) - A *vesicant* chemical warfare agent used in WWI as a gas or aerosol, causes moderate to severe dermal and eye destruction and burns, heavily used but not totally successful, was considered a minor military threat.

MALAISE - A feeling of bodily discomfort.

MARK I - Military kit containing antidotes Atropine and Prolidoxime Chloride.

MACE® (CN) - An *incapacitating* agent "chloroacetophenone" popular with law enforcement and military to render recipient temporarily incapable of resistance or flight. Less popular than stronger military formulation CS.

MALAISE - A vague feeling of bodily discomfort.

MICRO-ORGANISM - Any organism, such as bacteria, viruses, and some fungi, that can be seen only with a microscope.

MIOSIS - Excessive contraction of the pupil.

MUSTARD (H) - A *vesicant* chemical warfare agent used in WWI as a gas or aerosol, causes severe dermal and eye destruction and burns. The term "mustard" usually refers to "sulfur mustard"; the more pure distilled mustard is referred to as "distilled mustard".

MUSTARGEN - A *vesicant* chemical warfare agent used in WWI as a gas or aerosol, is HN2 derivative of nitrogen mustard and the most popular during WWI.

MYCOTOXIN - A toxin produced by fungi.

NAUSEA - Tendency to vomit; sickness of the stomach.

NECROSIS - Death of a cell or group of cells in contact with living tissue.

NEURAL - Relating or pertaining to the nerves.

NEUROTOXIN - A substance that is poisonous or destructive to nerve tissue.

NERVE AGENT - Substances that interfere with the central nervous system primarily through liquid contact (skin) and lesser so through aerosol (lungs).

NEUROTOXINS - Toxins that interfere with nerve impulses and may affect the central nervous system; Tend to act rapidly.

NITROGEN MUSTARD (HN) - A *vesicant* chemical warfare agent synthesized during WWI, there are three derivatives, HN1, HN2, and HN3.

NONPERSISTENT AGENT - An agent that upon release loses its ability to cause casualties after 10 to 15 minutes, typical of most incapacitating agents.

NUCLEUS - A body within a cell that is the center of reproductive activities of the cell.

ORGANO-PHOSPHATE - A phosphate containing organic compound that inhibit cholinesterase enzymes.

2-PAM CHLORIDE - Used in treatment of nerve agent poisoning.

PATHOGENIC - Causing disease.

PATHOGEN - Any disease producing micro-organism or material, which includes virus, bacteria, rickettsia, fungi and mycoplasma.

PERCUTANEOUS AGENT - Able to be absorbed by the body through the skin.

PERSISTENT AGENT - An agent that upon release retains its casualty producing effects for an extended period of time, usually from 30 minutes to several days; A substance usually having a low evaporation rate and its vapor is heavier than air.

PHOSGENE - A *respiratory agent* chemical warfare agent used in WWI as a gas, causes severe upper respiratory distress and edema as it hydrolysises to hydrochloric acid.

PHOSGENE OXIME - A *vesicant* chemical warfare agent, not popular, little used, was a minor military threat, is highly corrosive and a irritant.

PHYTOTOXIN - A toxin derived from a plant, such as ricin.

PLAGUE - Or “Black Death”, is an aerobic bacterium *Yersinia Pestis* and occurs in three clinical forms; Pneumonic that can be 90% lethal, Septicemic, and Bubonic, which is the most common and may be 30% lethal; Pneumonic is highly contagious.

RESPIRATORY AGENT - Also referred to as pulmonary agents, a reference to chemical agents that attack the mucous membranes of the respiratory tract causing severe pain and edema; Chlorine, phosgene and oxides of nitrogen are examples.

RICIN - A poisonous toxin distilled from the seed of the castor oil plant.

RIOT CONTROL AGENT - An incapacitating agent intended to temporarily render a person inoperative by causing extreme distress and pain, but is not lethal; Examples are CN (MACE) and CS.

SARIN (GB) - A nerve agent developed by the Germans during WWII that has an LC_{50} skin dose of 100-200 mg.

SEPTIC - Produced by or due to putrefaction or morbid germs.

SOMAN (GD) - A nerve agent developed by the Germans during WWII that has an LC_{50} skin dose of 50-70 mg.

SPORES - A bacteria cell with a hardened shell that is more resistant to cold, heat, drying, chemicals and radiation than the bacterium itself, and may lie dormant for decades; They germinate when conditions are favorable and transform into bacteria cells.

SULFUR MUSTARD (H) - A *vesicant* chemical warfare agent synthesized during WWI, there are two derivatives H, and HD. See also “Mustard”.

SYMPTOMS - Functional evidence of disease or of conditions, or a change in conditions that indicate a mental or bodily state.

TABUN (GA) - A nerve agent developed by the Germans during WWII that has an LC_{50} skin dose of 200-400 mg.

TEAR AGENT - An incapacitating agent that produces irritating or disabling effects that rapidly disappear within minutes after exposure; A Lacrimator.

TERRORISM - The unlawful use of force against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in the furtherance of political or social objectives.

TOXIC - Poisonous and perhaps deadly depending on the dose and resistance of the individual.

TOXICITY - The quality of being poisonous depending on the potency of the toxin.

TOXIN - A chemical substance that is a product of a living organism, - plant, animal or bacteria, - which produce adverse or lethal effects on humans and animals; True toxins are protein like, more or less unstable particularly on contact with air, and require a short incubation or latent period to produce symptoms.

TRANSMISSIBLE AGENT - Pathogens that can spread disease from person to person.

V AGENTS - Persistent, highly toxic nerve agents developed in mid 1950's and absorbed primarily through the skin; An example is VX with a skin LC_{50} dose of 10-50 mg.

VACCINE - A preparation of killed or attenuated infective toxic agent used as an inoculation to produce active artificial immunity.

VESICANT - A vapor or liquid chemical threat to dermal and eyes intended to cause severe burns and blistering with delayed effects appearing hours after contact. Prolong exposure causes bone marrow damage. There are no acceptable and reliable antidotes.

VIABLE - Capable of living.

VIRAL AGENT - A virus organism that brings about changes in healthy hosts cell such that the hosts cell usually dies.

VIRULENCE - Refers to the relative infectiousness of an organism or its ability to overcome the defenses of the host.

VIRUS - Extremely small submicroscopic agents from 0.02µm to 0.2µm with a nucleocapsid protein coat or lipid/glycoprotein coat, containing genetic RNA or DNA material, but not having a nucleus and incapable of duplicating itself through cell division; Invades a host cell and takes over the nucleus in order to replicate.

VOMITING AGENT - An incapacitating agent that encourages uncontrolled vomiting, nausea, coughing, sneezing, tearing, and pain to the affected areas, but rarely causes death.

APPENDIX J

AGREEMENTS FOR THE FORMATION AND MAINTENANCE OF HAZARDOUS MATERIALS INCIDENT RESPONSE TEAMS (HMRTS) WITHIN SACRAMENTO COUNTY

COUNTY OF SACRAMENTO AGREEMENT NO. # _____

AGREEMENT

This AGREEMENT is made and entered into as of this 23rd day of May, 2006, by and between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE CITY OF SACRAMENTO, a municipal corporation of the State of California (hereinafter referred to as "CITY"). This AGREEMENT is made to amend the prior agreement made between these same parties dated June 15, 2004.

RECITALS

WHEREAS, the timely response to and proper management of incidents involving the intentional or unintentional release of hazardous materials are critical to the protection of human health and the environment; and

WHEREAS, the proper management and control of responses to emergency incidents involving hazardous materials requires highly specialized training, equipment, supplies, communications and other resources in order to provide adequate protection for the health and safety of the public and emergency response personnel; and

WHEREAS, CITY has a hazardous materials response teams (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities; and

WHEREAS, the cost of establishing and maintaining a hazardous materials response team capability is so expensive and occurrence of emergency response incidents requiring the specialized expertise of a hazardous materials response team has increased so significantly that the COUNTY has determined that it would be more economical, feasible and appropriate to utilize the services of the HAZ-MAT TEAM available from the CITY rather than to develop and maintain duplicate response teams in various locations in the unincorporated area of Sacramento County; and

WHEREAS, CITY has offered, subject to consideration, to provide the services of their HAZ-MAT TEAM to Elk Grove Community Services District Fire Department, City of Folsom Fire Department, Galt Fire Protection District, Isleton Fire Protection District, Isleton Fire Department, Wilton Fire Protection District, Walnut Grove Fire Protection District, Delta Fire Protection District, Herald Fire Protection District and Delta Fire Protection District (hereafter called "COUNTY FIRE DISTRICTS") and to COUNTY under the provisions of this agreement and a separate mutual aid agreement:

CITY
AGREEMENT NO. 2006-1086

CITY
AGREEMENT NO. 2006-1086

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, COUNTY and CITY agree as follows:

I. SCOPE OF SERVICES

CITY shall provide services in the amount, type and manner described in Exhibit A, which is attached hereto and incorporated herein.

II. TERM

This Agreement shall be effective and commence as of the date first written above and shall end on July 1, 2009.

III. NOTICE

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	FIRE CHIEF Sacramento Fire Department 5770 Freeport Blvd, Suite 200 Sacramento, CA 95822-3516

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. COMPLIANCE WITH LAWS

CITY and COUNTY shall observe and comply with all applicable Federal, State, and County laws, regulations and ordinances.

V. STATUS OF CITY

1. CITY shall comply with all applicable state, federal and local laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the California State Family Code and Chapter 2.160 of the Sacramento County Code. CITY shall comply with all earnings assignment orders with respect to its employees and shall provide the names of all new employees to the New Hire Registry maintained by the California Employment Development Department;

2. Failure to comply with state and federal reporting requirements regarding CITY employees or failure to implement lawfully served wage and earnings assignment orders or notices of assignment shall constitute a default under this Agreement. Failure to cure such default within 90 days of notice by the COUNTY shall be grounds for termination of the contract.

VII. BENEFITS WAIVER

1. CITY acknowledges and agrees that CITY employees are not entitled to receive the following benefits and/or compensation from COUNTY: medical, dental, vision and retirement benefits, life and disability insurance, sick leave, bereavement leave, jury duty leave, parental leave, or any other similar benefits or compensation otherwise provided to permanent civil service employees pursuant to the County Charter, the County Code, the Civil Service Rule, the Sacramento County Employees' Retirement System and/or any and all memoranda of understanding between COUNTY and its employee organizations. Should CITY or any employee of CITY seek to obtain such benefits from COUNTY, CITY agrees to indemnify and hold harmless COUNTY from any and all claims that may be made against COUNTY for such benefits.

2. CITY agrees to include in all subcontracts subject to this Agreement that subcontractors are not employees of COUNTY and are not entitled to any benefits from COUNTY: medical, dental, vision and retirement benefits, life and disability insurance, sick leave, bereavement leave, jury duty leave, parental leave, or any other similar benefits or compensation otherwise provided to permanent civil service employees pursuant to the County Charter, the County Code, the Civil Service Rule, the Sacramento County Employees' Retirement System and/or any and all memoranda of understanding between COUNTY and its employee organizations.

VIII. CONFLICT OF INTEREST

CITY and CITY officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

IX. NONDISCRIMINATION IN EMPLOYMENT, SERVICES, BENEFITS AND FACILITIES

1. CITY agrees and assures COUNTY that CITY shall comply with all applicable federal, state, and local anti-discrimination laws, regulations, and ordinances and that it will not unlawfully discriminate, harass, or allow harassment against any employee, applicant for employment, employee or agent of COUNTY, or recipient of services contemplated to be provided or provided under this Agreement, because of race, ancestry, marital status, color, religious creed, political belief, national origin, ethnic group identification, sex, sexual orientation, age (over 40), medical condition (including HIV and AIDS), or physical or mental disability. CITY shall ensure that the evaluation and treatment of its employees and applicants for employment, the treatment of COUNTY employees and agents, and recipients of services are free from such discrimination and harassment.

2. CITY represents that it is in compliance with and agrees that it will continue to comply with the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.) and regulations and guidelines issued pursuant thereto.

3. CITY agrees to compile data, maintain records and submit reports as required by law to permit effective enforcement of all applicable antidiscrimination laws and this provision.

4. CITY shall include this nondiscrimination provision in all subcontracts related to this Agreement.

X. INDEMNIFICATION

1. CITY shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of the CITY, its officers, employees, or agents (including its volunteers and students).

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XV. DIRECTOR

As used in this Agreement, "DIRECTOR" shall mean the Director of the Environmental Management Department, or his/her designee.

XVI. DISPUTES

Any dispute arising under this Agreement shall be decided by DIRECTOR and the City of Sacramento Fire Chief, with the assistance of their operational staff. In the event that the DIRECTOR and the City of Sacramento Fire Chief cannot resolve the dispute, the Sacramento County Executive and City of Sacramento City Manager shall meet within thirty (30) days to consider the matter and reach a decision. In the event that the Sacramento County Executive and City of Sacramento City Manager cannot resolve the dispute, the matter shall be set for arbitration according to the rules of the American Arbitration Association within thirty (30) days after either the Sacramento County Executive or City of Sacramento City Manager requests that the matter be set for arbitration. If the parties cannot agree on selection of an arbitrator, they shall request appointment of an arbitrator by the State Mediation Service. The parties shall share equally the cost of the arbitrator.

XVII. TERMINATION

1. Either party may terminate this Agreement without cause upon one hundred eighty (180) days written notice to the other party.

2. COUNTY may terminate this Agreement for cause upon giving thirty (30) days written notice to CITY should CITY materially fail to perform this Agreement in the time and/or manner specified. Before such termination takes effect, however, CITY shall have thirty (30) days to cure the failure to perform. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. If notice of termination for cause is given by COUNTY to CITY and it is later determined that CITY was not in default or the default was excusable, then the notice of termination shall be deemed to have been given without cause pursuant to paragraph 1 above.

3. COUNTY may terminate or amend this Agreement upon giving one hundred twenty (120) days written notice to CITY, if advised that funds are not available from external sources for this Agreement or for any

portion hereof, or if funds in COUNTY yearly proposed and final budget are not appropriated by COUNTY for this Agreement or any portion hereof.

4. If this Agreement is terminated under paragraphs 1, 2 or 3 above, CITY shall be paid for any services completed and provided prior to the date of contract termination, and for all unchangeable obligations incurred by CITY prior to the date of notice. In no event, however, shall COUNTY pay CITY an amount which exceeds a pro rata portion of the Agreement total based on the portion of the Agreement term that has elapsed on the effective date of the termination. Unchangeable obligations include those services required to be provided by CITY due to its "continuity of care" obligations.

5. CITY shall not incur any expenses under this Agreement after notice of termination and shall cancel any outstanding expense obligations to a third party that CITY can legally cancel.

XVIII. REPORTS

CITY shall, without additional compensation therefore, make fiscal, program evaluation, progress, and such other reports as may be reasonably required by DIRECTOR concerning CITY activities as they affect the contract duties and purposes herein. COUNTY shall explain procedures for reporting the required information.

XIX. AUDITS AND RECORDS

Upon COUNTY request, COUNTY or its designee shall have the right at reasonable times and intervals to audit, at CITY premises, CITY financial and program records related to this Agreement as COUNTY deems necessary to determine CITY compliance with legal and contractual requirements and the correctness of claims submitted by CITY. CITY shall maintain such records for a period of four years following termination of the Agreement, and shall make them available for copying upon COUNTY request at COUNTY expense.

XX. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By:

Roberta MacGlashan
Chair, Board of Supervisors

Date: 6/5/06

Attest:

Cindy H Turner
Clerk of the Board

Date: 5-23-06

CITY OF SACRAMENTO, a municipal corporation of the State of California

By:

Gustavo F. Vina, Assistant City Manager
For: Ray Kerridge, City Manager
October 13, 2006

Date: _____

Attest:

Dawn Bullenkell
City Clerk

Date: 10-16-06

APPROVED AS TO FORM:

CITY ATTORNEY

CITY AGREEMENT NO 2006-1086

COUNTY OF SACRAMENTO «TYPE» AGREEMENT NO.«cntrctnmbr»

CITY AGREEMENT NO. 2006-1086

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the CITY OF SACRAMENTO, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the CITY shall dispatch a HAZ MAT TEAM to respond to the scene. If more than two LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the City or County of Sacramento, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Fire Department on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the CITY or the unincorporated areas of the COUNTY.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE DISTRICTS shall include the following:

   a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

   b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

   c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of County departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE DISTRICTS and COUNTY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the CITY to respond outside of Sacramento County.

II. COMPENSATION SCHEDULE

For the services to be provided by CITY, COUNTY shall pay to CITY the following amounts:

For fiscal year 2006-07:	$254,600 base fee, plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to CITY by COUNTY shall not exceed $268,000.
For fiscal year 2007-08:	$273,695 base fee, plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to CITY by COUNTY shall not exceed $288,100.
For fiscal year 2008-09:	Base fee of $273,695 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%), plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to CITY by COUNTY shall not exceed $288,100 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%), plus the actual cost of response for each incident in the COUNTY.

III. BILLING SCHEDULE and INVOICE FORMAT

1. CITY shall submit invoices consistent with the following schedule:

   a. Not later than October 15th of each contract year:

      Amount totaling one-half (1/2) of the base fee

   b. Not later than February 15th of each contract year:

      Amount totaling one-half of the base fee plus CITY costs incurred from responding to hazardous materials incidents from July 1 through December 31 of the contract year.

   c. Not later than July 20th following the conclusion of the contract year:

      Amount totaling CITY costs incurred from responding to hazardous materials incidents from January 1 through June 30 of the contract year.

   d. The total amount billed from all Invoices submitted pursuant to paragraphs 1a, 1b. and 1c. above shall not exceed the total contract limit for the contract year.

2. Costs incurred from responding to hazardous materials incidents shall be documented separately by incident. The following Information will be included:
   a. Date of the incident.
   b. Numbers of hours spent on scene.
   c. Number of personnel responding.
   d. Personnel salary cost.
   e. Any equipment or materials cost.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF SACRAMENTO, hereafter referred to as "CITY"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. CITY shall furnish COUNTY with certificates evidencing coverage required below. **The County Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the County and general public are adequately protected.** All certificates or evidences of self-insurance are to be received and approved by COUNTY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Statutory requirements of the State of California and Employer's Liability Insurance.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to CITY's profession.

5. UMBRELLA or Excess Liability policies are acceptable where the need for

higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverages that are at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Automobile Liability, Employers' Liability, and any other liability coverage designated under the Minimum Scope of Insurance.

III. MINIMUM LIMITS OF INSURANCE

1. General Liability shall be made on an Occurrence basis (as opposed to Claims Made basis). Minimum limits and structure shall be:

General Aggregate:	$2,000,000
Product Comp/Op Aggregate:	$2,000,000
Personal & Adv Injury:	$1,000,000
Each Occurrence:	$1,000,000
Fire Damage:	$ 100,000

2. Automobile Liability: $1,000,000 Combined Single Limit per accident for bodily injury and property damage.

3. Workers' Compensation: Statutory.

4. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

5. Professional Liability or Errors and Omissions Liability: $1,000,000 per occurrence.

RESOLUTION NO. 2006-0630

BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute an agreement to provide for hazardous materials incident response service by the Sacramento City Fire Department to other County Fire Districts, in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, with City of Sacramento and to do and perform everything necessary to carry out the purpose of this Resolution.

On a motion by Supervisor Dickinson, seconded by Supervisor Nottoli, the foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Sacramento this 23rd day of May, 2006, by the following vote, to wit:

AYES: Supervisors, Dickinson, Nottoli, MacGlashan

NOES: Supervisors, None

ABSENT: Supervisors, Collin, Peters

ABSTAIN: Supervisors, None

COUNTY OF SACRAMENTO CALIFORNIA

Roberta MacGlashan
Chair of the Board of Supervisors
of Sacramento County, California

In accordance with Section 25103 of the Government Code of the State of California a copy of the document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on MAY 23 2006

By _____
Deputy Clerk, Board of Supervisors

ATTEST: Cindy L. Turner
Clerk, Board of Supervisors

FILED
MAY 23 2006
BOARD OF SUPERVISORS
BY CLERK OF THE BOARD C. L. Turner

Adopted by the City of Sacramento City Council on October 10, 2006 by the following vote:

Ayes: Councilmembers, Cohn, Fong, Hammond, McCarty, Sheedy, Tretheway, Waters, and Mayor Fargo.

Noes: None.

Abstain: None.

Absent: Councilmember Pannell.

Heather Fargo
Mayor, Heather Fargo

Attest: Shirley Concolino
Shirley Concolino, City Clerk

XXI. TRAINIING

At a frequency not exceeding once each calendar quarter, COUNTY Environmental Management Department will make available at least two of their Incident Response Team personnel to participate in HAZMAT response training conducted by CITY. Each training event shall not exceed eight hours in duration.

COUNTY OF SACRAMENTO AGREEMENT NO. # _____

AGREEMENT

This AGREEMENT is made and entered into as of this 23rd day of May 2006, by and between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE SACRAMENTO METROPOLITAN FIRE DISTRICT, (hereinafter referred to as "METRO"). This AGREEMENT is made to amend the prior agreement made between these same parties dated June 17, 2004.

RECITALS

WHEREAS, the timely response to and proper management of incidents involving the intentional or unintentional release of hazardous materials are critical to the protection of human health and the environment; and

WHEREAS, the proper management and control of responses to emergency incidents involving hazardous materials requires highly specialized training, equipment, supplies, communications and other resources in order to provide adequate protection for the health and safety of the public and emergency response personnel; and

WHEREAS, METRO has recognized the need for expanding the number of hazardous materials response teams available the various fire districts or departments throughout Sacramento County to mitigate situations involving the release of such materials; and

WHEREAS, METRO is developing a hazardous materials response team (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities to augment existing area incident response resources; and

WHEREAS, because the HAZ-MAT TEAM being established by METRO will require a transition period to achieve full operational capability, METRO is not seeking financial consideration over the term of this Agreement; and

WHEREAS, the cost of establishing and maintaining a hazardous materials response team capability is so expensive and occurrence of emergency response incidents requiring the specialized expertise of a hazardous materials response team has increased so significantly that the COUNTY has determined that it would be more economical, feasible and appropriate to utilize the services of the HAZ-MAT TEAM available from METRO rather than to develop and maintain duplicate response teams in various locations in the unincorporated area of Sacramento County; and

WHEREAS, METRO has offered to provide the services of their HAZ-MAT TEAM to hazardous materials incidents within their jurisdiction and on a case by case basis to the Elk Grove Community Services District Fire Department, City of Folsom Fire Department, Galt Fire Protection District, Isleton Fire Protection District, Isleton Fire Department, Wilton Fire Protection District, Walnut Grove Fire Protection District, Delta Fire Protection District, Herald Fire Protection District and Delta Fire Protection District (hereafter called "COUNTY FIRE DISTRICTS") and to COUNTY under the provisions of this agreement and a separate mutual aid agreement:

WHEREAS, COUNTY and METRO desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, COUNTY and METRO agree as follows:

I. **SCOPE OF SERVICES**

METRO shall provide services in the amount, type and manner described in Exhibit A, which is attached hereto and incorporated herein.

II. **TERM**

This Amended Agreement shall be effective and commence as of the date first written above and shall end on July 1, 2009.

III. **NOTICE**

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO METRO
DIRECTOR Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	FIRE CHIEF Sacramento Metropolitan Fire District 2101 Hurley Way Sacramento, CA 95825-3208

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a

change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. COMPLIANCE WITH LAWS

METRO and COUNTY shall observe and comply with all applicable Federal, State, and County laws, regulations and ordinances.

V. STATUS OF METRO

1. It is understood and agreed that METRO (including METRO employees) is an independent special district and that no relationship of employer-employee exists between the parties hereto. METRO assigned personnel shall not be entitled to any benefits payable to employees of COUNTY. COUNTY is not required to make any deductions or withholdings from the compensation payable to METRO under the provisions of this Agreement; and as an independent special district, METRO hereby indemnifies and holds COUNTY harmless from any and all claims that may be made against COUNTY based upon any contention by any employee of METRO that an employer-employee relationship exists by reason of this Agreement.

2. It is further understood and agreed by the parties hereto that METRO in the performance of its obligation hereunder is subject to the control or direction of COUNTY as to the designation of tasks to be performed, the results to be accomplished by the services hereunder agreed to be rendered and performed, and not the means, methods, or sequence used by METRO for accomplishing the results.

3. If, in the performance of this Agreement, any third persons are employed by METRO, such person shall be entirely and exclusively under the direction, supervision, and control of METRO. All terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by METRO, and the COUNTY shall have no right or authority over such persons or the terms of such employment.

4. It is further understood and agreed that as an independent special district, and not an employee of COUNTY, METRO assigned personnel shall not have any entitlement as a COUNTY employee, right to act on behalf of COUNTY in any capacity whatsoever as agent, nor to bind COUNTY to any obligation whatsoever. METRO employees shall not be covered by COUNTY's worker's compensation; nor shall METRO employees be entitled to compensated sick leave,

vacation leave, retirement entitlement, participation in group health, dental, life and other insurance programs, or entitled to other fringe benefits payable by the COUNTY to employees of the COUNTY.

5. It is further understood and agreed that METRO must issue W-2 and 941 Forms for income and employment tax purposes, for all of METRO assigned personnel under the terms and conditions of this Agreement.

VI. COMPLIANCE WITH CHILD, FAMILY AND SPOUSAL SUPPORT REPORTING OBLIGATIONS

1. METRO shall comply with all applicable state, federal and local laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the California State Family Code and Chapter 2.160 of the Sacramento County Code. METRO shall comply with all earnings assignment orders with respect to its employees and shall provide the names of all new employees to the New Hire Registry maintained by the California Employment Development Department;

2. Failure to comply with state and federal reporting requirements regarding METRO employees or failure to implement lawfully served wage and earnings assignment orders or notices of assignment shall constitute a default under this Agreement. Failure to cure such default within 90 days of notice by the COUNTY shall be grounds for termination of the contract.

VII. BENEFITS WAIVER

1. METRO acknowledges and agrees that METRO employees are not entitled to receive the following benefits and/or compensation from COUNTY: medical, dental, vision and retirement benefits, life and disability insurance, sick leave, bereavement leave, jury duty leave, parental leave, or any other similar benefits or compensation otherwise provided to permanent civil service employees pursuant to the County Charter, the County Code, the Civil Service Rule, the Sacramento County Employees' Retirement System and/or any and all memoranda of understanding between COUNTY and its employee organizations. Should METRO or any employee of METRO seek to obtain such benefits from COUNTY, METRO agrees to indemnify and hold harmless COUNTY from any and all claims that may be made against COUNTY for such benefits.

2. METRO agrees to include in all subcontracts subject to this Agreement that subcontractors are not employees of COUNTY and are not entitled

to any benefits from COUNTY: medical, dental, vision and retirement benefits, life and disability insurance, sick leave, bereavement leave, jury duty leave, parental leave, or any other similar benefits or compensation otherwise provided to permanent civil service employees pursuant to the County Charter, the County Code, the Civil Service Rule, the Sacramento County Employees' Retirement System and/or any and all memoranda of understanding between COUNTY and its employee organizations.

VIII. CONFLICT OF INTEREST

METRO and METRO officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

IX. NONDISCRIMINATION IN EMPLOYMENT, SERVICES, BENEFITS AND FACILITIES

1. METRO agrees and assures COUNTY that METRO shall comply with all applicable federal, state, and local anti-discrimination laws, regulations, and ordinances and that it will not unlawfully discriminate, harass, or allow harassment against any employee, applicant for employment, employee or agent of COUNTY, or recipient of services contemplated to be provided or provided under this Agreement, because of race, ancestry, marital status, color, religious creed, political belief, national origin, ethnic group identification, sex, sexual orientation, age (over 40), medical condition (including HIV and AIDS), or physical or mental disability. METRO shall ensure that the evaluation and treatment of its employees and applicants for employment, the treatment of COUNTY employees and agents, and recipients of services are free from such discrimination and harassment.

2. METRO represents that it is in compliance with and agrees that it will continue to comply with the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.) and regulations and guidelines issued pursuant thereto.

3. METRO agrees to compile data, maintain records and submit reports as required by law to permit effective enforcement of all applicable antidiscrimination laws and this provision.

4. METRO shall include this nondiscrimination provision in all subcontracts related to this Agreement.

X. INDEMNIFICATION

1. METRO shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of METRO, its officers, employees, or agents (including its volunteers and students).

2. COUNTY shall indemnify, defend, and hold harmless METRO and its officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of COUNTY, its Board of Supervisors, officers, employees, or agents (including its volunteers).

XI. INSURANCE

Without limiting METRO indemnification, METRO shall maintain in force at all times during the term of this Agreement and any extensions or modifications hereto, insurance as specified in Exhibit B. It is understood and agreed that COUNTY shall not pay any sum to METRO under this Agreement unless and until COUNTY is satisfied that all insurance required by this Agreement is in force at the time services hereunder are rendered.

XII. SUBCONTRACTS, ASSIGNMENT

1. Any subcontracting will be subject to all applicable provisions of this Agreement. Subcontracting services delivered under this Agreement shall not in any way relieve METRO of any duty or responsibility under this Agreement and METRO shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by METRO in whole or in part, without the prior written consent of COUNTY.

XIII. AMENDMENT AND WAIVER

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder. No interpretation of any provision of this Agreement shall be binding upon COUNTY unless agreed in writing by DIRECTOR and counsel for COUNTY.

XIV. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XV. DIRECTOR

As used in this Agreement, "DIRECTOR" shall mean the Director of the Environmental Management Department, or his/her designee.

XVI. DISPUTES

Any dispute arising under this Agreement shall be decided by DIRECTOR who shall put his decision in writing and mail a copy thereof to the address for notice to METRO. The decision of DIRECTOR shall be final unless within thirty (30) days from the date of mailing of such copy METRO appeals the decision in writing to the Sacramento County Board of Supervisors. In connection with any appeal proceeding under this paragraph, METRO shall be afforded the opportunity to be heard and offer evidence in support of its appeal. Pending a final decision of dispute hereunder METRO shall proceed diligently with the performance of the Agreement and in accordance with DIRECTOR's decision, unless the DIRECTOR's decision states otherwise. The decision of the Board of Supervisors on the appeal shall be the COUNTY's final decision.

XVII. TERMINATION

1. Either party may terminate this Agreement without cause upon thirty (30) days written notice to the other party.

2. COUNTY may terminate this Agreement for cause upon giving ten (10) days written notice to METRO should METRO materially fail to perform this Agreement in the time and/or manner specified. Before such

termination takes effect, however, METRO shall have ten (10) days to cure the failure to perform. In the event of such termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. If notice of termination for cause is given by COUNTY to METRO and it is later determined that METRO was not in default or the default was excusable, then the notice of termination shall be deemed to have been given without cause pursuant to paragraph 1 above.

3. METRO shall not incur any expenses under this Agreement after notice of termination and shall cancel any outstanding expense obligations to a third party that METRO can legally cancel.

XVIII. REPORTS

METRO shall, without additional compensation therefore, make fiscal, program evaluation, progress, and such other reports as may be reasonably required by DIRECTOR concerning METRO activities as they affect the contract duties and purposes herein. COUNTY shall explain procedures for reporting the required information.

XIX. AUDITS AND RECORDS

Upon COUNTY request, COUNTY or its designee shall have the right at reasonable times and intervals to audit, at METRO premises, METRO program records related to this Agreement as COUNTY deems necessary to determine METRO compliance with legal and contractual requirements. METRO shall maintain such records for a period of four years following termination of the Agreement, and shall make them available for copying upon COUNTY request at COUNTY expense.

XX. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and METRO regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and METRO regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By:

Roberta MacGlashan Date: 6/5/06
Chair, Board of Supervisors

Attest:

Cindy H. Inman Date: 5-23-06
Clerk of the Board

Sacramento Metropolitan Fire District

By:

Date: 6/13/06
Fire Chief

Attest:

Charlotte Tilson Date: 6/13/06
Clerk of the Board

COUNTY OF SACRAMENTO «TYPE» AGREEMENT NO.«cntrctnmbr»

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the SACRAMENTO METROPLITAN FIRE DISTRICT, hereafter referred to as "METRO"

I. SCOPE OF SERVICES

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the METRO shall dispatch a HAZ MAT TEAM to respond to the scene. If more than three LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the METRO or County of Sacramento, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Metropolitan Fire Department on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the Sacramento Metropolitan Fire District or other areas of Sacramento County.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE DISTRICTS shall include the following:

   a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

   b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

   c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to

mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of County departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE DISTRICTS and COUNTY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the METRO to respond outside of Sacramento County.

II. COMPENSATION SCHEDULE

For the services provided by METRO, COUNTY shall pay to METRO the following amounts:

For fiscal year 2006-07:	$125,400 base fee, plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to METRO by COUNTY shall not exceed $132,000.
For fiscal year 2007-08:	$134,805 base fee, plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to METRO by COUNTY shall not exceed $141,900.
For fiscal year 2008-09:	Base fee of $134,805 adjusted by a percentage increase as indicated by the United States City Average consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%), plus the actual cost of response for each incident in the COUNTY. The total amount (base fee plus response cost) paid to METRO by COUNTY shall not exceed $141,900 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest 1%), plus the actual cost of response for each incident in the COUNTY.

III. BILLING SCHEDULE and INVOICE FORMAT

1. METRO shall submit invoices consistent with the following schedule:
   a. Not later than October 15th of each contract year:

      Amount totaling one-half (1/2) of the base fee

   b. Not later than February 15th of each contract year:

      Amount totaling one-half of the base fee plus METRO costs incurred from responding to hazardous materials incidents form July 1 through December 31 of the contract year.

   c. Not later than July 20th following the conclusion of the contract year:

      Amount totaling METRO costs incurred from responding to hazardous materials incidents from January 1 through June 30 of the contract year.

   d. The total amount billed from all Invoices submitted pursuant to paragraphs 1a, 1b and 1c above shall not exceed the total contract limit for the contract year.

2. Costs incurred from responding to hazardous materials incidents shall be documented separately by incident. The following information will be included:
   a. Date of the incident.
   b. Numbers of hours spent on scene.
   c. Number of personnel responding.
   d. Personnel salary cost.
   e. Any equipment or materials cost.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the SACRAMENTO METROPOLITAN FIRE DISTRICT, hereafter referred to as "METRO"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. METRO shall furnish COUNTY with certificates evidencing coverage required below. **The County Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the County and general public are adequately protected.** All certificates or evidences of self-insurance are to be received and approved by COUNTY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Legally self-insured.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to METRO's profession.

5. UMBRELLA or Excess Liability policies are acceptable where the need for

higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverages that are at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Automobile Liability, Employers' Liability, and any other liability coverage designated under the Minimum Scope of Insurance.

III. MINIMUM LIMITS OF INSURANCE

1. General Liability shall be made on an Occurrence basis (as opposed to Claims Made basis). Minimum limits and structure shall be:

General Aggregate:	$2,000,000
Product Comp/Op Aggregate:	$2,000,000
Personal & Adv Injury:	$1,000,000
Each Occurrence:	$1,000,000
Fire Damage:	$ 100,000

2. Automobile Liability: $1,000,000 Combined Single Limit per accident for bodily injury and property damage.

3. Workers' Compensation: Statutory.

4. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

5. Professional Liability or Errors and Omissions Liability: $1,000,000 per occurrence.

EIR

RECEIVED
JUN 16 2006
ENVIRONMENTAL MANAGEMENT DEPT.
HAZARDOUS MATERIALS DIVISION

RESOLUTION NO. 2006-0631

BE IT RESOLVED AND ORDERED that the Chair of the Board of Supervisors be and is hereby authorized and directed to execute an agreement to provide for hazardous materials incident response service by the Sacramento Metropolitan Fire District to other County Fire Districts, in the form hereto attached, on behalf of the COUNTY OF SACRAMENTO, a political subdivision of the State of California, and to do and perform everything necessary to carry out the purpose of this Resolution.

On a motion by Supervisor Dickinson, seconded by Supervisor Nottoli, the foregoing Resolution was passed and adopted by the Board of Supervisors of the County of Sacramento this 23rd day of May, 2006, by the following vote, to wit:

AYES: Supervisors, Dickinson, Nottoli, MacGlashan

NOES: Supervisors, None

ABSENT: Supervisors, Collin, Peters

ABSTAIN: Supervisors, None

Roberta MacGlashan
Chair of the Board of Supervisors
of Sacramento County, California

In accordance with Section 25103 of the Government Code of the State of California a copy of the document has been delivered to the Chairman of the Board of Supervisors, County of Sacramento on MAY 23 2006

By _____
Deputy Clerk, Board of Supervisors

(SEAL)

ATTEST: Cindy H. Turner
Clerk, Board of Supervisors

FILED
MAY 23 2006
BOARD OF SUPERVISORS
BY Cindy H. Turner
CLERK OF THE BOARD

The foregoing is a correct copy of a resolution adopted by the Board of Supervisors, Sacramento County, California

on 5-23-06

Dated 6-1-06

Clerk of said Board of Supervisors

By Bud Jukkola
Deputy

Appendix K

JOINT AGREEMENTS BETWEEN EMD AND INCORPORATED CITIES IN SACRAMENTO COUNTY

CITY OF CITRUS HEIGHTS

RECEIVED
JUN 29 2006
ENTAL MANAGEMENT DEPT.

COUNTY OF SACRAMENTO AGREEMENT NO. # _____

AGREEMENT

THIS AGREEMENT is made and entered into as of this 23 day of June, 2006, between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE CITY OF CITRUS HEIGHTS, a municipal corporation of the State of California (hereinafter referred to as "CITY").

RECITALS

WHEREAS, the timely response to and proper management of incidents involving the intentional or unintentional release of hazardous materials are critical to the protection of human health and the environment; and

WHEREAS, the proper management and control of responses to emergency incidents involving hazardous materials requires highly specialized training, equipment, supplies, communications and other resources in order to provide adequate protection for the health and safety of the public and emergency response personnel; and

WHEREAS, COUNTY has entered into contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" to provide hazardous materials response teams (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities; and

WHEREAS, the cost of establishing and maintaining a hazardous materials response team capability is so expensive and occurrence of emergency response incidents requiring the specialized expertise of a hazardous materials response team has increased so significantly that the CITY has determined that it would be more economical, feasible and appropriate to utilize the services of the HAZ-MAT TEAM available from the COUNTY through its contractual agreements with CONTRACTORS rather than to develop and maintain duplicate response teams; and

WHEREAS, COUNTY has offered, subject to consideration, to include CITY within the scope of service coverage of HAZ-MAT TEAM through the provisions of its contractual agreements with CONTRACTORS and a separate mutual aid agreement:

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

I. SCOPE OF SERVICES

COUNTY provide services in the amount, type and manner described in Exhibit "A", which is attached hereto and incorporated herein. Payment to be made by CITY per Exhibit "B" which is attached hereto and incorporated herein.

II. TERM

This Agreement shall be effective and commence as July 1, 2006 and shall end on June 30, 2009.

III. NOTICE

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Sacramento County Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	CITY MANAGER City of Citrus Heights 6237 Fountain Square Drive Citrus Heights, CA 95621

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. COMPLIANCE WITH LAWS

CITY and COUNTY shall observe and comply with all applicable Federal, State, and County laws, regulations and ordinances.

V. CONFLICT OF INTEREST

CITY and CITY officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

VI. INDEMNIFICATION

1. CITY shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, contractors and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of the CITY, its officers, employees, or agents (including its volunteers and students).

2. COUNTY shall indemnify, defend, and hold harmless CITY and its officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of COUNTY, its Board of Supervisors, officers, employees, or agents (including its volunteers).

VII. INSURANCE

Without limiting COUNTY or CONTRACTORS indemnification, COUNTY and CONTRACTORS shall maintain in force at all times during the term of this Agreement and any extensions or modifications hereto, insurance as specified in Exhibit C.

VIII. SUBCONTRACTS, ASSIGNMENT

1. Any subcontracting will be subject to all applicable provisions of this Agreement. Subcontracting services delivered under this Agreement shall not in any way relieve COUNTY of any duty or responsibility under this Agreement and COUNTY shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by COUNTY in whole or in part, without the prior written consent of CITY.

IX. AMENDMENT AND WAIVER

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

X. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XI. TERMINATION

Either party may terminate this Agreement upon one hundred and eighty (180) days written notice to the other party. Notice shall be deemed served on the date of mailing.

XII. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By: _____ Date: 6/30/2006

Director, Sacramento County
Environmental Management Department

Attest: _____ Date: 6-30-06

County Counsel

CITY OF CITRUS HEIGHTS, a municipal corporation of the State of California

By: _____ Date: 6/28/06

City Manager

Attest: _____ Date: 6/29/06

City Clerk

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the CITY OF CITRUS HEIGHTS, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

COUNTY DESCRIPTION OF SERVICES

COUNTY will work within a partnership relationship with CITY and provide the following services:

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the COUNTY, through its contractual agreement with CONTRACTORS, shall provide for the dispatch a HAZ MAT TEAM to respond to the scene. If more than three LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the CITY or other areas of the COUNTY, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Fire Department or Sacramento Metropolitan Fire Protection District on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the CITY or other areas of the COUNTY.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE DISTRICTS shall include the following:

    a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the CITY Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of CITY departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency

broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE DISTRICTS and CITY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the COUNTY to provide HAZ-MAT TEAM services outside of Sacramento County.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF CITRUS HEIGHTS, hereafter referred to as "CITY"

COMPENSATION SCHEDULE

1. For the services provided by County through its contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, CITY shall pay to COUNTY the following amounts:

   For fiscal year 2006-07 beginning July 1, 2006: $ 40,000

   For fiscal year 2007-08 beginning July 1, 2007: $ 43,000

   For fiscal year 2008-09 beginning July 1, 2008: $ 43,000 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%)

2. Payment will be provided through in two equal semi-annual payments due on September 1st and March 1st during each contract year.

3. Payment shall be made to Sacramento County Environmental Management Department and sent to the following address:

   Sacramento County Environmental Management Department
   8475 Jackson Road, Suite 230
   Sacramento, CA 95628

EXHIBIT C to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF CITRUS HEIGHTS, hereafter referred to as "CITY"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. If requested, COUNTY shall furnish CITY with certificates evidencing coverage of the Sacramento Fire Department and Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" as required below. The COUNTY Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the COUNTY, CITY, and general public are adequately protected. All CONTRACTOR certificates or evidences of self-insurance are to be received and approved by COUNTY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage of CONTRACTORS shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Statutory requirements of the State of California and Employer's Liability Insurance.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to CONTRACTORS profession.

5. UMBRELLA or Excess Liability policies are acceptable where the need for higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverage that are at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Automobile Liability, Employers' Liability, and any other liability coverage designated under the Minimum Scope of Insurance.

III. MINIMUM LIMITS OF INSURANCE

1. General Liability shall be made on an Occurrence basis (as opposed to Claims Made basis). Minimum limits and structure shall be:

General Aggregate:	$2,000,000
Product Comp/Op Aggregate:	$2,000,000
Personal & Adv Injury:	$1,000,000
Each Occurrence:	$1,000,000
Fire Damage:	$ 100,000

2. Automobile Liability: $1,000,000 Combined Single Limit per accident for bodily injury and property damage.

3. Workers' Compensation: Statutory.

4. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

5. Professional Liability or Errors and Omissions Liability: $1,000,000 per occurrence.

COUNTY OF SACRAMENTO AGREEMENT NO. # _____

AGREEMENT

THIS AGREEMENT is made and entered into as of this 3rd day of Nov. 2004, between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE CITY OF ELK GROVE, a municipal corporation of the State of California (hereinafter referred to as "CITY").

WHEREAS, COUNTY has entered into contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" to provide hazardous materials response teams (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities; and

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

I. **SCOPE OF SERVICES**

COUNTY provide services in the amount, type and manner described in Exhibit "A", which is attached hereto and incorporated herein.

II. **TERM**

This Agreement shall be effective and commence as of July 1, 2004 and shall end on June 30, 2009.

III. **NOTICE**

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Sacramento County Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	CITY MANAGER City of Elk Grove 8400 Laguna Palms Way Elk Grove, CA 95758

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. COMPLIANCE WITH LAWS

CITY and COUNTY shall observe and comply with all applicable Federal, State, and County laws, regulations and ordinances.

V. CONFLICT OF INTEREST

CITY and CITY officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

VI. INDEMNIFICATION

1. CITY shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, contractors and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of the CITY, its officers, employees, or agents (including its volunteers and students).

2. COUNTY shall indemnify, defend, and hold harmless CITY and its officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of COUNTY, its Board of Supervisors, officers, employees, or agents (including its volunteers).

VII. INSURANCE

Without limiting COUNTY or CONTRACTORS indemnification, COUNTY and CONTRACTORS shall maintain in force at all times during the term of this Agreement and any extensions or modifications hereto, insurance as specified in Exhibit C.

VIII. SUBCONTRACTS, ASSIGNMENT

1. Any subcontracting will be subject to all applicable provisions of this Agreement. Subcontracting services delivered under this Agreement shall not in any way relieve COUNTY of any duty or responsibility under this Agreement and COUNTY shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by COUNTY in whole or in part, without the prior written consent of CITY.

IX. AMENDMENT AND WAIVER

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

X. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XI. TERMINATION

Either party may terminate this Agreement upon one hundred and eighty (180) days written notice to the other party. Notice shall be deemed served on the date of mailing.

XII. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By: _____ Date: 10/26/2004

Director, Sacramento County
Environmental Management Department

Attest: _____ Date: 11-12-04

County Counsel

CITY OF ELK GROVE, a municipal corporation of the State of California

By: _____ Date: 11/5/04

City Manager

Attest: _____ Date: 11/8/04

City Clerk

Approved as to form: _____ Date: 10/29/04

Anthony Manzanetti, City Attorney

COUNTY OF SACRAMENTO «TYPE» AGREEMENT NO.«cntrctnmbr»

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the CITY OF ELK GROVE, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

COUNTY DESCRIPTION OF SERVICES

COUNTY will work within a partnership relationship with CITY and provide the following services:

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the COUNTY, through its contractual agreement with CONTRACTORS, shall provide for the dispatch a HAZ MAT TEAM to respond to the scene. If more than three LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the CITY or other areas of the COUNTY, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Fire Department or Sacramento Metropolitan Fire Protection District on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the CITY or other areas of the COUNTY.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE DISTRICTS shall include the following:

    a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the CITY Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of CITY departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency

broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE DISTRICTS and CITY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the COUNTY to provide HAZ-MAT TEAM services outside of Sacramento County.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF ELK GROVE, hereafter referred to as "CITY"

COMPENSATION SCHEDULE

1. For the services provided by County through its contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, CITY shall pay to COUNTY the following amounts:

   For fiscal year 2004-05 beginning July 1, 2004: $44,280

   For fiscal year 2005-06 beginning July 1, 2005: $46,740

   For fiscal year 2006-07 beginning July 1, 2006: $49,200

   For fiscal year 2007-08 beginning July 1, 2007: $52,890

   For fiscal year 2008-09 beginning July 1, 2008: $52,890 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%)

2. Payment will be provided through in two equal semi-annual payments due on September 1st and March 1st during each contract year.

3. Payment shall be made to Sacramento County Environmental Management Department and sent to the following address:

   Sacramento County Environmental Management Department
   8475 Jackson Road, Suite 230
   Sacramento, CA 95628

EXHIBIT C to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF ELK GROVE, hereafter referred to as "CITY"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. If requested, COUNTY shall furnish CITY with certificates evidencing coverage of the Sacramento Fire Department and Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" as required below. The COUNTY Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the COUNTY, CITY, and general public are adequately protected. All CONTRACTOR certificates or evidences of self-insurance are to be received and approved by COUNTY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage of CONTRACTORS shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Statutory requirements of the State of California and Employer's Liability Insurance.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to CONTRACTORS profession.

5. UMBRELLA or Excess Liability policies are acceptable where the need for higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverage that are at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Automobile Liability, Employers' Liability, and any other liability coverage designated under the Minimum Scope of Insurance.

III. MINIMUM LIMITS OF INSURANCE

1. General Liability shall be made on an Occurrence basis (as opposed to Claims Made basis). Minimum limits and structure shall be:

General Aggregate:	$2,000,000
Product Comp/Op Aggregate:	$2,000,000
Personal & Adv Injury:	$1,000,000
Each Occurrence:	$1,000,000
Fire Damage:	$ 100,000

2. Automobile Liability: $1,000,000 Combined Single Limit per accident for bodily injury and property damage.

3. Workers' Compensation: Statutory.

4. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

5. Professional Liability or Errors and Omissions Liability: $1,000,000 per occurrence.

CITY OF FOLSOM

COUNTY OF SACRAMENTO **AGREEMENT NO. #** EMD 001

AGREEMENT

THIS AGREEMENT is made and entered into as of this 21 day of Dec, 2004, between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE CITY OF FOLSOM, a municipal corporation of the State of California (hereinafter referred to as "CITY").

RECITALS

WHEREAS, the timely response to and proper management of incidents involving the intentional or unintentional release of hazardous materials are critical to the protection of human health and the environment; and

WHEREAS, the proper management and control of responses to emergency incidents involving hazardous materials requires highly specialized training, equipment, supplies, communications and other resources in order to provide adequate protection for the health and safety of the public and emergency response personnel; and

WHEREAS, COUNTY has entered into contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" to provide hazardous materials response teams (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities; and

WHEREAS, the cost of establishing and maintaining a hazardous materials response team capability is so expensive and occurrence of emergency response incidents requiring the specialized expertise of a hazardous materials response team has increased so significantly that the CITY has determined that it would be more economical, feasible and appropriate to utilize the services of the HAZ-MAT TEAM available from the COUNTY through its contractual agreements with CONTRACTORS rather than to develop and maintain duplicate response teams; and

WHEREAS, COUNTY has offered, subject to consideration, to include CITY within the scope of service coverage of HAZ-MAT TEAM through the provisions of its contractual agreements with CONTRACTORS and a separate mutual aid agreement:

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

I. **SCOPE OF SERVICES**

COUNTY provide services in the amount, type and manner described in Exhibit "A", which is attached hereto and incorporated herein.
PAYMENT TO BE MADE BY CITY PER EXHIBIT "B".

II. **TERM**

This Agreement shall be effective and commence as July 1, 2004 and shall end on June 30, 2009.

III. **NOTICE**

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Sacramento County Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	CITY MANAGER City of Folsom 50 Natoma Street Folsom, CA 95630

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. **COMPLIANCE WITH LAWS**

CITY and COUNTY shall observe and comply with all applicable Federal, State, and County laws, regulations and ordinances.

V. **CONFLICT OF INTEREST**

CITY and CITY officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

VI. **INDEMNIFICATION**

1. CITY shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, contractors and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of the CITY, its officers, employees, volunteers or agents.

2. COUNTY shall indemnify, defend, and hold harmless CITY and its officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of COUNTY, its Board of Supervisors, officers, employees, volunteers or agents.

VII. **INSURANCE**

Without limiting COUNTY or CONTRACTORS indemnification, COUNTY and CONTRACTORS shall maintain in force at all times during the term of this Agreement and any extensions or modifications hereto, insurance as specified in Exhibit C.

VIII. SUBCONTRACTS, ASSIGNMENT

1. COUNTY shall not subcontract any portion of the work provided in this Agreement, except to the CONTRACTORS, without the prior written consent of the City. COUNTY shall not permit CONTRACTORS to subcontract any of the work CONTRACTORS are to provide without the prior written consent of the City. Subcontracting services delivered under this Agreement shall not in any way relieve COUNTY of any duty or responsibility under this Agreement and COUNTY shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by COUNTY in whole or in part, without the prior written consent of CITY.

IX. AMENDMENT AND WAIVER

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

X. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XI. TERMINATION

Either party may terminate this Agreement upon one hundred and eighty (180) days written notice to the other party. Notice shall be deemed served on the date of mailing.

XII. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By: _____ Date: 1/4/2005

Director, Sacramento County
Environmental Management Department

Attest:

_____ Date: 1-5-05
County Counsel

CITY OF FOLSOM, a municipal corporation of the State of California

By:

_____ Date: 12-20-04
City Manager

_____ Date: 12/15/04
Finance Director

Attest:

_____ Date: 12-21-04
City Clerk

Approved as to form:

_____ Date: 12/17/04
Steven P. Rudolph, City Attorney

COUNTY OF SACRAMENTO «TYPE» AGREEMENT NO.«cntrctnmbr»

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the CITY OF FOLSOM, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

COUNTY DESCRIPTION OF SERVICES

COUNTY shall provide the following services:

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the COUNTY, through its contractual agreement with CONTRACTORS, shall provide for the dispatch a HAZ MAT TEAM to respond to the scene. If more than three LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the CITY or other areas of the COUNTY, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Fire Department or Sacramento Metropolitan Fire Protection District on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the CITY or other areas of the COUNTY.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE AGENCIES shall include the following:

    a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

    b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the CITY Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of CITY departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE AGENCIES and CITY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the COUNTY to provide HAZ-MAT TEAM services outside of Sacramento County.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF FOLSOM, hereafter referred to as "CITY"

COMPENSATION SCHEDULE

1. For the services provided by County through its contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, CITY shall pay to COUNTY the following amounts:

   For fiscal year 2004-05 beginning July 1, 2004: $23,040

   For fiscal year 2005-06 beginning July 1, 2005: $24,320

   For fiscal year 2006-07 beginning July 1, 2006: $25,600

   For fiscal year 2007-08 beginning July 1, 2007: $27,520

   For fiscal year 2008-09 beginning July 1, 2008: $27,520 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%)

2. Payment will be provided through two equal semi-annual payments due on September 1st and March 1st during each contract year.

3. Payment shall be made to Sacramento County Environmental Management Department and sent to the following address:

   Sacramento County Environmental Management Department
   8475 Jackson Road, Suite 230
   Sacramento, CA 95628

EXHIBIT C to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF FOLSOM, hereafter referred to as "CITY"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. COUNTY shall furnish CITY with certificates evidencing coverage of the Sacramento Fire Department and Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" as required below. The COUNTY Risk Manager may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the COUNTY, CITY, and general public are adequately protected. All CONTRACTOR certificates or evidences of self-insurance are to be received and approved by COUNTY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage of CONTRACTORS shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Statutory requirements of the State of California and Employer's Liability Insurance.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to CONTRACTORS profession.

CITY OF GALT

COUNTY OF SACRAMENTO **AGREEMENT NO. # _____**

AGREEMENT

THIS AGREEMENT is made and entered into as of this 10th day of Oct, 2004, between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and THE CITY OF GALT, a municipal corporation of the State of California (hereinafter referred to as "CITY").

RECITALS

WHEREAS, the timely response to and proper management of incidents involving the intentional or unintentional release of hazardous materials are critical to the protection of human health and the environment; and

WHEREAS, the proper management and control of responses to emergency incidents involving hazardous materials requires highly specialized training, equipment, supplies, communications and other resources in order to provide adequate protection for the health and safety of the public and emergency response personnel; and

WHEREAS, COUNTY has entered into contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" to provide hazardous materials response teams (hereinafter called "HAZ-MAT TEAM"), with specialized apparatus, equipment and capabilities; and

WHEREAS, the cost of establishing and maintaining a hazardous materials response team capability is so expensive and occurrence of emergency response incidents requiring the specialized expertise of a hazardous materials response team has increased so significantly that the CITY has determined that it would be more economical, feasible and appropriate to utilize the services of the HAZ-MAT TEAM available from the COUNTY through its contractual agreements with CONTRACTORS rather than to develop and maintain duplicate response teams; and

WHEREAS, COUNTY has offered, subject to consideration, to include CITY within the scope of service coverage of HAZ-MAT TEAM through the provisions of its contractual agreements with CONTRACTORS and a separate mutual aid agreement:

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

I. **SCOPE OF SERVICES**

COUNTY provide services in the amount, type and manner described in Exhibit "A", which is attached hereto and incorporated herein.

II. **TERM**

This Agreement shall be effective and commence as of July 1, 2004 and shall end on June 30, 2009.

III. **NOTICE**

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Sacramento County Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	CITY MANAGER City of Galt 380 Civic Drive Galt, CA 95632

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

IV. COMPLIANCE WITH LAWS

CITY and COUNTY shall observe and comply with all applicable Federal, State, County and City laws, regulations and ordinances.

V. CONFLICT OF INTEREST

CITY and CITY officers and employees shall not have a financial interest, or acquire any financial interest, direct or indirect, in any business, property, or source of income which could be financially affected by or otherwise conflict in any manner or degree with the performance of services required under this Agreement.

VI. INDEMNIFICATION

1. CITY shall indemnify, defend and hold harmless COUNTY, its Board of Supervisors, officers, directors, agents, employees, contractors and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of the CITY, its officers, employees, or agents (including its volunteers).

2. COUNTY shall indemnify, defend, and hold harmless CITY and its City Council, officers, directors, agents, employees, and volunteers, from and against any and all liability, loss, expense (including payment of reasonable attorney's fees), or claims for injury or damages arising out of the performance of this Agreement, only in proportion to and to the extent such liability, loss, expense, attorneys' fees or claims for injury or damages are caused by or result from the negligent or intentional act or omission of COUNTY, its Board of Supervisors, officers, employees, CONTRACTORS, or agents (including its volunteers).

VII. INSURANCE

Without limiting COUNTY or CONTRACTORS indemnification, COUNTY and CONTRACTORS shall maintain in force at all times during the term of this Agreement and any extensions or modifications hereto, insurance as specified in Exhibit C.

VIII. **SUBCONTRACTS, ASSIGNMENT**

1. Any subcontracting will be subject to all applicable provisions of this Agreement. Subcontracting services delivered under this Agreement shall not in any way relieve COUNTY of any duty or responsibility under this Agreement and COUNTY shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by COUNTY in whole or in part, without the prior written consent of CITY.

IX. **AMENDMENT AND WAIVER**

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

X. **INTERPRETATION**

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be construed or interpreted more favorably for one party on the basis that the other party prepared it.

XI. **TERMINATION**

Either party may terminate this Agreement upon one hundred and eighty (180) days written notice to the other party. Notice shall be deemed served on the date of mailing.

XII. **PRIOR AGREEMENTS**

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By: _____ Date: 10/4/04

Director, Sacramento County
Environmental Management Department

Attest: _____ Date: 10-25-04

County Counsel

CITY OF GALT, a municipal corporation of the State of California

By: _____ Date: Sept. 24, 04

City Manager

Attest: _____ Date: 9-28-04

City Clerk

Approved as to form:

_____ Date: 9-28-04

City Attorney

COUNTY OF SACRAMENTO «TYPE» AGREEMENT NO.«cntrctnmbr»

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
and the CITY OF GALT, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

COUNTY DESCRIPTION OF SERVICES

COUNTY will work within a partnership relationship with CITY and provide the following services:

1. Immediately upon notification of an emergency situation involving hazardous materials that has been classified as a LEVEL II or LEVEL III INCIDENT, the COUNTY, through its contractual agreement with CONTRACTORS, shall provide for the dispatch a HAZ MAT TEAM to respond to the scene. If more than three LEVEL II or LEVEL III hazardous materials incidents are occurring simultaneous within the CITY or other areas of the COUNTY, the determination of the priority of response by a HAZ-MAT TEAM shall be at the sole discretion of the highest ranking chief officer of the Sacramento Fire Department or Sacramento Metropolitan Fire Protection District on-duty or on-call at the time, based upon the assessment of the risks to the public or environment associated with the incident without regard to whether the incident is within the CITY or other areas of the COUNTY.

2. Immediately upon arrival at the scene of the emergency hazardous materials incident, the HAZ-MAT TEAM Captain shall report to the Incident Commander having jurisdiction, and shall establish the Haz-Mat Group as identified in the Incident Command System. The Haz-Mat Group Safety Officer shall make immediate contact with the Safety Officer of the incident.

3. The services to be provided by the HAZ-MAT TEAM to COUNTY or COUNTY FIRE DISTRICTS shall include the following:

    a. Assessing the scene as to the appropriate classification of the level of the incident, determination of any additional personal or environmental protective measures that may be required without further delay and determining the possible need for an additional assistance not already requested;

b. Providing rescue to victims, if necessary, and if possible without exposing emergency response personnel to unreasonable life-threatening risks;

c. Identification of the types and quantities of any hazardous materials involved, determination of the hazards they pose to life, environment and property, and advice as to appropriate measures necessary to mitigate, contain and suppress the emergency hazardous materials incident;

d. Providing advice, assistance and special supplies in the extinguishment of any fires that may exist or pose a threat, if such extinguishment is considered to be essential by the Incident Commander, and in the selection of extinguishing agents to be utilized and the methods of application;

e. Providing advice, assistance and location of special supplies in the suppression and containment of the hazardous materials involved in the incident including measures such as temporary diking, diverting, channeling, plugging, removal of fuel, and the elimination of ignition sources.

f. Providing advice and assistance in the establishment of a Field Command Post in an appropriate and safe location;

g. Providing advice and assistance in the establishment of a Resource Pool Staging Area in an appropriate and safe location;

h. Providing advice and assistance in the determination and establishment of any restricted (hot) or limited access (warm) zones, and any areas that may need to be evaluated;

i. Providing technical coordination with any private sector resources that may be involved in response to the emergency hazardous materials incidents;

j. Providing advice and assistance to the County Environmental Management Department, the CITY Department of Public Works, and the Emergency Operations Division of the Department of General Services of County as may be requested for the purpose of declaring a health emergency or a state of emergency, coordinating emergency response activities of CITY departments, and clean-up and restoration of the affected site to normal daily use;

k. Providing technical information to the Incident Commander for dissemination to the public through the facilities of the Emergency

broadcast System or directly to news media regarding the emergency hazardous materials incident;

l. Providing advice and assistance as necessary, in the training of COUNTY FIRE DISTRICTS and CITY emergency response personnel; and

m. Providing information as to the cost of the response by HAZ-MAT TEAM.

4. Nothing in this Agreement or any Exhibit thereto shall obligate the COUNTY to provide HAZ-MAT TEAM services outside of Sacramento County.

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF GALT, hereafter referred to as "CITY"

COMPENSATION SCHEDULE

1. For the services provided by County through its contractual agreements with the Sacramento Fire Department and the Sacramento Metropolitan Fire District, CITY shall pay to COUNTY the following amounts:

   For fiscal year 2004-05 beginning July 1, 2004: $9,000

   For fiscal year 2005-06 beginning July 1, 2005: $9,500

   For fiscal year 2006-07 beginning July 1, 2006: $10,000

   For fiscal year 2007-08 beginning July 1, 2007: $10,750

   For fiscal year 2008-09 beginning July 1, 2008: $10,750 adjusted by a percentage increase as indicated by the United States City Average Consumer Price Index for Urban and Clerical Workers between March 2007 and March 2008 (rounded to the nearest tenth of 1%)

2. Payment will be provided through in two equal semi-annual payments due on September 1st and March 1st during each contract year.

3. Payment shall be made to Sacramento County Environmental Management Department and sent to the following address:

   Sacramento County Environmental Management Department
   8475 Jackson Road, Suite 230
   Sacramento, CA 95628

EXHIBIT C to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY,"
and the CITY OF GALT, hereafter referred to as "CITY"

I. INSURANCE REQUIREMENTS

1. Each party, at its sole cost and expense, shall carry insurance, or self-insure its activities in connection with this Agreement, and obtain, keep in force and maintain, insurance or equivalent program of self-insurance, for professional liability, general liability, workers compensation and business automobile liability adequate to cover its potential liabilities hereunder.

2. If requested, COUNTY shall furnish CITY with certificates evidencing coverage of the Sacramento Fire Department and Sacramento Metropolitan Fire District, hereafter referred to as "CONTRACTORS" as required below. The COUNTY Risk Manager and CITY may approve self-insurance programs in lieu of required policies of insurance if, in the opinion of the Risk Manager, the interests of the COUNTY, CITY, and general public are adequately protected. All CONTRACTOR certificates or evidences of self-insurance are to be received and approved by COUNTY and CITY before performance commences.

II. MINIMUM SCOPE OF INSURANCE.

Coverage of CONTRACTORS shall be at least as broad as:

1. GENERAL LIABILITY: Insurance Services Office's Commercial General Liability occurrence coverage form CG 0001. Including, but not limited to Premises/Operations, Products/Completed Operations, and Personal & Advertising Injury, without exclusions or limitations unless approved by County Risk Management Office.

2. AUTOMOBILE LIABILITY: Insurance Services Office's Commercial Automobile Liability coverage form CA 0001, auto coverage symbol "1" (any auto). If there are no owned or leased vehicles, symbols 8 and 9 for non-owned and hired autos shall apply.

3. WORKERS' COMPENSATION: Statutory requirements of the State of California and Employer's Liability Insurance.

4. PROFESSIONAL LIABILITY *or* Errors and Omissions Liability insurance appropriate to CONTRACTORS profession.

5. UMBRELLA or Excess Liability policies are acceptable where the need for higher liability limits is noted in the Minimum Limits of Insurance and shall provide liability coverage that are at least follow form over the underlying insurance requirements where necessary for Commercial General Liability, Automobile Liability, Employers' Liability, and any other liability coverage designated under the Minimum Scope of Insurance.

III. MINIMUM LIMITS OF INSURANCE

1. General Liability shall be made on an Occurrence basis (as opposed to Claims Made basis). Minimum limits and structure shall be:

General Aggregate:	$2,000,000
Product Comp/Op Aggregate:	$2,000,000
Personal & Adv Injury:	$1,000,000
Each Occurrence:	$1,000,000
Fire Damage:	$ 100,000

2. Automobile Liability: $1,000,000 Combined Single Limit per accident for bodily injury and property damage.

3. Workers' Compensation: Statutory.

4. Employer's Liability: $1,000,000 per accident for bodily injury or disease.

5. Professional Liability or Errors and Omissions Liability: $1,000,000 per occurrence.

Appendix 4A

Program Element Accomplishments

Construction Element Accomplishments

Ordinance and Standards

- Developed Grading and Erosion Control Questionnaire in September 1991 to identify small infill projects that may potentially cause drainage and/or sedimentation problems prior to approval of the project.
- Grading, Erosion and Sediment Control Ordinance
  - Adopted Grading, Erosion and Sediment Control Ordinance in December 1993.
  - Amended Ordinance in February 2001 to ensure that projects in North Natomas complied with federal and state endangered species requirements during the period in which the Natomas Habitat Conservation Plan was invalid.
- Amended Ordinance and adopted an Erosion and Sediment Control Fee Resolution on October 21, 2003, to enable the City to fund the erosion and sediment control inspection program for private construction projects. The ordinances were last updated in FY 04/05.
- Grading, Erosion and Sediment Control Manual (Grading Manual)
  - Completed Grading Manual in January 1994.
  - Updated standard drawings in the Grading Manual to be consistent with the proposed joint City/County construction specifications and participated in the development of the joint specifications in 1996/97.
  - Developed standard notes for Erosion and Sediment Control Plans in 1997/98.
  - Revised the standard drawings in 2005/06.
  - The standard specifications for construction projects were last updated in June 2007 which included a new section; Section 16, Water Quality Control and Standard Drawings. These standard notes and technical drawings are available on the City's website.
- Adopted the City of Sacramento Stormwater Management and Discharge Control Ordinance (Stormwater Ordinance) in February 1998.
- Partnered with the County to draft an example standard erosion and sediment control plan in 2005/06.

Inspection and Enforcement

- Revised review procedures for development plans and California Environmental Quality Act (CEQA) documents to include erosion and sediment control practices beginning in 1991. Since 1991, standard conditions have been developed, and projects are conditioned during the entitlement process to comply with City and state grading, erosion and sediment control requirements. The City also reviews Environmental Impact Reports and Mitigation Monitoring Plans to ensure that erosion, sediment and pollutant control is addressed.

- Developed standard language in accordance with the City and state grading, erosion and sediment control requirements and included in construction specifications for City projects in 1993/94. Incorporated standard construction specification into Department of Utilities contracts in 1996/97. Revised Department of Utilities language in 2002 with addition of the construction specifications.
- Began issuing grading permits, which included Erosion and Sediment Control Plans, during the improvement plan and building permit process in 1994/95.
- Acquired the part-time services of three Water Waste Inspectors in December 1995 to enforce stormwater requirements at construction sites. These inspectors began inspecting residential subdivisions during 1995/96 and commercial projects in 1996/97. In 1998, the part-time inspectors were replaced with a full-time inspector dedicated to ensuring private development construction sites comply with City erosion, sediment and pollution control requirements. In 2002, an additional full-time inspector was added to increase coverage at private construction sites.
- Sent winterization letters to construction projects requesting certification that sites were prepared for the rainy season in October 1998, 1999, 2000 and 2002; and distributed the Regional Board Rainy Season letter in October 2003, 2004, 2005 and 2006.
- Sent a citywide notice in March 2001 to developers and builders of active construction sites notifying them that failure to implement effective erosion, sediment and pollutant control measures year around would result in the issuance of stop work orders.
- Developed in December 2001, in conjunction with the County and Regional Board, a local guidance document that assists agency staff and the development community in complying with the April 2000 General Construction Permit Modifications regarding sediment impaired water bodies and non-visible pollutants in SWPPPs.
- Developed a new Street/Sidewalk Washing program and implemented it in December 2001. This program addresses the sedimentation found in newly constructed drainage systems resulting from street washing at construction sites. The program restricts regular street washing at construction sites to Friday afternoons and Saturdays after a City inspector certifies the site has been dry cleaned and is free of sediment and other materials.
- Developed a database to track inspections and generate inspection reports in 2002/03.
- Participated in developing and assisted in the funding of the California Stormwater Quality Association (CASQA) BMP Handbooks (formerly the California Stormwater Quality Task Force). The BMP Handbook revisions were completed in 2003.
- Verify that the State General Construction Permit Storm Water Pollution Prevention Plan contains 1) a vicinity map, 2) a site map, 3) a list of potential sources of stormwater pollution, 4) type and location of erosion and sediment control BMPs to be used, 5) contact information for the person responsible for implementing the SWPPP, and 6) certification statement prior to issuing a permit. This procedure was implemented in 2003.
- Prioritized construction sites as a high or moderate threat to water quality in 2003/04. High priority sites are inspected a minimum of twice per month from October 1 – April 30 and monthly thereafter. Moderate sites are inspected a minimum of monthly year round.

Training and Outreach

Outreach to development and construction communities

- Beginning in 1991, conducted various workshops for the development and construction community on the following topics: Construction Program, proposed ordinances, Grading, Erosion and Sediment Control Manual (Grading Manual), and recommended control measures and state requirements. The City of Sacramento (City) conducted four workshops in October 1999 and participated in various workshops sponsored by International Conference of Building Officials (ICBO) during 1999/00. The City's workshops covered City and state erosion, sediment and pollution control requirements. Two workshops were targeted for municipal inspectors, and two were held for the development community. The ICBO workshops covered the State General Construction Permit requirements and effective and non-effective best management practices (BMPs).
- Beginning in 1994, developed various outreach materials, including a Construction Fact Sheet and brochures for six different construction related activities (Concrete Applications, Earth Moving Activities, Heavy Equipment Operation, Landscaping and Pool Maintenance, Painting and Solvents, and Roadwork and Paving). The Concrete and Paint brochures were updated during the Second Permit term and were translated into Spanish in 2005.
- Partnered with the County to create a new pamphlet entitled "Construction on Small Building Sites" in April 2004.
- Participated in the Permittee Inspection Coordination Committee (PICC) formed by the County of Sacramento from May 2000 through 2004 to discuss standards enforcement procedures, and new product and technology. The group was composed of program and inspection staff from the Sacramento Area Stormwater Permittees (Permittees), County Regional Sanitation District, City of Stockton, and California Regional Water Quality Control Board, Central Valley Region (Regional Water Board). The goal of the work group was to share information and provide a consistent message to the development community. The work group was disbanded in June 2004. (this is not a training or outreach activities)
- Partnered with the County of Sacramento (County) and Regional Water Board to develop a Stormwater Pollution Prevention Plan (SWPPP) Preparation Course. Participated in or co-sponsored 15 various training courses with the County, Permittees or Building Industry Association (BIA), and the Regional Water Board from October 2000 through June 2002. Co-sponsored workshops with the Permittees entitled, "Preparing and Implementing SWPPPs for Construction Activities" on August 12, 2002, and March 31 and June 24, 2004 and "Simple Tools for NPDES Compliance" on September 18 and October 3, 2002.
- Permittees and Regional Water Board sponsored and conducted the following Pre-wet Season forums for the development and construction community: September 1 and 11, 2003, September 8 and 14, 2004, September 19 and 20, 2005 and September 25 and October 02, 2007.
- Partnered with the Permittees to conduct an informational meeting with consultants conducting training on Sacramento stormwater requirements on December 11, 2002, and erosion and sediment control vendor training on September 25, 2003.
- Permittees in partnership with Thunder Mountain Enterprises, Inc. sponsored and conducted a couple of training sessions for the development and construction community on topics related to NPDES program, SWPPP preparation and proper implementation, local and state requirements, and Low Impact Development, among other things.

Training to municipal staff

- Conducted regular training/coordination meetings and tailgate sessions with City plan checking and inspection staff. Specific tailgate sessions were held with developers, project engineers, inspectors, consultants, and contractors for development projects in the North Natomas area in the fall of 1998.
- Conducted annual training from 2003/04 through 2007/08 for municipal staff whose jobs are engaged in construction activities. Staff targeted included various departments such as the Department of General Services (Facility Design & Inspection), Parks and Recreation (landscape architects & inspection), Planning (Long Range, Current, Environmental) Transportation (project managers and inspection), Utilities (development review staff, project managers, inspection) and Development Services (Matrix staff).

Effectiveness Evaluation

- Completed the Construction Site Inlet Protection Special Study in 1995/96, which evaluated the effectiveness of four inlet protection BMPs.
- Completed work plan for evaluation of the Construction Element including the development of the plan review and field audit forms in 1996/97. Began plan review and field audit by stormwater staff in 1997/98. Conducted an audit of the Construction Element in 1999/00. This audit was performed by a consultant and included evaluation of the City's standards, Grading Manual, and plan check and inspection processes and quality. The results of this audit will be used to identify and prioritize areas needing improvement in the Construction Program.

Illicit Discharge Element Accomplishments

Inspection and Enforcement

- Adopted Stormwater Ordinance in February 1998 and updated the Ordinance in 2004.
- Conducted an Illicit Connection Field Screening Program between 1995 and 1998. Demonstrated that illicit connections were not a significant problem. Only two illicit connections were found and subsequently connected to the sanitary sewer.
- Developed procedures to respond to reports of illicit discharges and to contain, clean and abate the discharges.
- Developed enforcement response procedures
- Began using Water Quality Inspectors in 2007 to provide enforcement for parties responsible for illicit discharges.
- Developed a database for tracking of illicit discharge complaints and enforcement actions.

Waste Disposal Alternatives

- Initiated an ongoing program for curbside collection of used motor oil by the Solid Waste Division in 1995.
- Continued to conduct quarterly household hazardous waste collection events through the Solid Waste Division. In 1999, a new solid waste transfer station provided facilities that accept daily deposits of small amounts of household-generated hazardous wastes.

Spill Response and Source Investigation

- Provided ongoing spill response notification procedures and training for the Department of Utilities 24-hour City Operator.
- Began ongoing 24-hour availability of City Field Services and Fire Department Hazardous Materials staff in 1992 for response to prohibited non-stormwater discharges in the City for documentation, investigation, reporting, and clean up.
- Implemented an ongoing phone line in 1992, for public reporting of incidents of prohibited non-stormwater discharges.
- Developed a Stormwater Program website in 1998, which provides pollution prevention information and on-line reporting of illegal discharges.

Training and Outreach

- As a deterrent to illegal dumping, approximately 95% of all drain inlets have been labeled with the message “No Dumping Flows to River”.
- Produced various public outreach materials for use by Field Services and Program staff to distribute in areas that have experienced extreme or repeated dumping incidents or other water quality problems.
- Provided ongoing training for drainage maintenance and other municipal staff to identify and help investigate illicit connections or evidence of illegal dumping.
- Implemented Charity Car Wash program in FY09.
- Implemented multi-cultural outreach program to address Russian, Hmong, and Spanish populations.

Industrial Element Accomplishments

Significant Industries Control Program

- Developed a customized industrial database in 1997, which contains all business licenses filed in the City, facilities under the State Industrial General Permit for Stormwater Discharges Associated with Industrial Activities (State Industrial General Permit), and those industries identified in the 1991 industrial identification work.
- Included language in the City development review process requiring the owner(s) of a planned industrial development to submit a determination of the need for coverage under the State Industrial General Permit to the Department of Utilities for approval.
- Developed a rating system in 1996 to prioritize industries with regard to specific activities and the probability or significance of pollutants and non-stormwater discharges.
- Developed and implemented the Clean Water Business Partner (CWBP) Program, a nonstructural control program, for the mobile carpet cleaning industry in 1997. Added landscape contractors in 2000.
- The Permittees developed a list of priority commercial businesses and industry categories subject to either routine inspections or targeted outreach and definitions for each. Environmental Management Department (EMD) refined the definitions of the priority industries based on field inspection observations.

Inspection and Enforcement

- Adopted the Stormwater Ordinance in 1998. Ordinance was amended in 2004 to provide the County of Sacramento's Environmental Management Department (EMD) with legal authority to conduct inspections and enforcement for targeted industries on behalf of the City. Said amendment includes an agreement (MOU) that was executed and approved in December 09, 2003 between the two jurisdictions.
- Participated in the Sacramento Area Pollution Prevention Committee, formed in 1996, and the Environmental Task Force, formed in 1999, which provide opportunities for Industrial Element staff to network with other pollution prevention agencies.
- Initiated coordinated inspections for food service facilities, metal recyclers, and businesses with sewer pretreatment permits in 1999.
- Developed EMD's Commercial and Industrial Stormwater Compliance Program (CISCP) to establish routine stormwater inspections of targeted industries, to be conducted in conjunction with other regulatory inspections. The successful CISCP program is now being referred to by regulators and others in the State as a model for those developing similar programs. EMD is authorized to conduct the CISCP on behalf of the Permittees through a Memorandum of Understanding (MOU) executed by each Permittee in 2003. Local stormwater ordinances were revised by the Permittees in 2004 to provide EMD with billing and enforcement authority county-wide.
- By June 30, 2007 completed the first cycle of stormwater compliance inspections by EMD for the following facilities: auto repair and body shops, auto dealers, gas stations, restaurants, nurseries, kennels, equipment rental businesses, and facilities covered under the General Industrial Permit.

- Developed and implemented the Complaint-based Storm Water Compliance Program (CBSCP) to address non-stormwater discharges by industries and commercial businesses that are not cover under the CISCP program. Conducted inspections and enforcement including: Issued verbal warnings, Notices of Violations, and Administrative Penalties.

Training and Outreach

- Conducted a compliance assistance workshop in 1996 on the State Industrial General Permit.
- Provided annual education and training for City Field Services staff to help them identify and report stormwater pollution problems observed in the field to Industrial Element staff.
- Produced educational outreach materials in 1995 for commercial and do-it-yourself painters, food service facilities, pool maintenance companies, concrete application, heavy equipment operation, landscaping, road work and paving, and dry cleaning businesses.
- Sent outreach materials to priority industries twice during the 2003-2007 Permit term.

Municipal Operations Element Accomplishments

Spill Response

- Revised SSO response plan in March 2007 to include current regulatory requirements.

Municipal Capital Improvement Projects

- Provided technical assistance for City construction projects.
- Incorporated regional water quality control measures in North Natomas and Jacinto Creek detention basins.
- Provided water quality features in the Wood Lake drainage system maintenance and improvement project.
- Trained City construction inspectors on proper BMP implementation standards to be used on City construction site.

Municipal Facilities

- Participated in the review of design plans for proposed municipal facilities.
- Regularly coordinate with and provide guidance to project managers and inspection staff for construction of municipal facilities.
- Identified and minimized non-stormwater discharges from equipment and vehicle washing.
- Audited all City vehicle maintenance facilities, material storage facilities and corporation yards in 2004 to determine which facilities should prepare and implement pollution prevention plans.
- Developed pollution prevention plans for the 28th Street Landfill (closed) in 2007, 24th Street Corporation Yard in 2002, North Area Corporation Yard in 2007, and the Meadowview City Service Complex in 2002.
- Annually maintain City owned and operated parking facilities.

Municipal Activities

- Developed a City wide Integrated Pest Management (IPM) Policy in 2006.
- Conducted monthly street sweeping of 3,010 curb miles.
- Evaluated Street Maintenance Practices in 2007, and developed written procedures for BMP implementation.
- Implemented a voluntary program for containerization of green waste in 2004.
- Annually clean sumps and removed sediment from drainage channels.
- Annually clean storm drainage collection pipes and appurtenances.
- Regularly operate and maintain settling/treatment facilities at regional detention basins.
- Conduct fire fighting hose manipulation training at a facility equipped with BMPs.

Training and Outreach

- Annually attend various tailgate meetings and conducted specific training sessions to provide Program information and to increase awareness of water quality issues associated with municipal activities.

- Developed and conduct an IPM training program beginning in 2007.
- Conducted inspector training.

New Development Element Accomplishments

Ordinance and Design Standards

- Adopted the Stormwater Ordinance in February 1998.

Stormwater Quality Design Manual

- Completed Volume 2 (Hydrology Standards) of the City/County Drainage Manuals in December 1996, which provides the accepted methods for estimating runoff peak flows and volumes for design of drainage facilities and determining the optimum volume of storage for water quality detention basins.
- In 1996/97, conducted the Volume 5 Work Group, comprised of four private engineering firms that reviewed and critiqued the design criteria and control measures in the Draft Volume 5 (Standards for Design of New Development On-site Stormwater Quality Control Measures) of the City/County Drainage Manuals, January 1995.
- Completed Volume 4 (Manual of Standards for Design of Joint Use Stormwater Detention Facilities) of the City/County Drainage Manuals in 1997/98. The manual provides standards for design, operation and maintenance of joint-use park/detention facilities.
- Completed North Natomas Drainage Design and Procedures Manual in 1997/98. The manual includes criteria for the control of urban runoff pollutants from new developments on a regional basis. This manual requires stormwater quality control facilities for low-intensity storms and initial flows from larger storms (i.e., first flush) as well as natural processes for non-storm flows, irrigation runoff and dry weather conditions. The regional stormwater criteria from this manual were incorporated into the 2007 Stormwater Quality Design Manual for Sacramento and South Placer Regions.
- Participated in workgroup to incorporate stormwater requirements and control measures into existing ordinances and guidance manuals for parking lot tree shade and multifamily housing in 1998/99.
- Completed the Guidance Manual for On-site Stormwater Quality Control Measures in January 2000. This manual had previously been known and utilized as Volume 5 (Standards for Design of New Development On-site Stormwater Quality Control Measures) of the City/County Drainage Manuals during its draft stages.
- Completed the Stormwater Quality Design Manual for Sacramento and South Placer Regions in May 2007, which is the current manual. The manual includes the stormwater quality requirements for new developments and significant redevelopments, numeric sizing criteria and design and maintenance criteria for source controls, runoff reduction measures and treatment controls.

Development Standards Plan

- Prepared the Development Standards Plan (DSP) that was submitted to the Regional Board on December 1, 2003, and approved by the Regional Board in May 2005. The DSP included an overview of the development review process, existing development standards including a comparison to the stormwater Permit requirements, proposed amendments to the development standards, and an evaluation of the numeric sizing criteria for treatment controls. The DSP also included a review of existing planning procedures and codes and policies to determine if water quality protection principles listed in the Stormwater Permit were included.
- The development standards were amended in May 2006.

Development Standard Implementation (Regional and On-site Stormwater Controls)

Environmental Review Procedure

- Began review of CEQA documents to ensure new developments address water quality mitigation measures for stormwater runoff in 1991/92.
- Revised the Initial Study Checklist to consider potential stormwater quality impacts in June 2003.

Development Projects Review

- Began conditioning projects during the entitlement process to comply with post-construction stormwater requirements in 1993.
- Developed planning principles requiring the North Natomas Drainage Master Plan to formulate flood control and water quality alternatives for development of 7,000+ acres in 1992. Using the water quality design criteria developed in 1997/98, drainage master plans were developed and basins were designed. The regional facilities in North Natomas include Basin Nos. 1, 2, 3, 4, 5, 6a, 6b, 7a, 7b, 8a, and 8c. The types of water quality features utilized in the basins are combination wet/dry water quality basins, dry extended detention basins, low flow channels, and micropools. Maintenance plans have been prepared for several of these basins.
- Began incorporating regional water quality detention basins into the 500+ acre Jacinto Creek Planning Area in 1993/94. Regional water quality ponds have been incorporated into Laguna Vega North and South, Laguna Vista, and Sheldon Farms.

- **Stormwater Treatment Device Maintenance**
- Completed and began utilizing a "Stormwater Treatment Device Access and Maintenance Agreement" in 1995/96 to ensure that property owners commit to long-term maintenance for on-site structural control measures.
- As of May 2006, maintenance agreements are required for all treatment control measures.
- Sent letters annually requesting inspection and maintenance records for proprietary devices installed on private property from June 2001 through 2008 to ensure that devices are being maintained.
- Trained and tasked student interns and started field visit and inspections of the post-construction site treatment control measures.
- Incorporated various on-site stormwater treatment control measures into the drainage systems for private development projects since 1995. These control measures include vegetated swales, Fossil Filter catch basin insert, CDS Filters, Jensen/Tiechert Interceptors, Jensen Storm Vault, Stormceptor, and Vortech. These devices have been installed at various development projects, including retail centers, office parks, equipment rental facilities, and manufacturing facilities.

Technical Review and Assistance

- Provided technical support to Department of Transportation on stormwater quality design using vegetative swales and stormwater planters for the Dixieanne Green Street project in 2008.

- Provided information and review of the draft 2030 General Plan and MEIR in 2008. 2030 General Plan was adopted March 3, 2009 and incorporated water quality and watershed protection principals into City wide policy.
- Working with other Permittees and completed HMP pilot study for Elder Creek watershed in south Sacramento County in 08/09.
- Completed HMP work plan in 2009.

Training and Outreach

- Completed renderings of on-site control measures (Vegetated Swale, Infiltration Trench and Interceptor) in 1995/96. These renderings were completed to demonstrate how stormwater control measures could be incorporated into actual development projects. They were used in training City staff and the development community.

Outreach to development and construction community

- Conducted outreach to the development community on post construction stormwater quality requirements in 1996/97 and again in 1998/99. The presentations included information on City policy, standard conditions, recommended source control and treatment control measures, and reference materials. The 1996/97 audiences included the Consulting Engineers and Land Surveyors of California (CELSOC) and American Society of Landscape Architects (ASLA). The 1998/99 audiences included CELSOC; ASLA; American Society of Civil Engineers (ASCE); Building Industry Association (BIA); and private architectural, planning and engineering consulting firms.
- Prepared and distributed newsletter in 1998/99 to explain the need to incorporate stormwater quality control measures in the development planning process.
- Co-sponsored a Low Impact Development (LID) Workshop – Better Site Design on May 19, 2004 with the Permittees.
- Conducted outreach to the development community on the revised development standards and new regional Stormwater Design Manual in 2006/07. Outreach included creation and distribution of Project Update Fact Sheets, articles and notices through the professional organizations such as BIA, CELSOC, AIA, APA and ASLA, and presentations. A presentation was given to BIA in February 2007 and two public workshops were held in March 2007. Staff also presented the information to the City's Development Oversight Committee in April 2006 and June 2007.
- Conducted outreach to development communities through the NPDES compliance and SWPPP training sponsored by Thunder Mountain Enterprises, Inc. on September 27, 2007 and January 16, 2008 at two locations (Folsom, Sacramento). City presented low impact development and the new requirements in the NPDES permit.

Training to municipal staff

- Conducted training/coordination meetings with City planners, plan checking staff and inspectors from the Planning, Public Works, Building, and Utilities departments beginning in 1996.
- Meetings introduced the new on-site guidance manual and post-construction requirements to the Planning Department Environmental and Development Services staff in May 2000 and Public Works Department Architectural, Design and Inspection Sections in June 2000.

- Conducted annual training from December 2004 through 2007/08 for municipal staff whose jobs are engaged in development planning. Staff targeted included various departments such as the Department of General Services (Facility Design), Parks and Recreation (landscape architects), Planning (Long Range, Current, Environmental) Transportation (project managers), Utilities (development review staff) and Development Services (Matrix staff).
- Conducted internal workshop for Program Staff and Development Review staff from all Permittees on Hydromodification Management on January 28, 2009 and provided preliminary information of HMP pilot study.

Conference Presentations

- Conducted a presentation of the City's Development Standards and a field tour of the North Natomas Basins for the "California Nonpoint Source Conference, Demonstrating Nonpoint Source Solutions" on October 25, 2001.
- Participated in the Water Board's "Conducting Audits of Municipal Storm Water Programs" workshop by presenting information on the City's new development stormwater quality requirements and review process in March 2004.

Special Studies

- Conducted an Oil/Water Separator Study at the Northside Subdivision. The study was planned in 1993, and monitoring began in 1994/95 rainy season.
- Conducted stormwater settling tests during the 1993/94 and 1994/95 wet season to determine the settling rates of solids, metals and other parameters associated with Sacramento urban runoff.
- Completed the NDMP Stormwater Control Measure Study Work Plan in 1995/96, which included a literature review of effectiveness data on all control measures included in the draft January 1995 Volume 5 of the City/County Drainage Manual, and suggested BMP studies to be conducted in the Sacramento area.
- Conducted NDMP Inlet/In-line Control Measure Study from 1996-1999. Four storms were monitored for a Tiechert Stormwater Interceptor and a Fossil Filter catch basin insert in 1997/98, and five storm events were monitored for the Stormwater Interceptor in 1998/99. The results were summarized in the Inlet/In-line Control Measure Study Report 1998-99, dated October 1999.
- Conducted a Detention Basin Study (Brown Road Detention Basin) to evaluate the performance of dry extended stormwater detention basins in removing urban runoff pollutants. The study collected samples from 18 storm events from 1997 through 2001. The study concluded that the basin is substantially effective in reducing concentrations of many important stormwater pollutants in the solid/particulate form, but is less effective at reducing dissolved constituents and bacteria. Total suspended solids and total copper, lead and zinc showed statistically significant reduction between the inlet and outlet of the basin. The full report is included in the 2001/2002 Annual Monitoring Report (December 1, 2002).
- Conducted NDMP Control Measure Literature Review Update in 1997/98. The update included gathering information on vegetated control measure studies, new information from the 1996 Literature Review's "Ongoing Studies List," and recommended vegetation for vegetated swales and filter strips.

- Conducted a Landscape Control Measure Study (Vegetated Swale), which was initiated in 1997. Two storm events were monitored at the Sacramento Municipal Utility District (SMUD) parking lot facility in 1998/99, and a summary report was completed entitled NDMP Vegetated Landscape Control Measure Study Report 1998/99 (dated October 1999). Effluent sampling was difficult at the SMUD facility because the vegetated swale system effectively reduced run-off through infiltration. A new site was selected at an office building on Expo Parkway. Eleven storm events were monitored from late 1999 through May 2002. The final report is included in the 2001/2002 Annual Monitoring Report (December 1, 2002).
- Completed the Investigation of Structural Control Measures for New Development Final Report in November 1999. This study obtained and evaluated the performance data of 14 new development proprietary control devices and four public domain measures. The objective of this study was to identify both control measures considered acceptable for installation in the Sacramento area and information needs. An update of the initial study, including the original 14 manufacturers and 17 new manufacturers, was initiated in 2001. A draft report was prepared, including a peer review of the report by an independent consultant. Updated procedures and approved several devices in 2003 and 2005.
- Allowed the installation of several proprietary devices in 1999/00 that needed additional performance data and required the developer to conduct monitoring studies.
- Began dry weather sampling of North Natomas Basin Nos. 4, 5, 6, and 7a in September 1999. Dry weather grab samples were collected in September 1999; July, August, September and October 2000; April, June and August 2001; and March and June 2002. Wet weather grab samples were collected at Basin 7a on January 10 and 25, February 17, March 4, and April 6, 2001; and March 6, 9 and 22, 2002.
- Completed the Wet Water Quality Detention Basin Effectiveness Study Work Plan in September 2003.
- Completed the Erosion Potential Study in December 2004.

Public Education and Outreach Element Accomplishments

Outreach to General Public and Target Sectors

- Initiated Volunteer Storm Drain Stenciling program in 1993. Approximately 1,000 storm drain inlets are stenciled each year with a "No Dumping – Flows to River" message in semi-permanent (12-18 months) water-based spray paint.
- Conducted biannual public opinions since 1994 to determine the effectiveness of outreach activities.
- Attended public events since 1993. Provided an educational booth at local community events for distribution of materials and an interactive demonstration on stormwater pollution prevention.
- Developed and implemented Community Action Grant Program, which has been ongoing since 1996. Four to six grants each year have been awarded to local schools, agencies, associations, or clubs for promoting the protection of local waterways through stormwater pollution prevention.
- Conducted Pesticide Use Public Opinion Survey in 1997, providing baseline for pesticide toxicity control outreach evaluation.
- Provided permanent stormwater pollution prevention exhibits for the Sacramento and Folsom Zoos in 1997.
- Initiated partnership with the Sacramento Zoo in 1999, which included water quality curriculum in the Zoo's classroom outreach and Zoomobile programs.
- Installed permanent stormwater playground at the Sacramento Zoo in 1999 and added to the playground in 2003.
- Developed Stormwater website in 1998.
- Conducted multimedia outreach campaign using recognizable mascot "Sammy Salmon" to deliver water pollution prevention key messages since 1998.
- Provided multiethnic outreach through electronic and print media since 1998.
- Developed and implemented the CWBP Program for two industries, carpet cleaners and landscapers, since 1998. Added mobile pressure washers to CWBP in 2003.
- Created and placed electronic stormwater model on display in various public buildings throughout the year since 1997.
- Developed Water Wise Pest Control program in 2000 to decrease pesticide toxicity in local waterways. The program is a partnership with the University of California (UC) IPM program and UC Extension Master Gardener Program and is funded through a grant from CALFED.
- Joined state-wide IPM program, 'Our Water, Our World' in 2005.
- Awarded an U.S. Environmental Protection Agency (EPA) grant in 2001.
- Partnered with the California Integrated Waste Management Board and other City departments on a public outreach program to reduce stormwater and greenwaste pollution and increase water conservation in North Natomas.

Outreach to Schools

- Assisted in development and implementation of stormwater curriculum (Splash Program) based on math and science for middle school and high school children to foster environmental awareness since 1999.
- Developed and implemented Stormwater Classroom Presentations to elementary school students since 1999. Presentations introduced the water cycle, aquatic food chain, and concept of environmental stewardship. Expanded program from 600 students in 1999 to over 6,000 students by 2003.
- Worked with the Sacramento Theatre Company to produce regional water conservation/ water quality musical production performed at public festivals and 75 schools during the spring of 2003.

Outreach to Public Officials and Municipal Operations

- Received City Council recognition in the form of proclamations presented to businesses and agencies that have done an outstanding job promoting water quality protection since 1998.
- Actively participated annually in National Pollution Prevention Week.

Outreach Involving Statewide Regional Activities

- Actively participated in the California Stormwater Quality Association Public Information and Public Participation committee.
- Was instrumental in developing the Central Valley Stormwater Public Outreach Group in 1999-2000, a professional network focused on stormwater issues unique to this area.
- Provided City staff who served as co-chair for the Public Outreach Committee of the California Regional Environmental Education Community Network, Capital Region from 1999-2000.
- Represented the California Stormwater Quality Association Public Information and Public Participation Committee at the EPA Consumer Labeling Initiative Committee's "Read the Label First" campaign conference call meetings in 2000.
- Shared information on the development and implementation of City of Sacramento Stormwater outreach programs at meetings of the California Stormwater Quality Association, California Water Environment Association, California Interagency Education Network, Sacramento Valley Broadcasters Association, and the 1999 California YMCA Youth in Legislature Symposium, and to numerous Phase II communities in northern California.

Watershed Stewardship Element Accomplishments

- Developed the 1988 Laguna and Jacinto Creek stream restoration project, which included incorporation of wetlands in channel features and vernal pools in overbanks.
- Developed the1999 Jacinto Creek Planning Area Project, which included channel enhancements, re-establishment of vegetation, and wet detention basin water quality features.
- Developed the 1999 Royal Oaks Drain project, which provided water quality features and enhanced existing wetland.
- Completed design of Hagginwood Creek detention basin project in 2000, which includes stream restoration and incorporation of water quality features.
- Provided funding opportunities for citizen monitoring, training and school adopt-a-creek activities from 1997 to present through the City of Sacramento Stormwater Management Program's Community Action Grant Program. Several creeks clean-up, restoration and educational efforts have been sponsored to date.
- Continued development and implementation of the Splash Program for water pollution prevention, geared for grades 5-12.
- Participated in community events since 1993, including sponsorship of the Sacramento Urban Creeks Council's Creek Week.
- Serve on the Board of Trustees of the Sacramento River Watershed Program since 2008.
- Participated through the Department of Utilities in City of Sacramento planning activities. The department works with various City departments to encourage inclusion of water quality features when feasible. Projects considered include creek restoration and development of water features for flood control.
- Began Arcade Creek Watershed Management Program with numerous other City, County, state, and regional entities. Organized watershed management stakeholders group in 2001. Completed Arcade Creek feasibility study and Arcade Creek Watershed Management Plan in 2003. Received State Prop 50 grant in 2004 for additional watershed work, including construction of a wetland-filtration detention basin.

Title 13 PUBLIC SERVICES

Chapter 13.16 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

13.16.010 Title.

This chapter shall be known as the Stormwater Management and Discharge Control Code. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.020 Purpose and intent.

The purpose of this chapter is to protect and promote the health, safety and general welfare of the citizens of the city by controlling nonstormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from- spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 U.S.C. Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System (NPDES) Permit No. CAS082597, as such permit is amended and/or renewed. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.102)

13.16.030 Definitions.

A. The following words, when used in this chapter, shall have the following meanings:

"Basin plan" means the water quality control plan for Basin 5A and SB, adopted by the Regional Water Quality Control Board, Central Valley Region in July 1975, and all subsequent amendments.

"Best management practices" means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and education practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants directly or indirectly to waters of the United States. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.

"City" means the city of Sacramento.

"City manager" means the city manager of the city, or his or her authorized designee.

"Commercial and industrial facilities" means commercial and industrial facilities regulated pursuant to the Commercial/Industrial Program requirements specified in Section C.9 of NPDES Permit No. CA5082597.

“Construction general permit” means the General Permit for Stormwater Discharges Associated with Construction Activities issued and administered by the State of California in accordance with applicable provisions of the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

“County stormwater ordinance” means the County of Sacramento’s Stormwater Management and Discharge Control Code, set forth in Chapter 15.12 of the Sacramento County Code, and all subsequent amendments.

“Development” means the construction, building or placement of any structure or portion thereof, or any excavation or grading.

“Director” means the director of the city department of utilities or his or her authorized designee.

“Employee training program” means a documented employee training program that a business may be required to implement pursuant to a stormwater pollution prevention plan for the purpose of educating its employees on methods of reducing discharge of pollutants to the stormwater conveyance system.

“Enforcement agency” means the city department of utilities or any other city department authorized to enforce compliance with this chapter. If the city council and the governing body of another public agency enter into an agreement authorizing that agency to administer and/or enforce some or all of the provisions of this chapter, “enforcement agency” also shall mean the agency designated in the agreement as the agency responsible for administering and enforcing the provisions of this chapter, as provided in the agreement.

“Enforcement official” means the director or any employee or agent of the city authorized to enforce compliance with this chapter. If the city council and the governing body of another public agency enter into an agreement authorizing that agency to administer and/or enforce some or all of the provisions of this chapter, “enforcement official” also shall mean the authorized official(s) of the agency designated in the agreement as the agency responsible for administering and enforcing the provisions of this chapter, as provided in the agreement.

“Illegal discharge” means any discharge to the stormwater conveyance system that violates this chapter, or is prohibited by federal, state, or local laws, or which degrades the quality of receiving waters in violation of any plan standard.

“Industrial general permit” means the General Permit for Stormwater Discharges Associated with Industrial Activities issued and administered by the State of California in accordance with applicable provisions of the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

“NPDES permit” means a National Pollution Discharge Elimination System permit issued by the Regional Water Quality Control Board or the State Water Resources Control Board pursuant to Division 7, Chapter 5.5 of the California Water Code (commencing with Section 13370) to control discharges from point sources to waters of the United States.

“Noncommercial vehicle washing” means the washing and/or rinsing of passenger vehicles on private property that is not being conducted as a commercial enterprise.

“Nonstormwater discharge” means any discharge to the stormwater conveyance system that is not entirely composed of stormwater.

“Order 2002-0206” means Regional Water Quality Control Board, Central Valley Region Order No. R5-2002-0206, which constitutes NPDES Permit No. CAS082597, together with all amendments and renewals, on file in the office of the city clerk.

“Person” means any person, firm, corporation, partnership, business, public agency, or any other public or private entity.

“Plan standard” means any or all applicable requirements of the basin plan or any other water quality control standard or requirement approved by the Regional Water Quality Control Board, Central Valley Region, the State Water Resources Control Board or the federal Environmental Protection Agency that applies to any of the receiving waters.

“Pollutant” means any contaminant that can degrade the quality of the receiving waters in violation of any plan standard.

“Premises” means any building, lot, parcel, land or portion of land whether improved or unimproved.

“Receiving waters” means surface bodies of water as described in Order 2002-0206, including creeks and rivers, that serve as discharge points for the stormwater conveyance system.

“Stormwater” means surface runoff and drainage associated with storm events that is free of pollutants to the maximum extent practicable.

“Stormwater conveyance system” means those artificial and natural facilities within the city, whether publicly or privately owned, by which stormwater may be conveyed to a watercourse or waters of the United States, including any roads with drainage systems, streets, catch basins, natural and artificial channels, aqueducts, stream beds, gullies, curbs, gutters, ditches, open fields, parking lots, impervious surfaces used for parking, and natural and artificial channels or storm drains. “Stormwater conveyance system” does not include any facilities that convey stormwater to the city’s combined sewer system that collects and conveys both sanitary sewage and stormwater and surface runoff for treatment in accordance with applicable sewage treatment requirements, and that is regulated by Chapter 13.08 of this code in accordance with the provisions of a separate NPDES permit issued to the city for the combined sewer system.

“Stormwater pollution prevention plan” means a document that describes the best management practices to be implemented by the owner or operator of a business to eliminate prohibited nonstormwater discharges and/or reduce to the maximum extent practicable pollutant discharges to the stormwater conveyance system.

“Unauthorized connection” means any physical connection to the stormwater conveyance system that is not authorized by the city and the Regional Water Quality Control Board, Central Valley Region.

"Watercourse" means any natural stream, whether flowing continuously or not, that is fed from permanent or natural sources, and includes, without limitation rivers, creeks, runs, and rivulets.

B. Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and that are not specifically defined in subsection A of this section shall, when used in this chapter, have the same meaning as set forth in such act or regulations. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.103)

13.16.040 Conflicts with other laws.

In the event of any conflict between this chapter and any federal or state law, regulation, order, or permit, the requirement that establishes the higher standard for public health or safety shall govern. Nothing in this chapter shall preclude enforcement of any other applicable law, regulation, order, or permit. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.104)

13.16.050 Discharge of nonstormwater prohibited.

Except as provided in Section 13.16.060 of this chapter, it is unlawful for any person to make or cause to be made any nonstormwater discharge. Notwithstanding the exemptions provided by subsections A and B of Section 13.16.060 of this chapter, if the Regional Water Quality Control Board or the enforcement official determines that any otherwise exempt discharge causes or significantly contributes to violations of any plan standard, or conveys significant quantities of pollutants to any receiving waters, or is a nuisance or poses a risk to public health or safety, it is unlawful for any person to make or cause to be made such discharge to the stormwater conveyance system. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.105)

13.16.060 Exceptions to discharge prohibition.

Subject to the authority granted to the Regional Water Quality Control Board and the enforcement official in Section 13.16.050 of this chapter, the following discharges to the stormwater conveyance system are exempt from the prohibition set forth in Section 13.16.050 of this chapter.

A. Any discharge or connection regulated under a NPDES permit issued to the discharger and administered by the state of California pursuant to Division 7, Chapter 5.5 of the California Water Code, provided that the discharger is in compliance with all requirements of the permit and all other applicable laws and regulations.

B. Discharges from the following activities that do not cause or contribute to the violation of any plan standard:

1. Potable water line flushing and other discharges from potable water sources;

2. Landscape irrigation and lawn watering;

3. Rising ground waters or springs;

4. Passive foundation and footing drains;

5. Water from crawl space pumps and basement pumps;

6. Air conditioning condensate;

7. Noncommercial vehicle washing;

8. Natural flows from riparian habitats and wetlands;

9. Dechlorinated swimming pool discharges that do not contain biocides or other chemicals, excluding filter backwash water;

10. Flows from fire suppression activities, including fire hydrant flows;

11. Diverted stream flows;

12. Uncontaminated ground water infiltration to separate storm sewers; and

13. Potable water used to wash sediment from streets and parking lots associated with construction sites that have been issued a street washing certification by the Department of Utilities and have implemented required best management practices.

C. Any discharge that the enforcement official, the local health officer, or the Regional Water Quality Control Board determines in writing is necessary for the protection of the public health and safety.

D. Any discharge caused by flooding or other natural disaster that could not have been reasonably foreseen or mitigated in advance by the discharger, as determined by the enforcement official. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.106)

13.16.070 Groundwater discharges.

Discharges of pumped groundwater not subject to a NPDES permit may be permitted to discharge to the stormwater conveyance system upon written approval from the city and in compliance with conditions of approval set forth by the city. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.107)

13.16.080 Discharge in violation of permit.

It is unlawful and a violation of this chapter for any person to make or cause any discharge to the stormwater conveyance system that results in or contributes to a violation of Order 2002-0206. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.108)

13.16.090 Illicit connections prohibited.

It is unlawful and a violation of this chapter for any person to establish, use, or maintain any unauthorized connection. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.109)

13.16.100 Concealment and abetting.

It is unlawful and a violation of this chapter to cause, permit, aid, abet or conceal a violation of any provision of this chapter. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.110 Acts potentially resulting in violation of Federal Clean Water Act and/or Porter-Cologne Act.

Any person who violates any provision of this chapter or any provision of any permit issued pursuant to this chapter or any cease and desist order, prohibition, or effluent limitation, or who discharges waste or wastewater that contains pollutants, may also be in violation of the Federal Clean Water Act (33 U.S.C. 1251 et seq.) and/or Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and may be subject to the sanctions and remedies of those acts including civil and criminal penalties. The provisions or enforcement of this chapter shall not affect or limit in any way the applicability of those acts nor the enforcement of any sanctions, remedies or penalties under those acts. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.111)

13.16.120 Reduction of pollutants in stormwater.

Any person engaged in activities that may result in pollutants entering the stormwater conveyance system shall, to the maximum extent practicable, undertake the measures set forth below to reduce the risk of nonstormwater discharge and/or pollutant discharge.

A. Business Related Activities.

1. Stormwater Pollution Prevention Plan. The enforcement official may require any business in the city engaged in activities that may result in a nonstormwater discharge to develop and implement a stormwater pollution prevention plan, that must include an employee training program. Business activities that may require a stormwater pollution prevention plan include, but are not limited to, maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading or fueling, and cleanup procedures that are carried out partially or wholly outdoors.

2. Coordination with Hazardous Materials Release Response Plans and Inventory. Any business for which a hazardous materials release response plan and inventory are required under Chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code, shall include in that plan provisions demonstrating compliance with this chapter, and requiring the release of pollutants to be reduced to the maximum extent practicable.

3. Coordination with Hazardous Waste Generator Contingency Plan and Emergency Procedures. Any business for which a hazardous waste generator contingency plan and emergency procedures are required pursuant to California Code of Regulations, Title 22, Sections 66265.51 to 66265.56, shall include in that plan provisions demonstrating compliance with this chapter, and requiring the release of pollutants to be reduced to the maximum extent practicable.

4. Any person conducting business or industrial activities in the city shall prevent pollutants from entering the stormwater conveyance system and shall comply with all applicable federal, state and local laws, ordinances or regulations.

B. Development.

1. The enforcement official may establish and impose such controls as the enforcement official determines to be appropriate to minimize the long-term, post-construction discharge of stormwater pollutants from new development or modifications to existing development. Controls may include source control measures to prevent pollution of stormwater and/or treatment controls designed to remove pollutants from stormwater.

2. Any person conducting development in the city shall prevent pollutants from entering the stormwater conveyance system and shall comply with all applicable federal, state and local laws, ordinances or regulations, including but not limited to the City Grading, Erosion and Sediment Control Ordinance set forth in Chapter 15.88 of this code.

C. Compliance with General Permits. Any person conducting business, industrial, construction or development activities that are subject to a general stormwater permit issued by the United States Environmental Protection Agency, the State Water Resources Control Board, the Regional Water Quality Control Board, Central Valley Region or the city of Sacramento, including the construction general permit and the industrial general permit, shall comply with all requirements of such permit. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.112)

13.16.130 Compliance with best management practices.

Every person undertaking any activity or use of a premises that may cause or contribute to stormwater pollution or contamination, illegal discharges, or nonstormwater discharges shall: (1) comply with best management practices guidelines or pollution control requirements established or imposed by the enforcement official; and (2) properly operate and maintain any treatment control device or other measures utilized on the premises to prevent or reduce, to the maximum extent practicable, stormwater pollution or contamination, illegal discharges or nonstormwater discharges, as required by the enforcement official. (Ord. 2004-042 § 1 (part))

13.16.140 Containment and notification of spills.

Any person owning or occupying a premises who has knowledge of any release of pollutants or prohibited nonstormwater discharge from the premises that might enter the stormwater conveyance system, other than a release or discharge that is permitted by this

chapter, shall immediately take all reasonable action to contain and abate the release of any pollutants or prohibited nonstormwater discharge, and shall notify the enforcement agency as soon as reasonably possible of the release of any pollutants or prohibited nonstormwater discharge. (Ord. 2004-042 § 1 (part))

13.16.150 Commercial and industrial facilities—Inspection and enforcement by Sacramento County.

A. The city and Sacramento County are co-permittees under NPDES Permit No. CA5082597. The permit requires regular compliance inspections and enforcement at certain commercial and industrial facilities as defined by the permit. Sacramento County operates an inspection, investigation and enforcement program that enforces compliance with environmental and water quality requirements by commercial and industrial facilities located within the County.

B. Under Article 11, Section 8 of the California Constitution, and applicable provisions of the city and Sacramento County Charters, the city and Sacramento County may enter into agreements for Sacramento County to perform specified municipal functions within the city.

C. To provide for effective and efficient administration and enforcement of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, and to ensure compliance with Order 2002-0206, the city council and the Sacramento County Board of Supervisors may enter into an agreement or agreements for Sacramento County to administer and enforce the provisions of this chapter with respect to these commercial and industrial facilities, by including these commercial and industrial facilities in Sacramento County's commercial and industrial compliance program. If the city council and the Sacramento County Board of Supervisors enter into such an agreement or agreements:

1. Sacramento County and its authorized official(s) and employee(s) shall enforce the provisions of this chapter as they apply to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, in accordance with the provisions of the agreement(s); and

2. Sacramento County, and its authorized official(s) and employee(s), shall be authorized to take any action that may be taken by the "enforcement agency" and "enforcement official," respectively, with respect to these commercial and industrial facilities, in accordance with the provisions of this chapter and the agreement(s); and

3. Sacramento County may establish and collect from these commercial and industrial facilities such fees as may be necessary to cover the actual costs incurred by Sacramento County to include facilities in its commercial and industrial compliance program, provided that the fees are established and collected uniformly within and outside of the city, and in accordance with the provisions of the agreement(s) and all applicable legal requirements. (Ord. 2004-042 § 1 (part))

13.16.160 Inspection authority.

Whenever necessary to make an inspection of any building or premises to enforce any of the provisions of this chapter, or whenever an authorized enforcement official has reasonable cause to believe that there exists in any building or upon any premises any condition that constitutes a violation of this chapter, the enforcement official may enter such building or premises at all reasonable times to perform an inspection, as well as any of the other activities authorized by this section. Any request for entry shall state that the property owner or occupant has the right to refuse entry and if entry is refused, entry may be made upon issuance of a judicial order. If the owner or occupant refuses entry after this request has been made, the enforcement official is empowered to seek authorization from any court of competent jurisdiction for such entry. The enforcement official may request a judicial order authorizing and/or compelling the performance of some or all of the activities authorized by this section.

During any inspection, the enforcement official may collect samples as necessary in order to implement and enforce the provisions of this chapter. This authority shall include the right to require the installation of sampling and metering devices on private property, or to require the person owning or occupying the premises to supply samples.

During any inspection, the enforcement official may require the person owning or occupying the premises to provide any and all records relating to any potential stormwater contamination, illegal discharge, nonstormwater discharge or other violation of this chapter, for review and copying.

The enforcement official shall identify buildings or premises for inspection based upon such reasonable selection processes as the enforcement official determines to be necessary to carry out the objectives of this chapter, including but not limited to: random sampling; sampling in areas with evidence of stormwater contamination, illegal discharge, or nonstormwater discharge to the stormwater conveyance system; and similar factors. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.170 Monitoring, analysis and reporting authority.

Whenever an authorized enforcement official has reasonable cause to believe that there may exist on any premises a condition that constitutes a violation of this chapter, the enforcement official may require monitoring, analysis and/or reporting of discharges from the premises to the stormwater conveyance system, by serving a written notice of such requirement(s) on the owner of the premises or on the operator of a facility or activity on the premises. The cost of complying with these requirements shall be borne by the owner of the premises or the operator of the facility or activity for which monitoring, analysis and/or reporting has been required, to the extent permitted by law. (Ord. 2004-042 § 1 (part))

13.16.180 Enforcement.

In addition to the exercise of enforcement powers authorized or provided elsewhere in this code, this chapter may be enforced by any of the means set forth in this section.

A. Abatement.

1. Any discharge or condition violating any of the provisions of this chapter is a threat to the public health, safety and welfare and constitutes a public nuisance.

2. The enforcement official may commence and carry out proceedings for the abatement of any discharge or condition violating any provision of this chapter, in accordance with the provisions of Articles V and VI of Chapter 8.04 of this code, commencing with Section 8.04.110 of this code. Such actions or decisions of the enforcement official shall be subject to appeal as provided for in Article V and Article VI of Chapter 8.04 of this code. The notice and order issued by the enforcement official under Section 8.04.110 of this code may require the owner and/or occupant of the subject premises to take any or all of the following actions:

i. Submit and implement a plan approved by the enforcement official for the correction and prevention of the discharge or condition violating any provision of this chapter;

ii. Cease and desist all activities that may cause or contribute to any discharge or condition violating any provision of this chapter;

iii. Clean up any release of pollutants causing or resulting from the violation of any provision of this chapter;

iv. Mitigate any circumstances that may cause or contribute to any discharge or condition violating any provision of this chapter; and

v. Adopt and implement best management practices and/or a stormwater pollution prevention plan approved by the enforcement official.

3. If any violation of this chapter constitutes a seasonal and recurrent nuisance, the enforcement official shall so declare in the notice and order issued pursuant to subsection 2, above. Thereafter, the owner or occupant of the subject premises shall abate such seasonal and recurrent nuisance every year without the necessity of any further notice and order. If at any time the nuisance is not abated as required herein, the enforcement official may summarily abate the condition in accordance with the provisions of Article VII of Chapter 8.04 of this code, commencing with Section 8.04.330 of this code.

4. When, in the opinion of the enforcement official, any discharge from any source to the stormwater conveyance system causes or threatens to cause a condition that presents an imminent hazard to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit, the enforcement official may issue a notice requiring the owner or occupant of the premises where the discharge is occurring to immediately abate the discharge. In any case where the discharge is not immediately abated, or for any reason the owner or occupant of the subject premises does not receive the notice, or the enforcement official determines that time constraints are such that abatement must occur without providing the notice, the enforcement official may summarily abate the condition in accordance with the provisions of Article VII of Chapter 8.04 of this code, commencing with Section 8.04.330 of this code.

5. The owner of any premises in the city from which is made a discharge in violation of this chapter, and any person making or causing to be made the discharge, if different from the owner, shall be jointly and severally liable for the costs incurred by the city for any abatement, clean-up or restoration, including any related inspection and

testing costs, arising from the discharge, and the cost therefor shall be invoiced to the owner of the premises. If the invoice is not paid within sixty (60) days, the enforcement official may commence proceedings for recovery of these costs in accordance with the provisions of Article VIII of Chapter 8.04 of this code, commencing with Section 8.04.370 of this code.

B. Civil Actions.

In addition to any other remedies or penalties provided in this chapter, any violation of this chapter may be enforced by civil action brought by the city attorney. In any such action, the city may seek, as appropriate, any or all available equitable and legal remedies, including but not limited to:

1. A temporary and/or permanent injunction;

2. Assessment of the violator for the costs of any investigation, inspection, testing or monitoring related to the violation, and for the reasonable costs of preparing and bringing legal action under this subsection, including attorney fees, whether for in-house or outside counsel;

3. Costs incurred in removing, correcting, abating, cleaning up, or terminating the adverse effects resulting from the violation;

4. Compensatory damages for damage, loss or destruction to water quality, wildlife, fish and aquatic life, or public health and safety;

5. Payment or reimbursement of any governmental fines or penalties imposed on the city as a result of the violation;

6. Civil penalties imposed either on a daily basis or a per gallon basis, but not both, for any discharge of nonstormwater to the stormwater conveyance system violating any provision of this chapter. Civil penalties imposed on a daily basis shall not exceed five thousand dollars ($5,000.00) for each day or portion of a day that the discharge occurs, and civil penalties imposed on a per gallon basis shall not exceed ten dollars ($10.00) for each gallon of the discharge. The amount of civil penalties imposed shall be determined by taking into consideration some or all of the following factors: the nature, circumstances, extent, and gravity of the discharge, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, the economic benefit or savings, if any, resulting from the violation, and such other matters as justice may require.

C. Enforcement by Sacramento County. If the city council and the Sacramento County Board of Supervisors enter into an agreement for Sacramento County to administer and enforce the provisions of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, pursuant to Section 13.16.150 of this chapter, any administrative or civil enforcement by Sacramento County of any provision of this Chapter with respect to such facilities shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County Code, and the provisions of subsections A and B of this section shall not apply.

D. Criminal Violations.

1. Any violation of this article shall be punishable as a misdemeanor.

2. The enforcement official shall have and is vested with the authority to arrest or cite and release any person who violates any section of this chapter in the manner provided by the California Penal Code for the arrest or release on citation of misdemeanors or infractions as described by Chapters 5, 5(c), and 5(d) of Title 3, Part 2 of the California Penal Code, including Section 853.6 (as the same may hereafter be amended). It is the intent of the city council that the immunities prescribed in Section 836.5 of the California Penal Code be applicable to public officers or employees acting in the course and scope of employment pursuant to this chapter.

E. Administrative Penalties. In addition to any other remedy or penalty set forth in this chapter or this code, administrative penalties may be imposed pursuant to applicable provisions of Title 1 of this code against any responsible party, whether owner, lessee, sublessor, sublessee or occupant of any premises in violation of any of the provisions of this chapter. Imposition, enforcement, collection and administrative review of administrative penalties imposed shall be conducted pursuant to Title I of this code.

F. Remedies and Penalties Cumulative. The foregoing remedies and penalties are in addition to and do not supersede or limit any and all other remedies and penalties, civil or criminal, including any remedies or penalties authorized for violations of the Federal Clean Water Act or Porter-Cologne Water Quality Control Act. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.118)

13.16.190 Remedies not exclusive.

The remedies provided for in this chapter shall be cumulative and not exclusive. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.119)

13.16.200 Appeal.

A. If a decision or action of the enforcement official is not subject to an appeal procedure under any other provision of this chapter or code, any person who is affected by the enforcement official’s decision or action may appeal the decision or action to the city manager within ten (10) days following the effective date of the decision or action, by filing a written appeal with the city manager. Upon receipt of such appeal, the city manager may request a report and recommendation from the authorized enforcement official and shall set the matter for an informal hearing at the earliest practical date. Not less than seven days prior to the date of hearing, the city manager shall provide written notice of the hearing to the person appealing the decision or action of the enforcement official. At the hearing, the appellant may be represented by any person of appellant’s choice. The city manager shall hear any additional evidence presented by the appellant or the enforcement official, and may reject, affirm or modify the enforcement official’s decision. The city manager’s decision shall be the city’s final administrative determination of the matter.

B. If the city council and the Sacramento County Board of Supervisors have approved an agreement for Sacramento County to administer and enforce the provisions of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, pursuant to Section 13.16.150 of this chapter, any appeal of any action taken by Sacramento County or its officers or employees with respect to such facilities shall be governed by and conducted pursuant to the Sacramento County Code, and the provisions of this section shall not apply. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.120)

13.16.210 Disclaimer of liability.

The degree of protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific, engineering, and other relevant technical considerations. The standards set forth herein are minimum standards and this chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the United States. This chapter shall not create liability on the part of the city or Sacramento County, nor their respective officers and employees, for any damages that result from reliance on the code or any administrative decision lawfully made thereunder. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.121)

13.16.220 City or county authority.

Except for decisions required to be made by the City Council and/or the Sacramento County Board of Supervisors, the enforcement official is authorized to make any decision on behalf of the city or Sacramento County, as applicable, required or called for by this chapter. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.122)

13.16.230 Judicial review.

The provisions of California Code of Civil Procedure Section 1094.5 and Section 1094.6 are applicable to judicial review of city or Sacramento County decisions pursuant to this chapter. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.1231)

Title 15 BUILDINGS AND CONSTRUCTION

Chapter 15.88 GRADING, EROSION AND SEDIMENT CONTROL

Article I General Provisions and Requirements

15.88.010 Title.

This chapter shall be known as the grading, erosion, and sediment control ordinance of the city of Sacramento, and shall be referred to herein as the "grading ordinance." (Prior code § 9.31.1501)

15.88.020 Purpose.

The grading ordinance is enacted for the purpose of regulating grading on property within the city limits of the city to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the city's national pollution discharge elimination system (NPDES) Permit No. CA0082597, provision D2, issued by the California regional water quality control board; and to ensure that the intended use of a graded site within the city limits is consistent with the city general plan, any specific plans adopted thereto and all applicable city ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the city limits of the city. (Prior code § 9.31.1502)

15.88.030 Scope.

The grading ordinance sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. The grading ordinance establishes procedures for issuance, administration and enforcement of permits for such activities. Any grading within the city limits of the city shall conform to provisions of the grading ordinance and other applicable provisions of the city code, including but not limited to, the latest edition of the city standard specifications for public works construction, Sacramento city/county drainage manual, and city manual of standards and improvement standards.

The director shall adopt a manual of standards entitled "Administrative and Technical Procedures Manual for Grading, Erosion, and Sediment Control" setting forth the administrative procedures and technical requirements necessary to implement the provisions of the grading ordinance. The director shall have the authority to change, update or revise this manual as necessary at his or her sole discretion, to implement the provisions of the grading ordinance. (Prior code § 9.31.1503)

15.88.040 Administration.

The grading ordinance shall be administered for the city by the department of utilities through the building permit process, improvement plan process or capital improvement project process, as applicable. (Ord. 2001-014 § 2: prior code § 9.31.1504)

15.88.050 Definitions.

Unless the particular provision or the context otherwise requires, wherever the following terms are used in the grading ordinance, they shall have the meaning ascribed to them in this section:

"Applicant" means any person seeking or receiving grading approval, in accordance with the terms of the grading ordinance, to perform grading after the issuance of a building permit or the approval of improvement plans, or to commence grading prior to such issuance or approval.

"Best management practices" means any program, technology, technique, process, siting criteria, operating method, measure or device which controls, prevents, removes or reduces pollution, erosion, and sediment transport, including but not limited to any best management practices required or implemented under the city's Stormwater Management and Discharge Control Code, set forth in Chapter 13.16.

"City council" means city council of the city of Sacramento.

"Civil engineer" means a professional engineer registered as a civil engineer by the state of California.

"Compaction" means the increase of density of a soil or rock fill by mechanical means.

"Cut (excavation)" means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

"Director" means director of the department of utilities of the city of Sacramento, or his or her authorized designees.

"Drainage waters" means surface waters which collect, or are accumulated, on the ground and which, by means of drainage ways or water courses, flow off the surface to larger rivers, streams, or lakes. Such waters shall include, but are not limited to, natural precipitation and irrigation waters.

“Drainage way” means a depression in the earth’s surface such as a swale, ravine, gully, slough, draw, hollow, or ditch in which surface water collects for drainage.

“Earth material” means any rock, natural soil or fill and/or any combination thereof.

“Embankment (fill)” means the deposit of soil, rock or other materials placed by artificial means and the conditions resulting therefrom.

“Encroachment permit” means a written permit issued by the department of public works authorizing certain work within a publicly maintained right-of-way.

“Engineering geologist” means a registered geologist certified as an engineering geologist by the state of California.

“Erosion” means the washing or wearing away and transportation of earth material as a result of the movement of wind, water, or ice.

“Erosion and sediment control plan (ESC plan)” consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion, retain sediment on a particular site and prevent pollution of site runoff during the period beginning when any preconstruction- or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are completed.

“Excavation (cut)” means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

“Existing grade” means the elevation of the ground surface at a given point prior to excavating or filling.

“Fill (embankment)” means the deposit of soil, rock or other materials placed by artificial means and the conditions resulting therefrom.

“Finish grade” means the final grade of the site after excavating or filling which conforms to the approved final grading plan. The finish grade is also the grade at the top of a paved surface.

“Geologic hazard” means any condition in naturally occurring earth materials which may endanger life, health or property.

“Geotechnical engineer” means a civil engineer registered by the state of California who is qualified in the field of soil mechanics and soil engineering and has the authority to use the title “soil engineer.”

“Grade” means the vertical location of the ground surface.

“Grading” means any land excavation or filling or combination thereof, or the removal, plowing under or burial of vegetative groundcover.

“Grading plan” means a plan prepared in accordance with this chapter showing grading and related work.

“Manual of standards” means a compilation of administrative procedures, technical standards and design specifications adopted by the city of Sacramento for controlling construction-related grading, surface runoff, erosion and sedimentation. This manual of standards shall be titled “Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control.”

“Owner” means the legal owner of the property where the grading work is to be done, as shown on the latest equalized assessment roll in the office of the county assessor.

“Parcel (lot)” means the land described as a lot or parcel in a recorded deed or shown as a lot or parcel on a subdivision map or parcel map on file in the Sacramento County recorder’s office.

“Permit” means either a building permit or a separate grading permit.

“Person” means any person, firm, corporation, or public agency whether principal, agent, employee, or otherwise.

“Post construction erosion and sediment control plan (PC plan)” means consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site after all final structures and permanent improvements have been erected or installed.

“Preliminary grading plan” means a plan that shows the proposed grading work in relation to the existing site prepared and submitted with the application for a grading permit.

“Rainy season” means the period of the year during which there is a substantial risk of rainfall. For the purpose of this chapter, the rainy season is defined as from October 1st to April 30th, inclusive.

“Rough grade” means the stage at which the grade approximately conforms to the approved plan.

“Sediment” means any material transported or deposited by water, including soil debris or other foreign matter.

“Site” means any lot or parcel of land or combination of contiguous lots or parcels of land, whether held separately or joined together in common ownership or occupancy, where grading is to be performed or has been performed.

“Slope” means an inclined ground surface the inclination of which may be expressed as the ratio of horizontal distance to vertical distance.

“Soil” means all earth material of any origin that overlies bedrock and may include the decomposed zone of bedrock which can be excavated readily by mechanical equipment.

“Vegetation” means plant life or total plant cover of an area.

“Watercourse” means any natural or manmade channel in which water flows continuously or intermittently in a definite direction and course, or which is used for the holding, delay or storage of waters, or which functions at any time to convey or store stormwater runoff. (Ord. 2003-058 §§ 1—2; prior code § 9.31.1505)

15.88.060 Grading approval required.

Except for the specific exemptions listed hereinafter, no person shall do or permit to be done any grading on any site in the of the city without first obtaining approval of such grading from the director in accordance with the provisions of the grading ordinance. (Prior code § 9.31.1506)

15.88.070 Exemptions.

The following grading may be done without obtaining grading approval unless grading approval is required in mitigation monitoring agreements or other conditions of project approval. Exemption from the grading approval requirement shall not be deemed as permission to violate any other provision of this chapter.

A. Minor construction projects which meet all of the following requirements:

1. The volume of material graded is less than fifty (50) cubic yards,

2. The depth of cuts and fills is less than two feet,

3. Any drainageway is not blocked or obstructed and its stormwater carrying capacities are not modified,

4. Slopes are less than ten percent and are not left in an unstable or erodible condition;

B. Single family residential lots less than one-half acre that are not part of a larger common plan and residential infill projects less than one-half acre which also meet the requirements of subsection A of this section;

C. Excavations in connection with a swimming pool authorized by a valid building permit;

D. Grading necessary for agricultural operations unless the failure of any cut or fill created by such grading could endanger any structure intended for human or animal occupancy or any public road, or could obstruct any watercourse or drainageway;

E. Exploratory excavations of less than three hundred fifty (350) cubic yards under the supervision of a geotechnical engineer;

F. Routine cemetery excavations and fills;

G. Performance of emergency work necessary to protect life or property when an urgent necessity therefor arises. The person performing such emergency work shall notify the director promptly of the problem and work required;

H. An excavation below finished grade for basements and footings of a building authorized by a valid building permit;

I. Refuse disposal sites controlled by Title 23, Chapter 15, of the California Code of Regulations;

J. The repair and maintenance of levees for river and local drainage control performed by a governmental agency. (Prior code § 9.31.1507)

15.88.080 Grading approval.

Grading approval may be issued by the director in connection with the issuance of a building permit or the approval of improvement plans, or where grading is commenced prior to such issuance or approval, through the issuance of a separate grading permit. (Prior code § 9.31.1508)

15.88.090 Conditions of grading approval.

A. No grading shall be approved unless the project conforms with the city's general plan, any adopted specific or community plans, and applicable city ordinances, including the zoning ordinance and the subdivision ordinance.

B. Where the California Environmental Quality Act (CEQA) requires the preparation and approval of environmental documents concerning a project which will result in grading for which a grading permit is required under this chapter, no grading shall be approved until all CEQA requirements have been met, including but not limited

to mitigation measures relating to protection of threatened and endangered species under applicable federal and state endangered species laws. Where the land proposed to be graded is located within the North Natomas Community Plan Area or the South Natomas Community Plan Area, grading permits may be issued, provided that the conditions contained in Section 15.88.091 are satisfied.

C. Where a proposed grading project requires the filing of a tentative map or the intended use requires approval of a discretionary zoning permit or variance, grading may also require approval from the city planning and building department.

D. Work shall be performed in accordance with the provisions of the grading ordinance and the applicable criteria set forth in the manual of standards.

E. Grading approval shall be limited to work shown on the grading plans as approved by the director. The director may impose any condition deemed necessary to protect the health, safety, and welfare of the public, to prevent the creation of a hazard to public or private property, and/or to assure proper completion of the grading, including but not limited to the following:

1. Mitigation of adverse environmental impacts as disclosed by any environmental document findings, including but not limited to those matters specified in subsection B of this section;

2. Improvement of any existing grading to comply with the standards of the grading ordinance;

3. Requirements for fencing or other protection of grading which would otherwise be hazardous;

4. Requirements for dust, erosion, sediment and noise control, hours of operation and season of work, access roads and haul routes;

5. Requirements for safeguarding watercourses, whether natural or manmade, from excessive deposition of sediment or debris. In no case shall deposition of sediment or debris cause an exceedance of applicable water quality standards;

6. Assurance that the land area in which grading is proposed and for which habitable structures are proposed is not subject to hazards of land slippage or significant settlement or erosion and that the hazards of flooding can be eliminated or adequately reduced;

7. Requirements for safeguarding existing water wells. (Ord. 2001-021 § 1; Ord. 2001-014 § 3: prior code § 9.31.1509)

15.88.091 Requirements for development projects in North and South Natomas.

The city manager is authorized to issue grading permits within the North Natomas Community Plan Area and the South Natomas Community Plan Area only if the city manager finds that the applicant meets all the requirements of subsections A, B, C and D of this section.

A. The applicant has paid to the city (in addition to the "catch-up fee" required by Ordinance No. 2002-018) the full amount of the habitat-conservation fees that have been assessed by the city pursuant to the April 2003 Natomas Basin Habitat Conservation Plan and are then in effect (HCP Fees), including the entire amount and all elements of any increased HCP fees adopted by the Natomas Basin Conservancy ("NBC") and by the city pursuant to a validly enacted ordinance or resolution. The city anticipates receiving an adopted fee increase proposal from the NBC for consideration and adoption. The city shall not issue any grading permit until such time as the entire amount of, and all elements of, the anticipated HCP fee increase become effective or the city has otherwise secured from the applicant a written and unconditional agreement to pay the entire amount of, and all elements of, the increased HCP fees. All HCP fee increases will be included within the obligations to be covered by the agreement required under subsection D of this section.

B. If the applicant prepaid its HCP fees in an amount less than the HCP fees in effect when the grading permit is issued, the applicant has paid a catch-up fee in accordance with Ordinance No. 2002-018 and has paid an amount equal to its fair share of the amount of any HCP fee increase, on a per-acre basis, as reasonably determined by the city.

C. In lieu of the land-acquisition component of any HCP fee required to be paid under subsections A and B of this section, the applicant has transferred to the city or to the NBC fee title or a conservation easement in perpetuity for mitigation land, at the ratio of 0.5 acre of mitigation land for each acre for which the city issues a grading permit, and the applicant has paid other components of the applicable fees. If the number of acres transferred by an applicant to the city or to NBC exceeds the number of acres required to comply with the 0.5:1 mitigation formula set forth in the April 2003 Natomas Basin Habitat Conservation Plan (NBHCP), the city shall grant the applicant a credit against the land-acquisition component of any HCP fee to be paid in the future or, at the applicant's option, the city (either directly or through the NBC) shall pay the applicant, in cash, an agreed-upon amount not to exceed the fair market value of the excess acres of land transferred to the city or to NBC.

D. The applicant has executed an agreement, in a form acceptable to and approved by the city attorney, that requires the applicant and its successors in interest to do the following:

1. Comply with all provisions of the NBHCP;

2. Comply with the Incidental Take Permit and the State Incidental Take Authorization issued in conjunction with the NBHCP;

3. Pay all applicable fee increases and additions, whether adopted by the city before or within six months after issuance of the grading permit (but an applicant who has been specifically and expressly asked by the city manager or designee to pay HCP fees earlier than the date of issuance of a grading permit, and who in fact makes the requested early payment, shall not be subject to the "catch up" provisions of this clause); and

4. Release, defend, and fully indemnify the city and its officers, employees, and agents from and against all costs and damages, including attorney's fees, that may arise in connection with the city's issuance of a grading permit to the applicant, including but not limited to claims (procedural or substantive) that relate to HCP fee increases adopted by the city and arise under California's Mitigation Fee Act (title 7, division 1 of the Government Code, at chapters 6, 7, 8, and 9). (Ord. 2003-031 § 1: Ord. 2002-023 § 1; Ord. 2001-021 § 2)

15.88.100 Liability.

Neither issuance of grading approval under the provisions of the grading ordinance nor compliance with the provisions hereof or with any conditions imposed in a permit issued hereunder shall relieve any person from responsibility for damage to any person or property or impose any liability upon the city for damage to any person or property. (Prior code § 9.31.1510)

15.88.110 Scope of approval.

The issuance of grading approval shall not be construed as an approval of any action or condition constituting a violation of the provisions of the grading ordinance or of any other applicable laws, ordinances, rules or regulations. (Prior code § 9.31.1511)

15.88.120 Water obstruction.

No person shall do or permit to be done any grading which may obstruct, impede, or interfere with the natural flow of storm waters, whether such waters are unconfined upon the surface of the land or confined within land depressions, natural drainage ways, unimproved channels, watercourses, improved ditches, channels or conduits, in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition or cause accelerated erosion except where said grading is in

accordance with all applicable laws including, but not limited to, the provisions of the grading ordinance. (Prior code § 9.31.1512)

15.88.130 Levee work.

No person shall excavate or remove any material from or otherwise alter any levee adjacent to any river, creek, bay, or local drainage control channel, without prior approval of the governmental agency or agencies responsible for the operation and/or maintenance of the levee. (Prior code § 9.31.1513)

15.88.140 Construction in public right-of-ways.

No person shall perform any grading work within the right-of-way of a public road or street, or within a public easement, without prior written approval of the director, and without obtaining a city encroachment permit. (Prior code § 9.31.1514)

15.88.150 Hazards.

Whenever the director determines that any grading on private property constitutes a condition which could endanger persons or property, or could adversely affect the safety, use or stability of adjacent property, or an overhead or underground utility, or any public way, watercourse or drainage channel, or could adversely affect the water quality of any water bodies or watercourses, the owner of the property upon which the condition is located, or other person or agent in possession or control of said property, upon receipt of notice in writing from the director, shall, within the period specified therein, stop all work. The director may require the submission of plans, soil or geological reports, detailed construction recommendations, drainage study or other engineering data prior to and in connection with any work or activity proposed or required to correct such condition. (Prior code § 9.31.1515)

15.88.160 Not retroactive.

The provisions of the grading ordinance shall not apply to planned or existing construction for which all previously necessary permits and approvals were obtained prior to the effective date of the ordinance codified in this chapter. (Prior code § 9.31.1516)

Article II Application for Grading Approval

15.88.170 Filing of application for grading approval—Permit.

Applications for permits shall be obtained from and filed with the department of planning and development, building inspections division. Each application shall include a plan checking fee, the preliminary or final grading plans and a statement of the intended use of the site. Only one application and permit is allowed for grading work to be done on a site. The director shall determine whether the application is complete in accordance with provisions of Article III of this chapter herein and may require additional information from the applicant before accepting the application as complete. The applicant shall be notified within ten (10) working days if the application is deemed incomplete, and of the requirements for completing the application. (Prior code § 9.32.1601)

15.88.180 Improvement plans in lieu of application for permit.

Where a subdivision improvement plan is being processed in conjunction with either an approved tentative, parcel, or final map; or a site plan is being processed in accordance with the provisions of this code, such plan shall also be considered as an application for grading approval. Such plans shall be reviewed and approved, conditionally approved or denied in accordance with the standards and requirements set forth in the grading ordinance and other applicable city specifications. If an improvement plan or site plan is approved, then a separate grading permit shall not be required. Approval of the improvement plans constitutes approval of the grading work intended. (Prior code § 9.32.1602)

15.88.190 Grading prior to issuance of building permit or approval of improvement plans.

Applicants for a permit to allow grading prior to issuance of a building permit or approval of improvement plans shall meet the following requirements:

A. Preliminary grading plan shall be submitted for review and approval by the director. This plan shall conform to the requirements of the grading ordinance and any applicable conditions placed on the project as a result of any formal discretionary permit process. The applicant shall acknowledge that any additional grading or revisions to work necessitated by conflicts discovered during the improvement plan check or subsequent construction will be corrected at the applicant’s expense.

B. Both erosion and sediment control plans in accordance with provisions of Article III of this chapter, plans and specifications, of the grading ordinance shall be submitted for review and approval by the director.

C. A winterization certification shall be submitted for review and approval by the director in accordance with Section 15.88.270 of this chapter.

D. Plan check and inspection fee deposit shall be required in the amount of the full plan check fee applicable at the time of submittal in accordance with Section 15.88.310 of this chapter.

E. No grading permit shall be issued until all applicable CEQA requirements have been met. (Prior code § 9.32.1603)

15.88.200 Referral to other public agencies.

The director may refer the application to other interested public agencies for their recommendations. (Prior code § 9.32.1604)

15.88.210 Permission of other agencies or owners.

No application for grading approval shall relieve the applicant of responsibility for securing other permits or approvals, including but not limited to those specified in Section 15.88.090, subsection B, required for work which is regulated by any other department or other public agency, or for obtaining any easements or authorization for grading on property not owned by the applicant. Proof of applicable public agency permits may be required prior to issuance of grading approval. (Ord. 2001-014 § 4: prior code § 9.32.1605)

Article III Plans and Specifications

15.88.220 Application—Plans.

Five complete sets of plans, as determined by the director, including but not limited to, profiles, cross-sections, topographic maps, erosion and sediment control plans, and accompanying specifications shall be submitted to the director with each application for grading approval or when otherwise required by the director for enforcement of any provision of this chapter. At the time of application, the applicant may provide preliminary grading plans. Prior to the issuance of grading approval, the applicant must furnish final grading plans and all erosion and sediment control plans. Preliminary grading plans with appropriate changes and additions thereto may be accepted as final grading plans. When the final grading plans and other required documents have been approved, grading approval will be issued by the director. The work shall be done in strict compliance with the approved plans and specifications which shall not be changed

or altered except in accordance with the provisions of this chapter. (Prior code § 9.33.1701)

15.88.230 Preliminary grading plans.

Preliminary grading plans provide for review and determination of grading requirements prior to approval of final plans and issuance of grading approval. Precise design at this stage is not required. The plans shall be clearly and legibly drawn and entitled “preliminary grading plan,” and shall contain a statement of the purpose of the proposed grading, and shall include all of the information required in the Manual of Standards, Chapter 2, Section 2. (Prior code § 9.33.1702)

15.88.240 Final grading plans.

Final grading plans and specifications shall be prepared and signed by a registered civil engineer, except as otherwise provided herein. In addition to all requirements for preliminary grading plans, the final plans shall include the information required in the Manual of Standards, Chapter 2, Section 2. The director may waive the requirement that all plans and specifications be prepared and signed by a registered civil engineer if the grading would not endanger the public health, safety, or welfare as determined by the director and would not involve or require any of the following:

A. Cuts and fills with a combined total of three hundred fifty (350) cubic yards or more;

B. An access road serving five or more existing or proposed residences;

C. A cut or fill that is located so as to cause unduly increased pressure or reduce support upon adjacent structure of property;

D. The construction of any drainage or sediment control structures, culverts, or facilities or alteration of any existing drainage course;

E. The creation or aggravation of an unstable slope condition. (Prior code § 9.33.1703)

15.88.250 Erosion and sediment control plans (ESC plan).

An ESC plan shall be prepared for all projects to control surface runoff and erosion and to retain sediment on a particular site and prevent pollution of site runoff during the

period beginning when any preconstruction- or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are complete. The ESC plan shall be prepared and submitted concurrently with the final grading plan. The ESC plan may be incorporated on the same plan sheet as the final grading plan unless it makes the sheet cluttered, or it may be submitted on a clean separate sheet. The separate sheet shall be drawn clearly and legibly and entitled “erosion and sediment control plan,” shall contain a statement of the purpose of the proposed best management practices to be used, and shall include all of the information required and contained in the Manual of Standards, Chapter 2, Section 3. (Ord. 2003-058 § 3; prior code § 9.33.1704)

15.88.260 Postconstruction erosion and sediment control plan (PC plan).

The PC plan shall be prepared for all projects to control surface runoff and erosion and retain sediment on a particular site after all planned final improvements and/or structures have been installed or erected. The PC plan shall be prepared and submitted concurrently with the final grading plan. The PC plan shall be drawn clearly and legibly, and entitled “postconstruction erosion and sediment control plan.” The PC plan shall contain a statement of the purpose of the proposed best management practices to be used to secure the project after completion, and shall include all of the information required and contained in the Manual of Standards, Chapter 2, Section 4. (Prior code § 9.33.1705)

15.88.270 Winterization certification.

A winterization certification shall be submitted no later than September 15th for all projects where any construction will occur between October 1st and April 30th. Construction that will occur solely in the summer months, between May 1st and September 30th will not be required to submit a winterization certification. The winterization certification shall consist of a written statement or descriptive plan sheet from the owner certifying that the project under construction is prepared for an event which will stop construction, such as rain or snow, that all ESC plan best management practices are in place and operating correctly, that housekeeping practices are maintained and that the site can be left or abandoned safely for an extended period of time during the rainy season without causing any erosion and sediment control problems. If a winterization certification is required and has not been submitted and approved prior to September 16th, the grading approval will be suspended until a winterization certification is submitted and approval obtained. Refer to the Manual of Standards, Chapter 4, Section 5, for additional information regarding winterization certification. (Prior code § 9.33.1706)

15.88.280 Modification of approved plans.

Any modifications of an approved final plan shall be submitted in writing to the director, who shall approve or deny such modification in his or her sole discretion. All necessary soils and geological information and design details shall accompany any proposed modification. Any modification shall be compatible with all subdivision map or land use requirements. (Prior code § 9.33.1707)

15.88.290 General design standards.

Any activities performed under the authority of the grading ordinance, including but not limited to grading, excavation, soil storage, soil transportation, erosion and sediment control measures, shall conform to the general design standards set forth in the Manual of Standards, Chapter 3. (Prior code § 9.33.1708)

Article IV Permit Requirements

15.88.300 General.

The director shall issue grading approval if final grading plans satisfy the provisions of the grading ordinance and the Manual of Standards. The director shall identify the provision, requirement, or condition which has not yet been met or performed by the applicant in the event the issuance of grading approval is denied. (Prior code § 9.34.1801)

15.88.310 Fees.

A. The applicant shall pay a fee to cover the city's costs of reviewing plans, specifications, reports and other materials related to grading approval and performing all engineering services, field investigations, inspections, routine laboratory tests of materials and compaction or other work or services in connection with the issuance of grading approval or to determine or enforce compliance with any requirement or provision set forth in this chapter or in Chapter 13.16.

B. The fee or fees required by subsection A shall be established from time to time by resolution of the city council and shall be paid to the director either before grading approval is issued or before the issuance of a building permit, or both in accordance with the fee schedule adopted by resolution of the city council. The director may charge additional fees in any case where the city incurs costs that are not covered by the initial fee payment(s).

C. If grading work is done in violation of the grading ordinance or does not comply with the terms and conditions of a grading approval issued for such grading, the violator is required to pay the city for all costs actually incurred by the city to inspect or

investigate such violation and to perform inspection and plan checking of work required to correct the violation. (Ord. 2003-058 § 4; prior code § 9.34.1802)

15.88.320 Progress report.

Applicant shall submit periodic progress reports on specified calendar dates and at commencement and completion of specified grading and erosion and sediment control operations. The dates upon which such reports are required and their content shall be as required by the director in the grading approval. (Prior code § 9.34.1803)

15.88.330 Submit record construction drawings.

The applicant shall submit to the director record construction drawings of the final grading plan and erosion and sediment control plans following completion of grading operations. (Prior code § 9.34.1804)

15.88.340 Performance of work—Inspection.

The director may inspect any work done pursuant to the grading ordinance at any time during the course of construction. No person shall be deemed to have complied with the grading ordinance until a final inspection of the work has been made by the director. As a condition of any grading approval, the applicant shall provide the city a right-of-entry and reasonable access, in accordance with Section 15.88.470 of this chapter, to the site during the performance of all work and for a minimum period of one year after acceptance by the director of all improvements pursuant to the grading ordinance. (Prior code § 9.34.1805)

15.88.350 Location of property lines.

Prior to any grading work or related activities, the owner must flag all property corners of the parcel of land to be graded. If the property corners are unknown, or whenever the location of a property line or easement or the title thereto is disputed during the application process or during a grading operation, a survey by a licensed land surveyor or civil engineer or other resolution of the title dispute, all at the expense of the applicant, may be required by the director. (Prior code § 9.34.1806)

15.88.360 Other responsibilities of applicant.

A. Protection of Utilities. The applicant shall be responsible for the prevention of damage to any public utilities or services.

B. Protection of Adjacent Property. The applicant shall be responsible for the prevention of damage to adjacent property. No person(s) shall excavate on land that is so close to the property line as to endanger any adjoining public street, sidewalk, alley, structure or other public or private property or easement without supporting and protecting such property from any damage which might otherwise result.

C. Advance Notice. The applicant shall notify the director at least twenty-four (24) hours prior to the start of work.

D. Erosion and Sediment Control. It shall be the sole responsibility of the applicant to prevent discharge of sediment from the site, in quantities greater than before the grading occurred, to any watercourse, drainage system, or adjacent property.

E. Compliance with Stormwater Management and Discharge Control Code. At all times during the preconstruction and construction of any project for which grading approval is issued until all final improvements and permanent structures are complete, the applicant shall fully comply with all applicable requirements of the city's Stormwater Management and Discharge Control Code, set forth in Chapter 13.16. (Ord. 2003-058 § 5; prior code § 9.34.1807)

15.88.370 Time limits.

All the work required by the permit or grading approval shall be completed within the time limits specified in the permit or approval. If the work cannot be completed within the specified time, a request for an extension of time setting forth the reasons for the requested extension shall be presented in writing to the director no later than thirty (30) days prior to the expiration of the permit or approval. The director shall in his or her sole discretion approve or deny such request. The director may require a new application and fees depending on the time between the expiration date and the extension request, revisions in city regulations, and/or changed circumstances in the immediate area. (Prior code § 9.34.1808)

15.88.380 Transfer of grading approval.

No approval or permit issued under the grading ordinance may be transferred or assigned in any manner whatsoever, without the express written consent of the director. (Prior code § 9.34.1809)

15.88.390 Improvement security required.

A. As a condition for the issuance of grading approval, the director may require the deposit of an improvement security in an amount deemed sufficient by him or her to assure faithful performance of the grading work in the event of default on the part of the applicant. Said security shall be in a form acceptable to the city.

B. In the case of subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work and subdivision improvements have been accepted by the city.

C. For projects other than subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work has been accepted by the director.

D. In addition to the improvement security, the director may also require the deposit of maintenance security in an amount deemed sufficient by him or her to guarantee and maintain the grading work performed, to assure the proper functioning of drainage systems and adequate erosion and sedimentation control. Said maintenance security shall be in a form acceptable to the city and shall remain in effect for a period of one year after the date of acceptance of the improvements or grading work, as designated in subsections B and C of this section, or such other periods of time as required by the director.

E. Any deposit required by the director pursuant to this title shall be payable to the city.

F. Upon failure to complete the work, failure to comply with all of the terms of the grading ordinance, or failure of the completed site to function properly to provide proper drainage or erosion and sedimentation control, the city may do the required work, or cause it to be done and collect from the applicant or surety all costs incurred thereto, including administrative and inspection costs. Any unused portion of a deposit shall be refunded to the applicant after deduction by the city of the cost of the work. (Prior code § 9.34.1810)

15.88.400 Appeals.

Appeals of any decision made pursuant to the grading ordinance shall be made to the construction codes advisory and appeals board in writing, setting forth the specific grounds therefor. Such appeals shall be heard and determined in accordance with the procedures set forth in Chapter 2.48 of this code. (Prior code § 9.34.1811)

Article V Enforcement

15.88.410 Enforcement official.

The director shall enforce the provisions of the grading ordinance. (Prior code § 9.35.1901)

15.88.420 Suspension and revocation of grading approval.

The director may suspend or revoke grading approval for good cause. In the event that a suspension or revocation is appealed to the construction codes advisory and appeals board, no work shall be performed pending appeal except as expressly authorized, in writing, by the director. (Prior code § 9.35.1902)

15.88.430 Stop work order.

A. Whenever any work is being done in violation of the provisions of the grading ordinance or any other applicable law, ordinance, rule or regulation, the director may order the work stopped by serving written notice of such violation on any persons engaged in, doing, or causing such work to be done. Any such person shall forthwith stop such work until authorized by the director to proceed with the work. If there are no persons present on the premises, the notice shall be posted in a conspicuous place. The notice shall state the nature of the violation. Any person violating a stop work order shall be guilty of an infraction.

B. Upon receipt of or knowledge of the existence of such stop work notice, the person performing the work shall:

1. Stop work immediately; and

2. Within twenty-four (24) hours, provide the director with a list of remedies which can be immediately undertaken to bring the work into compliance with this title; and

3. Within twenty-four (24) hours after acceptance of such remedies by the director, undertake at the violator’s expense, such action as is necessary to bring the work into compliance with this title.

4. If engineering work is required to identify and define the proper course of action, as determined by the director, such work shall be provided by the violator at no cost to the city. (Prior code § 9.35.1903)

15.88.440 Abatement of unlawfully created conditions.

A. Any condition in violation of the grading ordinance is declared to be a public nuisance, subject to abatement in accordance with Title 8 of this code. In the event that the director determines that a violation has created a condition which is of such a nature to be imminently dangerous to the public health, safety or welfare, such condition may be abated in accordance with the summary abatement procedures set forth at Chapter 8.04, et seq. of this code.

The following conditions are declared to constitute an imminently dangerous condition:

1. When a violation has altered natural drainage patterns and has caused flooding to any downstream or upstream property; or

2. When a violation results in a condition which creates a drainage alteration such that upstream or downstream property may be flooded when weather conditions change and the owner, lessee, or licensee of the property on which the violation exists cannot be found; or

3. When a violation results in a hazard, requiring immediate correction for the preservation of the public health, safety, or welfare; or

4. When a violation results in a discharge or release of significant amounts of sediment which causes or threatens to cause flooding, property damage, or unsafe conditions.

B. The costs incurred by city to abate any nuisance caused by a violation of the grading ordinance shall be assessed against the subject property as a lien or made a personal obligation to the owner of the property as provided in Chapter 8.04, et seq. of this code. Such costs may include, but shall not be limited to, the following:

1. Engineering and design costs;

2. Contractor service bills or public employee wages at cost;

3. Administrative overhead and supervision based on ten (10) percent of all other costs incurred;

4. Interest which shall accrue and be billed at the rate of ten (10) percent of all unpaid amounts from the date of billing;

5. Attorney fees and costs.

C. The abatement procedures set forth in this section are cumulative and in addition to any other rights or remedies which are or may be available to city to correct or cause to

be corrected any violation of the grading ordinance, or to abate a condition which is otherwise a public nuisance. (Prior code § 9.35.1904)

15.88.450 Infraction.

Any person violating any provision of the grading ordinance shall be guilty of an infraction. (Prior code § 9.35.1905)

15.88.460 Nonexclusive remedies.

The remedies provided herein are not exclusive, and are in addition to any other remedy or penalty provided by law for violation of the grading ordinance. (Prior code § 9.35.1906)

15.88.470 Right of entry.

Whenever necessary to enforce the provisions of the grading ordinance, the director may enter the premises at all reasonable times to the extent authorized by law to perform any duty imposed by the grading ordinance. If such entry is refused, the director shall have recourse to every remedy provided by law to secure entry. (Prior code § 9.35.1907)

OFFICE OF THE CITY ATTORNEY

EILEEN M. TEICHERT
CITY ATTORNEY

ASSISTANT CITY ATTORNEYS
RICHARD E. ARCHIBALD
SANDRA G. TALBOTT

SUPERVISING DEPUTY CITY ATTORNEYS
GUSTAVO L. MARTINEZ
MATTHEW D. RUYAK
BRETT M. WITTER

CITY OF SACRAMENTO
CALIFORNIA

915 I STREET, FOURTH FLOOR
SACRAMENTO, CA 95814-2604
PH 916-808-5346
FAX 916-808-7455

MAILING ADDRESS:
P.O. BOX 1948
SACRAMENTO, CA 95812-1948

April 28, 2009

DEPUTY CITY ATTORNEYS
MICHAEL J. BENNER
ANGELA M. CASAGRANDA
JOSEPH P. CERULLO
SHERI M. CHAPMAN
LAWRENCE J. DURAN
MICHAEL A. FRY
PAUL A. GALE
SABINA D. GILBERT
SUSAN E. HAYES
JEFFREY C. HEEREN
GERALD C. HICKS
STEVEN Y. ITAGAKI
MARCOS A. KROPF
GARY P. LINDSEY, JR.
SHERYL N. PATTERSON
JOE ROBINSON
KATHLEEN T. ROGAN
JANETH D. SAN PEDRO
MICHAEL T. SPARKS
CHANCE L. TRIMM
LAN WANG
DAVID S. WOMACK

Statement of Legal Authority

Introduction

This Statement is provided pursuant to the Waste Discharge Requirements for the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento, and the County of Sacramento, for Storm Water Discharges from Municipal Separate Storm Sewer Systems in Sacramento County, NPDES No. CAS082597, Order No. R5-2008-0142, issued by the California Regional Water Quality Control Board Central Valley Region on September 11, 2008 (hereafter referred to as the "Order"). Section D.6. of the Order provides as follows:

> 6. *Each Permittee shall provide to the Executive Officer a statement certified by its chief legal counsel that it has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement shall be included in Permittees' revised SQIP(s), which shall describe the following:*
>
> a. *Citation of urban runoff related ordinances adopted by the Permittees and the reasons they are enforceable;*
>
> b. *Progressive enforcement policy and how it will be effectively implemented;*
>
> c. *Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;*

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

The following Statement is provided to comply with this requirement, with respect to the City of Sacramento ("City"):

Statement of Legal Authority

a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons they are enforceable:

The primary City ordinance that regulates urban runoff that discharges to the City's MS4 is the City's Stormwater Management and Discharge Control Code, set forth at Chapter 13.16 of the Sacramento City Code. A copy of this ordinance is attached to this Statement as **Exhibit A**.

Another City ordinance that regulates urban runoff and therefore indirectly regulates discharges to the MS4 is the City's Grading, Erosion and Sediment Control Ordinance, set forth at Chapter 15.88 of the Sacramento City Code. A copy of this ordinance is attached to this Statement as **Exhibit B**.

The foregoing ordinances are enforceable because they were duly adopted by the Sacramento City Council and constitute valid municipal enactments that may be enforced by the City pursuant to the City's powers as a charter municipality, as described in section 10 of the Sacramento City Charter:

§ 10 General powers.

The city shall have the right and power to make and enforce all the laws and regulations in respect to municipal affairs, subject only to the restrictions and limitations provided in this Charter; provided that nothing herein shall be construed to prevent or restrict the city from exercising or consenting to, and the city is

hereby authorized to exercise, any and all rights, powers and privileges heretofore or hereafter granted or prescribed by the general laws of the state including those specifically applicable to general law cities; provided, also that where the general laws of the state provide a procedure for the carrying out and the enforcement of any rights or powers belonging to the city, said procedure may be followed unless a different procedure is provided or required by the Charter, ordinance or resolution.

b. Progressive enforcement policy and how it will be effectively implemented:

The City's Stormwater Management and Discharge Control Code (Exhibit A) can be enforced through the issuance of administrative penalties pursuant to the provisions of the City's administrative penalty ordinance set forth in City Code section 1.28.010, subsection D (copy attached to this Statement as **Exhibit C**). The City's progressive enforcement policy for the issuance of administrative penalties is described in the Policy for Determining Administrative Penalties for Prohibited Non-Stormwater Discharges attached to this Statement as **Exhibit D**. This policy is effectively implemented by City employees authorized to enforce compliance with the Stormwater Management and Discharge Control Code.

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order:

The local administrative and legal procedures available to mandate compliance with the City's Stormwater Management and Discharge Control Code are set forth in Chapter 13.16 of the Sacramento City Code (Exhibit A). The procedures available to mandate compliance with the City's Grading, Erosion and Sediment Control Ordinance are set forth in Chapter 15.88 of the Sacramento City Code (Exhibit B). In addition, administrative penalties may be imposed for violations of the Stormwater Management and Discharge Control Code and the Grading, Erosion and Sediment Control Ordinance pursuant to the City's administrative penalty ordinance (Exhibit C).

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed:

The procedures available to mandate compliance with the City's Stormwater Management and Discharge Control Code are implemented by the City "enforcement official," defined in the code as the City's Director of Utilities or any employee or agent of the City authorized to enforce compliance with the Code. In addition, some enforcement actions may involve the participation of other City staff or departments, such as the City Attorney's Office. Procedures for appealing enforcement actions under the City's Stormwater Management and Discharge Control Code are set forth in City Code section 13.16.200 (included in Exhibit A).

The Stormwater Management and Discharge Control Code also provides that if the Sacramento City Council and the governing body of another public agency enter into an agreement authorizing that agency to administer and/or enforce some or all of the provisions of the Code, "enforcement official" also shall mean the authorized official(s) of the agency designated in the agreement as the agency responsible for administering and enforcing the Code, as provided in the agreement. The City has entered into such an agreement with Sacramento County authorizing Sacramento County to administer and enforce the provisions of the City's Stormwater Management and Discharge Control Code with respect to commercial and industrial facilities located in the City. Administrative or civil enforcement actions taken by Sacramento County with respect to such facilities are governed by and conducted pursuant to the County's Stormwater Ordinance, set forth in Chapter 15.12 of the Sacramento County Code, attached to this Statement as **Exhibit E**. Procedures for appealing Sacramento County enforcement actions are set forth in Sacramento County Code section 15.12.540 (included in Exhibit E).

The City's Grading, Erosion and Sediment Control Ordinance is administered for the City by the Department of Utilities through the building permit process, improvement plan process or capital improvement project process, as applicable. (*See* City Code section 15.88.040, included in Exhibit B.) The Director of the Utilities Department or his or her authorized designees are responsible for implementing the enforcement provisions of the ordinance, which are set forth in Article V of City Code Chapter 15.88, beginning with City Code section 15.88.410 (included in Exhibit B). Procedures for appealing any decision made pursuant to the ordinance are set forth in City Code section 15.88.400 (included in Exhibit B), and Chapter 2.48 of the City Code (copy attached to this Statement as **Exhibit F**).

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

The City's administrative enforcement powers under the City's Stormwater Management and Discharge Control Code are described in City Code section 13.16.180 (included in Exhibit A). These powers include the implementation of administrative procedures to abate any discharge or condition violating the Code, which are undertaken pursuant to City Code section 13.16.180(A), and Articles V through VIII of Chapter 8.04 of the City Code (copy attached to this Statement as **Exhibit G**), and the imposition of administrative penalties pursuant to the City's administrative penalty ordinance (Exhibit C). City Code section 13.16.180 also authorizes the commencement of civil actions seeking various remedies, and grants arrest and citation authority to any authorized enforcement official.

The City's administrative enforcement powers under the City's Grading, Erosion and Sediment Control Ordinance are set forth in Article V of City Code Chapter 15.88, beginning with City Code section 15.88.410 (included in Exhibit B). The powers include the suspension or revocation of grading approval, the issuance of stop work orders and the abatement of unlawfully created conditions, as described therein. The City also may impose administrative

penalties for violations of the Grading, Erosion and Sediment Control Ordinance, pursuant to the City's administrative penalty ordinance (Exhibit C).

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities:

The City's storm water management structure, including a summary of the communication and coordination between affected departments, is described in the City's Stormwater Quality Improvement Plan (see, e.g., Chapter 4, Section 4.2).

Certified by:

EILEEN M. TEICHERT
City Attorney



Joe Robinson
Senior Deputy City Attorney

Table of Exhibits

Exhibit A	Stormwater Management and Discharge Control Code
Exhibit B	Grading, Erosion and Sediment Control Ordinance
Exhibit C	Administrative Penalty Ordinance
Exhibit D	Policy for Determining Administrative Penalties for Prohibited Non-Stormwater Discharges
Exhibit E	Sacramento County Stormwater Ordinance
Exhibit F	Sacramento City Code Chapter 2.48
Exhibit G	Sacramento City Code Chapter 8.04, Articles V through VIII

EXHIBIT A

Chapter 13.16 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

13.16.010 Title.

This chapter shall be known as the Stormwater Management and Discharge Control Code. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.020 Purpose and intent.

The purpose of this chapter is to protect and promote the health, safety and general welfare of the citizens of the city by controlling nonstormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from- spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable. This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 U.S.C. Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System (NPDES) Permit No. CAS082597, as such permit is amended and/or renewed. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.102)

13.16.030 Definitions.

A. The following words, when used in this chapter, shall have the following meanings:

"Basin plan" means the water quality control plan for Basin 5A and SB, adopted by the Regional Water Quality Control Board, Central Valley Region in July 1975, and all subsequent amendments.

"Best management practices" means schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and education practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants directly or indirectly to waters of the United States. Best management practices also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.

"City" means the city of Sacramento.

"City manager" means the city manager of the city, or his or her authorized designee.

"Commercial and industrial facilities" means commercial and industrial facilities regulated pursuant to the Commercial/Industrial Program requirements specified in Section C.9 of NPDES Permit No. CA5082597.

"Construction general permit" means the General Permit for Stormwater Discharges Associated with Construction Activities issued and administered by the State of California in accordance with applicable provisions of the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

"County stormwater ordinance" means the County of Sacramento's Stormwater Management and Discharge Control Code, set forth in Chapter 15.12 of the Sacramento County Code, and all subsequent amendments.

"Development" means the construction, building or placement of any structure or portion thereof, or any excavation or grading.

"Director" means the director of the city department of utilities or his or her authorized designee.

"Employee training program" means a documented employee training program that a business may be required to implement pursuant to a stormwater pollution prevention plan for the purpose of educating its employees on methods of reducing discharge of pollutants to the stormwater conveyance system.

"Enforcement agency" means the city department of utilities or any other city department authorized to enforce compliance with this chapter. If the city council and the governing body of another public agency enter into an agreement authorizing that agency to administer and/or enforce some or all of the provisions of this chapter, "enforcement agency" also shall mean the agency designated in the agreement as the agency responsible for administering and enforcing the provisions of this chapter, as provided in the agreement.

"Enforcement official" means the director or any employee or agent of the city authorized to enforce compliance with this chapter. If the city council and the governing body of another public agency enter into an agreement authorizing that agency to administer and/or enforce some or all of the provisions of this chapter, "enforcement official" also shall mean the authorized official(s) of the agency designated in the agreement as the agency responsible for administering and enforcing the provisions of this chapter, as provided in the agreement.

"Illegal discharge" means any discharge to the stormwater conveyance system that violates this chapter, or is prohibited by federal, state, or local laws, or which degrades the quality of receiving waters in violation of any plan standard.

"Industrial general permit" means the General Permit for Stormwater Discharges Associated with Industrial Activities issued and administered by the State of California in accordance with applicable provisions of the Federal Clean Water Act and the Porter-Cologne Water Quality Control Act.

"NPDES permit" means a National Pollution Discharge Elimination System permit issued by the Regional Water Quality Control Board or the State Water Resources Control Board pursuant to Division 7, Chapter 5.5 of the California Water Code (commencing with Section 13370) to control discharges from point sources to waters of the United States.

"Noncommercial vehicle washing" means the washing and/or rinsing of passenger vehicles on private property that is not being conducted as a commercial enterprise.

"Nonstormwater discharge" means any discharge to the stormwater conveyance system that is not entirely composed of stormwater.

"Order 2002-0206" means Regional Water Quality Control Board, Central Valley Region Order No. R5-2002-0206, which constitutes NPDES Permit No. CAS082597, together with all amendments and renewals, on file in the office of the city clerk.

"Person" means any person, firm, corporation, partnership, business, public agency, or any other public or private entity.

"Plan standard" means any or all applicable requirements of the basin plan or any other water quality control standard or requirement approved by the Regional Water Quality Control Board, Central Valley Region, the State Water Resources Control Board or the federal Environmental Protection Agency that applies to any of the receiving waters.

"Pollutant" means any contaminant that can degrade the quality of the receiving waters in violation of any plan standard.

"Premises" means any building, lot, parcel, land or portion of land whether improved or unimproved.

"Receiving waters" means surface bodies of water as described in Order 2002-0206, including creeks and rivers, that serve as discharge points for the stormwater conveyance system.

"Stormwater" means surface runoff and drainage associated with storm events that is free of pollutants to the maximum extent practicable.

"Stormwater conveyance system" means those artificial and natural facilities within the city, whether publicly or privately owned, by which stormwater may be conveyed to a watercourse or waters of the United States, including any roads with drainage systems, streets, catch basins, natural and artificial channels, aqueducts, stream beds, gullies, curbs, gutters, ditches, open fields, parking lots, impervious surfaces used for parking, and natural and artificial channels or storm drains. "Stormwater conveyance system" does not include any facilities that convey stormwater to the city's combined sewer system that collects and conveys both sanitary sewage and stormwater and surface runoff for treatment in accordance with applicable sewage treatment requirements, and that is regulated by Chapter 13.08 of this code in accordance with the provisions of a separate NPDES permit issued to the city for the combined sewer system.

"Stormwater pollution prevention plan" means a document that describes the best management practices to be implemented by the owner or operator of a business to eliminate prohibited nonstormwater discharges and/or reduce to the maximum extent practicable pollutant discharges to the stormwater conveyance system.

"Unauthorized connection" means any physical connection to the stormwater conveyance system that is not authorized by the city and the Regional Water Quality Control Board, Central Valley Region.

"Watercourse" means any natural stream, whether flowing continuously or not, that is fed from permanent or natural sources, and includes, without limitation rivers, creeks, runs, and rivulets.

B. Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and that are not specifically defined in subsection A of this section shall, when used in this chapter, have the same meaning as set forth in such act or regulations. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.103)

13.16.040 Conflicts with other laws.

In the event of any conflict between this chapter and any federal or state law, regulation, order, or permit, the requirement that establishes the higher standard for public health or safety shall govern. Nothing in this chapter shall preclude enforcement of any other applicable law, regulation, order, or permit. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.104)

13.16.050 Discharge of nonstormwater prohibited.

Except as provided in Section 13.16.060 of this chapter, it is unlawful for any person to make or cause to be made any nonstormwater discharge. Notwithstanding the exemptions provided by subsections A and B of Section 13.16.060 of this chapter, if the Regional Water Quality Control Board or the enforcement official determines that any otherwise exempt discharge causes or significantly contributes to violations of any plan standard, or conveys significant quantities of pollutants to any receiving waters, or is a nuisance or poses a risk to public health or safety, it is unlawful for any person to make or cause to be made such discharge to the stormwater conveyance system. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.105)

13.16.060 Exceptions to discharge prohibition.

Subject to the authority granted to the Regional Water Quality Control Board and the enforcement official in Section 13.16.050 of this chapter, the following discharges to the stormwater conveyance system are exempt from the prohibition set forth in Section 13.16.050 of this chapter.

A. Any discharge or connection regulated under a NPDES permit issued to the discharger and administered by the state of California pursuant to Division 7, Chapter 5.5 of the California Water Code, provided that the

discharger is in compliance with all requirements of the permit and all other applicable laws and regulations.

B. Discharges from the following activities that do not cause or contribute to the violation of any plan standard:

1. Potable water line flushing and other discharges from potable water sources;
2. Landscape irrigation and lawn watering;
3. Rising ground waters or springs;
4. Passive foundation and footing drains;
5. Water from crawl space pumps and basement pumps;
6. Air conditioning condensate;
7. Noncommercial vehicle washing;
8. Natural flows from riparian habitats and wetlands;
9. Dechlorinated swimming pool discharges that do not contain biocides or other chemicals, excluding filter backwash water;
10. Flows from fire suppression activities, including fire hydrant flows;
11. Diverted stream flows;
12. Uncontaminated ground water infiltration to separate storm sewers; and
13. Potable water used to wash sediment from streets and parking lots associated with construction sites that have been issued a street washing certification by the Department of Utilities and have implemented required best management practices.

C. Any discharge that the enforcement official, the local health officer, or the Regional Water Quality Control Board determines in writing is necessary for the protection of the public health and safety.

D. Any discharge caused by flooding or other natural disaster that could not have been reasonably foreseen or mitigated in advance by the discharger, as determined by the enforcement official. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.106)

13.16.070 Groundwater discharges.

Discharges of pumped groundwater not subject to a NPDES permit may be permitted to discharge to the stormwater conveyance system upon written approval from the city and in compliance with conditions of approval set forth by the city. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.107)

13.16.080 Discharge in violation of permit.

It is unlawful and a violation of this chapter for any person to make or cause any discharge to the stormwater conveyance system that results in or contributes to a violation of Order 2002-0206. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.108)

13.16.090 Illicit connections prohibited.

It is unlawful and a violation of this chapter for any person to establish, use, or maintain any unauthorized connection. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.109)

13.16.100 Concealment and abetting.

It is unlawful and a violation of this chapter to cause, permit, aid, abet or conceal a violation of any provision of this chapter. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.110 Acts potentially resulting in violation of Federal Clean Water Act and/or Porter-Cologne Act.

Any person who violates any provision of this chapter or any provision of any permit issued pursuant to this chapter or any cease and desist order, prohibition, or effluent limitation, or who discharges waste or wastewater that contains pollutants, may also be in violation of the Federal Clean Water Act (33 U.S.C. 1251 et seq.) and/or Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and may be subject to the sanctions and remedies of those acts including civil and criminal penalties. The provisions or enforcement of this chapter shall not affect or limit in any way the applicability of those acts nor the enforcement of any sanctions, remedies or penalties under those acts. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.111)

13.16.120 Reduction of pollutants in stormwater.

Any person engaged in activities that may result in pollutants entering the stormwater conveyance system shall, to the maximum extent practicable, undertake the measures set forth below to reduce the risk of nonstormwater discharge and/or pollutant discharge.

A. Business Related Activities.

1. Stormwater Pollution Prevention Plan. The enforcement official may require any business in the city engaged in activities that may result in a nonstormwater discharge to develop and implement a stormwater pollution prevention plan, that must include an employee training program. Business activities that may require a stormwater pollution prevention plan include, but are not limited to, maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading or fueling, and cleanup procedures that are carried out partially or wholly outdoors.

2. Coordination with Hazardous Materials Release Response Plans and Inventory. Any business for which a hazardous materials release response plan and inventory are required under Chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code, shall include in that plan provisions demonstrating compliance with this chapter, and requiring the release of pollutants to be reduced to the maximum extent practicable.

3. Coordination with Hazardous Waste Generator Contingency Plan and Emergency Procedures. Any business for which a hazardous waste generator contingency plan and emergency procedures are required pursuant to California Code of Regulations, Title 22, Sections 66265.51 to 66265.56, shall include in that plan provisions demonstrating compliance with this chapter, and requiring the release of pollutants to be reduced to the maximum extent practicable.

4. Any person conducting business or industrial activities in the city shall prevent pollutants from entering the stormwater conveyance system and shall comply with all applicable federal, state and local laws, ordinances or regulations.

B. Development.

1. The enforcement official may establish and impose such controls as the enforcement official determines to be appropriate to minimize the long-term, post-construction discharge of stormwater pollutants from new development or modifications to existing development. Controls may include source control measures to prevent pollution of stormwater and/or treatment controls designed to remove pollutants from stormwater.

2. Any person conducting development in the city shall prevent pollutants from entering the stormwater conveyance system and shall comply with all applicable federal, state and local laws, ordinances or regulations, including but not limited to the City Grading, Erosion and Sediment Control Ordinance set forth in Chapter 15.88 of this code.

C. Compliance with General Permits. Any person conducting business, industrial, construction or development activities that are subject to a general stormwater permit issued by the United States Environmental Protection Agency, the State Water Resources Control Board, the Regional Water Quality Control Board, Central Valley Region or the city of Sacramento, including the construction general permit and the industrial general permit, shall comply with all requirements of such permit. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.112)

13.16.130 Compliance with best management practices.

Every person undertaking any activity or use of a premises that may cause or contribute to stormwater pollution or contamination, illegal discharges, or nonstormwater discharges shall: (1) comply with best management practices guidelines or pollution control requirements established or imposed by the enforcement official; and (2) properly operate and maintain any treatment control device or other measures utilized on the premises to prevent or reduce, to the maximum extent practicable, stormwater pollution or contamination, illegal discharges or nonstormwater discharges, as required by the enforcement official. (Ord. 2004-042 § 1 (part))

13.16.140 Containment and notification of spills.

Any person owning or occupying a premises who has knowledge of any release of pollutants or prohibited nonstormwater discharge from the premises that might enter the stormwater conveyance system, other than a release or discharge that is permitted by this chapter, shall immediately take all reasonable action to contain and abate the release of any pollutants or prohibited nonstormwater discharge, and shall notify the enforcement agency as soon as reasonably possible of the release of any pollutants or prohibited nonstormwater discharge. (Ord. 2004-042 § 1 (part))

13.16.150 Commercial and industrial facilities—Inspection and enforcement by Sacramento County.

A. The city and Sacramento County are co-permittees under NPDES Permit No. CA5082597. The permit requires regular compliance inspections and enforcement at certain commercial and industrial facilities as defined by the permit. Sacramento County operates an inspection, investigation and enforcement program that enforces compliance with environmental and water quality requirements by commercial and industrial facilities located within the County.

B. Under Article 11, Section 8 of the California Constitution, and applicable provisions of the city and Sacramento County Charters, the city and Sacramento County may enter into agreements for Sacramento County to perform specified municipal functions within the city.

C. To provide for effective and efficient administration and enforcement of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, and to ensure compliance with Order 2002-0206, the city council and the Sacramento County Board of Supervisors may enter into an agreement or agreements for Sacramento County to administer and enforce the provisions of this chapter with respect to these commercial and industrial facilities, by including these commercial and industrial facilities in Sacramento County's commercial and industrial compliance program. If the city council and the Sacramento County Board of Supervisors enter into such an agreement or

agreements:

1. Sacramento County and its authorized official(s) and employee(s) shall enforce the provisions of this chapter as they apply to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, in accordance with the provisions of the agreement(s); and

2. Sacramento County, and its authorized official(s) and employee(s), shall be authorized to take any action that may be taken by the "enforcement agency" and "enforcement official," respectively, with respect to these commercial and industrial facilities, in accordance with the provisions of this chapter and the agreement(s); and

3. Sacramento County may establish and collect from these commercial and industrial facilities such fees as may be necessary to cover the actual costs incurred by Sacramento County to include facilities in its commercial and industrial compliance program, provided that the fees are established and collected uniformly within and outside of the city, and in accordance with the provisions of the agreement(s) and all applicable legal requirements. (Ord. 2004-042 § 1 (part))

13.16.160 Inspection authority.

Whenever necessary to make an inspection of any building or premises to enforce any of the provisions of this chapter, or whenever an authorized enforcement official has reasonable cause to believe that there exists in any building or upon any premises any condition that constitutes a violation of this chapter, the enforcement official may enter such building or premises at all reasonable times to perform an inspection, as well as any of the other activities authorized by this section. Any request for entry shall state that the property owner or occupant has the right to refuse entry and if entry is refused, entry may be made upon issuance of a judicial order. If the owner or occupant refuses entry after this request has been made, the enforcement official is empowered to seek authorization from any court of competent jurisdiction for such entry. The enforcement official may request a judicial order authorizing and/or compelling the performance of some or all of the activities authorized by this section.

During any inspection, the enforcement official may collect samples as necessary in order to implement and enforce the provisions of this chapter. This authority shall include the right to require the installation of sampling and metering devices on private property, or to require the person owning or occupying the premises to supply samples.

During any inspection, the enforcement official may require the person owning or occupying the premises to provide any and all records relating to any potential stormwater contamination, illegal discharge, nonstormwater discharge or other violation of this chapter, for review and copying.

The enforcement official shall identify buildings or premises for inspection based upon such reasonable selection processes as the enforcement official determines to be necessary to carry out the objectives of this chapter, including but not limited to: random sampling; sampling in areas with evidence of stormwater contamination, illegal discharge, or nonstormwater discharge to the stormwater conveyance system; and similar factors. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.101)

13.16.170 Monitoring, analysis and reporting authority.

Whenever an authorized enforcement official has reasonable cause to believe that there may exist on any premises a condition that constitutes a violation of this chapter, the enforcement official may require monitoring, analysis and/or reporting of discharges from the premises to the stormwater conveyance system, by serving a written notice of such requirement(s) on the owner of the premises or on the operator of a facility or activity on the premises. The cost of complying with these requirements shall be borne by the owner of the premises or the

operator of the facility or activity for which monitoring, analysis and/or reporting has been required, to the extent permitted by law. (Ord. 2004-042 § 1 (part))

13.16.180 Enforcement.

In addition to the exercise of enforcement powers authorized or provided elsewhere in this code, this chapter may be enforced by any of the means set forth in this section.

A. Abatement.

1. Any discharge or condition violating any of the provisions of this chapter is a threat to the public health, safety and welfare and constitutes a public nuisance.

2. The enforcement official may commence and carry out proceedings for the abatement of any discharge or condition violating any provision of this chapter, in accordance with the provisions of Articles V and VI of Chapter 8.04 of this code, commencing with Section 8.04.110 of this code. Such actions or decisions of the enforcement official shall be subject to appeal as provided for in Article V and Article VI of Chapter 8.04 of this code. The notice and order issued by the enforcement official under Section 8.04.110 of this code may require the owner and/or occupant of the subject premises to take any or all of the following actions:

i. Submit and implement a plan approved by the enforcement official for the correction and prevention of the discharge or condition violating any provision of this chapter;

ii. Cease and desist all activities that may cause or contribute to any discharge or condition violating any provision of this chapter;

iii. Clean up any release of pollutants causing or resulting from the violation of any provision of this chapter;

iv. Mitigate any circumstances that may cause or contribute to any discharge or condition violating any provision of this chapter; and

v. Adopt and implement best management practices and/or a stormwater pollution prevention plan approved by the enforcement official.

3. If any violation of this chapter constitutes a seasonal and recurrent nuisance, the enforcement official shall so declare in the notice and order issued pursuant to subsection 2, above. Thereafter, the owner or occupant of the subject premises shall abate such seasonal and recurrent nuisance every year without the necessity of any further notice and order. If at any time the nuisance is not abated as required herein, the enforcement official may summarily abate the condition in accordance with the provisions of Article VII of Chapter 8.04 of this code, commencing with Section 8.04.330 of this code.

4. When, in the opinion of the enforcement official, any discharge from any source to the stormwater conveyance system causes or threatens to cause a condition that presents an imminent hazard to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit, the enforcement official may issue a notice requiring the owner or occupant of the premises where the discharge is occurring to immediately abate the discharge. In any case where the discharge is not immediately abated, or for any reason the owner or occupant of the subject premises does not receive the notice, or the enforcement official determines that time constraints are such that abatement must occur without providing the notice, the enforcement official may summarily abate the condition in accordance with the provisions of Article VII of Chapter 8.04 of this code, commencing with Section 8.04.330 of this code.

5. The owner of any premises in the city from which is made a discharge in violation of this chapter, and any person making or causing to be made the discharge, if different from the owner, shall be jointly and severally liable for the costs incurred by the city for any abatement, clean-up or restoration, including any related inspection and testing costs, arising from the discharge, and the cost therefor shall be invoiced to the owner of

the premises. If the invoice is not paid within sixty (60) days, the enforcement official may commence proceedings for recovery of these costs in accordance with the provisions of Article VIII of Chapter 8.04 of this code, commencing with Section 8.04.370 of this code.

B. Civil Actions.

In addition to any other remedies or penalties provided in this chapter, any violation of this chapter may be enforced by civil action brought by the city attorney. In any such action, the city may seek, as appropriate, any or all available equitable and legal remedies, including but not limited to:

1. A temporary and/or permanent injunction;

2. Assessment of the violator for the costs of any investigation, inspection, testing or monitoring related to the violation, and for the reasonable costs of preparing and bringing legal action under this subsection, including attorney fees, whether for in-house or outside counsel;

3. Costs incurred in removing, correcting, abating, cleaning up, or terminating the adverse effects resulting from the violation;

4. Compensatory damages for damage, loss or destruction to water quality, wildlife, fish and aquatic life, or public health and safety;

5. Payment or reimbursement of any governmental fines or penalties imposed on the city as a result of the violation;

6. Civil penalties imposed either on a daily basis or a per gallon basis, but not both, for any discharge of nonstormwater to the stormwater conveyance system violating any provision of this chapter. Civil penalties imposed on a daily basis shall not exceed five thousand dollars ($5,000.00) for each day or portion of a day that the discharge occurs, and civil penalties imposed on a per gallon basis shall not exceed ten dollars ($10.00) for each gallon of the discharge. The amount of civil penalties imposed shall be determined by taking into consideration some or all of the following factors: the nature, circumstances, extent, and gravity of the discharge, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and, with respect to the violator, the ability to pay, the effect on its ability to continue in business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, the economic benefit or savings, if any, resulting from the violation, and such other matters as justice may require.

C. Enforcement by Sacramento County. If the city council and the Sacramento County Board of Supervisors enter into an agreement for Sacramento County to administer and enforce the provisions of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, pursuant to Section 13.16.150 of this chapter, any administrative or civil enforcement by Sacramento County of any provision of this Chapter with respect to such facilities shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County Code, and the provisions of subsections A and B of this section shall not apply.

D. Criminal Violations.

1. Any violation of this article shall be punishable as a misdemeanor.

2. The enforcement official shall have and is vested with the authority to arrest or cite and release any person who violates any section of this chapter in the manner provided by the California Penal Code for the arrest or release on citation of misdemeanors or infractions as described by Chapters 5, 5(c), and 5(d) of Title 3, Part 2 of the California Penal Code, including Section 853.6 (as the same may hereafter be amended). It is the intent of the city council that the immunities prescribed in Section 836.5 of the California Penal Code be applicable to public officers or employees acting in the course and scope of employment pursuant to this chapter.

E. Administrative Penalties. In addition to any other remedy or penalty set forth in this chapter or this code, administrative penalties may be imposed pursuant to applicable provisions of Title 1 of this code against any

responsible party, whether owner, lessee, sublessor, sublessee or occupant of any premises in violation of any of the provisions of this chapter. Imposition, enforcement, collection and administrative review of administrative penalties imposed shall be conducted pursuant to Title I of this code.

F. Remedies and Penalties Cumulative. The foregoing remedies and penalties are in addition to and do not supersede or limit any and all other remedies and penalties, civil or criminal, including any remedies or penalties authorized for violations of the Federal Clean Water Act or Porter-Cologne Water Quality Control Act. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.118)

13.16.190 Remedies not exclusive.

The remedies provided for in this chapter shall be cumulative and not exclusive. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.119)

13.16.200 Appeal.

A. If a decision or action of the enforcement official is not subject to an appeal procedure under any other provision of this chapter or code, any person who is affected by the enforcement official's decision or action may appeal the decision or action to the city manager within ten (10) days following the effective date of the decision or action, by filing a written appeal with the city manager. Upon receipt of such appeal, the city manager may request a report and recommendation from the authorized enforcement official and shall set the matter for an informal hearing at the earliest practical date. Not less than seven days prior to the date of hearing, the city manager shall provide written notice of the hearing to the person appealing the decision or action of the enforcement official. At the hearing, the appellant may be represented by any person of appellant's choice. The city manager shall hear any additional evidence presented by the appellant or the enforcement official, and may reject, affirm or modify the enforcement official's decision. The city manager's decision shall be the city's final administrative determination of the matter.

B. If the city council and the Sacramento County Board of Supervisors have approved an agreement for Sacramento County to administer and enforce the provisions of this chapter with respect to commercial and industrial facilities located on premises within the city that discharge to the stormwater conveyance system, pursuant to Section 13.16.150 of this chapter, any appeal of any action taken by Sacramento County or its officers or employees with respect to such facilities shall be governed by and conducted pursuant to the Sacramento County Code, and the provisions of this section shall not apply. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.120)

13.16.210 Disclaimer of liability.

The degree of protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific, engineering, and other relevant technical considerations. The standards set forth herein are minimum standards and this chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the United States. This chapter shall not create liability on the part of the city or Sacramento County, nor their respective officers and employees, for any damages that result from reliance on the code or any administrative decision lawfully made thereunder. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.121)

13.16.220 City or county authority.

Except for decisions required to be made by the City Council and/or the Sacramento County Board of

Supervisors, the enforcement official is authorized to make any decision on behalf of the city or Sacramento County, as applicable, required or called for by this chapter. (Ord. 2004-042 § 1 (part): Ord. 98-007 § 1 (part): prior code § 87.01.122)

13.16.230 Judicial review.

The provisions of California Code of Civil Procedure Section 1094.5 and Section 1094.6 are applicable to judicial review of city or Sacramento County decisions pursuant to this chapter. (Ord. 2004-042 § 1 (part); Ord. 98-007 § 1 (part): prior code § 87.01.1231)

EXHIBIT B

Chapter 15.88 GRADING, EROSION AND SEDIMENT CONTROL

Article I General Provisions and Requirements

15.88.010 Title.

This chapter shall be known as the grading, erosion, and sediment control ordinance of the city of Sacramento, and shall be referred to herein as the "grading ordinance." (Prior code § 9.31.1501)

15.88.020 Purpose.

The grading ordinance is enacted for the purpose of regulating grading on property within the city limits of the city to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the city's national pollution discharge elimination system (NPDES) Permit No. CA0082597, provision D2, issued by the California regional water quality control board; and to ensure that the intended use of a graded site within the city limits is consistent with the city general plan, any specific plans adopted thereto and all applicable city ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the city limits of the city. (Prior code § 9.31.1502)

15.88.030 Scope.

The grading ordinance sets forth rules and regulations to control land disturbances, landfill, soil storage, pollution, and erosion and sedimentation resulting from construction activities. The grading ordinance establishes procedures for issuance, administration and enforcement of permits for such activities. Any grading within the city limits of the city shall conform to provisions of the grading ordinance and other applicable provisions of the city code, including but not limited to, the latest edition of the city standard specifications for public works construction, Sacramento city/county drainage manual, and city manual of standards and improvement standards.

The director shall adopt a manual of standards entitled "Administrative and Technical Procedures Manual for Grading, Erosion, and Sediment Control" setting forth the administrative procedures and technical requirements necessary to implement the provisions of the grading ordinance. The director shall have the authority to change, update or revise this manual as necessary at his or her sole discretion, to implement the provisions of the grading ordinance. (Prior code § 9.31.1503)

15.88.040 Administration.

The grading ordinance shall be administered for the city by the department of utilities through the building permit process, improvement plan process or capital improvement project process, as applicable. (Ord. 2001-014 § 2: prior code § 9.31.1504)

15.88.050 Definitions.

Unless the particular provision or the context otherwise requires, wherever the following terms are used in the

grading ordinance, they shall have the meaning ascribed to them in this section:

"Applicant" means any person seeking or receiving grading approval, in accordance with the terms of the grading ordinance, to perform grading after the issuance of a building permit or the approval of improvement plans, or to commence grading prior to such issuance or approval.

"Best management practices" means any program, technology, technique, process, siting criteria, operating method, measure or device which controls, prevents, removes or reduces pollution, erosion, and sediment transport, including but not limited to any best management practices required or implemented under the city's Stormwater Management and Discharge Control Code, set forth in Chapter 13.16.

"City council" means city council of the city of Sacramento.

"Civil engineer" means a professional engineer registered as a civil engineer by the state of California.

"Compaction" means the increase of density of a soil or rock fill by mechanical means.

"Cut (excavation)" means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

"Director" means director of the department of utilities of the city of Sacramento, or his or her authorized designees.

"Drainage waters" means surface waters which collect, or are accumulated, on the ground and which, by means of drainage ways or water courses, flow off the surface to larger rivers, streams, or lakes. Such waters shall include, but are not limited to, natural precipitation and irrigation waters.

"Drainage way" means a depression in the earth's surface such as a swale, ravine, gully, slough, draw, hollow, or ditch in which surface water collects for drainage.

"Earth material" means any rock, natural soil or fill and/or any combination thereof.

"Embankment (fill)" means the deposit of soil, rock or other materials placed by artificial means and the conditions resulting therefrom.

"Encroachment permit" means a written permit issued by the department of public works authorizing certain work within a publicly maintained right-of-way.

"Engineering geologist" means a registered geologist certified as an engineering geologist by the state of California.

"Erosion" means the washing or wearing away and transportation of earth material as a result of the movement of wind, water, or ice.

"Erosion and sediment control plan (ESC plan)" consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion, retain sediment on a particular site and prevent pollution of site runoff during the period beginning when any preconstruction- or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are completed.

"Excavation (cut)" means the removal of naturally occurring earth materials by manual or mechanical means, and the conditions resulting therefrom.

"Existing grade" means the elevation of the ground surface at a given point prior to excavating or filling.

"Fill (embankment)" means the deposit of soil, rock or other materials placed by artificial means and the conditions resulting therefrom.

"Finish grade" means the final grade of the site after excavating or filling which conforms to the approved final grading plan. The finish grade is also the grade at the top of a paved surface.

"Geologic hazard" means any condition in naturally occurring earth materials which may endanger life, health or property.

"Geotechnical engineer" means a civil engineer registered by the state of California who is qualified in the field of soil mechanics and soil engineering and has the authority to use the title "soil engineer."

"Grade" means the vertical location of the ground surface.

"Grading" means any land excavation or filling or combination thereof, or the removal, plowing under or burial of vegetative groundcover.

"Grading plan" means a plan prepared in accordance with this chapter showing grading and related work.

"Manual of standards" means a compilation of administrative procedures, technical standards and design specifications adopted by the city of Sacramento for controlling construction-related grading, surface runoff, erosion and sedimentation. This manual of standards shall be titled "Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control."

"Owner" means the legal owner of the property where the grading work is to be done, as shown on the latest equalized assessment roll in the office of the county assessor.

"Parcel (lot)" means the land described as a lot or parcel in a recorded deed or shown as a lot or parcel on a subdivision map or parcel map on file in the Sacramento County recorder's office.

"Permit" means either a building permit or a separate grading permit.

"Person" means any person, firm, corporation, or public agency whether principal, agent, employee, or otherwise.

"Post construction erosion and sediment control plan (PC plan)" means consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion and to retain sediment on a particular site after all final structures and permanent improvements have been erected or installed.

"Preliminary grading plan" means a plan that shows the proposed grading work in relation to the existing site prepared and submitted with the application for a grading permit.

"Rainy season" means the period of the year during which there is a substantial risk of rainfall. For the purpose of this chapter, the rainy season is defined as from October 1st to April 30th, inclusive.

"Rough grade" means the stage at which the grade approximately conforms to the approved plan.

"Sediment" means any material transported or deposited by water, including soil debris or other foreign matter.

"Site" means any lot or parcel of land or combination of contiguous lots or parcels of land, whether held separately or joined together in common ownership or occupancy, where grading is to be performed or has been performed.

"Slope" means an inclined ground surface the inclination of which may be expressed as the ratio of horizontal distance to vertical distance.

"Soil" means all earth material of any origin that overlies bedrock and may include the decomposed zone of bedrock which can be excavated readily by mechanical equipment.

"Vegetation" means plant life or total plant cover of an area.

"Watercourse" means any natural or manmade channel in which water flows continuously or intermittently in a definite direction and course, or which is used for the holding, delay or storage of waters, or which functions at any time to convey or store stormwater runoff. (Ord. 2003-058 §§ 1—2; prior code § 9.31.1505)

15.88.060 Grading approval required.

Except for the specific exemptions listed hereinafter, no person shall do or permit to be done any grading on any site in the of the city without first obtaining approval of such grading from the director in accordance with

the provisions of the grading ordinance. (Prior code § 9.31.1506)

15.88.070 Exemptions.

The following grading may be done without obtaining grading approval unless grading approval is required in mitigation monitoring agreements or other conditions of project approval. Exemption from the grading approval requirement shall not be deemed as permission to violate any other provision of this chapter.

A. Minor construction projects which meet all of the following requirements:

1. The volume of material graded is less than fifty (50) cubic yards,

2. The depth of cuts and fills is less than two feet,

3. Any drainageway is not blocked or obstructed and its stormwater carrying capacities are not modified,

4. Slopes are less than ten percent and are not left in an unstable or erodible condition;

B. Single family residential lots less than one-half acre that are not part of a larger common plan and residential infill projects less than one-half acre which also meet the requirements of subsection A of this section;

C. Excavations in connection with a swimming pool authorized by a valid building permit;

D. Grading necessary for agricultural operations unless the failure of any cut or fill created by such grading could endanger any structure intended for human or animal occupancy or any public road, or could obstruct any watercourse or drainageway;

E. Exploratory excavations of less than three hundred fifty (350) cubic yards under the supervision of a geotechnical engineer;

F. Routine cemetery excavations and fills;

G. Performance of emergency work necessary to protect life or property when an urgent necessity therefor arises. The person performing such emergency work shall notify the director promptly of the problem and work required;

H. An excavation below finished grade for basements and footings of a building authorized by a valid building permit;

I. Refuse disposal sites controlled by Title 23, Chapter 15, of the California Code of Regulations;

J. The repair and maintenance of levees for river and local drainage control performed by a governmental agency. (Prior code § 9.31.1507)

15.88.080 Grading approval.

Grading approval may be issued by the director in connection with the issuance of a building permit or the approval of improvement plans, or where grading is commenced prior to such issuance or approval, through the issuance of a separate grading permit. (Prior code § 9.31.1508)

15.88.090 Conditions of grading approval.

A. No grading shall be approved unless the project conforms with the city's general plan, any adopted specific or community plans, and applicable city ordinances, including the zoning ordinance and the subdivision ordinance.

B. Where the California Environmental Quality Act (CEQA) requires the preparation and approval of environmental documents concerning a project which will result in grading for which a grading permit is

required under this chapter, no grading shall be approved until all CEQA requirements have been met, including but not limited to mitigation measures relating to protection of threatened and endangered species under applicable federal and state endangered species laws. Where the land proposed to be graded is located within the North Natomas Community Plan Area or the South Natomas Community Plan Area, grading permits may be issued, provided that the conditions contained in Section 15.88.091 are satisfied.

C. Where a proposed grading project requires the filing of a tentative map or the intended use requires approval of a discretionary zoning permit or variance, grading may also require approval from the city planning and building department.

D. Work shall be performed in accordance with the provisions of the grading ordinance and the applicable criteria set forth in the manual of standards.

E. Grading approval shall be limited to work shown on the grading plans as approved by the director. The director may impose any condition deemed necessary to protect the health, safety, and welfare of the public, to prevent the creation of a hazard to public or private property, and/or to assure proper completion of the grading, including but not limited to the following:

1. Mitigation of adverse environmental impacts as disclosed by any environmental document findings, including but not limited to those matters specified in subsection B of this section;

2. Improvement of any existing grading to comply with the standards of the grading ordinance;

3. Requirements for fencing or other protection of grading which would otherwise be hazardous;

4. Requirements for dust, erosion, sediment and noise control, hours of operation and season of work, access roads and haul routes;

5. Requirements for safeguarding watercourses, whether natural or manmade, from excessive deposition of sediment or debris. In no case shall deposition of sediment or debris cause an exceedance of applicable water quality standards;

6. Assurance that the land area in which grading is proposed and for which habitable structures are proposed is not subject to hazards of land slippage or significant settlement or erosion and that the hazards of flooding can be eliminated or adequately reduced;

7. Requirements for safeguarding existing water wells. (Ord. 2001-021 § 1; Ord. 2001-014 § 3: prior code § 9.31.1509)

15.88.091 Requirements for development projects in North and South Natomas.

The city manager is authorized to issue grading permits within the North Natomas Community Plan Area and the South Natomas Community Plan Area only if the city manager finds that the applicant meets all the requirements of subsections A, B, C and D of this section.

A. The applicant has paid to the city (in addition to the "catch-up fee" required by Ordinance No. 2002-018) the full amount of the habitat-conservation fees that have been assessed by the city pursuant to the April 2003 Natomas Basin Habitat Conservation Plan and are then in effect (HCP Fees), including the entire amount and all elements of any increased HCP fees adopted by the Natomas Basin Conservancy ("NBC") and by the city pursuant to a validly enacted ordinance or resolution. The city anticipates receiving an adopted fee increase proposal from the NBC for consideration and adoption. The city shall not issue any grading permit until such time as the entire amount of, and all elements of, the anticipated HCP fee increase become effective or the city has otherwise secured from the applicant a written and unconditional agreement to pay the entire amount of, and all elements of, the increased HCP fees. All HCP fee increases will be included within the obligations to be covered by the agreement required under subsection D of this section.

B. If the applicant prepaid its HCP fees in an amount less than the HCP fees in effect when the grading permit is issued, the applicant has paid a catch-up fee in accordance with Ordinance No. 2002-018 and has paid an amount equal to its fair share of the amount of any HCP fee increase, on a per-acre basis, as reasonably determined by the city.

C. In lieu of the land-acquisition component of any HCP fee required to be paid under subsections A and B of this section, the applicant has transferred to the city or to the NBC fee title or a conservation easement in perpetuity for mitigation land, at the ratio of 0.5 acre of mitigation land for each acre for which the city issues a grading permit, and the applicant has paid other components of the applicable fees. If the number of acres transferred by an applicant to the city or to NBC exceeds the number of acres required to comply with the 0.5:1 mitigation formula set forth in the April 2003 Natomas Basin Habitat Conservation Plan (NBHCP), the city shall grant the applicant a credit against the land-acquisition component of any HCP fee to be paid in the future or, at the applicant's option, the city (either directly or through the NBC) shall pay the applicant, in cash, an agreed-upon amount not to exceed the fair market value of the excess acres of land transferred to the city or to NBC.

D. The applicant has executed an agreement, in a form acceptable to and approved by the city attorney, that requires the applicant and its successors in interest to do the following:

1. Comply with all provisions of the NBHCP;

2. Comply with the Incidental Take Permit and the State Incidental Take Authorization issued in conjunction with the NBHCP;

3. Pay all applicable fee increases and additions, whether adopted by the city before or within six months after issuance of the grading permit (but an applicant who has been specifically and expressly asked by the city manager or designee to pay HCP fees earlier than the date of issuance of a grading permit, and who in fact makes the requested early payment, shall not be subject to the "catch up" provisions of this clause); and

4. Release, defend, and fully indemnify the city and its officers, employees, and agents from and against all costs and damages, including attorney's fees, that may arise in connection with the city's issuance of a grading permit to the applicant, including but not limited to claims (procedural or substantive) that relate to HCP fee increases adopted by the city and arise under California's Mitigation Fee Act (title 7, division 1 of the Government Code, at chapters 6, 7, 8, and 9). (Ord. 2003-031 § 1: Ord. 2002-023 § 1; Ord. 2001-021 § 2)

15.88.100 Liability.

Neither issuance of grading approval under the provisions of the grading ordinance nor compliance with the provisions hereof or with any conditions imposed in a permit issued hereunder shall relieve any person from responsibility for damage to any person or property or impose any liability upon the city for damage to any person or property. (Prior code § 9.31.1510)

15.88.110 Scope of approval.

The issuance of grading approval shall not be construed as an approval of any action or condition constituting a violation of the provisions of the grading ordinance or of any other applicable laws, ordinances, rules or regulations. (Prior code § 9.31.1511)

15.88.120 Water obstruction.

No person shall do or permit to be done any grading which may obstruct, impede, or interfere with the natural flow of storm waters, whether such waters are unconfined upon the surface of the land or confined within land depressions, natural drainage ways, unimproved channels, watercourses, improved ditches, channels or conduits,

in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition or cause accelerated erosion except where said grading is in accordance with all applicable laws including, but not limited to, the provisions of the grading ordinance. (Prior code § 9.31.1512)

15.88.130 Levee work.

No person shall excavate or remove any material from or otherwise alter any levee adjacent to any river, creek, bay, or local drainage control channel, without prior approval of the governmental agency or agencies responsible for the operation and/or maintenance of the levee. (Prior code § 9.31.1513)

15.88.140 Construction in public right-of-ways.

No person shall perform any grading work within the right-of-way of a public road or street, or within a public easement, without prior written approval of the director, and without obtaining a city encroachment permit. (Prior code § 9.31.1514)

15.88.150 Hazards.

Whenever the director determines that any grading on private property constitutes a condition which could endanger persons or property, or could adversely affect the safety, use or stability of adjacent property, or an overhead or underground utility, or any public way, watercourse or drainage channel, or could adversely affect the water quality of any water bodies or watercourses, the owner of the property upon which the condition is located, or other person or agent in possession or control of said property, upon receipt of notice in writing from the director, shall, within the period specified therein, stop all work. The director may require the submission of plans, soil or geological reports, detailed construction recommendations, drainage study or other engineering data prior to and in connection with any work or activity proposed or required to correct such condition. (Prior code § 9.31.1515)

15.88.160 Not retroactive.

The provisions of the grading ordinance shall not apply to planned or existing construction for which all previously necessary permits and approvals were obtained prior to the effective date of the ordinance codified in this chapter. (Prior code § 9.31.1516)

Article II Application for Grading Approval

15.88.170 Filing of application for grading approval—Permit.

Applications for permits shall be obtained from and filed with the department of planning and development, building inspections division. Each application shall include a plan checking fee, the preliminary or final grading plans and a statement of the intended use of the site. Only one application and permit is allowed for grading work to be done on a site. The director shall determine whether the application is complete in accordance with provisions of Article III of this chapter herein and may require additional information from the applicant before accepting the application as complete. The applicant shall be notified within ten (10) working days if the application is deemed incomplete, and of the requirements for completing the application. (Prior code § 9.32.1601)

15.88.180 Improvement plans in lieu of application for permit.

Where a subdivision improvement plan is being processed in conjunction with either an approved tentative, parcel, or final map; or a site plan is being processed in accordance with the provisions of this code, such plan shall also be considered as an application for grading approval. Such plans shall be reviewed and approved, conditionally approved or denied in accordance with the standards and requirements set forth in the grading ordinance and other applicable city specifications. If an improvement plan or site plan is approved, then a separate grading permit shall not be required. Approval of the improvement plans constitutes approval of the grading work intended. (Prior code § 9.32.1602)

15.88.190 Grading prior to issuance of building permit or approval of improvement plans.

Applicants for a permit to allow grading prior to issuance of a building permit or approval of improvement plans shall meet the following requirements:

A. Preliminary grading plan shall be submitted for review and approval by the director. This plan shall conform to the requirements of the grading ordinance and any applicable conditions placed on the project as a result of any formal discretionary permit process. The applicant shall acknowledge that any additional grading or revisions to work necessitated by conflicts discovered during the improvement plan check or subsequent construction will be corrected at the applicant's expense.

B. Both erosion and sediment control plans in accordance with provisions of Article III of this chapter, plans and specifications, of the grading ordinance shall be submitted for review and approval by the director.

C. A winterization certification shall be submitted for review and approval by the director in accordance with Section 15.88.270 of this chapter.

D. Plan check and inspection fee deposit shall be required in the amount of the full plan check fee applicable at the time of submittal in accordance with Section 15.88.310 of this chapter.

E. No grading permit shall be issued until all applicable CEQA requirements have been met. (Prior code § 9.32.1603)

15.88.200 Referral to other public agencies.

The director may refer the application to other interested public agencies for their recommendations. (Prior code § 9.32.1604)

15.88.210 Permission of other agencies or owners.

No application for grading approval shall relieve the applicant of responsibility for securing other permits or approvals, including but not limited to those specified in Section 15.88.090, subsection B, required for work which is regulated by any other department or other public agency, or for obtaining any easements or authorization for grading on property not owned by the applicant. Proof of applicable public agency permits may be required prior to issuance of grading approval. (Ord. 2001-014 § 4: prior code § 9.32.1605)

Article III Plans and Specifications

15.88.220 Application—Plans.

Five complete sets of plans, as determined by the director, including but not limited to, profiles, cross-sections, topographic maps, erosion and sediment control plans, and accompanying specifications shall be

submitted to the director with each application for grading approval or when otherwise required by the director for enforcement of any provision of this chapter. At the time of application, the applicant may provide preliminary grading plans. Prior to the issuance of grading approval, the applicant must furnish final grading plans and all erosion and sediment control plans. Preliminary grading plans with appropriate changes and additions thereto may be accepted as final grading plans. When the final grading plans and other required documents have been approved, grading approval will be issued by the director. The work shall be done in strict compliance with the approved plans and specifications which shall not be changed or altered except in accordance with the provisions of this chapter. (Prior code § 9.33.1701)

15.88.230 Preliminary grading plans.

Preliminary grading plans provide for review and determination of grading requirements prior to approval of final plans and issuance of grading approval. Precise design at this stage is not required. The plans shall be clearly and legibly drawn and entitled "preliminary grading plan," and shall contain a statement of the purpose of the proposed grading, and shall include all of the information required in the Manual of Standards, Chapter 2, Section 2. (Prior code § 9.33.1702)

15.88.240 Final grading plans.

Final grading plans and specifications shall be prepared and signed by a registered civil engineer, except as otherwise provided herein. In addition to all requirements for preliminary grading plans, the final plans shall include the information required in the Manual of Standards, Chapter 2, Section 2. The director may waive the requirement that all plans and specifications be prepared and signed by a registered civil engineer if the grading would not endanger the public health, safety, or welfare as determined by the director and would not involve or require any of the following:

A. Cuts and fills with a combined total of three hundred fifty (350) cubic yards or more;

B. An access road serving five or more existing or proposed residences;

C. A cut or fill that is located so as to cause unduly increased pressure or reduce support upon adjacent structure of property;

D. The construction of any drainage or sediment control structures, culverts, or facilities or alteration of any existing drainage course;

E. The creation or aggravation of an unstable slope condition. (Prior code § 9.33.1703)

15.88.250 Erosion and sediment control plans (ESC plan).

An ESC plan shall be prepared for all projects to control surface runoff and erosion and to retain sediment on a particular site and prevent pollution of site runoff during the period beginning when any preconstruction- or construction-related grading or soil storage first occurs, until all final improvements and permanent structures are complete. The ESC plan shall be prepared and submitted concurrently with the final grading plan. The ESC plan may be incorporated on the same plan sheet as the final grading plan unless it makes the sheet cluttered, or it may be submitted on a clean separate sheet. The separate sheet shall be drawn clearly and legibly and entitled "erosion and sediment control plan," shall contain a statement of the purpose of the proposed best management practices to be used, and shall include all of the information required and contained in the Manual of Standards, Chapter 2, Section 3. (Ord. 2003-058 § 3; prior code § 9.33.1704)

15.88.260 Postconstruction erosion and sediment control plan (PC plan).

The PC plan shall be prepared for all projects to control surface runoff and erosion and retain sediment on a particular site after all planned final improvements and/or structures have been installed or erected. The PC plan shall be prepared and submitted concurrently with the final grading plan. The PC plan shall be drawn clearly and legibly, and entitled "postconstruction erosion and sediment control plan." The PC plan shall contain a statement of the purpose of the proposed best management practices to be used to secure the project after completion, and shall include all of the information required and contained in the Manual of Standards, Chapter 2, Section 4. (Prior code § 9.33.1705)

15.88.270 Winterization certification.

A winterization certification shall be submitted no later than September 15th for all projects where any construction will occur between October 1st and April 30th. Construction that will occur solely in the summer months, between May 1st and September 30th will not be required to submit a winterization certification. The winterization certification shall consist of a written statement or descriptive plan sheet from the owner certifying that the project under construction is prepared for an event which will stop construction, such as rain or snow, that all ESC plan best management practices are in place and operating correctly, that housekeeping practices are maintained and that the site can be left or abandoned safely for an extended period of time during the rainy season without causing any erosion and sediment control problems. If a winterization certification is required and has not been submitted and approved prior to September 16th, the grading approval will be suspended until a winterization certification is submitted and approval obtained. Refer to the Manual of Standards, Chapter 4, Section 5, for additional information regarding winterization certification. (Prior code § 9.33.1706)

15.88.280 Modification of approved plans.

Any modifications of an approved final plan shall be submitted in writing to the director, who shall approve or deny such modification in his or her sole discretion. All necessary soils and geological information and design details shall accompany any proposed modification. Any modification shall be compatible with all subdivision map or land use requirements. (Prior code § 9.33.1707)

15.88.290 General design standards.

Any activities performed under the authority of the grading ordinance, including but not limited to grading, excavation, soil storage, soil transportation, erosion and sediment control measures, shall conform to the general design standards set forth in the Manual of Standards, Chapter 3. (Prior code § 9.33.1708)

Article IV Permit Requirements

15.88.300 General.

The director shall issue grading approval if final grading plans satisfy the provisions of the grading ordinance and the Manual of Standards. The director shall identify the provision, requirement, or condition which has not yet been met or performed by the applicant in the event the issuance of grading approval is denied. (Prior code § 9.34.1801)

15.88.310 Fees.

A. The applicant shall pay a fee to cover the city's costs of reviewing plans, specifications, reports and other materials related to grading approval and performing all engineering services, field investigations,

inspections, routine laboratory tests of materials and compaction or other work or services in connection with the issuance of grading approval or to determine or enforce compliance with any requirement or provision set forth in this chapter or in Chapter 13.16.

B. The fee or fees required by subsection A shall be established from time to time by resolution of the city council and shall be paid to the director either before grading approval is issued or before the issuance of a building permit, or both in accordance with the fee schedule adopted by resolution of the city council. The director may charge additional fees in any case where the city incurs costs that are not covered by the initial fee payment(s).

C. If grading work is done in violation of the grading ordinance or does not comply with the terms and conditions of a grading approval issued for such grading, the violator is required to pay the city for all costs actually incurred by the city to inspect or investigate such violation and to perform inspection and plan checking of work required to correct the violation. (Ord. 2003-058 § 4; prior code § 9.34.1802)

15.88.320 Progress report.

Applicant shall submit periodic progress reports on specified calendar dates and at commencement and completion of specified grading and erosion and sediment control operations. The dates upon which such reports are required and their content shall be as required by the director in the grading approval. (Prior code § 9.34.1803)

15.88.330 Submit record construction drawings.

The applicant shall submit to the director record construction drawings of the final grading plan and erosion and sediment control plans following completion of grading operations. (Prior code § 9.34.1804)

15.88.340 Performance of work—Inspection.

The director may inspect any work done pursuant to the grading ordinance at any time during the course of construction. No person shall be deemed to have complied with the grading ordinance until a final inspection of the work has been made by the director. As a condition of any grading approval, the applicant shall provide the city a right-of-entry and reasonable access, in accordance with Section 15.88.470 of this chapter, to the site during the performance of all work and for a minimum period of one year after acceptance by the director of all improvements pursuant to the grading ordinance. (Prior code § 9.34.1805)

15.88.350 Location of property lines.

Prior to any grading work or related activities, the owner must flag all property corners of the parcel of land to be graded. If the property corners are unknown, or whenever the location of a property line or easement or the title thereto is disputed during the application process or during a grading operation, a survey by a licensed land surveyor or civil engineer or other resolution of the title dispute, all at the expense of the applicant, may be required by the director. (Prior code § 9.34.1806)

15.88.360 Other responsibilities of applicant.

A. Protection of Utilities. The applicant shall be responsible for the prevention of damage to any public utilities or services.

B. Protection of Adjacent Property. The applicant shall be responsible for the prevention of damage to adjacent property. No person(s) shall excavate on land that is so close to the property line as to endanger any adjoining public street, sidewalk, alley, structure or other public or private property or easement without supporting and protecting such property from any damage which might otherwise result.

C. Advance Notice. The applicant shall notify the director at least twenty-four (24) hours prior to the start of work.

D. Erosion and Sediment Control. It shall be the sole responsibility of the applicant to prevent discharge of sediment from the site, in quantities greater than before the grading occurred, to any watercourse, drainage system, or adjacent property.

E. Compliance with Stormwater Management and Discharge Control Code. At all times during the preconstruction and construction of any project for which grading approval is issued until all final improvements and permanent structures are complete, the applicant shall fully comply with all applicable requirements of the city's Stormwater Management and Discharge Control Code, set forth in Chapter 13.16. (Ord. 2003-058 § 5; prior code § 9.34.1807)

15.88.370 Time limits.

All the work required by the permit or grading approval shall be completed within the time limits specified in the permit or approval. If the work cannot be completed within the specified time, a request for an extension of time setting forth the reasons for the requested extension shall be presented in writing to the director no later than thirty (30) days prior to the expiration of the permit or approval. The director shall in his or her sole discretion approve or deny such request. The director may require a new application and fees depending on the time between the expiration date and the extension request, revisions in city regulations, and/or changed circumstances in the immediate area. (Prior code § 9.34.1808)

15.88.380 Transfer of grading approval.

No approval or permit issued under the grading ordinance may be transferred or assigned in any manner whatsoever, without the express written consent of the director. (Prior code § 9.34.1809)

15.88.390 Improvement security required.

A. As a condition for the issuance of grading approval, the director may require the deposit of an improvement security in an amount deemed sufficient by him or her to assure faithful performance of the grading work in the event of default on the part of the applicant. Said security shall be in a form acceptable to the city.

B. In the case of subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work and subdivision improvements have been accepted by the city.

C. For projects other than subdivisions, the improvement security shall remain in effect until final inspections have been made and all grading work has been accepted by the director.

D. In addition to the improvement security, the director may also require the deposit of maintenance security in an amount deemed sufficient by him or her to guarantee and maintain the grading work performed, to assure the proper functioning of drainage systems and adequate erosion and sedimentation control. Said maintenance security shall be in a form acceptable to the city and shall remain in effect for a period of one year after the date of acceptance of the improvements or grading work, as designated in subsections B and C of this section, or such other periods of time as required by the director.

E. Any deposit required by the director pursuant to this title shall be payable to the city.

F. Upon failure to complete the work, failure to comply with all of the terms of the grading ordinance, or failure of the completed site to function properly to provide proper drainage or erosion and sedimentation control, the city may do the required work, or cause it to be done and collect from the applicant or surety all costs incurred thereto, including administrative and inspection costs. Any unused portion of a deposit shall be refunded to the applicant after deduction by the city of the cost of the work. (Prior code § 9.34.1810)

15.88.400 Appeals.

Appeals of any decision made pursuant to the grading ordinance shall be made to the construction codes advisory and appeals board in writing, setting forth the specific grounds therefor. Such appeals shall be heard and determined in accordance with the procedures set forth in Chapter 2.48 of this code. (Prior code § 9.34.1811)

Article V Enforcement

15.88.410 Enforcement official.

The director shall enforce the provisions of the grading ordinance. (Prior code § 9.35.1901)

15.88.420 Suspension and revocation of grading approval.

The director may suspend or revoke grading approval for good cause. In the event that a suspension or revocation is appealed to the construction codes advisory and appeals board, no work shall be performed pending appeal except as expressly authorized, in writing, by the director. (Prior code § 9.35.1902)

15.88.430 Stop work order.

A. Whenever any work is being done in violation of the provisions of the grading ordinance or any other applicable law, ordinance, rule or regulation, the director may order the work stopped by serving written notice of such violation on any persons engaged in, doing, or causing such work to be done. Any such person shall forthwith stop such work until authorized by the director to proceed with the work. If there are no persons present on the premises, the notice shall be posted in a conspicuous place. The notice shall state the nature of the violation. Any person violating a stop work order shall be guilty of an infraction.

B. Upon receipt of or knowledge of the existence of such stop work notice, the person performing the work shall:

1. Stop work immediately; and

2. Within twenty-four (24) hours, provide the director with a list of remedies which can be immediately undertaken to bring the work into compliance with this title; and

3. Within twenty-four (24) hours after acceptance of such remedies by the director, undertake at the violator's expense, such action as is necessary to bring the work into compliance with this title.

4. If engineering work is required to identify and define the proper course of action, as determined by the director, such work shall be provided by the violator at no cost to the city. (Prior code § 9.35.1903)

15.88.440 Abatement of unlawfully created conditions.

A. Any condition in violation of the grading ordinance is declared to be a public nuisance, subject to

abatement in accordance with Title 8 of this code. In the event that the director determines that a violation has created a condition which is of such a nature to be imminently dangerous to the public health, safety or welfare, such condition may be abated in accordance with the summary abatement procedures set forth at Chapter 8.04, et seq. of this code.

The following conditions are declared to constitute an imminently dangerous condition:

1. When a violation has altered natural drainage patterns and has caused flooding to any downstream or upstream property; or

2. When a violation results in a condition which creates a drainage alteration such that upstream or downstream property may be flooded when weather conditions change and the owner, lessee, or licensee of the property on which the violation exists cannot be found; or

3. When a violation results in a hazard, requiring immediate correction for the preservation of the public health, safety, or welfare; or

4. When a violation results in a discharge or release of significant amounts of sediment which causes or threatens to cause flooding, property damage, or unsafe conditions.

B. The costs incurred by city to abate any nuisance caused by a violation of the grading ordinance shall be assessed against the subject property as a lien or made a personal obligation to the owner of the property as provided in Chapter 8.04, et seq. of this code. Such costs may include, but shall not be limited to, the following:

1. Engineering and design costs;

2. Contractor service bills or public employee wages at cost;

3. Administrative overhead and supervision based on ten (10) percent of all other costs incurred;

4. Interest which shall accrue and be billed at the rate of ten (10) percent of all unpaid amounts from the date of billing;

5. Attorney fees and costs.

C. The abatement procedures set forth in this section are cumulative and in addition to any other rights or remedies which are or may be available to city to correct or cause to be corrected any violation of the grading ordinance, or to abate a condition which is otherwise a public nuisance. (Prior code § 9.35.1904)

15.88.450 Infraction.

Any person violating any provision of the grading ordinance shall be guilty of an infraction. (Prior code § 9.35.1905)

15.88.460 Nonexclusive remedies.

The remedies provided herein are not exclusive, and are in addition to any other remedy or penalty provided by law for violation of the grading ordinance. (Prior code § 9.35.1906)

15.88.470 Right of entry.

Whenever necessary to enforce the provisions of the grading ordinance, the director may enter the premises at all reasonable times to the extent authorized by law to perform any duty imposed by the grading ordinance. If such entry is refused, the director shall have recourse to every remedy provided by law to secure entry. (Prior code § 9.35.1907)

EXHIBIT C

1.28.010 General penalty—Continuing violations—Imposition of administrative penalties.

A. Criminal Sanctions. Criminal sanctions for violations of mandatory provisions of this code shall be as set forth in Sections 1.28.020 and 1.28.030 and elsewhere in this code.

B. Civil Actions. The city attorney may bring an action in a court of competent jurisdiction to enjoin a violation of any provision of this code or any other ordinance of the city, or to enforce administrative penalties imposed.

C. Administrative Penalties.

1. The purpose of this subsection relating to administrative penalties is to provide alternative remedies to address acts or omissions set forth in subsection (C)(2) of this section. Violations may be corrected, abated or addressed in a number of ways. It is the intent of this subsection to provide the city with additional remedies to correct violations and, where necessary, to penalize violators for failure to comply with city codes and ordinances. The city council hereby finds and determines that enforcement of this code, other ordinances adopted by the city, conditions on entitlements and terms of city agreements are matters of local concern and serve important public purposes. Consistent with its powers as a charter city, the city adopts this administrative penalty provision in order to achieve the following goals:

a. To protect the public health, safety and welfare of the city;

b. To provide for an administrative process that has objective criteria for the imposition of penalties and provides for a fair process to appeal the imposition of administrative penalties;

c. To provide a method to penalize responsible parties who fail or refuse to comply with provisions of this code, ordinances, agreements, or conditions on entitlements in the city;

d. To minimize the expense and delay where the sole remedy is to pursue responsible parties in the civil or criminal justice system.

The city council establishes an administrative penalty procedure. All final administrative orders made pursuant to the procedures set forth in this subsection shall be subject to review only as provided in California Code of Civil Procedure Sections 1094.5 and 1094.6. Should any court of competent jurisdiction determine that the city must provide an appeal of any final administrative order in a manner other than set forth in Sections 1094.5 and 1094.6, then it is the intent of the city council that the administrative penalty process remain as provided herein and to provide that any appeal which is timely requested follow the procedures set forth in Government Code Section 53069.4.

2. Imposition of Administrative Penalties. In addition to criminal sanctions and other remedies set forth in this code, the city may impose administrative penalties for any of the acts or omissions set forth in this subsection. Administrative penalties shall be imposed, enforced, collected and reviewed in compliance with the provisions of this section. Administrative penalties may be imposed for any of the following acts or omissions:

a. All violations of this code;

b. All violations of the city charter and other codes or ordinances adopted by the city, including but not limited to the zoning ordinance;

c. All violations of uniform codes adopted by the city;

d. Failing to comply with any order issued by a commission, board, hearing officer or examiner or other

body appointed by the city council and authorized to issue orders, including, but not limited to, the planning commission, the housing code advisory and appeals board, the design commission, the preservation commission, the design director, the preservation director and the zoning administrator;

e. Failing to comply with any condition or requirement imposed on or by any entitlement, permit, contract or environmental document issued or approved by the city.

3. Alternative Remedy. Nothing in this subsection shall prevent the city from using one or more other remedies to address violations. When the violation upon which the administrative penalty is based pertains to building, plumbing, electrical, structural or zoning provisions, the responsible party shall be provided a reasonable period of time to correct the violation prior to imposition of the administrative penalty, except in those cases in which there is an immediate danger to health or safety.

4. Definitions. For purposes of this chapter, the term "responsible party" shall refer to any person, business, company or entity, and the parent or legal guardian of any person under the age of eighteen (18) years, who has done any act for which an administrative penalty may be imposed.

D. Imposition of Administrative Penalties.

1. Notice. Where the city has determined that any responsible party has violated this code or other provisions as set forth in subsection (C)(2) of this section, the city may commence an administrative proceeding to impose administrative penalties. Any department in the city responsible for enforcement of codes or ordinances may initiate administrative penalty proceedings. To commence such proceedings, the department head or designee shall issue an order imposing administrative penalties. The order shall contain:

a. The name and address of the responsible party in violation. If the administrative penalty results from events occurring on, or the status or condition of, property, the order shall also contain the address of the property;

b. A statement from the city official responsible for issuing the order of the acts or conditions which violate this code or other provisions as set forth in subsections (C)(2) of this section and the specific code or provisions which have been violated;

c. The amount of the administrative penalty the city imposes for the violation;

d. A statement that the responsible party in violation may appeal the imposition of the administrative penalty within twenty (20) days of the date the order is served;

e. A statement that if the responsible party fails to request an appeal of the imposition of the administrative penalty, the order imposing the penalty shall be final;

f. A statement that any responsible party upon whom a final administrative penalty has been imposed may seek review of the order imposing the penalty pursuant to California Code of Civil Procedures Sections 1094.5 and 1094.6.

2. Service of Administrative Penalty Order.

a. Persons Entitled to Service. The administrative penalty order shall be served upon the responsible party in violation. The failure of the city official issuing the order to serve any person required herein to be served shall not invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed on him or her.

b. If the violation is the result of a condition existing on property in the city and the city proposes to impose a lien on the property, one copy of the administrative penalty order shall also be served on each of the following if known to the city official issuing the order or disclosed from official public records: (a) the holder of any mortgage or deed of trust or other lien or encumbrance of record; and (b) the owner or holder of any lease of record. The failure of the city official issuing the order to serve any person required herein to be served shall not

invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed on him or her.

c. Method of Service. Service of an administrative penalty order may be made upon all persons entitled thereto either by personal delivery or by certified mail, return receipt requested. Service on any owner in violation is deemed complete when it is served at the address listed by the owner on the latest equalized assessment roll of Sacramento County, or as known to the city official issuing the order. In lieu of personally serving the responsible party by personal delivery or certified mail, service of the administrative penalty order and any amended or supplemental order may be made as follows:

i. In the event that service by certified return receipt mail cannot be effected or the recipient cannot be personally served, service may be made by substituted service. Substituted service may be accomplished as follows:

(A) By leaving a copy during usual business hours in the recipient's business with the person who is apparently in charge, and by thereafter mailing by first-class mail a copy to the recipient at the address where the copy was left;

(B) By leaving a copy at the recipient's dwelling or usual place of abode, in the presence of a competent member of the household, and thereafter mailing by first-class mail a copy to the recipient at the address where the copy was left.

ii. In the event the violation results from an event occurring on, or a condition existing on, property in the city and the recipient cannot be served by certified return receipt mail or cannot be personally served and has a property manager or rental agency overseeing the premises, substituted service may be made as set forth in subsection (D)(2)(c)(i)(A) of this section upon the property manager or rental agency.

iii. If the responsible party resides or has his, her or its business address out of state and service cannot be effected by certified return receipt mail, then service may be made by first-class mail.

iv. In the event the violation relates to a condition on a property in the city, substituted service may be effected by posting the property with the administrative penalty order and mailing a copy of the order to the responsible party in violation, at the address of the property on which the violation has occurred or is occurring.

v. If the responsible party in violation or other person entitled to service cannot be located or service cannot be effected as set forth in this section, service may be made by publication in a Sacramento newspaper of general circulation which is most likely to give actual notice to the owner. Service shall be deemed sufficient when it is accomplished pursuant to Government Code Section 6063.

The failure of any person to receive such administrative penalty order shall not affect the validity of any proceedings taken under this section against any other responsible party. Service by certified mail in the manner herein provided shall be effective on the date of mailing.

3. Amount of Administrative Penalty. Unless the city council has by resolution or by ordinance adopted a separate and distinct administrative penalty for the particular violation, the amount of the administrative penalty to be imposed shall be set by the department head or his or her designee responsible for issuing the administrative penalty order. Each day a violation continues or occurs constitutes a separate violation. Unless otherwise provided in this code, administrative penalties may be imposed in any amount not less than one hundred dollars ($100.00) nor more than twenty-five thousand dollars ($25,000.00) per violation. In determining the amount of the administrative penalty to be imposed, the city official shall consider factors including but not limited to the seriousness of the violation, the responsible party's efforts to correct the violation, the injury/damage, if any, suffered by any member of the public, any instances in which the responsible party has been in violation of the same or similar code provisions in the previous three years, the amount of city staff time which was expended investigating or addressing the violation, and the amount of administrative penalties which have been imposed in similar situations. The amount of the administrative penalty shall be set according to the

following schedule:

a. Level A violations are violations that present a substantial probability that death or serious physical harm to the public at large or person(s) would result therefrom. Level A violations shall be subject to an administrative penalty of five thousand dollars ($5,000.00) to twenty-five thousand dollars ($25,000.00);

b. Level B violations are violations that either (1) present the threat, but not substantial probability, that serious physical harm to the public at large or person(s) would result therefrom; or (2) present circumstances that are likely to cause and/or do cause serious harm to public or private property; or (3) present a conscious and willful disregard of (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level B violations shall be subject to an administrative penalty of two thousand five hundred dollars ($2,500.00) to four thousand nine hundred ninety-nine dollars and ninety-nine cents ($4,999.99);

c. Level C violations are violations that present circumstances that either (1) are likely to cause and/or do cause harm to public or private property; or (2) show repeated or continuous noncompliance with (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level C violations shall be subject to an administrative penalty of one thousand dollars ($1,000.00) to two thousand four hundred ninety-nine dollars and ninety-nine cents ($2,499.99);

d. Level D violations are violations other than Level A, B, or C violations. Level D violations shall be subject to an administrative penalty of one hundred dollars ($100.00) to nine hundred dollars and ninety-nine cents ($999.99).

4. Administrative Hearing Appeal.

a. Notice of Appeal. Any responsible party upon whom an administrative penalty has been imposed may appeal the administrative penalty by filing with the office of the city clerk a written notice of appeal within twenty (20) calendar days of service of the administrative penalty order. The written notice of appeal shall contain:

i. A brief statement setting forth the interest the appealing party has in the matter relating to the imposition of the penalty;

ii. A brief statement, in ordinary and concise language, of the material facts which the appellant claims support his, her or its contention that no administrative penalty should be imposed or that an administrative penalty of a different amount is warranted; and

iii. An address at which the appellant agrees notice of any additional proceeding or an order relating to the imposition of the administrative penalty may be received by first class mail.

b. Payment of Appeal Fee. Any responsible party appealing the imposition of an administrative penalty shall be required to pay to the city clerk, at the time the written notice of appeal is filed, an appeal fee as herein provided. The appeal fee is intended to cover the costs, expenses and city employees' time incurred by the city in processing, preparation for, and hearing of the appeal, and shall be refunded to the appellant if the hearing examiner determines that imposition of the penalty is not warranted or is not in the interest of justice. No notice of appeal is valid unless accompanied by the appeal fee, unless otherwise waived pursuant to Section 1.24.100 of this code. In the event an appeal fee is waived and the violation results in a lien against the appellant's property, the appeal fee which was waived shall be added to the amount of the lien. The appeal fee shall be:

i. Level A violation, five hundred dollars ($500.00);

ii. Level B violation, two hundred fifty dollars ($250.00);

iii. Level C violation, one hundred dollars ($100.00);

iv. Level D violation, fifty dollars ($50.00).

c. Hearing Examiner. The administrative penalty appeal shall be heard by a hearing examiner appointed by the city council to hear administrative appeals. The hearing examiner shall not be a city employee.

d. Setting Administrative Penalty Appeal Hearing. The administrative penalty appeal hearing shall be set by the city clerk or his or her designee, and notice of the appeal hearing shall be sent to the appellant by first class mail at the address provided with the written notice of appeal. The hearing shall be held no sooner than twenty (20) days after the notice of appeal is filed. Notice of the appeal hearing shall be mailed to the appellant at least fifteen (15) days before the hearing date.

e. Conduct of the Administrative Penalty Appeal Hearing.

i. Testimony at the Hearing. At the time set for the administrative penalty appeal hearing the hearing examiner shall proceed to hear testimony from the representative of the city, the appellant and any other competent persons with respect to imposition of an administrative penalty.

ii. Record of Oral Evidence at Hearing. The proceedings at the hearing shall be reported by a tape recording. Either party may provide a certified shorthand reporter to maintain a record of the proceedings at the requesting party's own expense.

iii. Continuances. The hearing examiner may, upon request of the appellant or the city, or upon his or her own motion, grant continuances from time to time for good cause shown.

iv. Oaths—Certification. The hearing examiner shall administer the oath or affirmation.

v. Evidence Rules. Government Code Section 11513, subsections (a), (b) and (c), as it exists on the effective date of the ordinance codified in this section, these provisions, or as hereafter amended, shall apply to all administrative penalty hearings.

vi. Rights of Parties.

(A) Parties may represent themselves, or be represented by any person of their choice.

(B) If a party does not proficiently speak or understand the English language, he or she may provide an interpreter, at that party's own cost, to translate for the party. An interpreter shall not have had any personal involvement in the issues of the case prior to the hearing.

vii. Official Notice. In reaching a decision, official notice may be taken, either before or after submission of the case for decision, of any fact which may be judicially noticed by the courts of this state or which may appear in any of the official records of the city or county, or any of their departments.

viii. Inspection of Premises.

(A) In the case of a violation related to real property in the city, the hearing examiner may inspect the property prior to, during, or after the hearing, provided that:

(1) Notice of the inspection shall be given to the parties before the inspection is made;

(2) The parties consent and are given an opportunity to be present during the inspection; and

(3) Upon completion of the inspection, the hearing examiner shall state for the record during the hearing, or file a written statement after the hearing for inclusion in the hearing record, the material facts observed and the conclusion drawn therefrom.

(B) Each party then shall have a right to rebut or explain the matters so stated by the hearing examiner either for the record during the hearing or by filing a written statement after the hearing for inclusion in the hearing record.

(C) Notice to the parties, or the owner(s)' consent to inspect the property is not required if the property can be inspected from areas to which the general public has access or with permission of other persons authorized to provide access to the property and/or buildings located on the property.

(D) Subpoenas. The hearing examiner shall have the authority to issue subpoenas compelling witnesses to appear and provide testimony or subpoena duces tecum compelling witnesses to produce documents. The hearing examiner shall issue a subpoena only upon a showing of reasonable necessity by the requesting party. Failure of either party to comply with any subpoena may be considered by the hearing examiner in making his/her decision regarding the imposition of administrative penalties.

f. Imposition of the Administrative Penalty—Form and Contents of Decision—Finality of Decision.

i. Factors in Hearing Examiner's Decision. The hearing examiner may affirm the administrative penalty imposed by the city, reduce the penalty to a lower amount within the charged level of violation, reduce the level of violation and reduce the penalty to an amount within the new level of violation, or find that imposition of the penalty is not warranted or is not in the interest of justice. The hearing examiner shall have the discretion to impose a lower, but not a higher, level of violation and/or penalty amount. In making his or her decision regarding the administrative penalty, the hearing examiner shall consider evidence presented by all witnesses, the seriousness of the violation, the responsible party's efforts to correct the violation, the injury or damage, if any, suffered by any member of the public, any instances in which the responsible party has been in violation of the same or similar code provisions in the previous three years, and the amount of city staff time which was expended investigating and addressing the violation.

ii. Hearing Examiner's Decision. The decision of the hearing examiner shall be issued within thirty (30) days of the hearing, shall be in writing, and shall contain findings of fact and a determination of the issues presented. The decision shall require the administrative penalty to be paid within twenty-five (25) calendar days of the date of service of the decision. The decision shall inform the responsible party that if the administrative penalty is not paid within the time specified, it may be made a personal obligation of the responsible party, and if applicable may also be made a lien against the property on which the violation occurred, and may be made a special assessment collected at the same time and in the same manner as ordinary secured property taxes are collected. The hearing examiner's decision shall also inform the responsible party that any judicial review of the hearing examiner's decision shall be pursuant to California Code of Civil Procedure Sections 1094.5 and 1094.6.

iii. Service of the Hearing Examiner's Decision. Upon issuance of the decision, the city shall serve a copy on the appellant by first class mail to the address provided by appellant in the written notice of appeal. The hearing examiner's decision shall be deemed served two days after the date it is mailed to the address provided by the appellant.

iv. Any judicial action taken to set aside, annul or vacate the decision of the hearing examiner shall be filed in the manner and within the time provided in California Code of Civil Procedure Sections 1094.5 and 1094.6.

g. Payment and Collection of the Administrative Penalty.

i. Any responsible party upon whom an administrative penalty has been imposed shall pay the administrative penalty within twenty-five (25) days after service of a final order or decision of a hearing examiner. The city may take the actions set forth in this subsection to collect the unpaid penalty.

ii. Attorney's Fees and Costs. In the event a civil action is commenced to collect the administrative penalty, the city shall be entitled to recover reasonable attorney's fees and all costs associated with collection of the penalty. Costs include, but are not limited to, staff time incurred in the collection of the penalty and those costs set forth in Code of Civil Procedure Section 1033.5.

iii. Interest on Administrative Penalties. An administrative penalty shall accrue interest at the same annual rate as any civil judgment. Interest shall accrue commencing on the twenty-sixth day following service of a final order or the hearing officer's decision.

iv. Liens. The amount of the unpaid administrative penalty, plus interest, plus any other costs as provided in this section, may be made a lien on the real property on which the violation occurred.

(A) Notice shall be given to the responsible party prior to the recordation of the lien, and shall be served in

the same manner as a summons in a civil action pursuant to Article 3 (commencing with Section 415.10) of Chapter 4 of Title 5 of Part 2 of the Code of Civil Procedure.

(B) The lien shall attach when the city manager or his or her designee records a lien listing delinquent unpaid administrative penalties with the county recorder's office. The lien shall specify the amount of the lien, the date of the final administrative decision, the street address, legal description, and assessor's parcel number of the parcel on which the lien is imposed, and the name and address of the record owner of the parcel.

(C) In the event that the lien is discharged, released, or satisfied, either through payment or foreclosure, notice of the discharge containing the information specified in subsection (D)(4)(g)(iv)(B) of this section shall be recorded by the city clerk.

(D) The lien may be foreclosed at any time by an action brought by the city for a money judgment. As part of the foreclosure action, the city may recover reasonable attorneys' fees and costs, including but not limited to costs incurred for processing and recording of the lien and providing notice to the property owner.

v. Special Assessments. The amount of the unpaid administrative penalty, plus interest, plus any other costs as provided in this section, may be made a special assessment against the real property on which the violation occurred. The procedure established by the city council to specially assess delinquent utility billings shall be used to specially assess unpaid administrative penalties.

vi. Other Enforcement Procedures. The city may take such other actions as are allowed for enforcement of a civil judgment as provided for pursuant to the Enforcement of Judgments Law, California Code of Civil Procedure Sections 680.010 et seq. (Ord. 2006-065 § 3; Ord. 2005-038 § 2; Ord. 2001-046 § 2 (part); Ord. 98-038 § 1: Ord. 97-065 § 1; prior code § 1.01.070)

EXHIBIT D

City of Sacramento
Department of Utilities

Policy For Determining Administrative Penalties For Prohibited Non-Stormwater Discharges

Section 13.16.050 of the Sacramento City Code prohibits the discharge of non-stormwater that enters the City's storm drain system. City Code section 13.16.150 authorizes various enforcement actions for violations of section 13.16.050, including the imposition of administrative penalties. Administrative penalties for violations of section 13.16.050 are imposed pursuant to the City's administrative penalty ordinance, Sacramento City Code section 1.28.010. This ordinance provides the following guidance for determining administrative penalty amounts:

> ***Amount of Administrative Penalty.*** *Unless the city council has by resolution or by ordinance adopted a separate and distinct administrative penalty for the particular violation, the amount of the administrative penalty to be imposed shall be set by the department head or his or her designee responsible for issuing the administrative penalty order. Each day a violation continues or occurs constitutes a separate violation. Unless otherwise provided in this code, administrative penalties may be imposed in any amount not less than one hundred dollars ($100.00) nor more than twenty-five thousand dollars ($25,000.00) per violation. In determining the amount of the administrative penalty to be imposed, the city official shall consider factors including but not limited to the seriousness of the violation, the responsible party's efforts to correct the violation, the injury/damage, if any, suffered by any member of the public, any instances in which the responsible party has been in violation of the same or similar code provisions in the previous three years, the amount of city staff time which was expended investigating or addressing the violation, and the amount of administrative penalties which have been imposed in similar situations. The amount of the administrative penalty shall be set according to the following schedule:*
>
> *a.* *Level A violations are violations that present a substantial probability that death or serious physical harm to the public at large or person(s) would result therefrom. Level A violations shall be subject to an administrative penalty of five thousand dollars ($5,000.00) to twenty-five thousand dollars ($25,000.00);*
>
> *b.* *Level B violations are violations that either (1) present the threat, but not substantial probability, that serious physical harm to the public at large or person(s) would result therefrom; or (2) present circumstances that are likely to cause and/or do cause serious harm to public or private property; or (3) present a conscious and willful disregard of (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level B violations shall be subject to an administrative penalty of two thousand five hundred dollars ($2,500.00) to four thousand nine hundred ninety-nine dollars and ninety-nine cents ($4,999.99);*

c. *Level C violations are violations that present circumstances that either (1) are likely to cause and/or do cause harm to public or private property; or (2) show repeated or continuous noncompliance with (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level C violations shall be subject to an administrative penalty of one thousand dollars ($1,000.00) to two thousand four hundred ninety-nine dollars and ninety-nine cents ($2,499.99);*

d. *Level D violations are violations other than Level A, B, or C violations. Level D violations shall be subject to an administrative penalty of one hundred dollars ($100.00) to nine hundred dollars and ninety-nine cents ($999.99).*

Based on the above criteria, the following guidelines are established for determining administrative penalty amounts for prohibited non-stormwater discharges.

Residential/Private Citizen

Non-hazardous non-stormwater discharges

Non-hazardous materials include dirt/gravel/sand, vegetation, gray water, food waste, chlorinated pool water, detergents, etc.

First Violation:

Issuance of a notice of violation, cease and desist order and/or notice to clean and abate, but no imposition of administrative penalties, unless the City enforcement official determines that the responsible party was grossly negligent, failed to contain and clean up the prohibited material within the time frame prescribed by the City, attempted to mislead the City with incorrect information and/or refused to comply with the City's enforcement action(s).

Second Violation:

Minimum penalty of $100, not to exceed $999.99 (Level D). This also may be imposed for a first violation under the circumstances described above. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations:

If the City enforcement official has imposed an administrative penalty on the same responsible party for a violation of City Code Section 13.16.050 within the preceding three years, the maximum administrative penalty for subsequent violations of City Code Section 13.16.050 may be increased to $2,499.99. The circumstances of the subsequent violations need not be similar to those of the previous violation(s). The maximum administrative penalty for subsequent violations may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. Determination of the penalty amount within these ranges will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

Hazardous non-stormwater discharges

Hazardous materials include oils, fuels, latex, oil or water based paint, stucco or concrete waste/wastewater, sewage, antifreeze, paint thinners, herbicides, pesticides, pool chemicals, cleaners, solvents, acids, etc.

First Violation:

Minimum penalty of $200, not to exceed $2,499.99 (Level C or D) for the first prohibited non-stormwater discharge identified as a hazardous material. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations

If the City enforcement official has imposed an administrative penalty on the same responsible party for a prohibited hazardous non-stormwater discharge within the preceding three years, the maximum administrative penalty for subsequent prohibited hazardous non-stormwater discharges may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the prior violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

Business

Non-hazardous non-stormwater discharges

First Violation:

Issuance of a notice of violation, cease and desist order and/or notice to clean and abate, but no imposition of administrative penalties, unless the City enforcement official determines that the responsible party was grossly negligent, failed to contain and clean up the prohibited material within the time frame prescribed by the City, attempted to mislead the City with incorrect information and/or refused to comply with the City's enforcement action(s).

Second Violation:

Minimum penalty of $250, not to exceed $2,499.99 (Level C or D). This also may be imposed for a first violation under the circumstances described above. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations:

If the City enforcement official has imposed an administrative penalty on the same responsible party for a violation of City Code Section 13.16.050 within the preceding three years, the maximum administrative penalty for subsequent violations of City Code Section 13.16.050 may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the previous violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

BMPs:

The responsible party may, upon approval by the City enforcement official, apply the administrative penalty amount toward the purchase of structural BMP's to eliminate any reasonable possibility of a future prohibited non-storm water discharge.

Hazardous non-stormwater discharges

First Violation:

Minimum penalty of $500, not to exceed $2,499.99 (Level C or D) for the first prohibited non-stormwater discharge identified as a hazardous material. The maximum administrative penalty may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. Determination of the penalty amount within these ranges will be made based on consideration of the factors set forth above.

Subsequent Violations

If the City enforcement official has imposed an administrative penalty on the same responsible party for a prohibited hazardous non-stormwater discharge within the preceding three years, the maximum administrative penalty for subsequent prohibited hazardous non-stormwater discharges may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the prior violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

BMPs:

The responsible party may, upon approval by the City enforcement official, apply the administrative penalty amount toward the purchase of structural BMP's to eliminate any reasonable possibility of a future prohibited non-storm water discharge.

Administrative Penalties of $5,000 or More

Administrative penalties of $5000 or more, up to a maximum amount of $25,000, may be imposed under circumstances meeting the criteria set forth above for Level A violations.

Other Enforcement Actions; Cost Recovery

The imposition of administrative penalties for violations of City Code Section 13.16.050 shall not prevent the City or any other authorized agency from exercising any additional enforcement authority authorized or provided in any law or regulation, including without limitation any or all of the actions authorized by City Code Section 13.16.150. The imposition of administrative penalties shall be in addition to the recovery of costs incurred by the City in cleaning up and abating a violation, or the recovery of costs granted to the City after prevailing in an administrative, civil or criminal proceeding initiated under Chapter 13.16 of the City Code.

EXHIBIT E

TITLE 15 WATER AND SEWERS*

Chapter 15.12 STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Article 1 General Provisions

15.12.105 Title.

15.12.110 Findings.

15.12.120 Purpose and Intent.

15.12.130 Definitions.

15.12.135 Construction.

15.12.140 Applicability.

15.12.150 Regulatory Consistency.

15.12.160 Compliance Disclaimer.

15.12.170 Severability.

15.12.180 Administration.

15.12.190 Disclaimer of Liability.

Article 2 Prohibited Discharges

15.12.200 Prohibited Non-Stormwater Discharge.

15.12.210 Exceptions To Non-Stormwater Discharge Prohibition.

15.12.220 Exception to Otherwise Applicable Exemptions.

15.12.230 Prohibited Stormwater Discharges.

15.12.240 Prohibited Conditions.

15.12.250 Negligence or Intent Not Required.

Article 3 Reduction of Pollutants in Stormwater

15.12.300 General Requirements for Best Management Practices.

15.12.302 Significant Industrial Activities.

15.12.305 County Stormwater Permit.

15.12.310 Containment and Notification of Spills.

15.12.320 Specified Performance Requirements for Industrial Activities.

15.12.322 Construction Sites With Building Permits.

15.12.325 Post Construction Requirements for New Development and Significant Redevelopment.

15.12.327 BMP Maintenance Requirements.

15.12.330 Administrative Rules and Regulations.

Article 4 Inspection and Monitoring

15.12.400 Scope of Inspections.

15.12.430 Monitoring Requirements for Industrial Facilities.

15.12.435 Reporting Requirements.

15.12.438 Confidentiality of Information.

15.12.440 Record Retention.

15.12.450 Fees.

Article 5 Enforcement

15.12.500 Enforcement at Construction Sites with Building Permits.

15.12.505 Notice of Violation.

15.12.520 Cease and Desist Orders.

15.12.525 Enforcement Actions—Content.

15.12.530 Delivery of Notice.

15.12.540 Administrative Appeals.

15.12.543 Conduct of Administrative Hearings—Generally.

15.12.545 Form and Contents of Decision—Finality of Decision.

15.12.548 Procedures for Collection of Administrative Civil Penalty.

15.12.549 Actions Not Prohibited.

15.12.550 Nuisance and Abatement.

15.12.555 Enforcement Policy.

15.12.560 Administrative Civil Penalties.

15.12.570 Criminal Penalties.

15.12.580 Miscellaneous Enforcement Provisions.

Article 6 Recovery of Cost Abatement

15.12.600 Costs of Abatement—Confirmation.

15.12.610 Costs—Assessments.

15.12.620 Treble Costs.

15.12.630 Hearing of Protests.

15.12.640 Assessment for Summary Abatement.

15.12.650 Time for Contest of Assessment.

15.12.660 Filing Copy of Report With County Auditor.

Article 1 General Provisions

15.12.105 Title.

This Chapter shall be known as the "stormwater Ordinance." (SCC 1280 § 2 (part), 2004)

15.12.110 Findings.

a. The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the Waters of the United States by extending National Pollutant Discharge Elimination System (NPDES) requirements to stormwater and urban runoff discharge into the County storm drain system.
b. The State Water Resources Control Board ("State Board") is the State water pollution control agency for all purposes of the Clean Water Act pursuant to Section 13160 of the California Water Code. The State Board is authorized by the United States Environmental Protection Agency to administer the NPDES program within the State. The Porter-Cologne Water Quality Control Act (Water Code section 13000 et seq.) provides authority for the State NPDES program, including provisions to issue NPDES Permits and Waste Discharge Requirements to regulate discharges of stormwater to waters of the State.
c. Stormwater flows from individual properties to the County storm drain system and then ultimately to the waters of the State.
d. The County is a co-permittee under the Waste Discharge Requirements for County of Sacramento and cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento, Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County (Order No. R5-2002-0206), dated December 6, 2002, which also serves as a National Pollutant Discharge Elimination System Permit under the Federal Clean Water Act (NPDES No. CAS082597). As a co-permittee, the County is required to possess the necessary legal authority, and to implement appropriate procedures, to regulate the entry of pollutants and non-stormwater discharges into and from the County storm drain system.
e. The County's Municipal Stormwater Permit requires the County effectively to prohibit non-stormwater discharges from the unincorporated urbanized area of the County into the County storm drain system except as otherwise permitted by federal law.
f. Non-stormwater discharges and stormwater pollutants that are discharged directly to waters of the State without passing through the County storm drain system are not subject to the requirements of the Municipal Stormwater Permit. However, such discharges have the potential

to degrade water quality and impact the quality of life for the people of the County. Regulation of such discharges by the County provides benefits to its people and protects the local environment.
g. The Board finds in this regard that the provisions of this Chapter are necessary to provide the County with the legal authority necessary to implement and otherwise comply with the requirements of its Municipal Stormwater Permit and to protect the waters of the State for the benefit of its people and the environment. (SCC 1295 § 1, 2005: SCC 1280 § 2 (part), 2004)

15.12.120 Purpose and Intent.

a. This Chapter is adopted pursuant to Article XI, Section 7 of the California Constitution which authorizes the County to exercise its police power to protect and promote the public health, safety and general welfare. While stormwater runoff is one step in the natural cycle of water, human activities, including, but not limited to, agriculture, construction, manufacturing and the operation of an urban infrastructure, may result in undesirable discharges of pollutants and certain sediments. Such discharges may accumulate in local drainage channels and waterways and eventually may be deposited in the natural surface waters. The purpose of this Chapter is to protect and enhance the watercourses within the unincorporated area of the County, by controlling the contribution of urban pollutants to stormwater runoff which enters the County storm drain system in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal discharge Permit No. CAS082597, and by controlling pollutants that are discharged directly to natural surface waters.
b. It is the intent of the Board in adopting this Chapter to provide the County with the legal authority to accomplish the following goals:
1. To benefit the people and environment of the County by protecting water quality in waters of the State;
2. To reduce the discharge of pollutants in stormwater to the maximum extent practicable, whether those discharges are made to the County storm drain system, or directly to natural surface waters;
3. To effectively prohibit Non-stormwater discharges into the County storm drain system or to natural surface waters;
4. To comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES Municipal Storm Water Discharge Permit #CAS082597 as they apply to the discharge of pollutants into and from the County storm drain system;
5. To fully implement the County's stormwater Quality Improvement Plan;
6. To protect the physical integrity and function of the County storm drain system from the effects of pollutants and materials other than stormwater;
7. To prevent the contamination of groundwater as a result of pollution migration from the County storm drain system;
8. To promote cost effective management and beneficial use of sediments in the County storm drain system;
9. To protect the health and safety of maintenance personnel and the public who may be exposed to pollutants in the County storm drain system or in natural surface waters;
10. To provide for the recovery of regulatory costs incurred by the County in the implementation of this Chapter or its stormwater Quality Improvement Plan, including, but not limited to, enforcement activities, compliance assistance, inspections, investigations, sampling and monitoring; and
11. To establish appropriate enforcement procedures and penalties for violations of the provisions of this Chapter. (SCC 1280 § 2 (part), 2004)

15.12.130 Definitions.

Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and which are not specifically defined in this Chapter shall, when used in this Chapter, have the same meaning as set forth in said act or regulation.
As used in this Chapter, the following words and phrases shall have the meanings set forth below unless the context clearly indicates otherwise.
a. "Administrator" means the Administrator of the County of Sacramento's Municipal Services Agency and his or her designees.

b. "Best management practices" or BMPs means schedules of activities, prohibition of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants to the County storm drain system or directly or indirectly to natural surface waters. BMPs shall also be defined to include structural controls, treatment controls, source controls, training requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.
c. "Board" means the Board of Supervisors of the County of Sacramento.
d. "County" means the County of Sacramento.
e. "County stormwater permit" means a permit issued to industries by the County to establish requirements intended to eliminate Non-stormwater discharges and control, reduce, or eliminate pollutants in stormwater.
f. "County storm drain system" means those public man-made facilities within the unincorporated area of the County which are owned, operated, maintained or controlled by the County by which stormwater may be conveyed to natural surface waters, including, but not limited to, any roads with drainage systems, municipal streets, catch basins, water quality basins, detention basins, constructed wetlands, artificial channels, aqueducts, curbs, gutters, ditches, sumps, pumping stations, storm drain inlets, and storm drains.
g. "Director of Water Resources" means the Director of the County's Department of Water Resources, and his or her designees.
h. "Discharge" means the release or placement of any material into the County storm drain system or natural surface waters, including, but not limited to, stormwater, wastewater, pollutants, solid materials, liquids, hazardous waste, raw materials, debris, litter or any other substance.
i. "Discharger" means any person who discharges, or causes to discharge, either directly or indirectly, stormwater or any other material into the County storm drain system or to natural surface waters.
j. "Illicit connection" means any physical connection to the County storm drain system or natural surface waters which is not expressly authorized by the County.
k. "Implementing agency" means the agency or department designated by the Administrator to enforce the provisions of this Chapter with respect to a particular site, facility or industry category.
l. "Industry" or "industrial activity" means any service, business, enterprise, or any other activity conducted by any person for the purpose of monetary or other compensation, or in support of or promotion of such activity. This term shall also mean any similar activity conducted by a non-profit corporation as defined by the State of California.
m. "Material" means any substance, including, but not limited to, raw materials, finished products, garbage and debris, lawn clippings, leaves and other vegetation, biological and fecal waste, sediment and sludge, oil and grease, gasoline, paints, solvents, cleaners and any fluid or solid containing chemicals.
n. "Municipal Stormwater Permit" means NPDES Permit #CAS082597, including any amendments thereto or successor permit, issued by the Regional Board to the County and the cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova, and Sacramento.
o. "National Pollution Discharge Elimination System Permit" or "NPDES Permit" means a permit issued by either the Regional Board, the State Water Resources Control Board pursuant to Chapter 5.5 (commencing with Section 13370) of Division 7 of the Water Code, or the United States Environmental Protection Agency to control discharges from point sources to natural surface waters.
p. "Natural surface water" means creeks, natural ponds or lakes, wetlands, the Sacramento River, American River, Cosumnes River, Mokelumne River, Lake Natoma, or navigable waters of the delta and shall include any waters of the United States contained within the boundaries of the State. Natural surface water does not mean any wet or dry detention basin, constructed wetland, stormwater treatment facility, artificial lake or pond or other man-made body of water.
q. "Non-stormwater discharge" means any discharge to the County storm drain system or directly to natural surface waters which did not originate as surface runoff and drainage from storm events and snow melt, but essentially resulted from human activities, or materials or processes under a persons control. Non-stormwater discharges include but are not limited to discharges of: (1) water that has been used by a person for any purpose such as cleaning, rinsing, cooling, irrigation, aquaculture, recreation, cooking, and industrial processes; (2) water or wastewater that originates or flows from equipment, valves, piping, hoses, containers, tanks, or other man-made apparatus; or (3) any discharge of materials or wastes other than water.
r. "Person" means any natural person as well as any corporation, partnership, public agency,

trust, estate, cooperative association, joint venture, business entity or other similar entity, or the agent, employee or representative of any of the above.
s. "Pollutant" means any contaminant or other substance which, as determined by the Administrator, is discharged or has a reasonable potential to be discharged in sufficient quantities or concentrations to cause exceedance of receiving water limitations, or otherwise cause a violation of the Municipal Stormwater Permit. Pollutant may include, but is not limited to, solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive material, dredged soil, rock, sand, industrial waste, feces, fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon, surfactants, oil and grease, petroleum hydrocarbon, organic solvents, metals, phenols, pesticides, nutrients, suspended or settleable solids, materials causing an increase in biochemical or chemical oxygen or total organic carbon, substances which alter pH, and those pollutants defined in Section 1362(6) of the Federal Clean Water Act.
t. "Potential discharger" means any person who by nature of the enterprise, activity or industry in which such person is engaged, or by the use, possession or ownership of specified types of building, facility, equipment, or materials, is determined by the Administrator to generate or have the capacity to generate pollutants, wastes, or wastewater which have significant potential to be discharged to the County storm drain system or directly to any natural surface waters.
u. "Premises" means any building, lot, parcel or land, or portion thereof, whether improved or unimproved.
v. "Prohibited non-stormwater discharge" means any non-stormwater discharge to the County storm drain system or directly to natural surface waters, which is not otherwise specifically authorized by this Chapter, the Regional Board, State or Federal law, or an NPDES Permit.
w. "Prohibited non-stormwater discharge installation" means any structure or equipment installed at a person's premises that is not directly connected to the County drain system, but nonetheless is intended or serves to discharge or convey a prohibited non-stormwater discharge to the County storm drain system or waters of the State.
x. "Receiving water limitations" is as defined and listed in Section B.1. of the Municipal Stormwater Permit or any successor document.
y. "Receiving waters" means surface bodies of water, as defined by the Municipal Stormwater Permit, including, but not limited to, creeks and rivers, which serve as discharge points for the County storm drain system.
z. "Regional Board" means the California Regional Water Quality Control Board, Central Valley Region.
aa. "Significant industrial activity" means any industrial activity, individual industrial facility, or class of industrial facilities which is determined by the Administrator to discharge or have the potential to discharge pollutants into stormwater, or non-stormwater in quantities or concentrations which may cause exceedance of receiving water limitations, or for which a requirement has been imposed by the state or federal government on the County to conduct stormwater regulatory activities focused on the facility or activity.
bb. "Significant redevelopment" means the creation or addition of at least five thousand (5,000) square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to expansion of a building footprint, or replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land-disturbing activities related to structural or impervious surfaces.
cc. "Specified performance requirements" means standards adopted by the County that define required conditions or results regarding the elimination of non-stormwater discharges or the control of pollutants in stormwater from specified sources.
dd. "State Construction General Permit" means the State Water Resources Control Board's Order No. 99-08 – DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 Waste Discharge Requirements (WDRS) for discharges of Storm Water Runoff Associated With Construction Activity, and any successor documents.
ee. "State Industrial General Permit" means the State Water Resources Control Board's "Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities" and any successor documents.
ff. "Stormwater" means surface runoff and drainage resulting from storm events and snow melt, including surface runoff and drainage that contains pollutants as a result of contact with man-made or natural sources.
gg. "Threatened prohibited non-stormwater discharge" means any condition or activity which does not currently result in a prohibited non-stormwater discharge but is nevertheless determined by the Administrator to be a condition which results in a substantial likelihood of a future

prohibited non-stormwater discharge;
hh. "Unmitigated stormwater pollutant source" means any existing condition that if left unmitigated is reasonably likely, as determined by the Administrator, to result in a discharge of pollutants in stormwater that will cause or contribute to an exceedance of receiving water limitations, harm or interfere with the County storm drain system, or otherwise pose a threat to public health and safety.
ii. "Waters of the United States" has the same meaning as set forth in Part 122.2 of Title 40 of the Code of Federal Regulations or any successor provision. (SCC 1295 § 2, 2005: SCC 1280 § 2 (part), 2004)

15.12.135 Construction.

The provisions of this Chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and any acts amendatory thereof or supplementary thereto, applicable implementing regulations, and NPDES Permit # CAS082597 and any amendment, revision or re-issuance thereof. In the event of a conflict between this Chapter and any federal or state law, regulation, order or permit, the requirement which establishes the higher standard for public health and safety shall govern. (SCC 1280 § 2 (part), 2004)

15.12.140 Applicability.

The provisions of this Chapter shall be applicable to all dischargers and potential dischargers located within the unincorporated area of the County and all dischargers or potential dischargers that discharge either directly or indirectly into the County storm drain system. This Chapter shall also apply, within the unincorporated area of the County, to stormwater and Non-stormwater discharges made directly to natural surface waters. This Chapter shall not be applicable to discharges occurring outside the unincorporated area of the County.
This Chapter shall apply to facilities subject to the State Construction General Permit; the pollutant control provisions of the County Erosion and Sediment Control Ordinance, County Grading permit, or a Building Permit; or any other instrument of the County that establishes pollutant control provisions for construction sites. However, compliance with the requirements of these permits and the Erosion and Sediment Control Ordinance shall constitute compliance with this Chapter.
This Chapter shall not apply to activities conducted by or facilities operated by the State of California or by agencies of the Federal Government. (SCC 1280 § 2 (part), 2004)

15.12.150 Regulatory Consistency.

The provisions of this Chapter shall take precedence over and are controlling with respect to any conflicting or inconsistent provisions in this Code. (SCC 1280 § 2 (part), 2004)

15.12.160 Compliance Disclaimer.

Compliance by any person with the provisions of this Chapter shall not preclude the need to comply with other local, state or federal statutory or regulatory requirements relating to the control of pollutant discharges or protection of stormwater quality, or both. (SCC 1280 § 2 (part), 2004)

15.12.170 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Chapter. The Board hereby declares that it would have adopted this Chapter and each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof without regard to whether any other section,

subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter would subsequently be declared to be invalid or unconstitutional. (SCC 1280 § 2 (part), 2004)

15.12.180 Administration.

Except as otherwise provided herein, the authority to implement this Chapter is vested in the Administrator who shall be responsible for the administration, implementation and enforcement of the provisions of this Chapter. Unless otherwise specified herein, any powers granted to or duties imposed upon the Administrator may be delegated by the Administrator to other County employees or, upon the approval of the Board, to employees of other public agencies. (SCC 1280 § 2 (part), 2004)

15.12.190 Disclaimer of Liability.

The degree of protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific, engineering and other relevant technical considerations. The standards set forth herein are minimum standards and this Chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into natural surface waters. This Chapter shall not create liability on the part of the County or any officer or employee thereof for any damages that result from reliance on this Chapter or any administrative decision lawfully made there under. (SCC 1280 § 2 (part), 2004)

Article 2 Prohibited Discharges

15.12.200 Prohibited Non-Stormwater Discharge.

Except as provided in Section 15.12.210, it shall be unlawful for any person to make or cause to be made any Non-stormwater discharge into the County storm drain system or directly to natural surface waters. (SCC 1280 § 2 (part), 2004)

15.12.210 Exceptions To Non-Stormwater Discharge Prohibition.

The following discharges to the County storm drain system are exempt from the otherwise applicable discharge prohibition set forth in Section 15.12.200:
a. Any discharge regulated under a NPDES Permit issued to the discharger, and administered by the State pursuant to Chapter 5.5 of Division 7 of the Water Code, provided that any such discharge is in compliance with all requirements of the NPDES Permit and all other applicable laws and regulations.
b. Any discharge from any of the following activities provided that any such discharge does not cause or contribute to the violation of any receiving water limitation as determined by the Administrator:
1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising ground waters;
5. Uncontaminated ground water infiltration [as defined in 40 CFR 35.2005(20)] to separate storm sewers;
6. Uncontaminated pumped ground water;
7. discharges from potable water sources;
8. Foundation drains;
9. Air conditioning condensate;
10. Uncontaminated irrigation water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Lawn watering;

15. Individual residential car washing;
16. Flows from riparian habitats and wetlands;
17. Dechlorinated swimming pool discharges; or
18. discharges or flows from emergency fire fighting activities.
c. Any discharges which the Administrator, the County Health Officer or the Regional Board determines in writing are necessary for the protection of public health or safety.
d. Additional categories of non-stormwater discharges which do not cause or contribute to the violation of any receiving water limitation may be excepted from the otherwise applicable prohibition by the Administrator upon approval of the Executive Officer of the Regional Board, as provided in the Municipal Stormwater Permit, or any successor permit. (SCC 1280 § 2 (part), 2004)

15.12.220 Exception to Otherwise Applicable Exemptions.

Notwithstanding the exemptions provided for in Section 15.12.210 above, if the Regional Board or the Administrator determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any receiving water limitation or results in the conveyance of significant quantities of pollutants to natural surface waters, or is otherwise a danger to public health or safety, the Administrator may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue following expiration of the thirty (30) day period commencing upon delivery of the notice. Upon expiration of such thirty (30) day period, any such discharge shall be unlawful. Upon finding that any continuance of the discharge poses an immediate significant threat to the environment or to public health and safety, the Administrator may waive the thirty day waiting period and require immediate cessation of the discharge. (SCC 1280 § 2 (part), 2004)

15.12.230 Prohibited Stormwater Discharges.

It shall be unlawful for any person to discharge, or cause to be discharged, any stormwater or material to the County storm drain system which results in, or contributes to a violation of a receiving water limitation or a violation of the Municipal Stormwater Permit. (SCC 1280 § 2 (part), 2004)

15.12.240 Prohibited Conditions.

a. In the interest of preventing prohibited discharges from occurring, it shall be unlawful for any person to maintain, or cause to be maintained, any of the following conditions:
1. Unmitigated stormwater pollution source;
2. Threatened prohibited non-stormwater discharge;
3. Prohibited non-stormwater discharge installation; or
4. Illicit connection.
b. Illicit connections shall be subject to removal and abatement by the County pursuant to this Chapter and Title 16 of this Code.
c. The prohibition set forth in subsection (a)(4) above shall apply to illicit connections in existence at the time that this Chapter becomes effective. Upon the effective date of this Chapter, any person who maintains an illicit connection shall have thirty (30) days from the effective date of this Chapter to disconnect and discontinue use of such connection. Notwithstanding the provisions of this section, any person who maintains an illicit connection, as defined in Section 15.12.130, may apply to the County for a Sacramento County Water Agency Permit to continue the connection subject to applicable County standards. No permit shall be issued for any connection or any physical facility or apparatus that is installed, intended, serves, or is known to convey a prohibited discharge to the County storm drain system or waters of the State. (SCC 1295 § 3, 2005: SCC 1280 § 2 (part), 2004)

15.12.250 Negligence or Intent Not Required.

A violation of the provisions of this Article shall occur irrespective of the negligence or intent of

the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge. (SCC 1280 § 2 (part), 2004)

Article 3 Reduction of Pollutants in Stormwater

15.12.300 General Requirements for Best Management Practices.

Any person engaged in activities which may result in pollutants entering the stormwater conveyance system shall, to the maximum extent practicable, undertake BMPs to reduce the risk of Non-stormwater discharge and/or pollutant discharge. (SCC 1280 § 2 (part), 2004)

15.12.302 Significant Industrial Activities.

a. The Administrator may designate as significant industrial activities those industrial activities or facilities which are identified as potentially significant sources of discharges of pollutants to the County storm drain system. A significant industrial activity may occur at stationary facilities or as a mobile activity that takes place at various job sites.
b. Industries for which the Municipal Stormwater Permit specifies that the County shall conduct routine inspections, or which are listed in Municipal Stormwater Permit provision 9 ii c, are hereby designated as significant industrial activities.
c. Notwithstanding subsection (b) of this section, food establishments, as defined in the Section 113780 of the State of California Health and Safety Code, shall not be designated as significant industrial activities.
d. Significant industrial activity designations that apply only to individual facilities may be made by the Administrator and are subject to appeal under section 15.12.540 of this Chapter.
e. Significant industrial activity designations made by the Administrator pursuant to subsection (a) of this section that apply to classes of activities or facilities shall be subject to the requirements of Section 15.12.330 of this Chapter governing the adoption of regulations. (SCC 1295 § 4, 2005: SCC 1280 § 2 (part), 2004)

15.12.305 County Stormwater Permit.

a. The Administrator may require the owner or operator of a significant industrial activity to obtain a County stormwater permit, which may establish any provisions necessary for the implementation of this Chapter, effective control of stormwater pollutants and non-stormwater discharges, and compliance with the Municipal Stormwater Permit. Provisions may include but are not limited to applicable specified performance requirements; and reporting, documentation, training, and monitoring requirements.
b. Notwithstanding subsection (a) of this Section, food establishments, as defined in the State of California Health and Safety Code Section 113780, and industrial facilities required to obtain coverage under the State Industrial General Permit shall not be required to obtain a County stormwater permit.
c. The County stormwater permit shall describe the aspects of business to which it applies, which may include but are not limited to areas, equipment, buildings, industrial processes, or activities of the business.
d. Any person who continues to own or operate a significant industrial activity without obtaining a County stormwater permit if required by the Administrator, shall be in violation of this Chapter.
e. The Administrator may establish permit fees, according to the provisions of Section 15.12.450 of this Chapter, to fund the County's costs associated with regulating the permitted activity, including but not limited to administration, inspection, enforcement, compliance assistance, and outreach
f. The Administrator may revoke a County stormwater permit for significant violations of this Chapter. Prior to issuance or revocation of any permit, the Administrator shall establish, as part of the enforcement policy required by Section 15.12.555, written policy regarding permit administration, including timelines and criteria for permit revocation and permit reinstatement. Permit revocation and reinstatement decisions by the Administrator shall be subject to appeal under Section 15.12.540 of this Chapter. (SCC 1280 § 2 (part), 2004)

15.12.310 Containment and Notification of Spills.

a. Any person owning or occupying a premises, or conducting any activity, that has knowledge of any non-stormwater discharge or threatened prohibited discharge, from the premises or activity to the County stormwater conveyance system shall immediately take all reasonable action to contain and otherwise minimize any such discharge.
b. The Administrator may designate individual facilities or types of industries where the owner or operator of the Industry shall be required to notify the Administrator or the implementing agency within twenty-four (24) hours of the discovery of an actual discharge into the County stormwater conveyance system.
c. For any discharge subject to the reporting requirements of the State of California Water Code sections 13271 and 13272, notification in compliance therewith shall constitute sufficient notification for the purposes of this Section. (SCC 1295 § 5, 2005: SCC 1280 § 2 (part), 2004)

15.12.320 Specified Performance Requirements for Industrial Activities.

a. The Administrator may establish specified performance requirements for significant industrial activities that are intended to apply to a class or classes of industries. Such requirements shall be subject to the provisions for adoption of regulations under Section 15.12.330 of this Chapter.
b. The Administrator may impose specified performance requirements that apply to single facilities. Such requirements shall be subject to appeal under Section 15.12.540 of this Chapter.
c. Any facility that it is in compliance with its State or Federal NPDES Permit for stormwater discharges for that facility shall be deemed to have met the requirements of Section 15.12.300, except that any specified performance requirements applicable to such facilities shall also be met. (SCC 1280 § 2 (part), 2004)

15.12.322 Construction Sites With Building Permits.

Any person owning or operating a construction site for which a building permit has been issued shall implement BMPs to control the discharge of pollutants to the maximum extent practicable, and eliminate non-stormwater discharges that are not in compliance with an NPDES Permit. (SCC 1280 § 2 (part), 2004)

15.12.325 Post Construction Requirements for New Development and Significant Redevelopment.

a. The Administrator shall be authorized to establish specified performance requirements and requirements for BMPs as appropriate to minimize the long-term, post construction discharge of stormwater pollutants from new development or significant redevelopment, to implement the development standards plan, and to comply with the requirements associated with development standards in the Municipal Stormwater Permit, including but not limited to Provisions 16 through 26. The requirements for new development or redevelopment may include but are not limited to performance standards, source control BMPs, treatment BMPs, structural BMPs, operational BMPs, building material specifications or limitations, site design requirements, signage and marking, and associated maintenance programs or schedules.
b. Requirements established pursuant to subsection (a) of this section may be included in development standards, building codes, building permits, conditions of development, or any other appropriate instrument administered by the County. (SCC 1280 § 2 (part), 2004)

15.12.327 BMP Maintenance Requirements.

The Administrator may require a property owner to establish, document, and conduct a maintenance program, subject to approval, for any BMP or to ensure continued compliance with specified performance requirements. This requirement may apply to BMPs required by the County or BMPs that were voluntarily installed. Such a maintenance program may be required when the Administrator determines that proper maintenance is necessary to protect public safety,

health, infrastructure, or the environment, or to otherwise meet the purposes of this Chapter. Maintenance requirements established pursuant to this subsection must be appropriate for the site conditions and design of BMPs. (SCC 1295 § 6, 2005: SCC 1280 § 2 (part), 2004)

15.12.330 Administrative Rules and Regulations.

a. The Administrator shall have the authority to promulgate regulations for the implementation of this Chapter. Prior to the Administrator's initiation of any proposed regulations, the Administrator shall submit a public input plan to the Board for its approval. The public input plan approved by the Board shall be generally applicable to the promulgation of regulations by the Administrator.
b. All regulations promulgated by the Administrator shall be consistent with the provisions of this Chapter. Any such regulations, or amendments thereof, shall be filed with the Clerk of the Board. The Clerk shall cause announcement of said rules or regulations to be published in a newspaper of general circulation within ten calendar days. Such announcements shall provide a reasonable summary of the content of the rule. In addition, the Administrator shall make a reasonable effort to identify, notify, and provide copies to any industries which are specifically designated by the Administrator as subject to a rule or regulation. However, neither the failure of the Administrator to provide such notice nor the failure to receive individual notice shall exempt an industry from that rule or regulation. No regulations promulgated by the Administrator or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which notification of the regulations are published.
c. Any person who asserts that he or she is aggrieved by the terms or application of a regulation issued pursuant to this section may appeal the issuance of such regulation by filing a written notice of appeal with the Clerk of the Board. The notice of appeal shall specifically identify the regulation or regulations from which the appeal is taken and the reasons for the appeal. Upon receipt of such notice, the Clerk of the Board shall schedule the appeal for a public hearing by the Board. At the conclusion of the public hearing the Board shall be vested with jurisdiction to deny the appeal or to rescind or modify the regulation. The Board's determination in this regard shall be final.
d. Any regulation from which an appeal is filed prior to its effective date shall not become effective until the date of a determination by the Board of the appeal. Any regulation from which an appeal is filed on or subsequent to the effective date thereof shall remain in full force and effect during the pendency of the appeal, and any decision which rescinds or modifies the regulation shall apply prospectively. (SCC 1280 § 2 (part), 2004)

Article 4 Inspection and Monitoring

15.12.400 Scope of Inspections.

a. Prior to commencing any inspection authorized pursuant to this Chapter, the Administrator shall obtain the consent of the owner or occupant of the premises, an inspection warrant or a criminal search warrant.
b. The Administrator may conduct inspections related to purposes of implementing this Chapter on private or public property. Inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Chapter, including, but not limited to, compliance with requirements of the Municipal Stormwater Permit, visual evidence, complaints received, knowledge or physical evidence of industrial activities or other pollutant sources, random sampling, sampling in areas with evidence of stormwater contamination, illicit connections, discharge of non-stormwater to the County storm drain system or similar factors.
c. The Administrator may enter upon private property to investigate the source of any discharge to any public street, inlet, gutter, storm drain or the County storm drain system.
d. The Administrator may enter upon private property for the purpose of verifying compliance with the provisions of this Chapter, including, but not limited to, the following:
1. Identifying products produced, processes conducted, chemicals used and materials stored on or contained within the property;
2. Identifying point(s) of discharge of all wastewater, process water systems, pollutants and other discharges from the property;
3. Investigating the drainage patterns of the premises, including natural and graded slopes, and

artificial conveyance systems;
4. Establishing the location of all points of discharge from the property, whether by surface run-off or through a storm drain system;
5. Locating any prohibited condition, illicit connection, or the source of any prohibited discharge; and
6. Evaluating implementation of BMPs.
e. For purposes of verifying compliance with the provisions of this Chapter, the Administrator may inspect any vehicle, truck, trailer, tank truck or other mobile equipment, or any stationary equipment, which may reasonably be believed to be used by the business for business-related activities and to be associated with industrial sources of pollutants or with non-stormwater discharges.
f. The Administrator may inspect and copy all records of the owner or occupant of any premises relating to chemicals or processes presently or previously occurring on-site, including materials and/or chemical inventories, facilities maps or schematics or diagrams, material safety data sheets, hazardous waste manifests, business plans, pollution prevention plans, state general permits, monitoring program plans or any other records relating to illicit connections, prohibited discharges or the potential discharge of pollutants to the County storm drain system. In addition, the Administrator may require the owner or occupant to furnish, within a reasonable time period, copies of all such records.
g. The Administrator may inspect, sample and test any area runoff, soils area (including any groundwater testing), process discharge, materials within any waste storage area (including any container contents), and/or treatment system discharge for the purpose of determining the potential for the contribution of pollutants to the County storm drain system. The Administrator may investigate the integrity and layout of all storm drain and sanitary sewer systems or other pipelines on the premises using appropriate tests, including, but not limited to, smoke and dye tests or video surveys. The Administrator may take photographs or video tape, make measurements or drawings, and create any other record reasonably necessary to document conditions on the premises.
h. The Administrator may erect and maintain monitoring and sampling devices for the purpose of measuring any discharge or potential source of discharge to the County storm drain system.
(SCC 1295 § 7, 2005: SCC 1280 § 2 (part), 2004)

15.12.430 Monitoring Requirements for Industrial Facilities.

a. The Administrator may require industries, at their own expense, to conduct and report monitoring of stormwater and non-stormwater discharges from their facilities and operations, for purposes necessary for the implementation of this Chapter or compliance with the Municipal Stormwater Permit. The goals of monitoring may include but are not limited to characterization of known and potential pollutant sources, pollutant content of discharges, and BMP effectiveness. Required forms of monitoring may include but are not limited to toxicity, flow, and analysis of pollutant concentrations.
b. The Administrator may designate specific monitoring requirements and/or require the discharger or potential discharger to submit a monitoring plan that describes specific monitoring requirements. Specific monitoring requirements may include sampling points, sampling times or deadlines, analysis and sampling methods, frequencies, storm event criteria, and other specifications necessary to ensure timely, adequate, accurate, and representative monitoring;
c. The discharger or potential discharger shall ensure that the integrity of the sample is protected at all times, including collection, handling, splitting, transport, and storage. Deliberate tampering with or altering of a sample shall be a violation of this Chapter.
d. The Administrator may specify information that must be documented in association with any sampling and monitoring event. At a minimum, unless otherwise allowed by the Administrator, the discharger or potential discharger shall record and maintain the following information for each sampling event:
1. The date, exact place, method and time of sampling;
2. The name, title, and employer of the person or persons taking the samples;
3. Sample preservation used;
4. The dates analyses were performed;
5. Sample chain of custody forms;
6. Who performed the analyses;
7. Analytical methods used, including detection limits;

8. Quality assurance and quality control documentation;
9. Laboratory reports of analytical results;
10. Any unusual observations or conditions noted during sample acquisition or analysis.
e. Any information submitted pursuant to this section shall be subject to the approval of the Administrator and the Administrator may require additional information if the Administrator determines the information submitted is incomplete or insufficient. (SCC 1280 § 2 (part), 2004)

15.12.435 Reporting Requirements.

a. The Administrator may require any person to report information for purposes related to the purpose and intent of this Chapter. Required information may include but is not limited to the following: characterization of industrial activities; compliance with this Chapter, compliance with a County stormwater permit; compliance with State General Permit requirements; compliance with the County stormwater Ordinance; compliance with administrative enforcement orders or other enforcement actions; discharge monitoring; training; and BMP implementation, effectiveness, and maintenance.
b. The Administrator may require information to be submitted on an as needed basis, or according to a specific schedule as specified in a County stormwater permit.
c. The Administrator may require submitted information to be compiled, summarized, analyzed or organized in a reasonable manner that facilitates its interpretation or other use. As necessary to facilitate the use of information, the Administrator may also specify the medium and format of required submittals.
d. Failure to provide information in a timely manner as required by the Administrator, or knowingly or negligently concealing, destroying, or providing false information shall be a violation of this Chapter. (SCC 1295 § 8, 2005: SCC 1280 § 2 (part), 2004)

15.12.438 Confidentiality of Information.

a. Information and data on a discharger or potential discharger obtained from inspections, reports, questionnaires, applications, permits, monitoring programs, records, or any other form of submittal to the County shall be available to the public or other governmental agency without notification unless the discharger or potential discharger specifically requests confidentiality as to any portion thereof and is able to demonstrate to the satisfaction of the Administrator that the release of such information would divulge information, processes or methods of production entitled to protection as trade secrets of the discharger or potential discharger. Stormwater and non-stormwater discharge constituents and characteristics will not be recognized as confidential information, and effluent data shall be available to the public without restriction.
b. When requested by a discharger or potential discharger furnishing information to the County, and agreed to by the Administrator, the portions of that information which might disclose trade secrets or secret processes shall not be made available for inspection by the public but shall be made available to the County and other governmental agencies for uses related to the ordinance codified in this Chapter, the National Pollutant Discharge Elimination System (NPDES) and/or the pretreatment program, and enforcement of other environmental regulatory programs. Those portions of the information shall also be available for use by the state or any state agency in judicial review or enforcement proceedings involving the discharger or potential discharger furnishing the information.
c. Information and data requested from a discharger or potential discharger which the discharger or potential discharger believes to be proprietary and the release of which to the public would substantially impair the operations or business interests of the discharger or potential discharger, may alternatively be provided to the County for its review at the facility of the discharger or potential discharger rather than provided to the County for its keeping, at the discretion of the County. The burden will be on the discharger or potential discharger to demonstrate to the satisfaction of the County that such information is proprietary and that this alternative procedure is necessary or appropriate and will not prevent the County from properly carrying out the objectives of this Chapter
d. In the event access to or disclosure of any such confidential or proprietary information is requested pursuant to an action brought under federal or state laws, the County shall have the option, in its sole discretion, of defending itself in such action or requiring the discharger or potential discharger to provide a defense. If the County makes written tender upon a discharger

or potential discharger to defend such an action with counsel acceptable to County and such discharger or potential discharger does not appear in and assume the defense of such action within the time specified in the tender, the County shall be free to disclose the information to the party making request therefore. In any event, the discharger or potential discharger shall be liable to the County in defending such action and for any judgment rendered against the County in such action. Payment of all such amounts shall be made by the discharger or potential discharger within thirty (30) days of billing by the County. (SCC 1295 § 9, 2005: SCC 1280 § 2 (part), 2004)

15.12.440 Record Retention.

Any reports, data, or other records and documentation required by the Administrator of a discharger to be collected or submitted for characterizing discharges, demonstrating compliance with this Chapter, or otherwise related to the purposes of this Chapter, shall be retained at the discharger's premises and made readily available to the Administrator for a period of not less than three years. (SCC 1295 § 10, 2005)

15.12.450 Fees.

The Administrator shall collect such fees as may be established by the Board to provide for the recovery of regulatory costs, including routine inspections and other regulatory functions associated with this Chapter. Any such fees shall be established by resolution of the Board. Failure to pay required fees within the time period set in policy established by the Administrator shall be a violation of this Chapter. There shall be no fee assessed to appeal the determination that a person conducts any significant industrial activity. (SCC 1280 § 2 (part), 2004)

Article 5 Enforcement

15.12.500 Enforcement at Construction Sites with Building Permits.

Any person found to be in violation of any provision of this Chapter in connection with activities subject to a building permit issued pursuant to Title 16 of the Sacramento County Code, shall be subject to the enforcement provisions of both this Chapter and Title 16. (SCC 1295 § 11, 2005: SCC 1280 § 2 (part), 2004)

15.12.505 Notice of Violation.

The Administrator may issue a notice of violation to any person found to be in violation of a provision of this Chapter, including any regulation, permit, information request, order, variance, or other requirement that the Administrator is authorized to enforce or implement pursuant to this Chapter. (SCC 1280 § 2 (part), 2004)

15.12.520 Cease and Desist Orders.

a. Any violation of this Chapter in which the Administrator also determines that the violation constitutes an immediate threat to public health or safety, including by way of illustration and not limitation, significant harm to human or aquatic life or to the County storm drain system or natural surface waters, may result in an order to immediately cease and desist all activities causing such immediate threat.
b. A cease and desist order shall direct the owner or occupant of any premises subject to this Chapter, or any person named therein which is subject to this Chapter, to immediately discontinue all or specified prohibited conditions or discharges to the County storm drain system, natural surface waters, or otherwise, until such time as abatement actions sufficient in the determination of the Administrator have been satisfactorily effected and so confirmed by written amendment to said cease and desist order.
c. Any cease and desist order may be appealed pursuant to the administrative appeals process

of this Chapter; provided, however, the effect of the cease and desist order shall remain in effect pending final determination thereof. Nothing shall limit the Administrator's authority to continue enforcement actions under a pending cease and desist order, including modifying a cease and desist order consistent with the purpose and intent of this Chapter.
d. Any cease and desist order shall be cumulative with all of the remedies in this Chapter and as provided by law.
e. A cease and desist order shall inform the discharger of the Administrator's authority and intent to conduct abatement of the violation or threatened violation according to Section 15.12.550, if the discharger fails to comply with the requirements of the order within the specified time frame.
f. If the discharger fails to comply with a cease and desist order within the time specified in the order, the Administrator may conduct abatement of the violation according to Section 15.12.550.
g. Nothing in this section requires the Administrator to issue a cease and desist order before conducting summary abatement as provided under Section 15.12.550. (SCC 1295 § 12, 2005: SCC 1280 § 2 (part), 2004)

15.12.525 Enforcement Actions—Content.

a. In addition to any other content, a notice of violation, or a cease and desist order shall contain the following elements:
1. A statement of the Administrator's findings that indicates a violation has occurred.
2. A citation of the provision of this Chapter that has been violated.
3. A date by which any person must be in compliance with this Chapter, or a date by which an action plan must be submitted by the person to propose a means and time frame by which to correct violations. The Administrator may extend the compliance date when good cause exists for such an extension.
4. Notification that continued non-compliance may result in additional enforcement action being taken against the business, facility, or any responsible persons.
5. Notification that the County may recover any costs incurred by the County as a result of the violation.
6. Notification that a violation of this Chapter may result in an administrative civil penalty of up to five thousand dollars ($5,000.00) per violation for each day that the violation occurs, or in criminal penalties.
7. Notification that the recipient has a right to a hearing on the matter as set forth in Section 15.12.540 of this Chapter, to determine the enforcement of any administrative civil penalty sought by the Administrator, or to appeal any findings or required corrective actions established by the Administrator.
8. Notification of hearing dates, appeal deadlines, and procedures for requesting a hearing established according to Section 15.12.540 of this Chapter.
b. In addition to any other content, a notice of violation, or a cease and desist order, or a notice of administrative civil penalty may establish required corrective actions, including the following:
1. Terms, conditions, and requirements reasonably related to the provisions of this Chapter, including the following:
A. Cessation of illicit discharges.
B. Correction of prohibited conditions.
C. A requirement for submittal of a written action plan for achieving and maintaining compliance with this Chapter. The Administrator may require the action plan to address specific items, including the following:
i. Specific time schedules for compliance;
ii. Description of BMPs that will be implemented for containment, cleanup, removal, storage, or proper disposal of any material having the potential to contribute pollutants to stormwater runoff;
iii. Identification of persons responsible for compliance with this Chapter.
D. Reporting requirements to demonstrate ongoing compliance.
2. A requirement that the person receiving same shall submit written certification to the Administrator that the necessary corrective actions have been completed. As appropriate for the type of correction action taken, the notice of violation may require documentation that substantiates the certification, including but not limited to receipts, contracts, or photographs.
3. Any other terms or conditions reasonably calculated to prevent additional or on-going violations of this Chapter.
c. A notice of violation, a cease and desist order, or a notice of administrative civil penalty may be issued separately or in combination with another notice or order for the same violations or set of

related violations. (SCC 1295 § 13, 2005: SCC 1280 § 2 (part), 2004)

15.12.530 Delivery of Notice.

Any notice of violation, cease and desist order, permit revocation, notice of administrative civil penalty or other enforcement action pursuant to the requirements of this Chapter shall be subject to the following requirements:
a. Delivery shall be deemed complete upon either personal delivery to the recipient or by deposit in the U.S. Mail postage pre-paid for first class delivery.
b. Where the recipient of the notice or order is the owner of the premises, the address for notice or order shall be the address from the most recently issued equalized assessment roll for the premises.
c. Where the owner or occupant of any premises cannot be located after reasonable efforts of the Administrator, the notice or order shall be deemed delivered after posting on the premises for a period of ten (10) business days. (SCC 1295 § 14, 2005: SCC 1280 § 2 (part), 2004)

15.12.540 Administrative Appeals.

a. Administrative hearings and appeals under this Chapter shall be to a Hearing Officer appointed pursuant to Government Code section 27720 et seq. Each Hearing Officer shall also meet the requirements of Government Code section 11425.30 and any other applicable restriction.
b. Any person served with a notice or order pursuant to this Chapter shall be provided an opportunity for a hearing prior to enforcement of an administrative civil penalty; or to appeal required corrective actions or the Administrator's findings of a violation of this Chapter.
1. Appeal Hearing. If a notice of violation or a cease and desist order is issued, but not concurrently with a notice of administrative civil penalty, the person who receives it shall be afforded an opportunity for a hearing to appeal the Administrator's findings or required corrective actions in the manner described in the following subsections:
A. To appeal the Administrator's findings, required corrective actions, or any provision of a notice or order, the person shall file a written request for hearing. The filing period for a request for hearing shall be set in written policy by the Department issuing the notice or order adopted pursuant to 15.12.330, but shall in no case be less than fifteen (15) calendar days. Any notice or order shall notify the recipient of the specific date by which the notice must be filed. The request for hearing shall be filed with the party issuing the notice or order at the address so designated on the notice and must be accompanied by payment of the Hearing Officer fee, established and amended from time to time by the Administrator based upon actual expense. If the person filing a request for hearing prevails on appeal, then the Hearing Officer fee will be refunded by the Administrator. A request for hearing shall be deemed filed within the filing period if it is postmarked within that period. If a request for hearing is not filed within the proscribed filing period, the notice, order or other action or determination by the Administrator shall become final.
B. Except as provided in subsection (b)(1)(C) of this section, within ninety (90) calendar days of receipt of the request for hearing by the Administrator, the hearing shall be scheduled by the Administrator with a Hearing Officer designated by the Administrator, who shall conduct the hearing in accordance with Chapter 4.5 (commencing with Section 11400) of Part 1 of Division 3 of Title 2 of the Government Code, and the Administrator shall have all the authority granted to an agency by those provisions. Except as provided in subsection (b)(1)(C) of this section, the Hearing Officer shall issue a decision within sixty (60) calendar days after the completion of any hearing conducted pursuant to this section.
C. When a cease and desist order is issued pursuant to this Chapter, the hearing shall be scheduled by the Administrator with a Hearing Officer within fifteen (15) calendar days of receipt by the Administrator of the request for hearing. The Hearing Officer shall issue a decision within fifteen (15) calendar days after the completion of any hearing conducted pursuant to this subsection.
2. Administrative Civil Penalty Hearing. If the Administrator issues a notice of administrative civil penalty, prior to enforcement of any penalty, the person receiving the notice shall be afforded an opportunity for a hearing. The notice shall establish a time, date and place for the hearing before a Hearing Officer, as follows.
A. The date for the hearing which shall be no less than thirty (30) calendar days and no more than ninety (90) days from the date of the notice, except that if the notice is issued concurrently

with a cease and desist order, the hearing date shall be no more than forty-five (45) days from the date of the notice.
B. Alternative dates for the hearing may be established by mutual consent of the person and the Administrator, or as ordered by the Hearing Officer.
3. Combined Hearing. An appeal hearing may be consolidated with a hearing for an administrative civil penalty, as follows:
A. If a notice of administrative civil penalty is issued concurrently with a notice of violation or cease and desist order for the same violation or a related set of violations, and if the person files a request for hearing, according to the procedures established in subsection (b)(1)(A) of this Section, the appeal hearing shall be conducted in conjunction with the administrative civil penalty hearing.
B. If a notice of administrative civil penalty is not issued concurrently with a notice of violation or cease and desist order, but is issued within a reasonably close period of time for the same violation or a related set of violations, and if the person receiving the notice or order files a request for hearing according to the procedures established in subsection (b)(1)(A) of this Section, the appeal hearing may be conducted in conjunction with the administrative civil penalty hearing, at the discretion of the Hearing Officer.
4. Recovery of Hearing Costs. The Administrator may recover the costs incurred by the County for hearings as follows:
A. Cost for Appeal Hearing. For appeal hearings, the provisions of Section 15.12.450 notwithstanding, the Administrator shall set a standard fee to be paid by the person at the time that the request for hearing is filed. The purpose of the fee is to recover the County's costs, or portion thereof, for the Hearing Officer. If the person filing a request for hearing prevails on appeal, then the hearing officer fee will be refunded by the Administrator. In addition, by order of the hearing officer, the County may be awarded its costs, including hearing officer fees above and beyond the standard fee, staff time, and attorneys' fees, in defending against an unsuccessful appeal brought without substantial merit, which costs may be charged jointly and severally against the appellants and recovered as costs of enforcement as provided herein. Such an award must be based upon a finding supported by a preponderance of the evidence that the appeal was without substantial merit or was taken for the sole purpose of delay.
B. Costs for Administrative Civil Penalty Hearing. If the County prevails in seeking an administrative civil penalty, by order of the hearing officer, the County may be awarded costs incurred while seeking the penalty, including hearing officer fees, staff time, and attorneys' fees.
5. If the Administrator finds that a violation(s) may pose an imminent and substantial endangerment to the public health or safety or the environment, any required corrective action established by a notice or order issued under this Chapter that are intended to correct such violations, shall take effect upon issuance, regardless of the filing of a request for hearing.
c. Administrative hearings for matters concerning this Chapter shall be conducted according to Sections 15.12.540 through 15.12.548 hereof. (SCC 1295 § 15, 2005: SCC 1280 § 2 (part), 2004)

15.12.543 Conduct of Administrative Hearings—Generally.

a. General. At the time set for hearing, the Hearing Officer shall state what the prima facie case is, what the burden of proof is, and what the range of penalties is. The Hearing Examiner shall proceed to hear the testimony of the Administrator, the person, and other competent persons respecting the circumstances of the violation, and other relevant facts concerning the matter. The Hearing Officer shall follow the rules of procedure for conducting hearings established by this Code.
b. Record of Oral Evidence at Hearing. A record of the entire hearing proceedings shall be made by either a certified court reporter or any other means of permanent recording determined to be appropriate by the Hearing Officer. A transcript of the proceedings shall be made available to all parties upon request and upon payment of the fee prescribed therefore. Such fees may be established and revised from time-to-time by the Administrator.
c. Continuances. The Hearing Officer may, upon request of the person, a party in interest, or the Administrator, grant continuances from time to time for good cause shown, or upon his/her own motion. Any continuance granted shall in no way diminish the responsibility of the person and/or parties in interest for maintaining the premises, nor affect other requirements of this Chapter regarding time for challenging any decisions made or actions taken.
d. Oaths—Certification. The Hearing Officer or certified shorthand reporter shall administer the

oath or affirmation.
e. Evidence Rules. Government Code of the State of California, Section 11513, as presently written, or hereinafter amended, shall apply to hearings conducted under this Chapter.
f. Rights of Parties. Each party may represent themselves, or be represented by anyone of their choice. Each party may appear at the hearing and offer evidence in this matter and cross examine witnesses.
g. Official Notice. In reaching a decision, official notice may be taken, either before or after submission of the case for decision, of any fact which may be judicially noticed by the courts of this state.
f. Inspection of Premises. The Hearing Officer may inspect the premises involved in the hearing prior to, during or after the hearing, provided that:
1. Notice of such inspection shall be given to the parties before the inspection is made;
2. The parties are given an opportunity to be present during the inspection;
3. The Hearing Officer shall state for the record during the hearing, or file a written statement after the hearing for inclusion in the hearing record, upon completion of the inspection, the material facts observed and the conclusion drawn therefrom; and
4. Each party then shall have a right to rebut or explain the matters so stated by the Hearing Officer either for the record during the hearing or by filing a written statement after the hearing for inclusion in the hearing record.
g. Burden of Proof. The burden of proof in hearings held pursuant to this Chapter shall be as follows:
1. In the case of any notice or order, the Administrator shall bear the burden of proof, by a preponderance of evidence, to show that a violation of this Chapter has occurred.
2. In the case of a notice of administrative civil penalty, the Administrator shall bear the burden of proof, by a preponderance of evidence, to show that a penalty should be assessed.
3. In the case of an appeal regarding the occurrence of a violation, or of required corrective actions, the appellant shall bear the burden of proof, by clear and convincing evidence, to show cause for amending or rejecting all or part of the corrective actions or requirements imposed by the Administrator by a notice or order. (SCC 1295 § 16, 2005)

15.12.545 Form and Contents of Decision—Finality of Decision.

a. Following the hearing, the hearing officer shall issue an order in writing no later than thirty (30) days from the date of the hearing, unless the time is waived by the parties. The order shall contain findings of fact and rationale appropriate to the violation and result, and a resolution of the essential issues raised, including the following:
1. Confirmation or denial of the occurrence of violations of this Chapter that are alleged by the Administrator;
2. Confirmation or rejection of any administrative civil penalty sought by the Administrator, and establishment of the monetary amount of any administrative civil penalty to be enforced.
3. Confirmation, amendment, or rejection of required corrective actions related to compliance with this Chapter that are imposed by the Administrator, but only if those requirements are appealed by the person.
b. The Hearing Officer's order concerning any administrative civil penalty shall be guided by factors including, but not limited to the following: the danger or harm to public health and safety or the environment created by the violation; actions by the person to prevent, correct, or conceal the violation; negligence; intent; recidivism; and any economic benefit associated with non-compliance.
c. The Hearing Officer's order shall uphold required corrective actions if the person fails to show clear and convincing evidence that the required corrective actions are unreasonable or unnecessary for achieving or demonstrating ongoing compliance with this Chapter. The Hearing Officer's order may amend, or reject required corrective actions, provided that compliance with this Chapter will be achieved. The Hearing Officer's order shall not address required corrective actions unless the person files a request for hearing according to the procedures established in Section 15.12.540(b)(1)(A) of this Chapter.
d. The Hearing Officer's order shall inform the person of the following:
1. If the violation is not corrected, or if any required corrective actions are not met within the time (s) required, that the violation may be abated by the County, without further notice or consent of the person or any party in interest, in such manner as may be ordered by the Hearing Officer, and the expense thereof, including all costs of enforcement, incurred by the County as a result of

the person's failure to comply, shall be recoverable by the County, and may be made a lien on the subject premises pursuant to the provisions of Government Code Section 25845. Additionally, upon entry of a second or subsequent order within a two-year period finding that the person is responsible for a condition that may be abated in accordance with this Chapter and Government Code Section 25845, or any successor provision thereto, except for conditions abated pursuant to Section 17980 of the Health and Safety Code, the Hearing Officer may order the person to pay treble the costs of abatement pursuant to Government Code Section 25845.5, or any successor provision thereto.
2. The time and manner by which a person may file a challenge to the Hearing Officer's order is governed by Government Code Section 53069.4, or any successor provision thereto.
3. Failure to comply with the Hearing Officer's order shall constitute a misdemeanor and is subject to additional enforcement action, including criminal penalties and additional civil and administrative penalties.
e. The order issued by the Hearing Officer pursuant to this Section shall be effective upon issuance. A copy of the order shall be delivered by the Hearing Officer in accordance with Section 15.12.530.
f. Preparation of a record of the administrative proceeding shall be governed by the provisions of Sacramento County Code, Chapter 1.06, as presently written or hereinafter amended.
g. The provisions of Sacramento County Code, Chapter 1.06 notwithstanding, any challenge to the order of the Hearing Officer concerning any appeal or administrative civil penalty shall be governed by Government Code Section 53069.4, or any successor provision thereto. Service of the notice of appeal authorized by Government Code Section 53069.4 on the County shall be served upon the Clerk of the Board.
h. After any notice or order made pursuant to this Chapter shall have become final, no person to whom any such order is directed shall fail, neglect or refuse to obey such order. The Administrator may pursue, through County Counsel or the District Attorney, appropriate judicial action against any person who fails to comply with any such notice or order, including charging that person with a misdemeanor offense. (SCC 1295 § 17, 2005)

15.12.548 Procedures for Collection of Administrative Civil Penalty.

a. The administrative penalty shall be due and payable within thirty (30) days after the Hearing Officer's decision is issued. If the penalty is not timely paid, the County may pursue all reasonable and legal means in collecting those sums authorized and due.
b. All administrative civil penalties collected from actions brought pursuant to this Chapter shall be paid to the County department(s) enforcing this Chapter, and shall be deposited into a special account that shall be expended to fund the activities of the department to implement the applicable provisions of this Chapter. (SCC 1295 § 18, 2005)

15.12.549 Actions Not Prohibited.

This Chapter does not do any of the following:
a. Otherwise affect the authority of the Administrator to take any other action authorized by any other provision of law.
b. Restrict the power of a city attorney, district attorney, or the Attorney General to bring, in the name of the people of California, any criminal proceeding otherwise authorized by law.
c. Prevent the Administrator from cooperating with, or participating in, proceeding specified in subsection 15.12.549(b). (SCC 1295 § 19, 2005)

15.12.550 Nuisance and Abatement.

a. Any condition in violation of the provisions of this Chapter, including, but not limited to, the maintenance or use of any illicit connection or the occurrence of any prohibited discharge, is declared and deemed to be a public nuisance.
b. At the request of the Administrator, the County may seek a court order to enjoin or abate the nuisance, or both. Prior to seeking any court order to enjoin or abate a nuisance or threatened nuisance, the Administrator shall issue a cease and desist order to the owner and occupant, if any, of the Premises where the nuisance or threatened nuisance is occurring.

c. At the request of the Administrator, the County may seek an abatement warrant or other appropriate judicial authorization to enter the Premises where any nuisance or threatened nuisance is occurring and to abate the condition and restore the area.
d. In the event the nuisance constitutes an imminent danger to public safety or the environment, the Administrator may enter the premises from which the nuisance emanates, abate the nuisance and restore any property affected by the nuisance without prior notice to or consent from the owner or occupant thereof and without judicial warrant.
1. An imminent danger shall include, but is not limited to, exigent circumstances created by the dispersal of pollutants, where such pollutants present a significant and immediate threat to the public health and safety or the environment.
2. Notwithstanding the authority of the County to conduct an emergency abatement action, an administrative hearing pursuant to Section 15.12.540 shall follow the emergency abatement action. (SCC 1280 § 2 (part), 2004)

15.12.555 Enforcement Policy.

In the interest of achieving consistent enforcement of this Chapter, and in recognition of the need to have enforcement policy adapted to the structure and practices of various implementing agencies, each implementing agency that is delegated enforcement responsibility pursuant to this Chapter by the Administrator or the Board shall submit, to the Director of Water Resources, a draft written enforcement policy. Each such enforcement policy need only address those enforcement duties assigned to the implementing agency. Each policy shall address, if included in the delegated duties, guidelines for: the issuance of notices of violation, issuance of cease and desist orders, County stormwater permit administration, abatement, compliance deadlines, filing periods for administrative appeals, and imposition of administrative civil penalties. Enforcement policies shall take into consideration such factors as the nature, circumstances, extent, and gravity of the violation, and the violator's past and present efforts to comply. Upon approval by the Director of Water Resources, the enforcement policy shall be deemed adopted by the implementing agency who shall use such policy to achieve consistent enforcement standards by said implementing agency. Any amendments to an enforcement policy must be submitted to the Director of Water Resources for approval. (SCC 1295 § 20, 2005: SCC 1280 § 2 (part), 2004)

15.12.560 Administrative Civil Penalties.

a. In addition to any other remedies provided by this Chapter, the person may be subject to an administrative civil penalty of up to five thousand dollars ($5,000.00) per day for each violation of this Chapter. In seeking imposition of an administrative civil penalty, the Administrator shall commence the procedure by issuing a notice of administrative civil penalty, which shall be served and proof of service shall be made in the same manner as provided in Section 15.12.530 of this Chapter.
b. The notice of administrative civil penalty shall state that the recipient has a right to a hearing as set forth in Section 15.12.540 of this Chapter.
c. Procedures concerning notice, conduct of the hearing, and service shall be as provided in Section 15.12.540 of this Chapter.
d. Subsections 15.12.560(a), (b), and (c) notwithstanding, the Administrator may establish a schedule of fines which, if adopted by the Board, and as it may be amended from time to time by the Board, shall become appended to this Chapter. The schedule of fines shall define specific violations for which an administrative civil penalty shall apply, and shall assign a specific monetary penalty to be assessed for each violation included in the schedule of fines. When the Administrator has found that such violation has occurred and has issued an appropriate notice or order pursuant to this Chapter, the administrative civil penalty shall be enforceable without further action being required. Any person receiving such a schedule of fines penalty shall be entitled to appeal the Administrator's findings giving rise to such penalty pursuant to the procedure established in Section 15.12.540 of this Chapter. (SCC 1295 § 21, 2005: SCC 1280 § 2 (part), 2004)

15.12.570 Criminal Penalties.

a. Any person who violates any provision of this Chapter, undertakes to conceal any violation of this Chapter, continues any violation of this Chapter after notice thereof, fails to or fails to comply with a specified compliance requirement or a provision of a County stormwater permit, shall be guilty of a misdemeanor and upon conviction thereof be fined not more than one thousand dollars ($1,000.00) or imprisoned for not more than six months in the County Jail, or both.
b. Each day in which a violation occurs and each separate failure to comply with either a separate provision of this Chapter, a notice of violation, a cease and desist order, or failure to comply with specified compliance requirements or a provision of a County stormwater permit, shall constitute a separate violation of this Chapter punishable by fines or sentences in accordance herewith.
c. The Administrator may authorize specifically designated County employees to issue citations for misdemeanor violations of this Chapter pursuant to Penal Code Section 836.5. (SCC 1295 § 22, 2005: SCC 1280 § 2 (part), 2004)

15.12.580 Miscellaneous Enforcement Provisions.

a. Each and every remedy available for the enforcement of this Chapter shall be non-exclusive and it is within the discretion of the Administrator to seek cumulative remedies.
b. The Administrator may request the County to file a civil action in a court of competent jurisdiction seeking an injunction against any threatened or continuing non-compliance with the provisions of this Chapter. Any temporary, preliminary or permanent injunction issued pursuant to this subsection may include an order for reimbursement to the County of all costs incurred in enforcing this Chapter, including, but not limited to, costs of inspection, investigation and monitoring, the costs of abatement undertaken at the expense of the County, costs relating to the restoration of the environment and any other costs or expenses authorized by law.
c. The Administrator may request the County to file an action for civil damages in a court of competent jurisdiction seeking recovery of any of the following:
1. All costs incurred in the enforcement of this Chapter, including, but not limited to, costs relating to investigation, sampling, monitoring, inspection, administrative expenses, all other expenses authorized by law and consequential damages.
2. All costs incurred in mitigating harm to the environment or reducing the threat to human health.
3. Damages for irreparable harm to the environment.
d. The County is authorized to file actions for civil damages resulting from any trespass or nuisance occurring on public property or to the County storm drain system from any violation of this Chapter where such violation has caused damage, contamination or harm to the environment, public property or the County storm drain system.
e. The remedies available to the County pursuant to the provisions of this Chapter shall not limit the right of the County or any law enforcement agency to seek any other legal or equitable remedy that may be available to it.
f. Each day in which a violation occurs and each separate failure to comply with specified compliance requirements or provision of a County stormwater permit, a separate provision of this Chapter, an Administrative enforcement order, or a cease and desist order shall constitute a separate violation of this Chapter punishable by civil, criminal and administrative penalties in accordance with this Chapter. (SCC 1295 § 23, 2005: SCC 1280 § 2 (part), 2004)

Article 6 Recovery of Cost Abatement

15.12.600 Costs of Abatement—Confirmation.

a. When proceedings under this Chapter result in the correction of a violation of this Chapter or in a final determination that a violation exists subsequent to the date specified in any notice issued pursuant to the provisions of this Chapter, the costs of such proceedings incurred by the County may be assessed against the property. Such costs may include, but are not limited to, those incurred in inspecting property, publication, mailing and posting of notices, conducting hearings, processing appeals and pursuing any judicial action. It is the purpose of this section to allow the assessment against property of costs of proceedings if a violation is corrected in any manner.
b. The Administrator shall keep an account of the administrative and other costs of abatement, and shall submit to the Board for confirmation an itemized written report showing such costs and

their proposed assessment to the respective properties. The report shall be filed with the Clerk of the Board not later than fifteen (15) calendar days in advance of the confirmation hearing required below.

c. Upon receipt of the report, the Clerk of the Board shall schedule a public hearing to receive protests and confirm the report. A statement of the proposed assessment and notice of the time, date and place of the hearing, together with reference to the report on file with the Clerk, shall be mailed to the owner or owners of each parcel of property proposed to be assessed shown on the last equalized assessment roll available on the date of mailing of the notice or any other address or addresses ascertained to be more accurate. Such notice shall be mailed not later than fifteen (15) calendar days in advance of the hearing. Notice of the time, date and place of the public hearing by the Board shall be published once in a newspaper of general circulation published with the County.

With respect to each property proposed to be assessed for which the name or the owner or owners is not shown on the last equalized assessment roll or no address for an owner is shown on the last equalized assessment roll, the notice shall show the name or names of the owner or owners, if such name or names are shown on the last equalized assessment roll, the assessor's parcel number, the street address of the property, if the property has an address and the address is known to the Administrator, the name of the street or road upon which such property abuts, if the property abuts upon a street or road, the amount of the proposed assessment and reference to the report on file with the Clerk. Such publication shall be made not later than fifteen (15) calendar days in advance of the hearing.

d. At the time fixed for receiving and considering the report, the Board shall conduct a public hearing and shall receive and consider any objections from members of the general public or property owners liable to be assessed for the abatement. Written protests or objections shall specify the date, hour and description of the subject property under hearing. The Board may continue the hearing and delegate to the Administrator or his designee the responsibility of hearing individual protests and submitting a recommendation with respect thereto; provided that the Board provides an opportunity for individual consideration of each project upon receipt of the recommendation by the Administrator. The Board may modify the report if it is deemed necessary. The Board shall then confirm the report by motion or resolution. (SCC 1280 § 2 (part), 2004)

15.12.610 Costs—Assessments.

a. If the costs as confirmed are not paid within thirty (30) days of the date of mailing of the notice or date of publication pursuant to Section 15.12.600 of this chapter, such costs shall be assessed against the parcel of land pursuant to Section 25845 of the Government Code, and shall be transmitted to the Tax Collector for collection and shall be subject to the same penalties and the same procedures and sale in case of delinquency as provided for ad valorem taxes.

b. If subsequent to the mailing of the notice of violation and prior to transmittal of the notice of unpaid costs to the Tax Collector for collection as set forth in subsection (a) of this section, the property subject to the notice of violation is sold, or title otherwise transferred to a bona fide purchaser, said costs shall be the responsibility of the owner of record as of the date said notice of violation was placed in the United States postal system or posted on the property.

c. In addition to assessing the unpaid costs as provided in subsection (a) of this section, the Tax Collector or his designated representative may pursue any remedy provided by law for collection of the unpaid costs. (SCC 1280 § 2 (part), 2004)

15.12.620 Treble Costs.

Pursuant to Government Code Section 25845.5, upon entry of a second or subsequent civil or criminal judgment within a two year period finding that an owner is responsible for a condition in violation of this Chapter that may be abated pursuant to Government Code Section 25845, a court may order the owner to pay treble the costs of abatement. (SCC 1280 § 2 (part), 2004)

15.12.630 Hearing of Protests.

Upon the day and hour fixed for the hearing, the Board shall hear and pass upon the report of the

Administrator together with any such protests or objections. The Board may make such revision, correction or modification of the report or the charge as it may deem just; and in the event the Board is satisfied with correctness of the charge, the report of the Administrator (as submitted or as revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the Board on the report and the charge and on all objections or protests shall be final and conclusive. (SCC 1280 § 2 (part), 2004)

15.12.640 Assessment for Summary Abatement.

Where the charge to be made is the result of summary abatement pursuant to Section 15.12.550 (d), the Board may determine whether or not the action to abate was proper, and may confirm the charge or not as it may deem proper. (SCC 1295 § 24, 2005: SCC 1280 § 2 (part), 2004)

15.12.650 Time for Contest of Assessment.

The validity of any assessment made under the provisions of this Chapter shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is ordered to be placed upon the assessment roll as provided herein. (SCC 1280 § 2 (part), 2004)

15.12.660 Filing Copy of Report With County Auditor.

A certified copy of the assessment shall be filed with the County Auditor on or before August 1. The descriptions of the parcels reported shall be those used for the same parcels on the map books of the County Assessor for the current year. (SCC 1280 § 2 (part), 2004)

<< previous | next >>

EXHIBIT F

Chapter 2.48 BUILDING AND FIRE CODE ADVISORY AND APPEALS BOARD

2.48.010 Board established.

The city of Sacramento building and fire code advisory and appeals board is hereby established. (Ord. 2006-041 § 3 (part))

2.48.020 Definitions.

As used in this chapter, the following words and phrases shall have the meaning given them in this section, unless the context clearly requires otherwise:

"City" means the city of Sacramento.

"City council" means the city council of the city of Sacramento.

"Board" means the building and fire code advisory and appeals board.

"Mayor" means the mayor of the city of Sacramento. (Ord. 2006-041 § 3 (part))

2.48.030 Powers and duties of board.

A. The board is established for the purpose of determining the suitability of alternate materials and methods of construction and providing reasonable interpretations of the following codes, as they are currently written or as they may be amended in the future:

1. 2001 California Building Code;
2. 2001 California Fire Code.

The board's powers and duties shall extend to any code or codes duly adopted by the California Building Standards Commission that supersedes the 2001 California Building and Fire Codes.

B. The board may approve the use of any material, alternate design or method of construction not specifically prescribed by the applicable codes enumerated in this section, provided the board finds that the proposed design is satisfactory and complies with the provisions of the applicable codes and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the applicable codes in suitability, strength, effectiveness, fire resistance, durability, safety, and sanitation. The board shall require that sufficient evidence or proof be submitted to substantiate any claims that may be made regarding its use.

C. The board shall have no authority relative to interpretation of the administrative provisions of these codes nor shall the board be empowered to waive requirements of these codes. any cost for tests or research required by the board to substantiate the claim of any appellant shall be the sole responsibility of the appellant. (Ord. 2006-041 § 3 (part))

2.48.040 Board membership.

The board shall consist of five members appointed by the mayor with the approval of the city council, subject to the following requirements:

A. One member shall be a real estate developer who has completed at least two projects in California in the five years preceding appointment; each project must have a total valuation in excess of five million dollars ($5,000,000.00);

B. One member shall be a California licensed general building contractor who has been a primary general contractor on construction projects in the City during the two years immediately preceding appointment;

C. One member shall be a California registered architect who has been licensed and has practiced in California for at least three years immediately preceding appointment;

D. One member shall be a California registered structural engineer who has been licensed and has practiced in California for at least three years immediately preceding appointment;

E. One member shall be a California licensed fire protection engineer who has been licensed and has practiced in California for at least three years immediately preceding appointment. (Ord. 2006-041 § 3 (part))

2.48.050 Term of office.

Members of the board shall serve a term of three years. In order to establish staggered terms, the initial appointments of members shall include two members for a one-year term, two members for a two-year term, and one member for a three-year term, as determined by the city clerk based on the drawing of lots. No member shall serve more than two consecutive terms. In the event a vacancy occurs during the term of any member, the mayor shall appoint, with the approval of the city council, a successor to serve the unexpired term, subject to the requirements set forth in Section 2.48.040. A member shall hold office until his or her successor has been appointed. A successor appointed to complete an unexpired term shall be eligible to serve up to two consecutive terms in addition to the unexpired term. (Ord. 2006-041 § 3 (part))

2.48.060 Conflict of interest and financial disclosure statements.

The provisions of Article III of Chapter 2.16 of this code governing conflicts of interest of board and commission members shall apply to members of the board. In addition, all appointees to the board shall be required to file statements disclosing financial interests pursuant to a conflict of interest code adopted for the board. (Ord. 2006-041 § 3 (part))

2.48.070 Chairperson and organization of the board.

At its first meeting, and annually thereafter, the board shall elect a board chairperson and a vice-chairperson, each of whom shall hold office at the pleasure of the board. During any absence of the chairperson from a meeting of the board, the vice-chairperson shall be the acting chairperson until the chairperson returns. When there is a vacancy in the office of chairperson or vice chairperson, the board shall fill that office from among its members. Staff support to the board shall be provided by one or more city employees designated by the city manager. (Ord. 2006-041 § 3 (part))

2.48.080 Board meetings.

The board shall establish a time and place for regular meetings to be held not less than once each month. The meetings shall be noticed and held in accordance with the provisions of the Ralph M. Brown Act (Government Code section 54950 et seq.). The board shall have the authority to notice and hold special meetings in the manner specified by the Ralph M. Brown Act. (Ord. 2006-041 § 3 (part))

2.48.090 Rules and regulations.

The board shall adopt reasonable rules and regulations for conducting its business and shall render all decisions and findings in writing to the appellant with a copy to the building official. (Ord. 2006-041 § 3 (part))

2.48.100 Quorum—Voting.

The quorum required for the board to conduct business shall be three members. The affirmative vote of a majority of the members present and eligible to vote shall be necessary to approve any item. (Ord. 2006-041 § 3 (part))

2.48.110 Review by building official.

A. The building official shall establish policies and procedures that provide for building official review of staff-level decisions regarding the use of any material, alternate design or method of construction not specifically prescribed in the California Building Code or the California Fire Code. These policies and procedures shall require the building official to provide a written decision within ten (10) calendar days of the filing of a completed request for building official review. A copy of the decision shall be delivered to the appellant personally or sent to him or her by certified mail, postage prepaid, return receipt requested. Requests for building official review shall be submitted on a form prescribed by the building official. Any person aggrieved by the building official's decision may appeal therefrom to the board as provided in Section 2.48.120(A).

B. At any time within ten (10) calendar days of the filing of a completed request for building official review, the building official may refer the request to the board for determination. In such a case, a hearing before the board shall be scheduled and conducted as set forth in Section 2.48.130.

C. In the event the building official does not issue a written decision or refer a request to the board within ten (10) calendar days of the filing of a completed request for building official review, the staff-level decision shall become a final decision from which any aggrieved person may appeal to the board as provided in Section 2.48.120(A). The staff-level decision shall be deemed final on the eleventh calendar day following the filing of the completed request for review; provided, however, if the eleventh calendar day falls on a Saturday, Sunday, or legal holiday, the decision shall be deemed made on the next following business day. (Ord. 2006-041 § 3 (part))

2.48.120 Appeals to board.

A. Any person aggrieved by the decision of the building official issued pursuant to Section 2.48.110(A) or a staff-level decision that becomes a final decision pursuant to Section 2.48.110(C) may appeal therefrom to the board at any time within ten (10) calendar days after receiving notice of the building official's decision or after the staff-level decision becomes final pursuant to Section 2.48.110(C). Such an appeal is taken by filing notice of appeal with the building official on a form provided by, and available from, the building official and payment of a fee as established by resolution of the city council. All supporting documents must be submitted with the form at the time the appeal is filed. Upon receipt of any appeal file and the appeal fee pursuant to this section, a hearing before the board shall be scheduled and conducted as set forth in Section 2.48.130.

B. Notwithstanding subsection A of this section, no person shall be allowed to appeal a staff-level decision regarding the use of any material, alternate design or method of construction not specifically prescribed in the California Building Code or the California Fire Code to the board unless (1) the person submitted a completed request for building official review as required by Section 2.48.110(A) and (2) the building official failed to either provide a written decision or refer the request to the board within ten (10) calendar days of the filing of the completed request for review.

C. Failure to properly file a written appeal as required under subsection A of this section will constitute a waiver of all right to an appeal hearing before the board, and the decision of the building official or the staff-level decision will be final. Failure to properly and timely appeal pursuant to subsection A of this section also shall constitute a failure to exhaust administrative remedies and a bar to any judicial action pertaining to the staff-level decision or decision of the building official.

D. Notwithstanding any other provision of this chapter, the board does not have jurisdiction to hear appeals of decisions relating to access for physically handicapped persons to public facilities and accommodations. Any staff-level decision that becomes a final decision pursuant to Section 2.48.110(C) or decision of the building official relating to access for physically handicapped persons to public facilities and accommodations shall be appealed to the joint city/county disabilities appeals board pursuant to Chapter 2.52 of the Sacramento City Code rather than the board. (Ord. 2006-041 § 3 (part))

2.48.130 Hearings.

In the event the building official refers a request to the board pursuant to Section 2.48.110(B), or upon receipt of any appeal filed and the appeal fee pursuant to Section 2.48.120, the building official shall calendar it for hearing as follows:

A. If the building official refers the request to the board, or if the appeal is received by the building official, not later than fifteen (15) calendar days prior to the next regular meeting of the board, it shall be calendared for hearing at said meeting.

B. If the building official refers the request to the board, or if the appeal is received by the building official, on a date less than fifteen (15) calendar days prior to the next regular meeting of the board, it shall be calendared for hearing at the next subsequent meeting of the board.

The building official shall not later than ten (10) calendar days prior to the hearing give notice of the time, place, and subject matter of the hearing to the person filing the appeal and each member of the board. The hearing shall be conducted according to the rules and regulations adopted by the board. The board shall render all decisions and findings in writing. A copy of the decision shall be delivered to the appellant personally or sent to him or her by certified mail, postage prepaid, return receipt requested. (Ord. 2006-041 § 3 (part))

2.48.140 Appeals to city council.

A. Any person aggrieved by the decision rendered by the board in an appeal hearing held pursuant to Section 2.48.130, may appeal the decision to the city council in accordance with Chapter 1.24. The appeal shall be made by filing a written notice thereof with the city clerk not later than ten (10) calendar days after receiving notice of the decision of the board. The city council shall hold a hearing on the appeal and its decision thereon shall be final. Instead of hearing the appeal, the city council may refer the matter to a hearing examiner pursuant to Chapter 1.24, in which case the hearing examiner's decision shall be final.

B. Failure to properly file a written appeal of the decision of the board within ten (10) calendar days of the decision will constitute a waiver of all right to an appeal hearing before the city council, and the board's decision will be final. Failure to properly and timely appeal the board's decision also shall constitute a failure to exhaust administrative remedies and a bar to any judicial action pertaining to the board's decision. (Ord. 2006-041 § 3 (part))

2.48.150 Compensation.

Pursuant to City Charter Section 29, the compensation commission shall establish the compensation members

of the board receive for attending board meetings. (Ord. 2006-041 § 3 (part))

2.48.160 General requirements.

Unless specifically provided otherwise in this chapter, the general requirements set forth in Chapter 2.40 of this code, governing the appointment of board and commission members, attendance at board and commission meetings, voting, term limits and removal, shall apply to the board. A member is subject to removal for good cause, neglect of duty or misconduct as provided in City Charter Section 232. (Ord. 2006-041 § 3 (part))

EXHIBIT G

I. Any condition in violation of the city fire code, set forth in Title 15 of this code;

J. Any condition recognized in law or in equity as constituting a public nuisance;

K. The maintenance of the exterior of any vacant or unoccupied building or the interior of any such building which is readily visible from any public street or adjacent parcel of property in a state of unsightliness so as to constitute a blighted condition detrimental to the property values in the neighborhood or otherwise detrimental to the public welfare;

L. Any condition in violation of Chapter 18.12 of this code (employer transportation systems management for the city of Sacramento);

M. Any unimproved real property which has become a dumping ground for litter, garbage, junk, debris, or discarded vehicles, vehicle parts and/or vehicle hulks, and which real property has been subject to abatement action on one or more occasions by the city;

N. Any illegal activity occurring on the property which is detrimental to the life, health, safety and welfare of the residents, neighbors or public. For purposes of this chapter, illegal activity is defined as any violation of state or federal law, rules or regulations, or local ordinance.

Once proceedings have been commenced pursuant to this title to declare a building or property to be a public nuisance under this subsection, no such building or property shall be deemed to be in compliance with this title solely because such building or property thereafter becomes occupied. (Ord. 2001-046 § 3 (part); Ord. 2000-017 § 5(a), (b); prior code § 61.04.401)

Article V Abatement Generally

8.04.110 Nuisance abatement.

Whenever the department head has inspected or caused to be inspected any premises and has found and determined that such premises are in violation of this code, he or she may commence proceedings to cause abatement of the nuisance as provided herein. (Prior code § 61.05.501)

8.04.120 Commencement of nuisance abatement proceedings—Issuance of notice and order.

To commence nuisance abatement proceedings, the department head shall issue a notice of violation and order to

abate (notice and order) directed to the record owner(s) of the premises. The notice and order shall contain:

A. The street address and/or such other description as is required to identify the premises;

B. A statement specifying the conditions which constitute the nuisance and declaring such conditions to be a public nuisance pursuant to Section 8.04.100 of this chapter;

C. A statement of the action required to be taken to eliminate the public nuisance;

D. A statement ordering the owner to abate the nuisance prior to a set date;

E. A statement advising that any person having any record title or legal interest in the premises may appeal the notice and order provided that the appeal is made in writing as provided in Section 8.04.170 of this chapter;

F. A statement that the appeal request must be in writing and filed with the department head within thirty (30) days of service of the notice and order;

G. A statement that failure to appeal the notice and order will constitute a waiver of all right to an administrative hearing and will be a final determination of the matter;

H. If the city intends to seek attorney's fees pursuant to Section 38773.5 of the Government Code, a

statement that the city intends to seek and recover attorney's fees. (Prior code § 61.05.502)

8.04.130 Fees imposed.

A fee shall be imposed on the owner of any property for which a notice and order is issued pursuant to this section. The fee shall be calculated to recover the total city cost of inspections and enforcement and shall be set by resolution of the city council. An additional fee which shall be set by resolution of the city council shall be imposed on the owner of the property at the conclusion of any matter in which a notice and order has been issued. This termination fee shall be calculated to recover the cost of closing the file, removing or placing liens, and other associated administrative costs. The fees imposed pursuant to this section shall be due and owing regardless of whether the public nuisance is eliminated in response to the notice and order. No fees shall be due and owing if an appeal is filed and the appeal is sustained. All fees shall be a personal obligation of the owner and a lien upon the property and are due and payable within thirty (30) days of issuance of the notice and order or closing of the file respectively; provided that if an appeal is filed, the fees shall be due and payable upon a final decision on the appeal. Any fee not paid within that time shall be collected pursuant to the procedure set forth in Chapter 8.96 of this code. (Prior code § 61.05.503)

8.04.140 Notice and order—Service generally.

The notice and order, and any amended or supplemental notice and order, shall be served upon the record owner and posted on the property; and one copy thereof shall be served on each of the following if known to the department head or disclosed from official public records: the holder of any mortgage or deed of trust or other lien or encumbrance of record; the owner or holder of any lease of record; and the holder of any other estate or legal interest of record in or to the building or the land on which it is located. The failure of the department head to serve any person required herein to be served shall not invalidate any proceedings hereunder as to any other person duly served or relieve any such person from any duty or obligation imposed by the provisions of this section. (Prior code § 61.05.504)

8.04.150 Method of service.

Service of the notice and order may be made upon all persons entitled thereto in the manner described in Section 1.04.100 of this code. Service may be made upon the record owner at his or her or their address as it appears on the latest equalized assessment roll of Sacramento County, or as known to the department head. (Ord. 2006-070 § 2: Ord. 2004-008 § 22; prior code § 61.05.505)

8.04.160 Proof of service of notice and order.

Proof of service of the notice and order shall be certified by written declaration under penalty of perjury executed by the person effecting service, declaring the time, date and manner in which service was made. The declaration, together with any receipt returned in acknowledgment of receipt by certified mail shall be made part of the department's permanent record. (Prior code § 61.05.506)

8.04.170 Appeal.

A. Form of Appeal. Any person having any record title or legal interest in the premises may appeal from any notice and order of the department head under this title by filing at the office of the department head within thirty (30) days from the date of service of such notice and order, a written appeal containing:

1. A brief statement setting forth the legal interest of each of the appellants in the premises involved in the notice and order;

2. A brief statement in ordinary and concise language of the specific order or action protested, together with any material facts claimed to support the contentions of the appellant;

3. A brief statement in ordinary and concise language of the relief sought, and the reasons why it is claimed the protested order or action should be reversed, modified, or otherwise set aside;

4. The signatures of all parties named as appellants and their official mailing addresses, with statements from each appellant that each agrees to accept service of the written notice of the time and place of the appeal hearing and the decision of the hearing examiner at such address;

5. The verification (by declaration under penalty of perjury) of at least one appellant as to the truth of the matters stated in the appeal.

B. Processing of Appeal. Upon receipt of any appeal filed and the appeal fee pursuant to this section, the department head shall transmit said appeal to the secretary of the hearing examiner who shall calendar it for hearing as follows:

1. If the appeal is received by the department head not later than fifteen (15) days prior to the next regular appeal hearing, it shall be calendared for hearing at said meeting.

2. If the appeal is received by the department head on a date less than fifteen (15) days prior to the next appeal hearing, it shall be calendared for the next subsequent appeal hearing.

C. Noticing Appeal for Hearing. Written notice of the time and place of the hearing shall be given at least ten (10) calendar days prior to the date of the hearing to each appellant by the secretary of the hearing examiner either by causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at his or her address shown on the appeal.

D. Appeal Fee. The department may collect and require an appeal fee to be paid at the time the written appeal notice is filed. The appeal fee shall be set by resolution of the city council. The fee shall be calculated to recover the total city costs incurred in the appeal including, but not limited to, staff time to process and handle the appeal, hearing examiner compensation, preparation and service of notices and staff appearance in the appeal hearing. No appeal shall proceed without payment of the fee at the time the appeal is filed provided that the department head may waive or defer the appeal fee upon written request for good cause shown. Good cause may include severe economic hardship, significant attempts to comply with the notice and order, and other factors indicating good faith attempts to comply.

E. Effect of Failure to Appeal. Failure of any person to file a timely appeal in accordance with the provisions of this section shall constitute an irrevocable waiver of the right to an administrative hearing and a final adjudication of the notice and order, or any portion thereof.

F. Only those matters or issues specifically raised by the appellant in the appeal notice shall be considered in the hearing of the appeal.

G. Staying of Order Under Appeal. Enforcement of any notice and order of the department head issued under this title shall be stayed during the pendency of an appeal therefrom which is properly and timely filed. (Prior code § 61.05.507)

8.04.180 Hearings—Generally.

At the time set for hearing, the hearing examiner shall proceed to hear the testimony of the department head, the owner, and other competent persons respecting the condition of the premises, and other relevant facts concerning the matter. (Prior code § 61.05.508)

8.04.190 Record of oral evidence at hearing.

A. The proceedings at the hearing shall be electronically recorded. Either party may provide a certified shorthand reporter to maintain a record of the proceedings at the party's own expense.

B. Preparation of a record of the proceeding shall be governed by California Code of Civil Procedure Section 1094.6, as presently written or hereinafter amended. (Prior code § 61.05.509)

8.04.200 Continuances.

The hearing examiner may, upon request of the owner of the premises or upon request of the department head, grant continuances from time to time for good cause shown, or upon his or her own motion. (Prior code § 61.05.510)

8.04.210 Oaths—Certification.

The hearing examiner or designee shall administer the oath or affirmation. (Prior code § 61.05.511)

8.04.220 Evidence rules.

Government Code of the State of California, Section 11513, subsections (a), (b) and (c), as presently written or hereinafter amended, shall apply to hearings under this title. (Prior code § 61.05.512)

8.04.230 Rights of parties.

A. Each party may represent themselves, or be represented by anyone of their choice.

B. If a party does not proficiently speak or understand the English language, he or she may provide an interpreter, at the party's own cost, to translate for the party. An interpreter shall not have had any involvement in the issues of the case prior to the hearing. (Prior code § 61.05.513)

8.04.240 Official notice.

In reaching a decision, official notice may be taken, either before or after submission of the case for decision, of any fact which may be judicially noticed by the courts of this state or which may appear in any of the official records of the city or any of its departments. (Prior code § 61.05.514)

8.04.250 Inspection of premises.

A. The hearing examiner may inspect the premises involved in the hearing prior to, during or after the hearing, provided that:

1. Notice of such inspection shall be given to the parties before the inspection is made;

2. The parties are given an opportunity to be present during the inspection; and

3. The hearing examiner shall state for the record during the hearing, or file a written statement after the hearing for inclusion in the hearing record, upon completion of the inspection, the material facts observed and the conclusion drawn therefrom.

B. Attorney's Fees. Pursuant to Section 38773.5 of the Government Code, in any proceeding brought to enforce any order, the prevailing party shall be entitled to recover attorney's fees, provided that, pursuant to Section 38773.5, attorney's fees shall only be available in those proceedings in which the city has provided notice at the commencement of such proceedings that it intends to seek and recover attorney's fees. (Ord. 2000-017 § 4(a)(18); prior code § 61.07.702)

8.04.300 Failure to complete work.

A. Whenever the required abatement is not completed within the time so specified in the order, the department head may, in addition to any other remedy herein provided, cause the nuisance to be abated, so as to put the premises in such a condition that no violation of this code exists thereon.

B. The cost of such abatement shall be assessed against the property as a lien or made a personal obligation of the owner thereof as provided in Article VIII of this chapter. (Prior code § 61.07.703)

8.04.310 Extension of date for completion.

A. Upon receipt of an application from the person required to conform to the order by a date fixed in the order, and an agreement by such person that he or she will comply with the order if allowed additional time, the department head may, in his or her discretion, grant an extension of time, not to exceed an additional one hundred twenty (120) days, within which to complete such abatement, if the department head determines that such an extension of time will not create or perpetuate a situation imminently dangerous to life or property.

B. The authority of the department head to extend time is limited to the physical abatement of the nuisance or for such other purposes as may be reasonably required by the circumstances of the case, but such extension will not in any way affect or extend the time to appeal the order. (Prior code § 61.07.704)

8.04.320 Interference with work prohibited.

No person shall obstruct, impede or interfere with any officer, employee, contractor or authorized representative of the city, or with any person who owns or holds any estate or interest in any premises on which a nuisance exists and which must be abated under the provisions of this code, whenever such officer, employee, contractor or authorized representative of the city, or person having an interest or estate in such premises is engaged in the work of abating any nuisance as required by the provisions of this code, or in performing any necessary act preliminary to or incidental to such work authorized or directed pursuant to this code. (Prior code § 61.07.705)

Article VII Summary Abatement

8.04.330 Dangerous condition.

If, in the opinion of the department head, there exists a condition on any premises which is of such a nature as to be imminently dangerous to the public health, safety or welfare, which, if not abated according to the procedures of this code, would, during the pendency of the proceedings, subject the public to potential harm of a serious nature, the same may be abated forthwith without compliance with the provisions of this code. Abatement may include, but is not limited to boarding of windows, doors and other openings to city specifications, removal of junk and debris, and securing the perimeter of the property with fencing, gates or barricades (to prevent further occurrences of the nuisance activity). (Prior code § 61.09.901)

8.04.350 Lien or personal obligation.

The cost of abatement including all administrative

costs of any action taken hereunder shall be assessed against the subject premises as a lien or made a personal obligation to the owner or both a personal obligation and a lien as provided in Article VIII of this chapter. (Prior code § 61.09.903)

8.04.360 Summary abatement of graffiti.

A. The city council finds that proliferation of graffiti, especially gang-related graffiti, presents an imminent danger to the public safety and welfare. Law enforcement officials and other experts agree that immediate removal of gang-related graffiti is necessary to reduce the risk of violent and other criminal activities associated with gangs and gang territories. The presence of graffiti which is not abated immediately encourages the creation of additional graffiti, resulting in neighborhood blight and increased costs of abatement.

B. Notwithstanding the provisions of Section 8.04.340 of this chapter, the department head or his or her designee is authorized to summarily abate gang-related graffiti. The abatement may be undertaken by city staff or by outside contractors.

For purposes of this section only, "gang-related graffiti" shall be defined as graffiti, as that term is defined in Section 8.24.020 of this title, which is placed on private or public property by either of the following: (1) a criminal street gang as that term is defined by Penal Code Section 186.22; or (2) any ongoing organization, association, or group of three or more persons, whether formal or informal, having as one of its primary activities the commission of graffiti activity, which has a common name(s) or common identifying sign(s) or symbol(s), and whose members individually or collectively engage in or have engaged in a pattern of graffiti activity.

C. The expense of abatement may be assessed against a minor responsible for creating the graffiti nuisance and the parents or guardians who have custody and control of the minor, or any other person responsible for creating the graffiti nuisance, pursuant to the procedures in Chapter 8.24 of this title. (Ord. 2000-041 § 4: Ord. 97-073 § 1: prior code § 61.09.904)

Article VIII. Recovery of Cost of Abatement

8.04.370 Property owner's liability for cost of abatement.

Every owner of property within the city is liable to the city for the cost of abatement of a public nuisance located on his or her premises conducted pursuant to Article VI of this chapter. (Prior code § 61.10.1000)

8.04.380 Account of expense—Filing of report—Contents.

A. The department head shall keep an itemized account of the expense incurred by the city in abating nuisances under the provisions of this code including all administrative costs. Upon the completion of the work of abatement, such department head shall prepare and file with the city clerk a report specifying the work done, the itemized and total cost of the work, a description of the real property at which the work was performed, and the names and addresses of the persons entitled to notice pursuant to Section 8.04.150 of this chapter.

B. The department head shall cause notice to be given to the Department of Motor Vehicles within five days after the date of removal identifying the vehicle(s) or parts thereof and any evidence of registration

available, including, but not limited to, registration certificates or title or license plates.

C. In the event the hearing examiner finds, pursuant to sworn statement of the owner of any premises or otherwise, that a vehicle which is ordered abated was placed on the premises without the consent of the owner, who did not later acquiesce to its presence on such premises, then the hearing examiner shall certify the finding to the department head, who shall not allocate the cost of the removal of such vehicle to the owner of the premises in the report filed with the city clerk. (Prior code § 61.10.1001)

8.04.390 Report transmitted to delinquency lien hearing officer.

Upon receipt of the report prepared pursuant to Section 8.04.380 of this chapter, the city clerk shall transmit it to a delinquency lien hearing officer appointed by the city manager for consideration. The delinquency lien hearing officer shall fix a schedule for hearing the report, and any protests or objections thereto. The department head shall cause notice of the hearing scheduled before the delinquency lien hearing officer to be mailed at least thirty (30) days prior to the date of the scheduled hearing to the address of the owner as shown on the last equalized assessment roll or such other address of the owner as may be known to the department head. The notice shall state that all protests or objections shall be filed in accordance with section 8.04.400 of this chapter. (Ord. 2006-071 § 1: prior code § 61.10.1002)

8.04.400 Making of protests and objections.

Any owner of affected property may file a written protest or objection with the Code Enforcement Department at least ten (10) days before the date specified in the notice given pursuant to Section 8.04.390 of this chapter. Each written protest or objection must contain a description of the property and the grounds of the protest or objection. The Code Enforcement Department shall endorse on every such protest or objection the date it was received. The Code Enforcement Department shall present such protests or objections to the delinquency lien hearing officer at the time set for the hearing, and no other protests or objections shall be considered. Any protests or objections not filed in writing at least ten (10) days prior to the date set for the hearing, and for which City staff is not prepared to address, shall be continued to the date of a future hearing for consideration by the delinquency lien hearing officer. (Ord. 2006-071 § 2: prior code § 61.10.1003)

8.04.410 Hearing of protests.

Upon the day and hour fixed for the hearing the delinquency lien hearing officer shall hear and pass upon the report of the department head together with any such protests or objections. The delinquency lien hearing officer shall follow, as nearly as practicable, those procedures that the city council would have followed if it had conducted the hearing. The delinquency lien hearing officer may make such revision, correction or modification of the report or the charge as he or she may deem just, and shall submit the report to the city clerk to be transmitted to the city council. The city clerk shall also send the results of the hearing to the objecting owners by first class mail, and shall include the date and time of the public hearing to be held by the city council in accordance with Section 8.04.430(A) of this chapter. The decision of the delinquency lien hearing officer on the report and on all objections or protests shall be final and conclusive. (Prior code § 61.10.1004)

8.04.420 Nature of protests to be heard.

A. Except as provided in subsection B of this section, the protests heard by the delinquency lien hearing officer pursuant to Section 8.04.410 of this chapter shall relate only to the charge to be made for abatement, and no protest concerning the action of the department head or the hearing examiner in ordering the abatement of the

nuisance shall be heard at this time.

B. Where the charge to be made is the result of summary abatement pursuant to Section 8.04.330 of this chapter, the delinquency lien hearing officer may determine whether or not the action to abate was proper, and may modify the charge or not as he or she may deem proper. (Prior code § 61.10.1005)

8.04.430 Personal obligation, lien, or special assessment.

A. Upon receipt of the delinquency lien hearing officer's report, the city council shall schedule a public hearing at which it shall confirm, reject or modify the report and determine the costs of abatement. The public hearing shall be limited to the issue of whether the hearing before the delinquency lien hearing officer was conducted in accordance with applicable city ordinances. Only those owners who file an objection or protest and appear before the delinquency lien hearing officer shall be permitted to protest at the city council hearing.

B. Upon taking action under subsection A, the city council may order that the costs of abatement be made a personal obligation of the property owner and either a nuisance abatement lien or a special assessment against the property.

C. If an action or proceeding is commenced to recover the costs, the prevailing party shall be entitled to recover reasonable attorneys' fees, provided that, pursuant to California Government Code section 38773.5, attorneys' fees shall only be available where the city has elected, at the commencement of such action or proceeding, to seek recovery of its own attorneys' fees. In no action or proceeding shall an award of attorneys' fees to a prevailing party exceed the amount of reasonable attorneys' fees incurred by the city in the action or proceeding.

D. A nuisance abatement lien may be recorded and enforced against the property pursuant to the provisions of California Government Code section 38773.1. A nuisance abatement lien may be foreclosed by an action brought by the city for a money judgment. As part of the foreclosure action, the city may recover reasonable attorneys' fees and costs including, but not limited to, costs incurred for processing and recording the lien and providing notice to the property owner.

E. As an alternative to a nuisance abatement lien, the costs of abatement may be made a special assessment against the property. The special assessment may be collected at the same time and in the same manner as ordinary municipal taxes and shall be subject to the same penalties and procedures, including the sale of the property in case of delinquency, as provided for ordinary municipal taxes. The special assessment shall continue until the assessment and all interest and penalties due and payable thereon have been paid. All laws applicable to the levy, collection and enforcement of municipal taxes shall be applicable to the special assessment. (Ord. 2006-047 § 1: prior code § 61.10.1006)

8.04.440 Time for contest of assessment.

The validity of any assessment made under the provisions of this chapter shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is confirmed by the city council. (Ord. 2000-017 § 4(a)(19); prior code § 61.10.1007)

8.04.450 Filing copy of report with county auditor.

A certified copy of the assessment shall be filed with the county auditor on or before August 1st. The descriptions of the parcels reported shall be those used for the same parcels on the map books of the county assessor for the current year. (Prior code § 61.10.1008)

City Clerk's Copy

COUNTY OF SACRAMENTO AGREEMENT NO. # _____

AGREEMENT

THIS AGREEMENT is made and entered into as of this 4th day of December, 2003, between the COUNTY OF SACRAMENTO, a political subdivision of the State of California, hereinafter referred to as "COUNTY", and the CITY OF SACRAMENTO, a charter municipal corporation (hereinafter referred to as "CITY").

RECITALS

WHEREAS, in 1987 Congress amended Section 402 of the Federal Clean Water Act to require the United States Environmental Protection Agency ("EPA") to promulgate regulations for permits for stormwater discharges; and

WHEREAS, the regulations are designed to control pollutants associated with stormwater discharges through the use of the National Pollutant Discharge Elimination System ("NPDES") permit system which allows the lawful discharge of stormwater into the waters of the United States; and

WHEREAS, the EPA has delegated to the State of California the authority to issue NPDES permits; and

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the California State Water Resources Control Board with the responsibility to issue NPDES permits within the Central Valley Region; and

WHEREAS, on December 6, 2002, the Regional Board adopted a NPDES stormwater permit No. CAS0082597, Order No. R5-2002-0206, (hereinafter referred to as "Permit") for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento (PERMITTEES); and

WHEREAS, the PERMITTEES must comply with the Permit, its successor Permit, and other stormwater compliance documents subject to modification by the Regional Board; and

WHEREAS, the CITY is responsible for overseeing regulatory compliance with the Permit for areas within it jurisdiction; and

WHEREAS, the CITY has adopted a Stormwater Ordinance set forth at Chapter 13.16 of the Sacramento City Code to prohibit the discharge of pollutants to the CITY's municipal stormwater conveyance system; and

CITY
AGREEMENT NO. 2003-221

City Clerk's Copy

CITY
AGREEMENT NO. 2003-221

WHEREAS, Provision C.9 of the Permit includes the requirement to track, inspect and ensure compliance with the Stormwater Ordinance at industrial and commercial facilities; and

WHEREAS, COUNTY Environmental Management Department, as both the State designated Certified Unified Program Agency (CUPA) and Environmental Health Agency for Sacramento County, is currently tracking, conducting inspections and otherwise regulating, pursuant to Chapter 6.11, Division 20 and Chapter 4, Division 104 of the Health and Safety Code, the majority of the commercial and industrial facilities that are subject to compliance with the Stormwater Ordinance; and

WHEREAS, CITY has determined that the cost to track, inspect and ensure stormwater compliance at commercial and industrial facilities is such that it would be more economical, feasible, and of greater benefit to the regulated business community to utilize the services of COUNTY to fulfill the commercial/industrial stormwater program requirements of the Permit; and

WHEREAS, Article 11, section 8 of the California Constitution provides that a county may agree with a city within its borders to performed specified municipal functions, if provided by their respective charters, and the City and County Charters allow the City Council and the Board of Supervisors, respectively, to enter into agreements for the performance of municipal functions by the County; and

WHEREAS, to the extent that amendments to the CITY's Stormwater Ordinance are needed to authorize COUNTY to administer and enforce the Stormwater Ordinance for such commercial and industrial facilities, CITY staff intends to develop and recommend such amendments to the City Council; and

WHEREAS, COUNTY and CITY desire to enter into this Agreement on the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises hereinafter set forth, the parties hereto agree as follows:

I. SCOPE OF SERVICES

COUNTY shall provide services in the amount, type and manner described in Exhibit "A", which is attached hereto and incorporated herein.

CITY shall provide services in the amount, type and manner described in Exhibit "B", which is attached hereto and incorporated herein.

CITY
AGREEMENT NO. 2003-221

II. COST SHARE

Each party shall be responsible for the costs of implementing their respective services as described in Exhibits "A" and "B".

III. TERM

This Agreement shall be effective and commence as of the date first written above and shall end on June 30, 2010, unless sooner terminated as provided herein.

IV. NOTICE

Any notice, demand, request, consent, or approval that either party hereto may or is required to give the other pursuant to this Agreement shall be in writing and shall be either personally delivered or sent by certified mail-return receipt requested, addressed as follows:

TO COUNTY	TO CITY
DIRECTOR Sacramento County Environmental Management Department 8475 Jackson Road, Suite 230 Sacramento, CA 95826	Director of Utilities Department of Utilities City of Sacramento 1395 35th Avenue Sacramento, CA 95822

Either party may change the address to which subsequent notice and/or other communications can be sent by giving written notice designating a change of address to the other party, which shall be effective upon receipt. Notice shall be deemed effective on the date of receipt.

V. COMPLIANCE WITH LAWS

CITY and COUNTY and their respective officers and employees shall observe and comply with all applicable Federal, State, County and City laws, regulations and ordinances, including but not limited to laws, regulations and ordinances governing conflict of interest.

VI. EMPLOYMENT STATUS OF PERSONNEL

1. Any persons employed by COUNTY for the performance of services pursuant to this Agreement shall remain employees of COUNTY, shall at all times be under the direction and control of the COUNTY, and shall not be considered employees of the CITY. All persons employed

CITY AGREEMENT NO. 2003-221

by the COUNTY to perform services pursuant to this Agreement shall be entitled solely to the rights and privileges afforded to COUNTY employees and shall not be entitled, as a result of providing services hereunder, to any additional rights or privileges that may be afforded to CITY employees.

2. For the purpose of performing the services provided for in this Agreement, and for the purpose of giving official status to the performance thereof where necessary, every COUNTY officer and employee engaged in the performance of any service hereunder shall be deemed to be an agent of the CITY while performing such services for CITY, provided that such services are within the scope of this Agreement, are purely municipal functions and are performed as authorized by the Sacramento City Code. Notwithstanding the agency relationship established by this subsection, the CITY shall not be liable for any act or omission of any COUNTY officer or employee.

3. CITY shall not be liable for the payment of any salaries, wages, compensation or other benefits to any COUNTY employee performing services pursuant to this Agreement, or for compensation or indemnity to any COUNTY employee for injury or sickness arising out of his or her employment with the COUNTY and providing services pursuant to this Agreement.

4. COUNTY hereby indemnifies and holds CITY harmless from any and all claims that may be made against CITY based on any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

VII. SHARE OF LIABILITIES

Notwithstanding any provision hereof to the contrary, if the Regional Board or other regulatory agency imposes penalties on the CITY, or any third party files a lawsuit against the CITY, based on any violation of the Permit by CITY, and such violation is related to any activities performed by either party under this Agreement, each party shall be responsible for the costs of such penalties or third party lawsuits to the extent that such penalties or lawsuits arise from activities performed or required to be performed by that party, its officers, directors, agents, employees, and volunteers, under this Agreement.

VIII. INDEMNIFICATION

City shall defend, indemnify and hold harmless County, its Board of Supervisors, officers, directors, agents, employees and volunteers from and against all demands, claims, actions, liabilities, losses, damages, and costs, including reasonable attorneys' fees, arising out of or resulting from the

CITY AGREEMENT NO. 2003-221

performance of the Agreement, caused in whole or in part by the negligent or intentional acts or omissions of City officers, directors, agents, and employees (including its volunteers and students).

County shall defend, indemnify, and hold harmless City, its City Council, officers, directors, agents, employees, and volunteers from and against all demands, claims, actions, liabilities, losses, damages and costs, including reasonable attorneys' fees, arising out of or resulting from the performance of the Agreement, caused in whole or in part by the negligent or intentional acts or omissions of County's Board of Supervisors, officers, directors, agents, and employees (including its volunteers and students).

It is the intention of County and City that the provisions of this paragraph be interpreted to impose on each party responsibility to the other for the acts and omissions of their respective officers, directors, agents, employees, volunteers and students, County's Board of Supervisors, and City's City Council. It is also the intention of County and City that, where comparative fault is determined to have been contributory, principles of comparative fault will be followed and each party shall bear the proportionate cost of any damage attributable to the fault of that party, its officers, directors, agents, employees, volunteers and students, County's Board of Supervisors and City's City Council.

IX. SUBCONTRACTS, ASSIGNMENT

1. Any subcontracting will be subject to all applicable provisions of this Agreement. Subcontracting services delivered under this Agreement shall not in any way relieve COUNTY of any duty or responsibility under this Agreement and COUNTY shall remain primarily obligated for the performance of all services.

2. This Agreement is not assignable by COUNTY in whole or in part, without the prior written consent of CITY.

X. AMENDMENT AND WAIVER

Except as provided herein, no alteration, amendment, variation, or waiver of the terms of this Agreement shall be valid unless made in writing and signed by both parties. Waiver by either party of any default, breach or condition precedent shall not be construed as a waiver of any other default, breach or condition precedent, or any other right hereunder.

XI. INTERPRETATION

This Agreement shall be deemed to have been prepared equally by both of the parties, and the Agreement and its individual provisions shall not be

CITY AGREEMENT NO. 2003-221

construed or interpreted more favorably for one party on the basis that the other party prepared it.

XII. TERMINATION

Either party may terminate this Agreement upon one hundred and eighty (180) days written notice to the other party. Notice shall be deemed served on the date of mailing.

XIII. PRIOR AGREEMENTS

This Agreement constitutes the entire contract between COUNTY and CITY regarding the subject matter of this Agreement. Any prior agreements, whether oral or written, between COUNTY and CITY regarding the subject matter of this Agreement are hereby terminated effective immediately upon full execution of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first written above.

COUNTY OF SACRAMENTO, a political subdivision of the State of California

By: _____ Date: 11-19-03

Director
Environmental Management Department

Reviewed and approved by County Counsel:

_____ Date: 11-19-03

Deputy County Counsel

COUNTY OF SACRAMENTO AGREEMENT NO. _____

CITY AGREEMENT NO. 2003-221

CITY OF SACRAMENTO,
a charter municipal corporation

By: _____ Tom Lee, Deputy City Manager — Date: 11-25-03

For: Robert Thomas
City Manager

Attest: _____ City Clerk — Date: _____

Approved as to form:

_____ City Attorney — Date: 11-19-03

2003-221
CITY AGREEMENT NO. _____

EXHIBIT A to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
the CITY OF SACRAMENTO, hereafter referred to as "CITY"

I. SCOPE OF SERVICES

COUNTY DESCRIPTION OF SERVICES

COUNTY will work within a cooperative relationship with CITY and provide the following services:

1. Administer and enforce CITY's Stormwater Ordinance with respect to commercial and industrial facilities within the CITY.

A. COUNTY will administer and enforce CITY's Stormwater Ordinance with respect to commercial and industrial facilities within the incorporated CITY area, to the extent that COUNTY administration and enforcement is authorized by the Stormwater Ordinance or any amendments thereto adopted by the Sacramento City Council.

2. Provide inspections at commercial and industrial facilities within the incorporated CITY area as required by California Regional Water Quality Control Board Order # R5-2002-0206 (Permit) consistent with applicable provisions of the Stormwater Ordinance.

A. COUNTY will complete a stormwater compliance inspection at each eligible commercial and industrial facility at least once every three years.

B. COUNTY will, in coordination with CITY, develop inspection form(s) to be used by COUNTY personnel.

C. COUNTY will develop protocols to complete required area survey activities to ensure that new facilities are incorporated into the stormwater inspection and enforcement program and will provide, at a minimum, annual updates of database.

D. COUNTY will distribute at the time of inspection any educational materials provided by CITY for such distribution.

2003-221
CITY
AGREEMENT NO.

3. Provide follow-up inspection and progressive enforcement protocols, including a written enforcement policy, consistent with the requirements of the Permit and applicable provisions of the Stormwater Ordinance.

A. In coordination with CITY, COUNTY will develop and, as needed, modify those protocols, to ensure compliance with the Permit

B. COUNTY will provide enforcement assistance, as requested, by the Regional Board.

4. Provide a funding mechanism for commercial and industrial facility stormwater compliance inspection program.

A. COUNTY will quantify necessary COUNTY resources required to achieve compliance with the Permit as it applies to inspection, enforcement, and other related activities for commercial and industrial facilities.

B. COUNTY will develop and present to the Sacramento County Board of Supervisors a proposed resolution and/or ordinance that authorizes COUNTY to recover program costs resulting from the expenditure of resources required for program implementation. Such a resolution and/or ordinance will include a fee schedule detailing annual fees for all facilities included in the commercial and industrial stormwater compliance program.

5. Provide support for presentations before the Sacramento City Council and other groups or individuals.

If requested, COUNTY will assist in the presentation of stormwater related issues before the City Council and any other groups or individuals.

6. Provide Adequate Industry Notification.

COUNTY, along with CITY, will conduct workshops and other outreach efforts to inform the regulated community of pending fee and significant compliance issues.

7. Provide for additional staff and training.

A. COUNTY will develop a work plan documenting additional staff required for the commercial and industrial stormwater compliance program implementation.

B. COUNTY will arrange for and secure needed staff training.

CITY AGREEMENT NO. 2003-221

8. Develop adequate record-keeping and notification system.

A. COUNTY will review record keeping and notification requirements required by the Permit and incorporate these requirements into its existing record keeping and outside agency reporting protocols.

B. COUNTY will make the necessary additions and/or adjustments to its existing database to comply with data management requirements contained in the Permit.

9. Appointment of a Senior Level Manager as liaison to CITY for coordination with the commercial and industrial stormwater compliance program.

COUNTY will designate a senior level position to oversee all stormwater program activities and act as the primary liaison with CITY.

10. Provide for complaint response.

A. COUNTY will develop a methodology that outlines how complaints should be categorized and the appropriate level of response that is required in response to complaints for those industries within COUNTY's inspection jurisdiction.

B. COUNTY, along with CITY, will work directly with the Regional Board to develop and modify this proposed methodology, as needed, to ensure Permit compliance.

11. Provide for reporting and documentation.

Not later than August 1st of each year, COUNTY will provide CITY any inspection/enforcement/complaint data or documentation needed by CITY to achieve compliance with reporting requirements contained in the Permit. This will include at a minimum:

- Number of businesses/facilities inspected
- Number of enforcement actions taken, including the amount of fines or monies assessed and collected
- Number of complaints referred to COUNTY by the Regional Board
- Total number of complaint responses by COUNTY
- Enforcement assistance provided to the Regional Board
- Inspection or complaint response records for specific facilities requested by CITY on an as needed basis.

CITY AGREEMENT NO. 2003-221

12. Provide for progress evaluation.

A. COUNTY and CITY shall meet on a quarterly basis for program updates and coordination purposes. COUNTY and CITY will meet semi-annually to evaluate program effectiveness.

B. As with its other regulatory programs, COUNTY will prepare required records or documentation relating to the storm water program for the purpose of a financial review or analysis by the City of Sacramento and County Auditor(s).

CITY
AGREEMENT NO. 2003-221

EXHIBIT B to Agreement
between the COUNTY OF SACRAMENTO,
hereafter referred to as "COUNTY," and
the CITY OF SACRAMENTO, hereafter referred to as "CITY"

I. CITY DESCRIPTION OF SERVICES

Consistent with applicable provisions of the Sacramento City Charter and City Code, CITY will work within a cooperative relationship with COUNTY and provide the following services:

1. Assist in the specification of the commercial and industrial facilities to be inspected, as defined by California Regional Water Quality Control Board Order # R5-2002-0206 (Permit).

CITY will work with COUNTY to develop an inclusive inventory of commercial and industrial facilities that are subject to inspections, enforcement, and other associated activities, as defined by the Permit.

2. Provide support for presentations before the Sacramento County Board of Supervisors and other groups or individuals.

If requested by COUNTY, CITY will assist in the presentation of stormwater related issues before the Board of Supervisors and any other groups or individuals.

3. Modification of Local Storm Water Ordinance.

CITY staff will develop and present to the City Council proposed amendments to CITY's existing Stormwater Ordinance to include authorization for COUNTY to implement the storm water compliance program for commercial and industrial facilities. If approved by the City Council, such amendments shall to the extent necessary authorize COUNTY to:

- Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated CITY area.
- Take any necessary enforcement actions as authorized by the City Code and consistent with a CITY approved enforcement plan.
- Investigate and follow-up referred complaints at eligible facilities.
- Establish and collect fees necessary to recover program implementation costs.

CITY AGREEMENT NO. 2003-221

4. Provide Adequate Industry Notification.

CITY will develop initial industry notification and educational materials and, when requested by the COUNTY, will participate with County in workshops and other outreach efforts to inform the regulated community of pending fee and significant compliance issues.

5. Assist in staff training.

If requested by COUNTY, CITY will provide assistance in developing staff training modules and materials. CITY will also assist, if requested, in the development of a work plan documenting additional staff required for the implementation of the commercial and industrial stormwater compliance program.

6. Appointment of a Senior Level Manager, or a Senior Level Manager's designated representative, as liaison to COUNTY for coordination with the commercial and industrial stormwater compliance program.

CITY will appoint a senior level manager or identify a senior level manager designee to oversee the commercial and industrial facility stormwater program activities and act as the primary liaison with COUNTY.

7. Provide for complaint response.

CITY will be responsible for complaint response for those industries in the CITY that are not specified by the Permit or the Regional Board to be included in the commercial and industrial inspection program.

8. Reporting and documentation requirements.

CITY will work with COUNTY to develop specific report format(s) including necessary data elements needed to comply with reporting requirements contained in the Permit.

9. Other Additional Services.

CITY shall develop and provide to COUNTY, educational outreach materials to be distributed during commercial and industrial inspections.

RESOLUTION NO. 2003-856

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF DEC 0 9 2003

RESOLUTION AUTHORIZING COOPERATIVE AGREEMENT BETWEEN CITY OF SACRAMENTO AND COUNTY OF SACRAMENTO FOR PERFORMANCE OF STORM WATER ORDINANCE COMPLIANCE INSPECTIONS AT INDUSTRIAL AND COMMERCIAL FACILITIES

BE IT RESOLVED BY THE SACRAMENTO CITY COUNCIL THAT:

WHEREAS, the EPA has delegated to the State of California the authority to issue NPDES permits; and

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region ("Regional Board") has been charged by the California State Water Resources Control Board with the responsibility to issue NPDES permits within the Central Valley Region; and

WHEREAS, on December 6, 2002, the Regional Board adopted a NPDES stormwater permit No. CAS0082597, Order No. R5-2002-0206 (Permit) for the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Sacramento (Permittees); and

WHEREAS, the Permittees must comply with the Permit, its successor Permit, and other stormwater compliance documents subject to modification by the Regional Board; and

WHEREAS, the City of Sacramento (Sacramento) is responsible for overseeing regulatory compliance with the Permit for areas within its jurisdiction; and

WHEREAS, Sacramento and Sacramento County(County) wish to jointly participate in conducting storm water inspections at industrial and commercial facilities for the purpose of complying with the Permit; and

WHEREAS, a cooperative effort between Sacramento and County would be beneficial to the region by strengthening regional partnerships to enhance the quality of life.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2003-856

DATE ADOPTED: DEC 0 9 2003

NOW, THEREFORE, BE IT RESOLVED BY THE SACRAMENTO CITY COUNCIL THAT:

The City Manager is hereby authorized to enter into a Cooperative Agreement with the County of Sacramento for the performance of storm water inspections at industrial and commercial facilities located in the City that are specified within the Permit.

HEATHER FARGO

MAYOR

ATTEST:

VIRGINIA HENRY

CITY CLERK

CERTIFIED AS TRUE COPY
OF Resolution #2003-856
1-8-04
DATE CERTIFIED
D. Concolino
CITY CLERK, CITY OF SACRAMENTO

FOR CITY CLERK USE ONLY

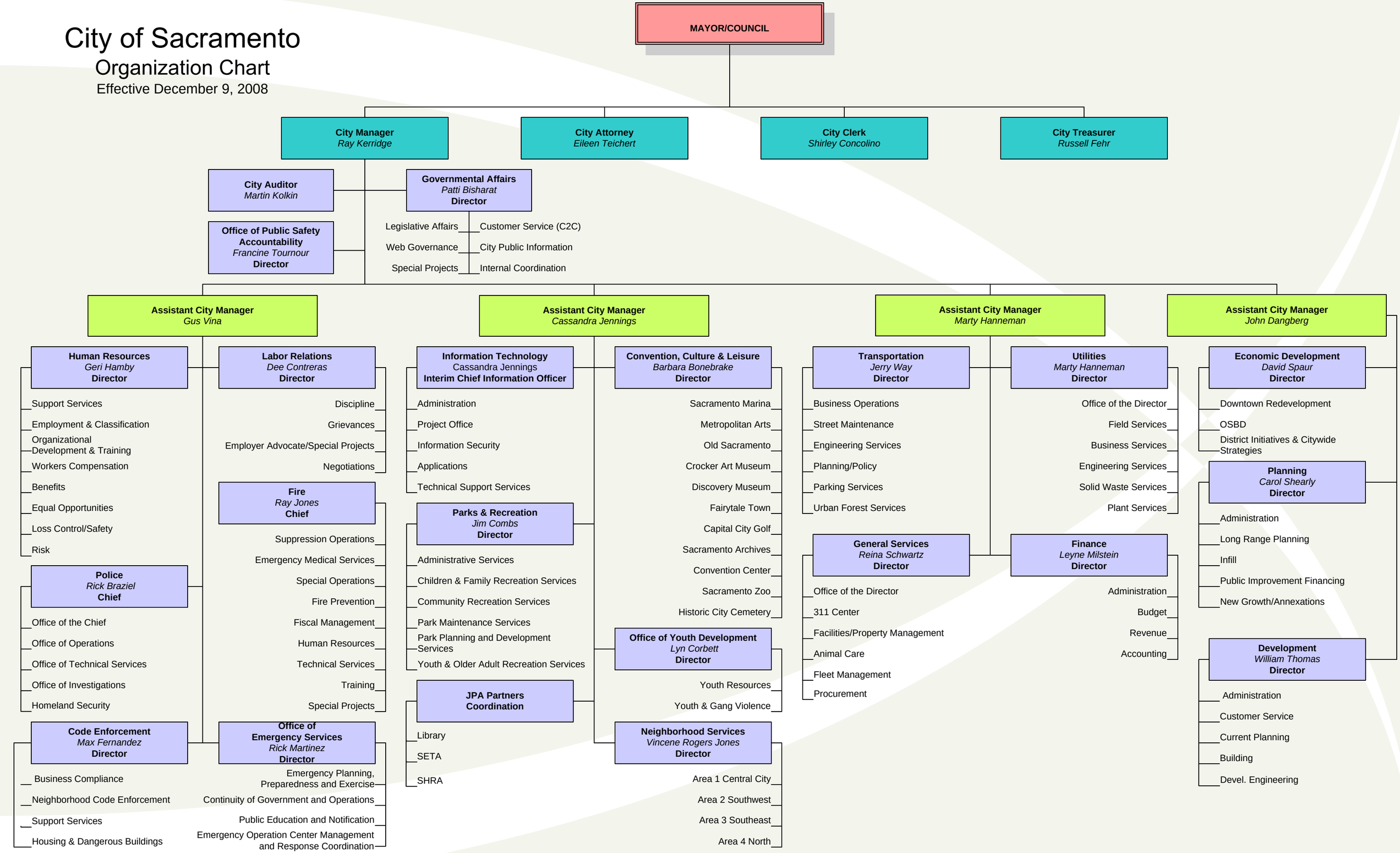
RESOLUTION NO.: 2003-856

DATE ADOPTED: DEC 0 9 2003

City of Sacramento

Organization Chart

Effective December 9, 2008



Section 16

WATER QUALITY CONTROL

16-1 GROUND WATER DISCHARGES

Contractor shall be responsible for the control, removal, and disposal of any groundwater that may be encountered in the course of excavating and backfilling trenches, placing pipe, or constructing any other improvements associated with the project. Unless approved in writing by the Engineer, groundwater and/or water from trench dewatering shall be free of sediment and other construction materials before entering the City sewer or storm drain system. A dewatering plan, including a water de-sedimentation plan, shall be submitted to the Engineer for approval prior to any pumping or discharging of water to the City storm drain system.

Issues which require the regulation of groundwater discharges include: influence on existing or unknown contaminate plumes, exceeding sewer and drainage capacity, excessive demands on facility infrastructure, pumping costs, and maintenance worker safety.

It is the responsibility of the contractor to verify that groundwater is free of contamination through a regular monitoring program.

All Groundwater discharges within the City of Sacramento must be arranged through the Water Quality Section of the Department of Utilities, (916)808-1400, 1395 35th Avenue, Sacramento CA 95822.

DISCHARGE TO SEWER SYSTEM

If 25,000 gallons of water per day, or more, is discharged to the City's Combined Sewer/Stormwater System, or Separate Sewer System, Contractor will be required to obtain a discharge permit from the Sacramento County Regional Sanitation District Industrial Waste Section (916-875-6470). The City will reimburse Contractor for fees paid to the County to obtain a discharge permit, but Contractor shall be responsible to pay any fines levied if Contractor does not comply with the permit requirements. Discharges of 25,000 gallons of water, or more, also require a Memorandum of Understanding (MOU) with the City of Sacramento. See www.sacstormwater .org for MOU language. Fees will be waived for City sponsored projects. Contractor should allow 2-3 weeks for MOU process.

All new groundwater discharges to the City of Sacramento's combined or Separated Sewers must be regulated and monitored by the Department of

Utilities (refer City Council Resolution #92-439) Groundwater discharges to the City's sewer system are defined as follows:

1. Construction dewatering discharges
2. Treated or untreated contaminated groundwater cleanup discharges
3. Uncontaminated groundwater discharges

Currently, two types of groundwater discharges to the combined and separate sewer system are recognized by the Department of Utilities, which are: limited discharges and long-term discharges. These types of discharges are described as follows:

1. "Limited discharges"

Limited discharges are short groundwater discharges of 7-days duration or less and must be approved through the Department of Utilities by an acceptance letter.

2. "Long-term discharges"

Long term discharges are groundwater discharges of greater duration than 7-days. Long-term discharges must be approved through the Department of Utilities and the City Clerk through the MOU process.

DISCHARGES TO THE STORM DRAINAGE SYSTEM

Any groundwater discharges to the separate storm drainage system must be secured with an individual National Pollutant Discharge Elimination System (NPDES) permit from the California Regional Water Quality Control Board (Water Board) and an MOU from the City. The NPDES permit must be received prior to the City issuing an MOU to discharge to the City's storm drainage system.

If discharge is either four months or less in duration or the average dry weather discharge does not exceed 0.25 MGD, then the discharge can be covered under the General NPDES Permit for Dewatering and other Low Threat Discharges to Surface Waters. A Notice of Intent and filling fee must be filed with the Water Board for each project. Receiving water limitations are included in the permit.

16-2 WATER QUALITY CONTROL

These requirements consist of regulations contained in the National Pollution Discharge Elimination System (NPDES) Municipal Stormwater Permit issued to the City.

Contractor shall comply with all City and County of Sacramento air pollution control rules, regulations, ordinances, and statutes which apply to any work performed pursuant to the contract, including any air pollution control rules, regulations, ordinances, and statutes, specified in the Government Code. Contractor shall be responsible for the control of dust within the limits of the project at all times including weekends and holidays in addition to normal working days. Contractor shall take whatever steps are necessary or required by the Engineer to eliminate the nuisance of blowing dust without causing sediment, debris or litter to enter the City storm drain system.

16-3 EROSION, SEDIMENT, AND POLLUTION CONTROL

Contractor shall be responsible for controlling erosion and sedimentation within the limits of the project at all times during the course of construction including evenings, weekends and holidays in addition to normal working days. Contractor shall prevent sediment and construction debris from entering the City storm drain system.

Contractor shall provide the following erosion, sediment, and pollution control Best Management Practices (BMPs) when and where applicable:

Contractor shall place Filter Bags in and Gravel bags around any storm drain inlets which receive runoff from the limits of the construction zone, including storage and staging areas. Alternative storm drain inlet protection BMPs may be used with approval of the Engineer. (See Section 38, drawings Q-20 and Q-30)

Contractor shall cover piles of material and/or place gravel berms (or approved equal) around material piles as required to prevent migration of material to gutters or storm drains.

Contractor shall keep gutter flowlines unimpeded and free of soil, debris and construction materials at all times.

Contractor shall stabilized construction entrance at any soil to concrete/asphalt interface used by Contractor vehicles and equipment in accordance with Section 38, drawing Q-10.

Contractor shall place silt fences, fiber rolls or approved equal at any soil to concrete/asphalt interface at which soil may be washed onto the concrete/asphalt in accordance with Section 38, drawings Q-40 and Q-50.

Wash water, slurry and sediment from concrete or asphalt saw-cutting operations shall not be allowed to enter the City storm drain system, but

instead must be collected and disposed of, by Contractor, in a manner approved by the Engineer.

Contractor is required to implement, at a minimum, the following housekeeping practices:

Site Cleanup:

Contractor shall be responsible for the control of dust, mud and debris resulting from Contractor's operations within the limits of the project at all times including weekends and holidays in addition to normal working hours. Contractor shall take whatever steps are necessary or required by the Engineer and daily clean up throughout the project shall be required as Contractor progresses with the work.

Daily or as needed, all paved areas within the limits of the project shall be cleaned and free of sediments, asphalt, concrete and any other construction debris. Contractor shall not clean sediment and debris from the street by using water to wash down streets. The streets shall only be washed after the streets have been thoroughly swept and/or vacuumed and inlet protection has been placed at all storm drain inlets to catch any remaining sediments from the streets.

Spillage of earth, gravel, concrete, asphalt, or other materials resulting from hauling operations along or across any public traveled way shall be removed immediately by Contractor at their expense. If site is not kept sufficiently clean, the City will take measures to clean it and subtract the cost thereof from payments owing the Contractor.

Solid Waste Management:

Contractor shall maintain a clean construction site. Contractor shall provide designated areas for waste collection. The waste collection areas shall be leak-proof containers with lids or covers. Site trash shall be collected daily and placed in the disposal containers. Contractor shall make arrangements for regular waste collection. Contractor shall also regularly inspect the waste disposal areas to determine if potential pollutant discharges exist.

Hazardous Material Storage and Delivery Area:

Contractor shall provide one central hazardous material storage and delivery area (HMSDA) for the duration of the project. Examples of hazardous materials include pesticides and herbicides; fertilizers; detergents; petroleum products; acids; lime; glues; paint; solvents and curing compounds. This area shall be protected such that polluted runoff will not be allowed to leave the

HMSDA site. Contractor shall regularly inspect the HMSDA site to ensure that any hazardous or non-hazardous materials have not spilled.

Concrete Waste Management:

Contractor shall arrange for concrete wastes to be disposed of off-site or in one designated on-site area. Concrete wastes, including left-over concrete and material from washing out the concrete truck, shall not be disposed or washed into the storm drain system. A designated on-site concrete waste containment area shall be provided. The site shall be bermed and lined to keep concrete waste from leaving the containment area. The dried concrete waste shall be removed and disposed of properly by Contractor at their expense.

Spill Prevention and Control:

Contractor shall be responsible for instructing employees and sub-contractors about preventing spills of hazardous materials such as equipment fuel, and about controlling spills if they occur. Proper spill control and cleanup materials and procedures shall be kept on site near the storage and equipment fueling areas and updated as materials change on site. Contractor is strictly responsible for the prevention, clean-up and consequences of any hazardous materials spills.

Throughout the duration of the project Contractor shall inspect and maintain, in effective condition, all erosion, sediment, and pollution control BMPs before and after each storm event and as needed. Contractor shall immediately correct or replace any ineffective BMPs.

More information about control measures and housekeeping practices can be obtained by referring to the City of Sacramento's Administrative and Technical Procedures Manual for Grading, Erosion and Sediment Control available at 1395 35th Avenue, Sacramento, CA 95822.

Contractor shall prepare and submit an erosion, sediment and pollution control plan (ESC Plan) to the Engineer for review. The submittal shall include a description of all erosion, sediment and pollution control BMPs proposed to be used to prevent sediment and other sources of pollution from entering the City storm drain system as well as a site plan showing their placement. The ESC Plan shall be submitted a minimum of 48 hours prior to start of the work. **Contractor shalll not begin work until an accepted ESC Plan is on file with the Engineer.** The erosion, sediment and pollution control plan shall be updated as necessary and re-submitted to the Engineer.

16-4 ENFORCEMENT

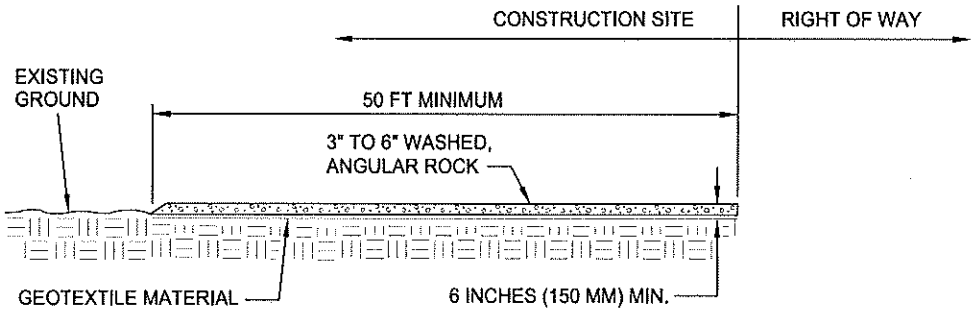
Per City Code Sections 15.88, 13.16 and 1.28, Contractor shall be subject to Notice of Violations (NOVs) resulting in possible Stop Work Orders and Administrative Penalties of up to $4,999 per day for non-compliance of this section of the Special Provisions.

Per the State's Porter Cologne Water Quality Act, Contractor shall also be subject to inspection by Staff from the Central Valley Regional Water Quality Control Board who have the authority to issue Notices of Violation (NOVs) and Penalties of up to $10,000 per day for non-compliance. Contractor shall be liable for any fines issued to the project by the State or Federal Government for NPDES non-compliance due to Contractor negligence.

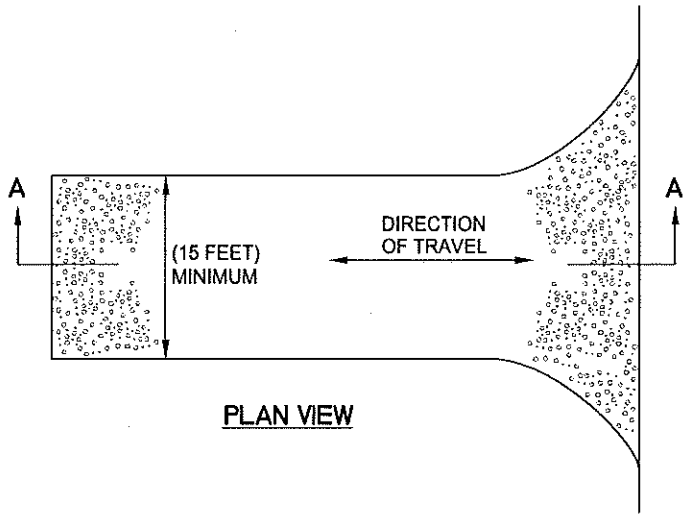
The City reserves the right to take corrective action and withhold the City's costs for corrective action from progress payments or final payment in accordance with Section 7, Retention of Sums Charged against Contractor, of the Agreement. Any fines, including third-party claims, levied against the Agency as a result of Contractor's non-compliance are Contractor's sole responsibility and will be withheld from progress payments or final payment in accordance with Section 7, Retention of Sums Charged against Contractor, of the Agreement.

16-5 PAYMENT

There will be no separate payment for Water Quality Control and the cost therefore shall be considered included in whatever item Contractor deems appropriate.



SECTION A-A



PLAN VIEW

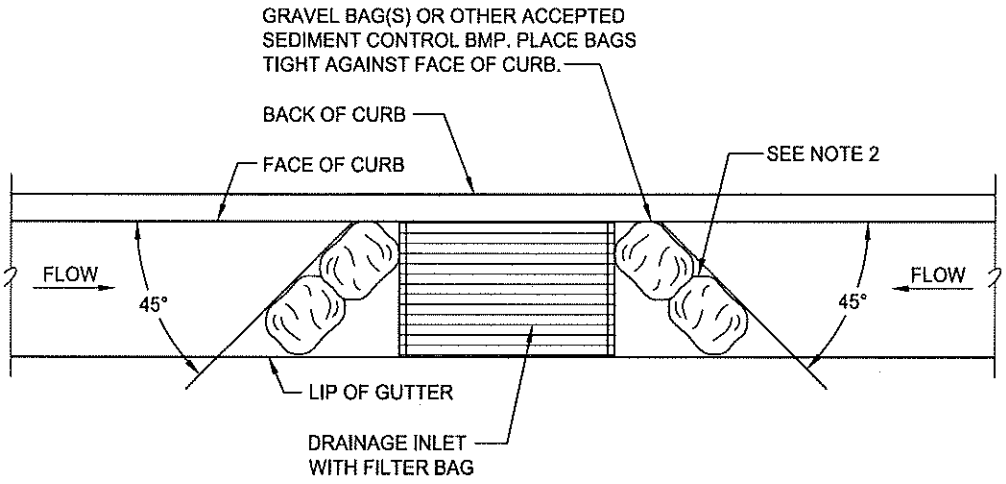
NOTES:

1. STABILIZED CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED OF 3" TO 6" WASHED, ANGULAR ROCK. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 6 INCHES.
2. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MIN. OF 15 FT OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII.
3. THE ENTRANCE SHALL BE KEPT IN GOOD CONDITION BY OCCASIONAL TOP DRESSING WITH MATERIAL AS SPECIFIED IN NOTE 1.
4. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

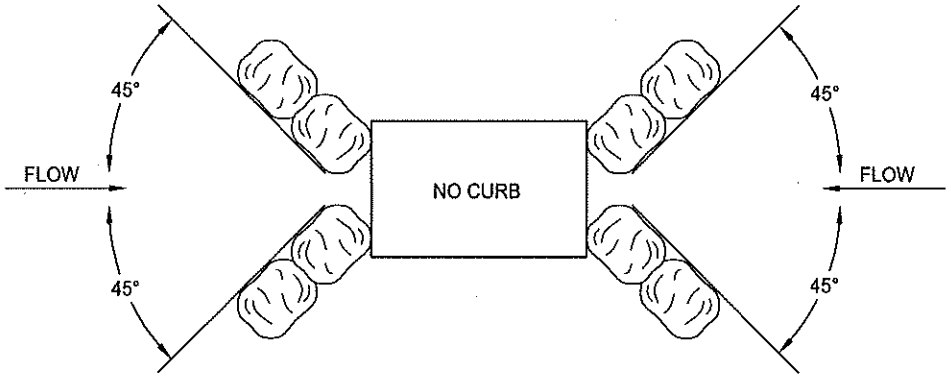
REV.	DATE	DESCRIPTION

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	STABILIZED CONSTRUCTION ENTRANCE	APPR'D BY: DBT NO SCALE DATE: MAY 2007 DWG. NO. Q - 10

R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_10_StabilizedConstructionEntrance.DWG



PLAN VIEW



NOTES:

1.- SEDIMENT TRAPPED UPSTREAM OF SEDIMENT CONTROL BMP SHALL BE REMOVED WEEKLY AND PRIOR TO A RAINFALL EVENT.

2.- PLACE BMP'S TIGHTLY TOGETHER AT JOINTS TO PREVENT OR MINIMIZE SEEPAGE AT JOINTS.

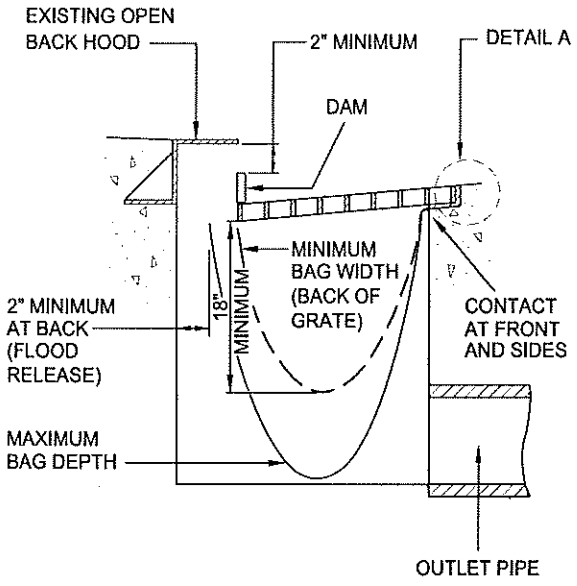
3.- INLET SEDIMENT CONTROL MUST BE INSPECTED WEEKLY AND AFTER EACH STORM, AND REPAIRED OR REPLACED AS NEEDED.

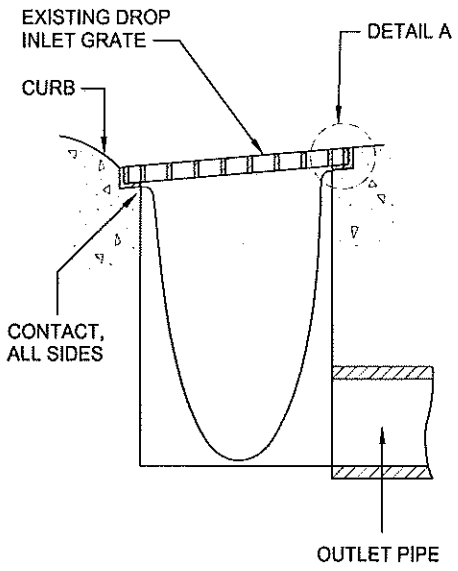
4.- INLET SEDIMENT CONTROL IS REQUIRED FOR ALL DI's IN ADDITION TO A STORM DRAIN INLET FILTER BAG.

REV.	DATE	DESCRIPTION

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	INLET SEDIMENT CONTROL	APPR'D BY: DBT NO SCALE DATE: MAY 2007 DWG. NO. Q - 20

R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_20_InletSedimentControl.DWG





NOTES:

1.- THE MAXIMUM DRAINAGE AREA PER FILTER SHALL BE NO MORE THAN 2 ACRES.

2.- THE FILTER BAG SHALL BE MANUFACTURED FROM UV RESISTANT POLYPROPYLENE, NYLON, POLYESTER, OR ETHYLENE FABRIC WITH A MINIMUM TENSILE STRENGTH OF 50 LBS PER LINEAL FOOT, AN EQUIVALENT OPENING SIZE NOT GREATER THAN 20 SIEVE AND WITH A MINIMUM FLOW RATE OF 40 GALLONS/MINUTE/SQ FT.

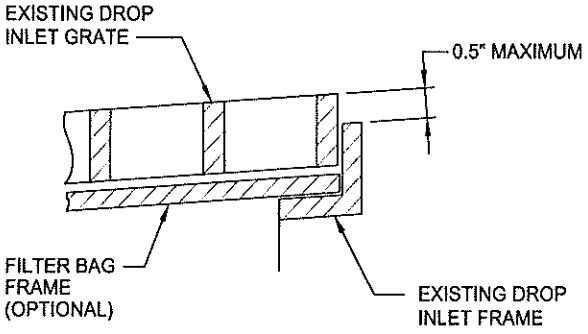
3.- THE FILTER BAG MAY BE SUSPENDED FROM OR HELD IN PLACE BY THE EXISTING INLET GRATE (OR OTHER APPROVED METHOD), PROVIDING NO MODIFICATION OR DAMAGE SHALL BE DONE TO THE INLET GRATE OR FRAME. THE INLET GRATE SHALL NOT BE CAUSED TO REST MORE THAN 0.5" ABOVE THE INLET FRAME (SEE DETAIL A).

4.- THE FILTER BAG MAY EXTEND TO THE BOTTOM OF THE INLET BOX PROVIDED THE OUTLET PIPE IS UNOBSTRUCTED.

5.- FLOWS SHALL NOT BE ALLOWED TO BYPASS THE BAG. THE BAG OR ITS FRAME SHALL CATCH FLOWS AT ALL SIDES OF THE INLET, EXCEPT AS SHOWN FOR FLOOD RELEASE.

6.- INLET FILTER BAGS SHALL BE INSPECTED WEEKLY AND AFTER EACH RAINFALL DURING THE WET SEASON AND MONTHLY DURING THE DRY SEASON. SEDIMENT AND DEBRIS SHALL BE REMOVED BEFORE ACCUMULATIONS HAVE REACHED ONE THIRD THE DEPTH OF THE BAG. BAGS SHALL BE REPAIRED OR REPLACED AS SOON AS DAMAGE OCCURS.

7.- THIS DETAIL IS SCHEMATIC AND MUST BE ADJUSTED FOR DIFFERENT DI TYPES.

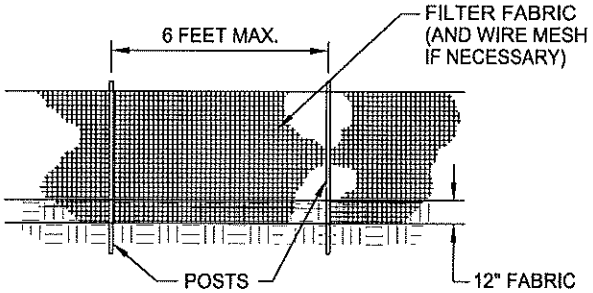


DETAIL A

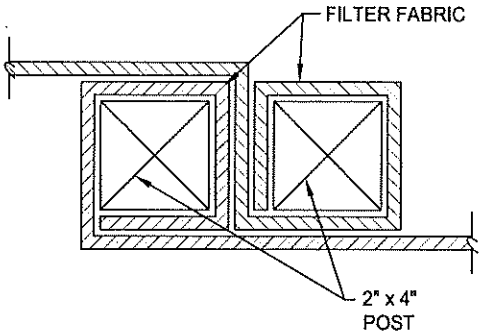
REV.	DATE	DESCRIPTION
1		
2		
3		

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	STORM DRAIN INLET FILTER BAG	APPR'D BY: DBT NO SCALE DATE: MAY 2007 DWG. NO. Q - 30

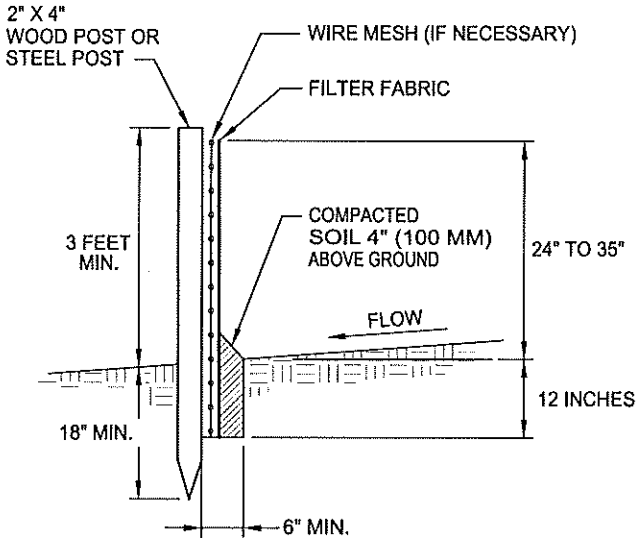
R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_30_StormDrainFilterBag.DWG



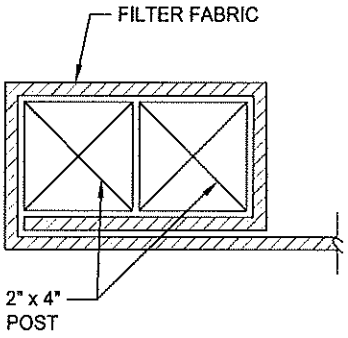
FRONT VIEW



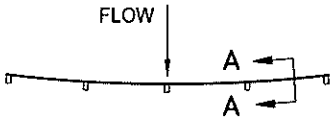
JOINT DETAIL



SECTION A-A



END STAKE DETAIL



PLAN

NOTES:

1.- CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 150M.

2.- THE LAST 8 FT. OF FENCE SHALL BE TURNED UP SLOPE.

3.- OVERLAP STAKES, AND FOLD FENCE FABRIC TO AROUND EACH STAKE ONE FULL TURN.

4.- FOR END STAKE CONDITION FOLD FENCE FABRIC AROUND (2) STAKES (1) FULL TURN AND SECURE WITH (4) STAPLES.

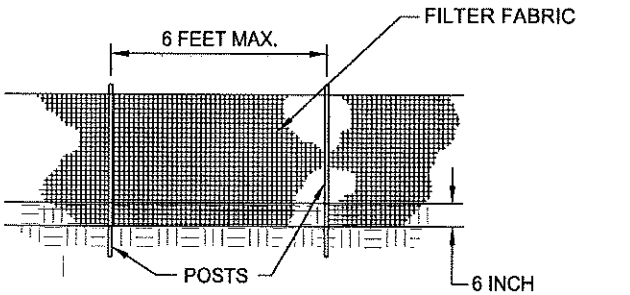
NOTES:

1. SILT FENCE SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS THE EXPECTED FLOW PATH.
2. FILTER FABRIC SHALL BE PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN WITH A MINIMUM TENSILE STRENGTH OF 50 LBS. PER LINEAR FOOT AT 20 PERCENT MAXIMUM ELONGATION AND CONTAINING ULTRAVIOLET INHIBITORS. FILTER FABRIC SHALL RETAIN A MINIMUM OF 85% OF THE SOIL, BY WEIGHT, BASED ON SIEVE ANALYSIS, BUT IS NOT FINER THAN AN EQUIVALENT OPENING SIZE OF 70. WHEN STANDARD STRENGTH FABRIC IS USED, A WIRE MESH SUPPORT SHALL BE SECURELY FASTENED TO THE UPSLOPE SIDE OF POSTS.
3. SUPPORT POSTS SHALL BE A MINIMUM 3.5' LONG 2"x4" WOOD POSTS OR 'T' SECTION FENCE POSTS DRIVEN A MINIMUM OF 18 INCHES INTO THE GROUND. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART. FABRIC SHALL BE SECURELY FASTENED TO POSTS WITH 1 INCH STAPLES OR 16 GAUGE WIRE TIES SPACED A MAXIMUM OF 6 INCHES APART.
4. A 12 INCH FABRIC TRENCH SHALL BE EXCAVATED ALONG THE UPHILL SIDE OF SILT FENCE POSTS. THE BOTTOM EDGE OF THE FABRIC SHALL EXTEND TO AND ACROSS THE BOTTOM OF THE TRENCH. THE TRENCH SHALL BE BACKFILLED TO 4 INCHES ABOVE GROUND AND COMPACTED TO BURY AND SECURE THE BOTTOM OF THE FILTER FABRIC.
5. CONTRACTER SHALL MAKE INSPECTIONS WEEKLY DURING THE WET SEASON, MONTHLY DURING THE DRY SEASON AND IMMEDIATELY AFTER EACH RAINFALL TO DETERMINE IF REPAIRS AND SEDIMENT REMOVAL IS REQUIRED. SEDIMENT SHALL BE REMOVED BEFORE IT HAS REACHED ONE THIRD THE HEIGHT OF THE FILTER FABRIC.

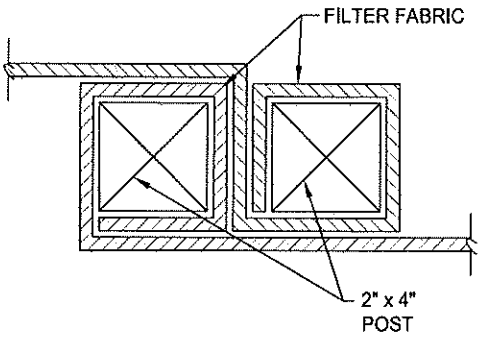
REV.	DATE	DESCRIPTION
1		
2		
3		

CITY OF SACRAMENTO DEPARTMENT OF TRANSPORTATION	SILT FENCE - 36"	APPR'D BY: DBT NO SCALE DATE: MAY 2007 DWG. NO. Q - 50

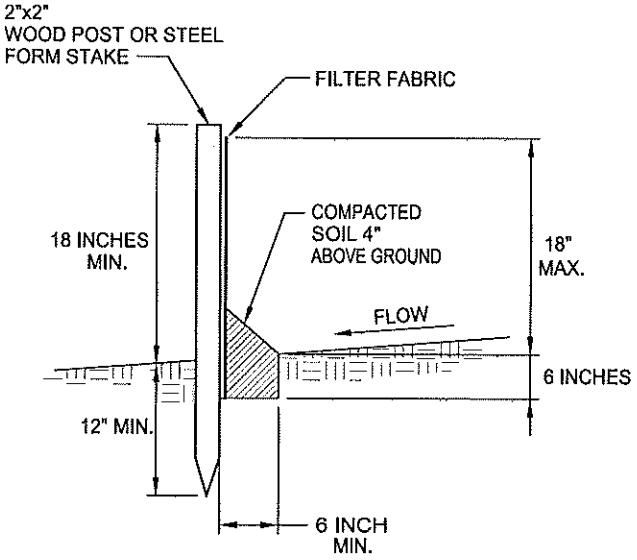
R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_50_SiltFence.DWG



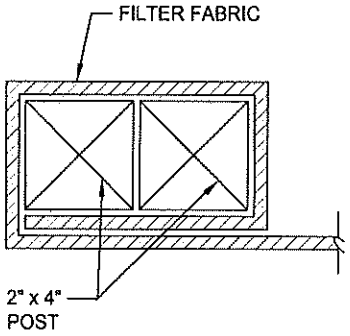
FRONT VIEW



JOINT DETAIL



SECTION A-A



END STAKE DETAIL

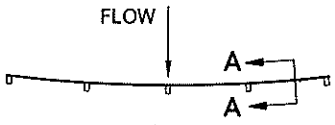
NOTES:

1.- CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER. IN NO CASE SHALL THE REACH LENGTH EXCEED 150M.

2.- THE LAST 8 FT. OF FENCE SHALL BE TURNED UP SLOPE.

3.- OVERLAP STAKES, AND FOLD FENCE FABRIC TO AROUND EACH STAKE ONE FULL TURN.

4.- FOR END STAKE CONDITION FOLD FENCE FABRIC AROUND (2) STAKES (1) FULL TURN AND SECURE WITH (4) STAPLES.



PLAN

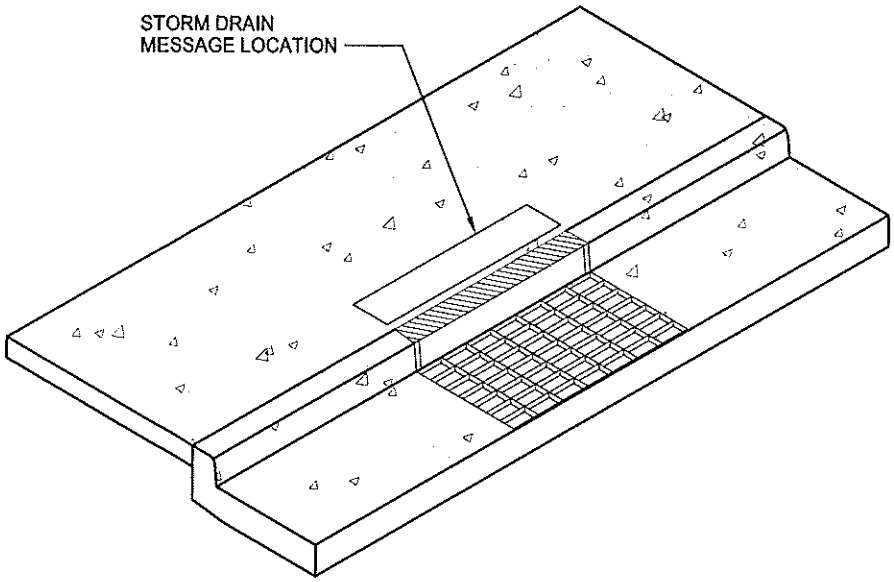
NOTES:

1. SILT FENCE SHALL BE CONSTRUCTED LONG ENOUGH TO EXTEND ACROSS THE EXPECTED FLOW PATH.
2. FILTER FABRIC SHALL BE PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN WITH A MINIMUM TENSILE STRENGTH OF 50 LBS. PER LINEAR FOOT AT 20 PERCENT MAXIMUM ELONGATION AND CONTAINING ULTRAVIOLET INHIBITORS. FILTER FABRIC SHALL RETAIN A MINIMUM OF 85% OF THE SOIL, BY WEIGHT, BASED ON SIEVE ANALYSIS, BUT IS NOT FINER THAN AN EQUIVALENT OPENING SIZE OF 70. WHEN STANDARD STRENGTH FABRIC IS USED, A WIRE MESH SUPPORT SHALL BE SECURELY FASTENED TO THE UPSLOPE SIDE OF POSTS.
3. SUPPORT POSTS SHALL BE A MINIMUM 24" LONG 2" X 2" (50) WOOD POSTS OR 'T' SECTION FENCE POSTS DRIVEN A MINIMUM OF 12 INCHES INTO THE GROUND. POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART. FABRIC SHALL BE SECURELY FASTENED TO POSTS WITH 1 INCH STAPLES OR 16 GAUGE WIRE TIES SPACED A MAXIMUM OF 6 INCHES APART.
4. A 6 INCH FABRIC TRENCH SHALL BE EXCAVATED ALONG THE UPHILL SIDE OF SILT FENCE POSTS. THE BOTTOM EDGE OF THE FABRIC SHALL EXTEND TO AND ACROSS THE BOTTOM OF THE TRENCH. THE TRENCH SHALL BE BACKFILLED TO 4 INCHES ABOVE GROUND AND COMPACTED TO BURY AND SECURE THE BOTTOM OF THE FILTER FABRIC.
5. CONTRACTER SHALL MAKE INSPECTIONS WEEKLY DURING THE WET SEASON, MONTHLY DURING THE DRY SEASON AND IMMEDIATELY AFTER EACH RAINFALL TO DETERMINE IF REPAIRS AND SEDIMENT REMOVAL IS REQUIRED. SEDIMENT SHALL BE REMOVED BEFORE IT HAS REACHED ONE THIRD THE HEIGHT OF THE FILTER FABRIC.

REV.	DATE	DESCRIPTION

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	SILT FENCE - 18"	APPR'D BY: DOB NO SCALE DATE: MAY 2007 DWG. NO. Q - 60

R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_60_FilterBarrier.DWG



NO DUMPING!
FLOWS TO RIVER

NO DUMPING!
FLOWS TO CREEK

NO DUMPING I LIVE DOWNSTREAM

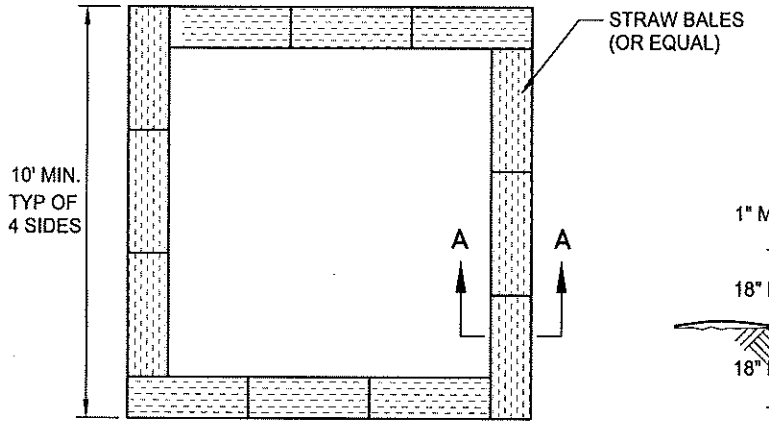
NOTES:

1. STORM DRAIN MESSAGE SHALL BE APPLIED IN SUCH A WAY AS TO PROVIDE A CLEAR, LEGIBLE IMAGE.
2. STORM DRAIN MESSAGE SHALL BE PERMANENTLY APPLIED DURING THE CONSTRUCTION OF THE CURB AND GUTTER USING A METHOD APPROVED BY THE LOCAL AGENCY.
3. FOR AREA DRAIN INLETS, STORM DRAIN MESSAGE SHALL BE PLACED ADJACENT AND PARALLEL TO THE LONG AXIS OF THE DRAIN.
4. LETTERS SHALL BE 1-1/2" IN HEIGHT. DIMENSIONS OF STORM DRAIN MESSAGE SHALL NOT EXCEED 12"x33".
5. IF THE MESSAGE IS STAMPED IN CONCRETE, THE DEPTH SHOULD BE APPROXIMATELY 0.25".
6. IF AN ALTERNATIVE STORM DRAIN MESSAGE IS PROPOSED, IT SHALL BE APPROVED BY THE LOCAL AGENCY.

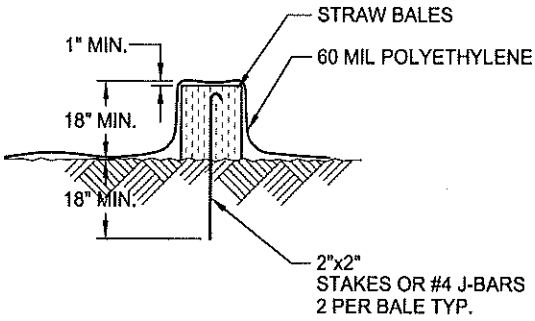
REV.	DATE	DESCRIPTION
1		
2		
3		

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	STORM DRAIN MESSAGE LAYOUT	APPR'D BY: D O'Brien NO SCALE DATE: MAY 2007 DWG. NO. Q - 70

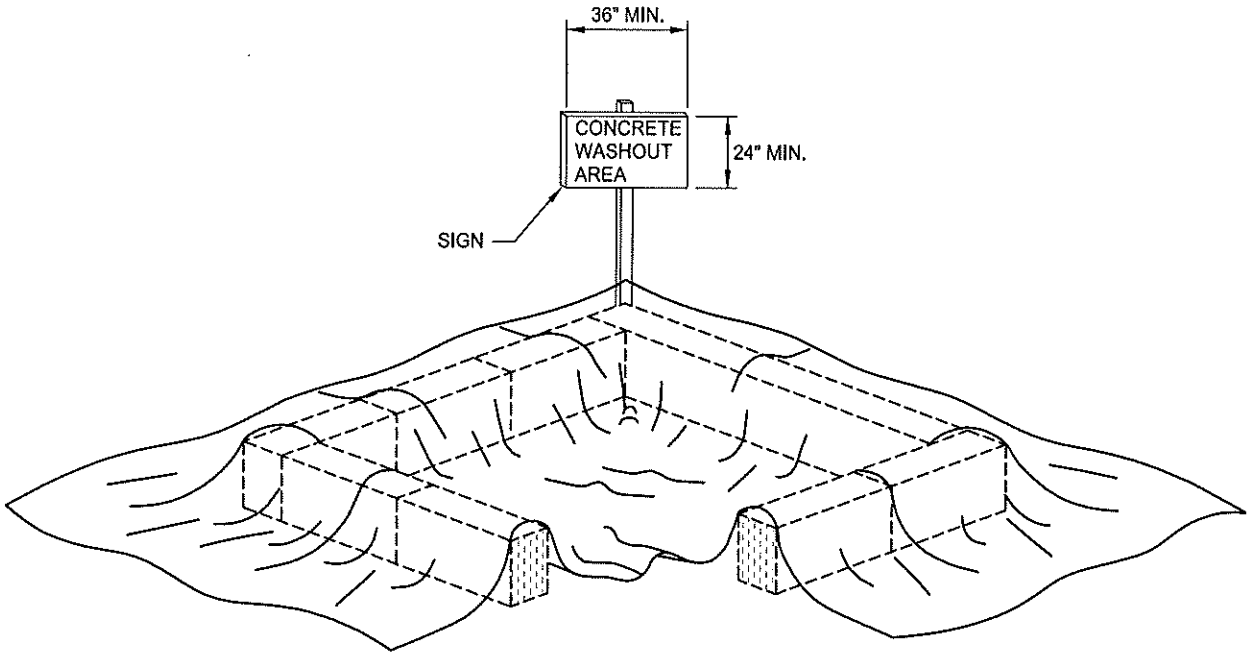
R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_70_StormDrainMessageLayout.DWG



BALE CONFIGURATION



SECTION A-A



THIS SECTION REMOVED FOR GRAPHICAL REPRESENTATION ONLY. STRAW BALE PERIMETER SHALL BE CONTINUOUS.

NOTES:

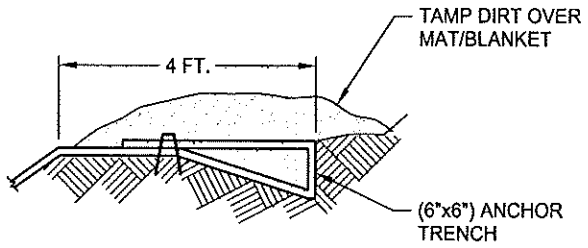
1.- FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT

2.- CONCRETE WASHOUT SHALL BE LOCATED BEHIND CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES

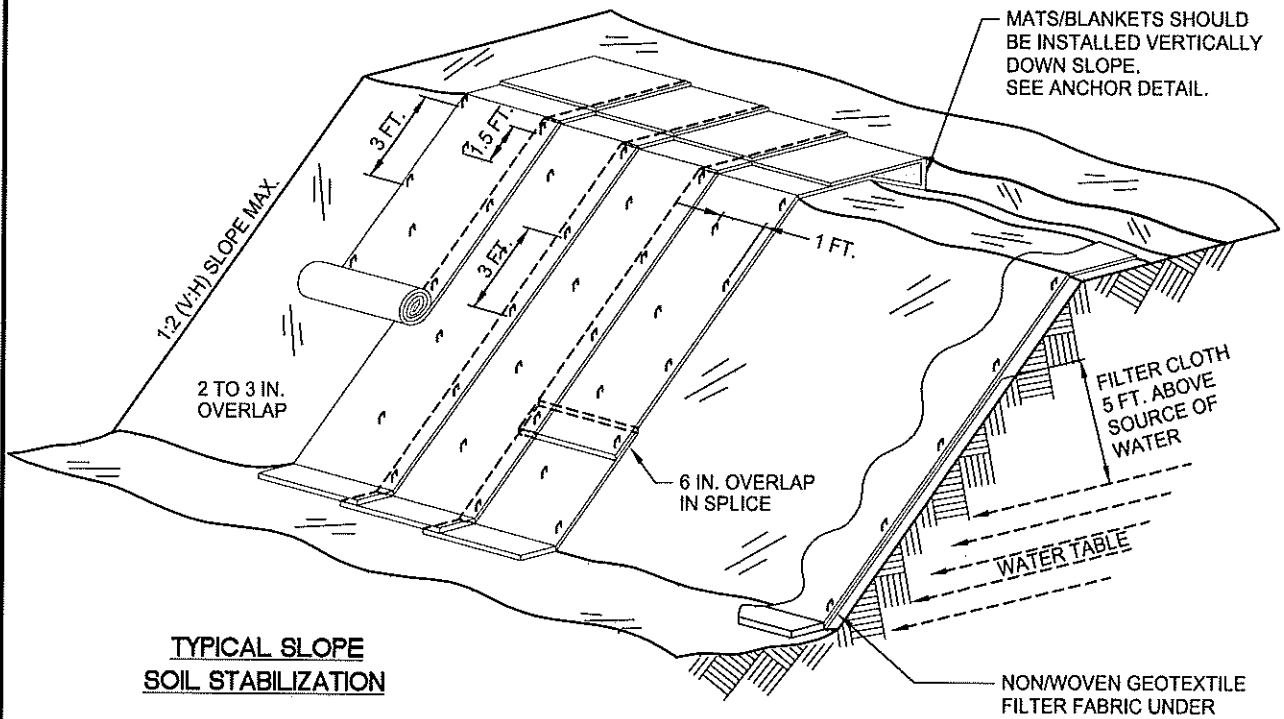
REV.	DATE	DESCRIPTION
1		
2		
3		

CITY OF SACRAMENTO DEPARTMENT OF UTILITIES	CONCRETE WASHOUT	APPR'D BY: D O'Brien NO SCALE DATE: MAY 2007 DWG. NO. Q - 80

R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_70_ConcreteWashout.DWG



ANCHOR DETAIL



TYPICAL SLOPE
SOIL STABILIZATION

WET SLOPE LINING

NOTES:

1.- SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.

2.- LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.

3.- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

REV.	DATE	DESCRIPTION

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

EROSION CONTROL BLANKETS/
MATS SLOPE INSTALLATION

APPR'D BY: D O B NO SCALE

DATE: MAY 2007 DWG. NO. Q - 90

R:\Utilstds\City_Std_Details\Wtr_Quality_Details\Q_90_ErosionControlBlanquets.DWG

Administrative Penalty Guidelines
For Prohibited Non-Stormwater Discharges

Section 13.16.050 of the Sacramento City Code prohibits the discharge of non-stormwater that enters the City's storm drain system. City Code section 13.16.150 authorizes various enforcement actions for violations of section 13.16.050, including the imposition of administrative penalties. Administrative penalties for violations of section 13.16.050 are imposed pursuant to the City's general administrative penalty ordinance, Sacramento City Code section 1.28.010. This ordinance provides the following guidance for determining administrative penalty amounts:

> ***Amount of Administrative Penalty.*** *Unless the city council has by resolution or by ordinance adopted a separate and distinct administrative penalty for the particular violation, the amount of the administrative penalty to be imposed shall be set by the department head or his or her designee responsible for issuing the administrative penalty order. Each day a violation continues or occurs constitutes a separate violation. Unless otherwise provided in this code, administrative penalties may be imposed in any amount not less than one hundred dollars ($100.00) nor more than twenty-five thousand dollars ($25,000.00) per violation. In determining the amount of the administrative penalty to be imposed, the city official shall consider factors including but not limited to the seriousness of the violation, the responsible party's efforts to correct the violation, the injury/damage, if any, suffered by any member of the public, any instances in which the responsible party has been in violation of the same or similar code provisions in the previous three years, the amount of city staff time which was expended investigating or addressing the violation, and the amount of administrative penalties which have been imposed in similar situations. The amount of the administrative penalty shall be set according to the following schedule:*
>
> *a. Level A violations are violations that present a substantial probability that death or serious physical harm to the public at large or person(s) would result therefrom. Level A violations shall be subject to an administrative penalty of five thousand dollars ($5,000.00) to twenty-five thousand dollars ($25,000.00);*
>
> *b. Level B violations are violations that either (1) present the threat, but not substantial probability, that serious physical harm to the public at large or person(s) would result therefrom; or (2) present circumstances that are likely to cause and/or do cause serious harm to public or private property; or (3) present a conscious and willful disregard of (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level B violations shall be subject to an administrative penalty of two thousand five hundred dollars ($2,500.00) to four thousand nine hundred ninety-nine dollars and ninety-nine cents ($4,999.99);*

c. Level C violations are violations that present circumstances that either (1) are likely to cause and/or do cause harm to public or private property; or (2) show repeated or continuous noncompliance with (i) a hearing examiner's order or orders, or (ii) orders or notices of violation issued by any agency or commission authorized to issue such orders or notices. Level C violations shall be subject to an administrative penalty of one thousand dollars ($1,000.00) to two thousand four hundred ninety-nine dollars and ninety-nine cents ($2,499.99);

d. Level D violations are violations other than Level A, B, or C violations. Level D violations shall be subject to an administrative penalty of one hundred dollars ($100.00) to nine hundred dollars and ninety-nine cents ($999.99).

Based on the above criteria, the following guidelines are established for determining administrative penalty amounts for prohibited non-stormwater discharges.

Residential/Private Citizen

Non-hazardous non-stormwater discharges

Non-hazardous materials include dirt/gravel/sand, vegetation, gray water, food waste, chlorinated pool water, detergents, etc.

First Violation:

Issuance of a notice of violation, cease and desist order and/or notice to clean and abate, but no imposition of administrative penalties, unless the City enforcement official determines that the responsible party was grossly negligent, failed to contain and clean up the prohibited material within the time frame prescribed by the City, attempted to mislead the City with incorrect information and/or refused to comply with the City's enforcement action(s).

Second Violation:

Minimum penalty of $100, not to exceed $999.99 (Level D). This also may be imposed for a first violation under the circumstances described above. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations:

If the City enforcement official has imposed an administrative penalty on the same responsible party for a violation of City Code Section 13.16.050 within the preceding three years, the maximum administrative penalty for subsequent violations of City Code Section 13.16.050 may be increased to $2,499.99. The circumstances of the subsequent violations need not be similar to those of the previous violation(s). The maximum administrative penalty for subsequent violations may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. Determination of the penalty amount within these ranges will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

Hazardous non-stormwater discharges

Hazardous materials include oils, fuels, latex, oil or water based paint, stucco or concrete waste/wastewater, sewage, antifreeze, paint thinners, herbicides, pesticides, pool chemicals, cleaners, solvents, acids, etc.

First Violation:

Minimum penalty of $200, not to exceed $2,499.99 (Level C or D) for the first prohibited non-stormwater discharge identified as a hazardous material. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations

If the City enforcement official has imposed an administrative penalty on the same responsible party for a prohibited hazardous non-stormwater discharge within the preceding three years, the maximum administrative penalty for subsequent prohibited hazardous non-stormwater discharges may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the prior violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

Business

Non-hazardous non-stormwater discharges

First Violation:

Issuance of a notice of violation, cease and desist order and/or notice to clean and abate, but no imposition of administrative penalties, unless the City enforcement official determines that the responsible party was grossly negligent, failed to contain and clean up the prohibited material within the time frame prescribed by the City, attempted to mislead the City with incorrect information and/or refused to comply with the City's enforcement action(s).

Second Violation:

Minimum penalty of $250, not to exceed $2,499.99 (Level C or D). This also may be imposed for a first violation under the circumstances described above. Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Subsequent Violations:

If the City enforcement official has imposed an administrative penalty on the same responsible party for a violation of City Code Section 13.16.050 within the preceding three years, the maximum administrative penalty for subsequent violations of City Code Section 13.16.050 may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the previous violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

BMPs:

The responsible party may, upon approval by the City enforcement official, apply the administrative penalty amount toward the purchase of structural BMP's to eliminate any reasonable possibility of a future prohibited non-storm water discharge.

Hazardous non-stormwater discharges

First Violation:

Minimum penalty of $500, not to exceed $2,499.99 (Level C or D) for the first prohibited non-stormwater discharge identified as a hazardous material. The maximum administrative penalty may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. Determination of the penalty amount within these ranges will be made based on consideration of the factors set forth above.

Subsequent Violations

If the City enforcement official has imposed an administrative penalty on the same responsible party for a prohibited hazardous non-stormwater discharge within the preceding three years, the maximum administrative penalty for subsequent prohibited hazardous non-stormwater discharges may be increased to $4,999.99 if the criteria set forth above for Level B violations are met. The circumstances of the subsequent violations need not be similar to those of the prior violation(s). Determination of the penalty amount within this range will be made based on consideration of the factors set forth above.

Multiple Days:

Each day a violation continues or occurs can be charged as a separate violation.

BMPs:

The responsible party may, upon approval by the City enforcement official, apply the administrative penalty amount toward the purchase of structural BMP's to eliminate any reasonable possibility of a future prohibited non-storm water discharge.

Administrative Penalties of $5,000 or More

Administrative penalties of $5000 or more, up to a maximum amount of $25,000, may be imposed under circumstances meeting the criteria set forth above for Level A violations.

Other Enforcement Actions; Cost Recovery

The imposition of administrative penalties for violations of City Code Section 13.16.050 shall not prevent the City or any other authorized agency from exercising any additional enforcement authority authorized or provided in any law or regulation, including without limitation any or all of the actions authorized by City Code Section 13.16.150. The imposition of administrative penalties shall be in addition to the recovery of costs incurred by the City in cleaning up and abating a violation, or the recovery of costs granted to the City after prevailing in an administrative, civil or criminal proceeding initiated under Chapter 13.16 of the City Code.

STANDARD OPERATING PROCEDURES FOR EMERGENCY RESPONSE

I. Sewer Overflow Emergency Response Plan 4
II. Wet Weather Combined System Overflow Response SOP 30
III. Sanitary Sewer Overflow (SSO) Response SOP 31
IV. Wet Weather CSO and SSO SOP 32
V. SSO/CSO Training SOP 33
VI. CSO/Surcharge Decision Tree 34
VII. Rain Patrol SOP 35

Tables and Figures

Weather Related Events: UOC Opening Criteria *2*
Sewer Overflow Incident Command Chart *12*
City of Sacramento Combined Sewer System *13*
Notification Flow Chart: Sewer Overflow into a Residence or Business *17*
Notification Flow Chart: Sewer Overflow into the Street *20*
Notification Flow Chart: Sewer Overflow into or Expected to Enter Waters of the State *23*
Sewer Overflow Notification List *25*
Sewer Overflow/Spill Notification Form *26*
Sewer Overflow Notification Checklist *27*
City of Sacramento Incident/Loss Report *28*
Rain Patrol "Plan A" Map *36*
Boundaries Plan A *37*
Rain Patrol "Plan B" Map *39*
Boundaries Plan B *40*
Situation Report Form *47*

Weather Related Events: UOC Opening Criteria

1. FLOODING

A. Significant street flooding
B. Sacramento and American River at warning stage
C. Creeks, channels & canals at warning stage
D. Levee failure
E. Dam failure

2. SEVERE WEATHER

A. Intensity and duration of storm - Forecasted ½ inch of rain or more in 1-hour period, or N.O.A.A. quantitative precipitation forecast of 1.4" in 6 hour, or 1.9" in 12 hours equating to 1 in 5 year or greater storm event
B. Sustained winds over 35 mph with rainfall
C. Forecasted sustained freezing temperatures

*All U.O.C. participants will be notified by phone or e-mail prior to activation of U.O.C. See page 5 for list of those to be notified.

UTILITIES OPERATIONS CENTER
5730 24th St. Bldg. #22
DEPT. CONTACTS LAISONS

CITY MANAGER	**RAY KERRIDGE**	**808-5704**
UTILITIES		
DIRECTOR	**GARY REENTS**	**808-1433**
PUBLIC INFORMATION OFFICER	**JESSICA HESS**	**808-8260**
MANAGER - FIELD SERVICES	**SYED RIZVI**	**808-6217**
DRAINAGE/FLOOD	**JEFF HEARD**	**808-6955**
WASTEWATER	**WARD COX**	**808-6216**
WATER DISTRIBUTION	**MIKE MALONE**	**808-6226**
MANAGER - PLANT SERVICES	**MIKE YEE**	**808-5670**
MANAGER - ENGINEERING	**DAVE BRENT**	**808-1420**
MANAGER-BUSINESS SERVICES	**CHARLENE McKOY**	**808-1462**
MANAGER - SOLID WASTE	**EDISON HICKS (INTERIM)**	**808-4949**
TRANSPORTATION	**JERRY WAY**	**808-6381**
POLICE DEPARTMENT		
NORTH EXECUTIVE	**LT. SYLVIA MOIR**	**802-3004**
NORTH DAYS	**LT. SYLVIA MOIR**	**802-3004**
NORTH MIDS	**LT. GINA HAYNES**	**768-9550**
SOUTH EXECUTIVE	**LT. JACKIE DOWDEN**	**804-9035**
SOUTH DAYS	**LT. VIRGIL BROWN**	**952-5084**
SOUTH SWINGS	**LT. DAVE PELETTA**	**425-4931**
SOUTH LATES	**LT. TOM SWEENEY**	**712-7923**

**** If the Lt. does not answer, call 264-5334 (communications) and they can raise the appropriate person via radio.**

FIRE DEPARTMENT	**ROD CHONG**	**808-1602**
GENERAL SERVICES		
DIRECTOR	**REINA SCHWARTZ**	**804-8367**
SUPERVISOR, CITY OPERATOR	**GINA KNEPP**	**230-4533**
FLEET	**ROWIE SIZEMORE**	**690-6551**

POLICE/SHERIFF VICES SUPERVISORS ASSIGNED TO REGIONAL TRANSIT:

	SGT. DOUG VOSKA	**869-7553**
	SGT. DRU DONAT	**869-6432**
	SGT. CHRIS CULLY	**826-3317**

I. Sewer Overflow Emergency Response Plan
Revised March 2007

SECTION I: INTRODUCTION 6
INTRODUCTION 6
PURPOSE AND SCOPE 6
AUTHORITIES AND REFERENCES 7
RESPONSIBILITIES 8
County of Sacramento 8
Fire Department 8
Utilities Department 10
Incident Command Chart 12
Sewer Basin Map 13
Drainage Basin Map 14
SECTION II: PROCEDURE 15
NOTIFICATION OF INCIDENT 16
EVALUATE AND ESTIMATE 16
LOCATION OF OVERFLOW 16
RESPONSE/ACTIONS 16
SEWER OVERFLOWS INTO RESIDENCE/BUSINESS 17
Notification Flow Chart 19
SEWER OVERFLOWS INTO STREETS 20
Notification Flow Chart 22
SEWER OVERFLOWS INTO FLOWING INTO OR EXPECTED TO ENTER WATER OF THE STATE 23
Notification Flow Chart 25
SECTION III: FORMS 26
Sewer Overflow Notification List 27
Sewer Overflow/Spill Notification Form 28
Sewer Overflow Notification Checklist 29
City of Sacramento Incident/Loss Report 30



Department of Utilities

Sewer Overflow Emergency Response Plan

SECTION I: INTRODUCTION

Department of Utilities

Sewer Overflow Emergency Response Plan

SECTION I: INTRODUCTION

INTRODUCTION

The City of Sacramento's Department of Utilities has developed this comprehensive incident response plan to be implemented in the event of an overflow from the City operated Sanitary Sewer System or Combined Sewer System. This document includes operational procedures which are to be followed in the event the overflow occurs in a residence or business, on a City street, or in/or towards a waters of the State. It includes mobilization of City resources to mitigate the effect of the incident; detailed instructions to ensure proper notification of City, County, Regional, State and Federal regulatory agencies; and provides the appropriate forms to facilitate incident documentation.

A release of raw sewage is considered a hazardous material (HazMat) incident if it meets any of the following criteria:

- exceeds 1,000 gallons and is overflowing in a residence/business
- exceeds 1,000 gallons and is overflowing into a street
- any amount of overflow flowing into or towards waters of the State.

Hazardous Materials are defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. An overflow/spill is defined as any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, unless permitted or authorized by a regulatory agency.

PURPOSE AND SCOPE

The purpose of this Plan is to improve communication regarding a sewage overflow within the City of Sacramento as well as with outside agencies. It is intended to provide timely notification to responsible agencies and organizations. It provides a framework to activate resources, mitigate the long and short-term affects of the situation and to ensure appropriate clean-up activities. It provides for appropriate and complete notification of regulatory agencies as well as written documentation for reporting and cost recovery.

This Response Plan dovetails with the Department of Utilities Multi-Hazard Disaster Plan, the Sacramento Operational Area Plan, the City of Sacramento's Multi-Hazard Disaster

Plan, and the *City of Sacramento Fire Department Hazmat Emergency Response Plan*, revised March 1997.

AUTHORITIES AND REFERENCES

General Authorities:

- California Health and Safety Code Sections: 22502, 22503.1, 22507.1; Reference Sections 2503 (b)4, 25503.1, 2507.1, 25518, 23320
- EPA Administrative Permit Programs, The National Pollutant Discharge Elimination System, Section 122.41, 122.42
- California Water Code, Section 13271 (a) 1, 2,3; (c); (e); (f); (g); and Section 13050
- National Pollution Discharge Elimination System Permit No. CA0079111 Order No. 96090, June 20, 2000
- National Pollution Discharge Elimination System Permit No.CA0082597, May 11, 2001
- California Code of Regulations, Title 23, Section 2250
- California Government Code Section 8574.16

Hazardous Material Authorities:

(Extracted from State OES Hazardous Material Spill/Release Notification Guidelines)

- Health & Safety Code §§25270.7, 25270.8, 25507, 22503(c)(9), 25180, 25180.7
- Health & Safety Code §§25192, 25249.5 – 25249.13
- Vehicle Code §23112.5
- Public Utilities Code §7673 (PUC General Orders #22-B, 161)
- Government Code §§51018, 8670.25.5(a), 82019
- Water Code §§13260, 13267, 13271, 13272
- California Labor Code §6409.1(a), 6409.1(b)
- Title 42, U.S. Code §§9603, 11004
- Federal Regulations (49 CRF, Parts 100-177 esp. 171.15, 171.16, and Part 263, 263.30)
- Title 8, California Code of Regulations, 342
- Title 13, California Code of Regulations, 13-1166
- Title 14, California Code of Regulations, 1722 (h)
- Title 19, California Code of Regulations, 2703, 2705
- Title 22, California Code of Regulations, 66265.56(j), 66265.196(e), 12000 et seq.
- Title 23, California Code of Regulations, 2230, 2250, 2251, 2256(b), 2257(g), 2258(a), 2259

References:

- El Dorado Irrigation District Spill Response Procedures, October 6, 1999
- The City of San Diego Sewage Overflow Response Plan, July 2000
- County of Sacramento, Public Works Agency, Water Quality Division, Wastewater Collection System, Storm Drainage System and Creeks/Channel Maintenance Incident Response Plan (No date)

- County of Sacramento, Department of Public Works, Water Quality Division Report on State Water Resources Control Board Proposed Regulation on Reportable Quantities and Reporting Requirements for Sewage Overflows, April 25, 1988
- State Water Resources Control Board Water Discharge Requirements, May 1, 2006
- Orange County Sanitation District Procedure No. TS-ECM-SOP-001 Spill Notification Procedures, May 2, 2000
- California Office of Emergency Services, Fact Sheet, Winter Storm Preparedness Reporting Sewage Releases

RESPONSIBILITIES

Appropriate response to a sewage spill or overflow requires cooperation and coordination between the Department of Utilities, other City Departments, and Sacramento County.

The following sections detail the roles and responsibilities of the Department of Utilities, the City Fire Department, and the Water Quality Division of the Sacramento County Public Works Agency.

County of Sacramento – Public Works Agency, Water Quality Division

The Sacramento County Public Works Agency, Water Quality Division maintains 335 miles of sewage lines within the Sacramento City Limits (Refer to the Sewer Basins Map on page 10). In the event of a sewer system overflow in this portion of the City, Sacramento County personnel will respond to the call. If the spill exceeds 1,000 gallons or is flowing into/towards waters of the state, County of Sacramento will notify the City Operator. The City Operator will forward the information to the Sewer Collection Supervisor and Drainage Supervisor for action and coordination (See Section III).

Fire Department (Incident Command)

The Fire Department will assume the role of City Incident Commander for any overflows 1,000 gallons or more to a street, business or residence, or **any** overflow into/towards waters of the State. In the course of their duties as the Incident Commander, the Fire Department has enforcement capabilities for clean-up of an overflow incident caused by a private party.

The Fire Department, when dispatched to the scene of a sewer system overflow, will activate their *City of Sacramento Hazardous Materials Emergency Response Plan*. Under the Plan they will call a *Level I*, *Level II*, or *Level III* resource response.

Level I Incident (Known as a Level I Hazmat Incident (HMI))

Spills, leaks, ruptures, damaged containers, and/or fires involving hazardous materials which can be contained, extinguished, and/or abated utilizing equipment, supplies, and resources immediately available to the first responders (F.R.O.) of the fire department having jurisdiction, and;

The incident can properly be handled by fire department personnel whose qualifications are limited to and do not exceed the scope of training explained in SARA TITLE III (OSHA), Title 29 CFR Section 1910 with reference to FIRST RESPONDER, and as a minimum are trained



to *First Responder Operational* (F.R.O.) in accordance with National Fire Protection Association Standard #472, and;
Hazardous materials incident which may require the removal and excavation of civilians within the perimeter of incident scene isolation, and; Hazardous materials incident which does not exceed the necessity to utilize standard structural/flammable liquid protective equipment immediately available to the first responder.

Level II Incident (Known as a Level II HMI)

A hazardous materials incident which may require the use of any kind of specialized protective equipment, tool, or knowledge not available to and beyond the scope of the first responder of the agency having jurisdiction, and/or;

A hazardous materials incident which can only by identified, tested, sampled, contained, extinguished, and/or abated utilizing the expertise and resources of the Sacramento Fire Department Hazardous Materials Response Team, and/or;

A hazardous materials incident which may require the removal and evacuation of civilians within the area of the fire department having jurisdiction which may encompass several buildings, and/or;

Fires involving hazardous materials that, due to the complexities of the chemical involved, are permitted to burn for a controlled period of time or are allowed to consume themselves or which may require special extinguishing techniques and objectives, and/or;

The incident can only be properly handled by fire department personnel whose qualifications meet or exceed the scope of training explained in SARA TITLE III (OSHA), Title 29 CFS Section 1910 with reference to HAZARDOUS MATERIALS SPECIALIST, and as a minimum are trained to *Hazardous Materials Technician/Specialist* (H.M.T./H.M.S.) in accordance with National Fire Protection Association Standard #472.

Level III Incident (Known as a Level III HMI)

Hazardous materials incident which, in the opinion of the Incident Commander of the agency having jurisdiction, or the Officer of the Sacramento Fire Department Hazardous Materials Response Team (HMRT), requires at least two Sacramento Fire Department Hazardous Materials Response Teams on scene, and/or;

The Sacramento Fire Department De-Con Team is required on scene for HMRT incident support, and/or civilians or personnel have become contaminated, and/or;

Hazardous materials incident can only be contained and/or abated only by utilizing the highly specialized equipment, services, or supplies available from special municipal, environmental, and industrial response personnel who are in support of the activities of the HMRT. Such equipment, techniques, and qualified personnel are in excess of or are in addition to those available from the on-scene HMRT, and/or;

Fires involving hazardous materials that are allowed to burn due to the ineffectiveness or dangers of the use of any kind of extinguishing agent, or the unavailability of the proper



extinguishing agent, or the material is highly reactive, water-reactive, or may be prone to sudden polymerization; and/or there is a real threat of large container failure or an explosion, detonation, BLEVE (Boiling Liquid Expanding Vapor Explosion), or container failure has already occurred, and/or;

Hazardous materials incident which requires evacuation of civilians from a large geographical area, or evaluation has extended across jurisdictional boundaries; and/or there are serious civilian injuries and/or death as a result of the hazardous materials incident, and/or;

The hazardous materials incident has become one of a multi-agency involvement.

Fire Department – Response to a Hazardous Material Incident

Fire Department emergency response to a hazardous material spill activates the Incident Command System. Under this system, five (5) sections can be activated. They are:

1. Incident Commander
   The Incident Command's responsibility is the overall management of the incident. On most incidents the command activity is carried out by a single Incident Commander.

2. Operations Section Chief
   The Operations Section Chief is responsible for the management of all operations directly applicable to the primary mission. The Operation Section Chief activates and supervises organization elements in accordance with the Incident Action Plan and directs its execution. The Operations Chief also directs the preparation of unit operational plans, requests or releases resources, makes expedient changes to the Incident Action Plan as necessary, and reports such to the Incident Commander.

3. Logistics Section Chief
   The Logistics Section Chief is responsible for providing facilities, services, and material in support of the incident. The Section Chief participates in development and implementation of the Incident Action Plan.

4. Planning Section Chief
   The Planning Section Chief is responsible for the collection, evaluation, dissemination, and use of information about the development of the incident and status of resources. Information is needed to 1) understand the current situation, 2) predict probable course of incident events, and 3) prepare alternative strategies and control operations for the incident.

5. Financial Section Chief
   The role of the Financial Section Chief is to supervise the financial support, response and recovery for the incident, and activate necessary accounting procedures.

Utilities Department – Response to a Hazardous Material Incident:

Field/Plant Services Division personnel will respond to all reports of sewage overflows in any location of the City of Sacramento, including rivers, canals, streams, the combined system, plants, and discharges contained in the appropriate NPDES permits.

They will ensure notification has been made to the Fire Department any time the spill is considered a hazardous nature incident, exceeds 1,000 gallons, or is traveling into or towards waters of the State.

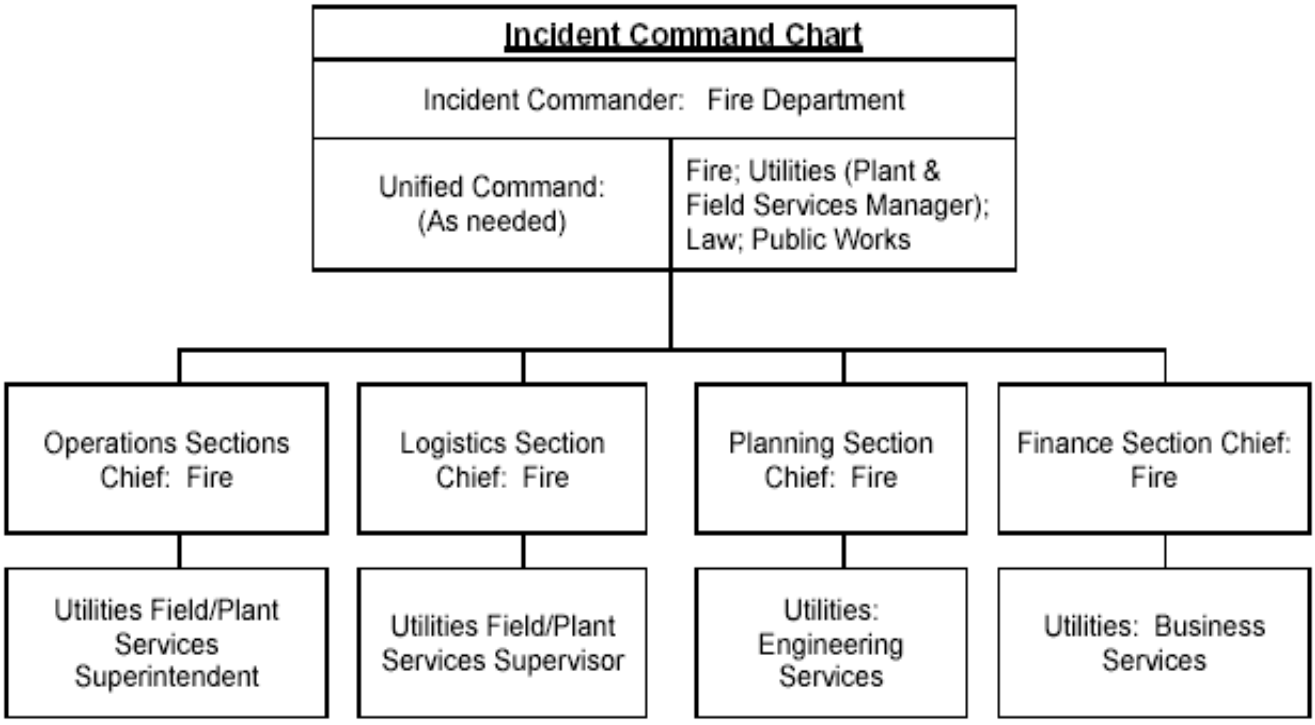
1. Unified Command:
   Field Services Division Manager, Plant Services Division Manager, or Designees will participate in the role of Unified Commander and will report to the Incident Commander from the Fire Department.

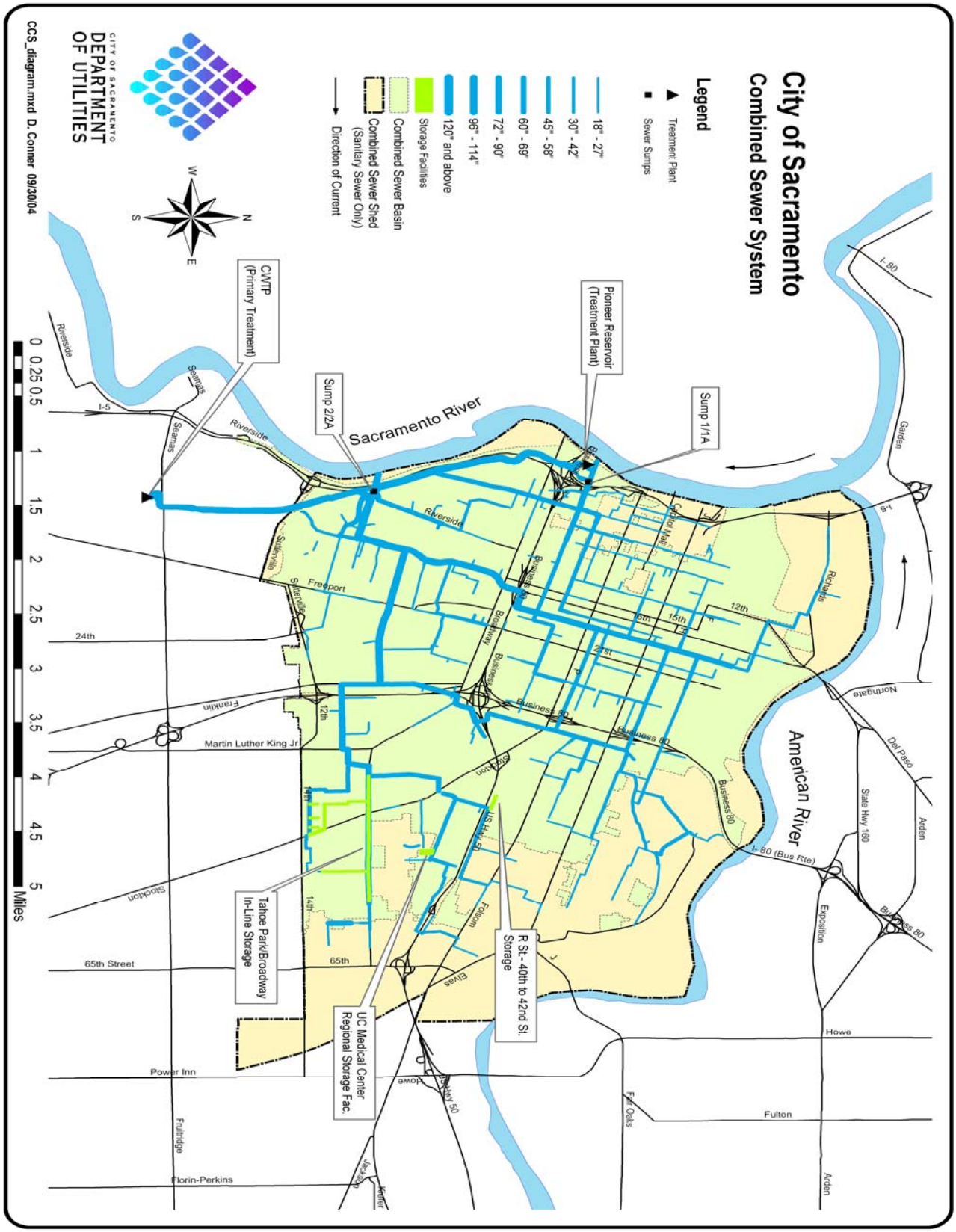
2. Operations Section:
   Sewer System Superintendent or Plant Services Superintendent will report to the Operations Section Chief from the Fire Department. This person is responsible for continual updates of situation information and technical system operation considerations. This section will brief all incoming department personnel responding to the incident.

3. Planning Section:
   The Engineering Services Division will assure department planning functions. If needed, they will be dispatched to the scene and report to the Fire Planning Section Chief. In any event, this group will prepare and submit an overflow report on spills 1,000 gallons or greater to the Regional Water Quality Control Board. They will also provide technical support to reporting divisions and departments.

4. Finance Section (Business Services Division):
   This division of the Department of Utilities will collect necessary cost information and establish cost centers for future reporting and financial tracking.

5. Logistics Section:
   Field Services or Plant Services personnel will be assigned to the logistics section on an as needed basis which will be determined by Unified Command. This group will procure necessary supplies and services to assist in the containment and clean-up operations.


Incident Command Chart
Incident Commander: Fire Department
Unified Command: (As needed)
Fire; Utilities (Plant & Field Services Manager); Law; Public Works
Operations Sections Chief: Fire
Logistics Section Chief: Fire
Planning Section Chief: Fire
Finance Section Chief: Fire
Utilities Field/Plant Services Superintendent
Utilities Field/Plant Services Supervisor
Utilities: Engineering Services
Utilities: Business Services


City of Sacramento
Combined Sewer System
Legend
Treatment Plant
Sewer Sumps
18" - 27"
30" - 42"
45" - 58"
60" - 69"
72" - 90"
96" - 114"
120" and above
Storage Facilities
Combined Sewer Basin
Combined Sewer Shed (Sanitary Sewer Only)
Direction of Current
CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES
CCS_diagram.mxd D. Conner 09/30/04
0 0.25 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 Miles
CWTP (Primary Treatment)
Pioneer Reservoir (Treatment Plant)
Sump 2/2A
Sump 1/1A
Sacramento River
American River
Tahoe Park/Broadway In-Line Storage
UC Medical Center Regional Storage Fac.
R St.- 40th to 42nd St. Storage
Riverside
Stockton
Martin Luther King Jr
24th
65th Street
Power Inn
Florin-Perkins
Fruitridge
Freeport
Sutterville
Broadway
Business 80
I-5
I-80
I- 80 (Bus Rte)
Capitol Mall
Richards
Garden
Northgate
Del Paso
Arden
State Hwy 160
Exposition
Howe
Fulton
Fair Oaks
Arden
Jackson
Jasper
Folsom
Elvas
Alhambra
Franklin
Seamas
12th
14th
15th
16th
21st
65th
US Hwy 50

Department of Utilities

Sewer Overflow Emergency Response Plan

SECTION II: PROCEDURE

NOTIFICATION OF INCIDENT

The Department of Utilities' City Operator is notified by Department personnel, the City's 911 Emergency System, or by other City personnel or outside agencies. Once notified, the actions outlined beginning on page 16 will be implemented.

EVALUATE AND ESTIMATE

The Sewer Collection Field Crew will evaluate the incident and attempt to estimate the volume of overflow.

LOCATION OF OVERFLOW:

The location of the overflow will determine which actions and notifications will have to be made. Location is separated into three categories:

- Residence or Business (see page 15)
- Streets (see page 18)
- Waters of the State – into or towards (see page 21). Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. Under this definition, this category includes all ditches, canals, streams, or rivers.

RESPONSE/ACTIONS

Response and notification vary depending upon the locations and/or amount of overflow. Primary response begins with the Sewer Collection Supervisor who dispatches a field crew for initial size-up of the incident. All appropriate notification calls will be made and trigger the response from within the Department of Utilities.

The Sewer Collection Superintendent shall ensure that the Fire Department is notified of the incident. The Fire Department shall be called to respond in the following situations:

- 1,000 gallons or more flowing into a business or residence
- 1,000 gallons or more flowing into the street
- **Any amount of overflow** into or towards waters of the State

SEWER OVERFLOWS INTO RESIDENCE/BUSINESS

911 Dispatch
- ❑ Notify Regional Fire Communications

Regional Fire Communications Center
- ❑ Notify City Operator (Dept. of General Services)

City Operator (Dept. of General Services)
- ❑ Complete Sewer Overflow/Spill Notification Form, see page 26
  - ➢ identify and document caller
  - ➢ request nature of overflow
  - ➢ determine start time of overflow, if possible
- ❑ During business hours, notify Sewer Collection Supervisor. If Supervisor cannot be reached, notify the Sewer Collection Superintendent.
- ❑ After hours, notify the On-Call Sewer Collection Supervisor

Sewer Collection Supervisor
- ❑ Dispatch field crew to scene
- ❑ Notify Drainage Collection Superintendent or On-Call Supervisor
- ❑ Notify City of Sacramento's Risk Management Office or Contractor
- ❑ Notify Control 12 to dispatch Plant Services personnel if the overflow enters into a drop inlet
- ❑ Photograph the incident
- ❑ Document the incident
  - ♦ Sewer Overflow Notification Checklist, see page 27
  - ♦ City of Sacramento's Incident/Loss Report, see page 38
- ❑ Initiate clean-up procedures

Sewer Collection Field Crew
- ❑ Proceed to location of overflow
- ❑ Determine Responsibility – property owner or City
- ❑ If the overflow is the City's responsibility
  - ♦ Relieve
  - ♦ Contain
  - ♦ Clean-up

Sewer Collection Superintendent/Designee
- ❑ Complete Sewer Overflow Notification Checklist, if necessary, see page 27
- ❑ Review incident documentation
- ❑ Send Incident/Loss Report to Risk Management

FOR SEWER OVERFLOWS IN RESIDENCE/BUSINESS WHICH ARE 1,000 GALLONS OR GREATER, ALSO COMPLETE THE FOLLOWING PROCEDURES.

Sacramento County Water Quality

- ❑ Notify City Operator (Dept. of General Services)

City Operator (Dept. of General Services)

- ❑ Ensure Fire Department is notified
- ❑ If spill occurs in County maintained lines, notify Sewer Collection and Drainage Collection Supervisors

Sewer Collection Supervisor

- ❑ Notify Sewer Collection Superintendent
- ❑ Ensure Fire Department has been notified and is en route to scene to activate hazardous material command structure

Sewer Collection Superintendent

- ❑ Notify Field Services Division Manager/Designee or the Plant Services Division Manager/Designee
- ❑ Complete Sewer Overflow Notification Checklist, if necessary, see page 27

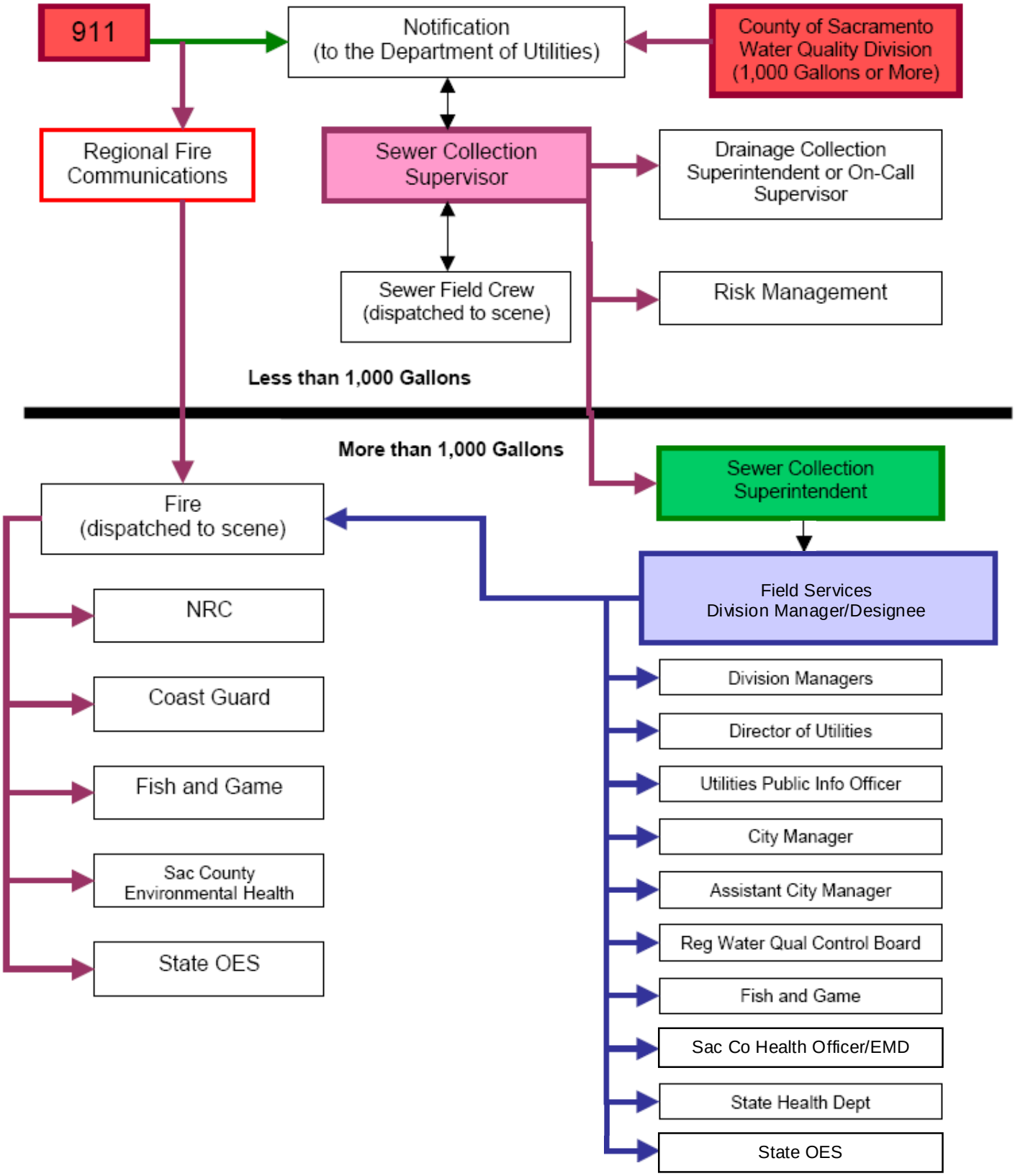
Field Services Division or Plant Services Division Manager/Designee

- ❑ The Field Services Division Manager/Designee or Plant Services Division Manager/Designee will coordinate to notify the following:
  - Division Managers
  - Director of Utilities
  - Department of Utilities Public Information Officer
  - City Manager
  - Assistant City Manager
  - Regional Water Quality Control Board
  - State Department of Fish and Game
  - Sacramento County Health Officer
  - State Department of Health Services
- ❑ Complete Sewer Overflow Notification Checklist, see page 27

Engineering Services Division, Water Quality Section

- ❑ Prepare and submit an overflow report to Regional Water Quality Control Board within 72 hours of incident

Notification Flow Chart
Sewer Overflow into a Residence or Business



SEWER OVERFLOWS INTO STREETS

911 Dispatch
- ❑ Notify Regional Fire Communications

Regional Fire Communications Center
- ❑ Notify City Operator (Dept. of General Services)

City Operator (Dept. of General Services)
- ❑ Complete Sewer Overflow/Spill Notification Form, see page 26
  - identify and document caller
  - request nature of overflow
  - determine start time of overflow, if possible
- ❑ During business hours, notify Sewer Collection Supervisor. If Supervisor cannot be reached, notify the Sewer Collection Superintendent.
- ❑ After hours, notify the On-Call Sewer Collection Supervisor

Sewer Collection Supervisor
- ❑ Notify Drainage Collection Superintendent or On-Call Supervisor
- ❑ Notify Plant Services Division personnel
- ❑ Photograph the incident
- ❑ Document the incident
  - Sewer Overflow Notification Checklist, see page 27
  - City of Sacramento's Incident/Loss Report, see page 28
- ❑ If the street(s) is unsafe, notify the City Operator and ask them to notify the Streets Division of the situation

Sewer Collection Field Crew
- ❑ Proceed to location of spill
- ❑ Relieve
- ❑ Contain
- ❑ Clean-up

Sewer Collection Superintendent/Designee
- ❑ Complete Sewer Overflow Notification Checklist, if necessary, see page 27
- ❑ Review incident documentation
- ❑ Send Incident/Loss Report to Risk Management
- ❑ Forward copy of Incident/Loss Report and field report to Engineering Services Division's Water Quality Section

Plant Services Division Superintendent or On-Call Supervisor
- ❑ Determine if any plants are causing or being affected by the overflow. If so,
  - isolate the plant and shut it down
  - document and prepare field report
  - forward copy of field report to Engineering Services Division's Water Quality Section within 24 hours of incident

FOR SEWER OVERFLOWS INTO STREETS WHICH ARE 1,000 GALLONS OR GREATER INTO STREETS ALSO COMPLETE THE FOLLOWING PROCEDURES.

Sacramento County Water Quality
- ❑ Notify City Operator (Dept. of General Services)

City Operator (Dept. of General Services)
- ❑ Ensure Fire Department is notified
- ❑ If spill occurs in County maintained lines, notify Sewer Collection and Drainage Collection Supervisors

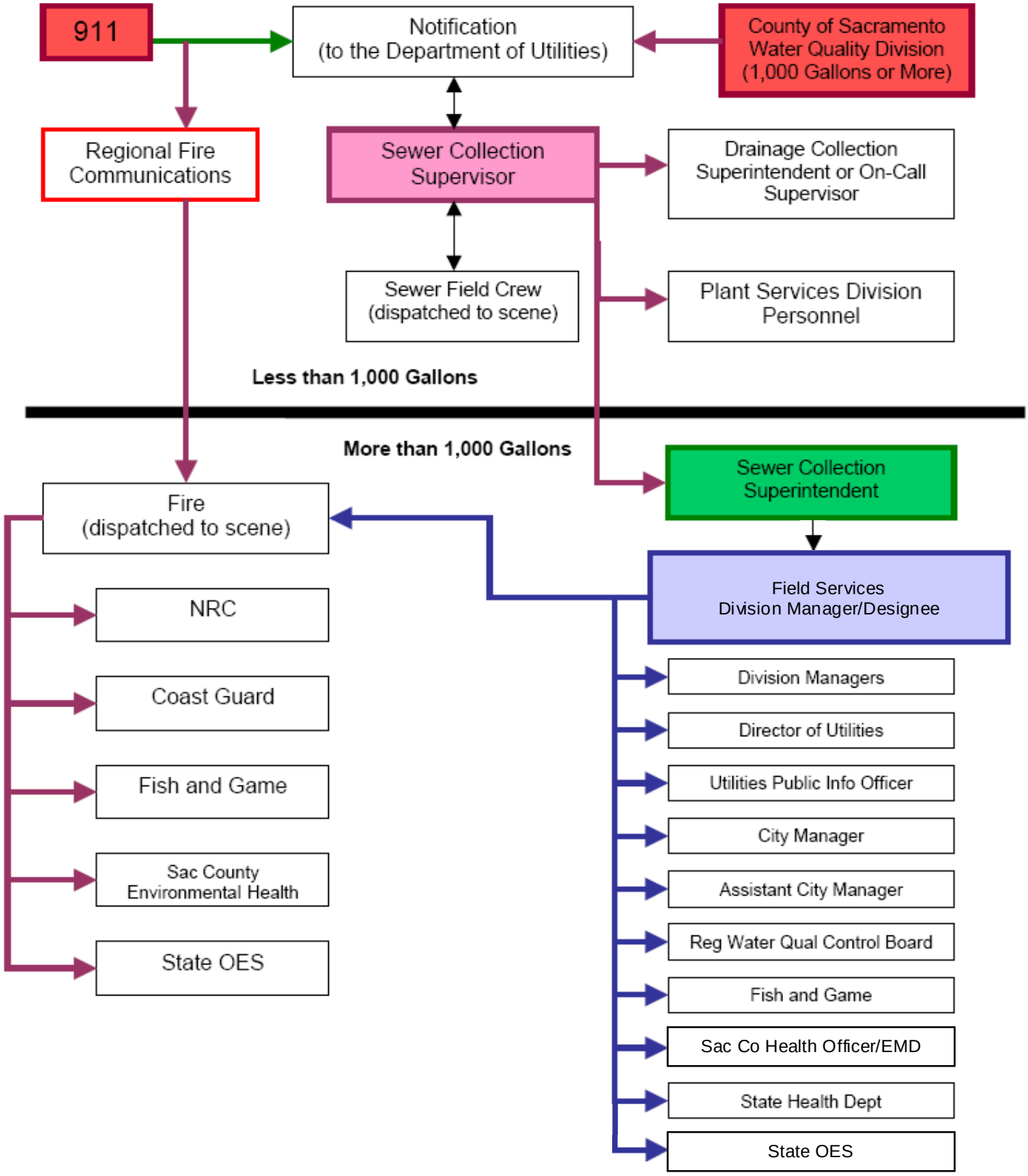
Sewer Collection Supervisor
- ❑ Notify Sewer Collection Superintendent
- ❑ Ensure Fire Department has been notified and is en route or on scene to activate hazardous material incident command structure

Sewer Collection Superintendent
- ❑ Notify Field Services Division Manager/Designee or the Plant Services Division Manager/Designee
- ❑ Complete Sewer Overflow Notification Checklist, if necessary, see page 27

Field Services Division or Plant Services Division Manager/Designee
- ❑ The Field Services Division Manager/Designee or Plant Services Division Manager/Designee will coordinate to notify the following:
  - Division Managers
  - Director of Utilities
  - Department of Utilities Public Information Officer
  - City Manager
  - Assistant City Manager
  - Regional Water Quality Control Board
  - State Department of Fish and Game
  - Sacramento County Health Officer
  - State Department of Health Services
- ❑ Complete Sewer Overflow Notification Checklist, see page 27

Engineering Services Division, Water Quality Section
- ❑ Prepare and submit an overflow report to Regional Water Quality Control Board within 72 hours of incident

Notification Flow Chart
Sewer Overflow into the Street



SEWER OVERFLOW FLOWING INTO OR EXPECTED TO ENTER WATERS OF THE STATE

911 Dispatch
- ❑ Notify Regional Fire Communications

Sacramento County Water Quality
- ❑ Notify City Operator (Dept. of General Services)

Regional Fire Communications Center
- ❑ Notify City Operator (Dept. of General Services)

City Operator (Dept. of General Services)
- ❑ Ensure Fire Department has been notified
- ❑ If spill occurs in County maintained lines, notify Sewer Collection and Drainage Collection Supervisors
- ❑ Complete Sewer Overflow/Spill Notification Form, see page 26
    - identify and document caller
    - request nature of overflow
    - determine start time of overflow, if possible
- ❑ During business hours, notify Sewer Collection Supervisor. If Supervisor cannot be reached, notify the Sewer Collection Superintendent.
- ❑ After hours, notify the On-Call Sewer Collection Supervisor

Sewer Collection Supervisor
- ❑ Ensure Fire Department has been notified and is en route or is on scene to activate hazardous materials command structure
- ❑ Notify Plant Services Division Manager
- ❑ Notify Sewer Collection Superintendent
- ❑ Notify Drainage Collection Superintendent or On-Call Supervisor
- ❑ Notify Plant Services Wastewater Superintendent or On-Call Supervisor
- ❑ Photograph the incident
- ❑ Document the incident
    - Complete Sewer Overflow Notification Checklist, see page 27

Sewer Collection Superintendent
- ❑ Notify Field Services Division Manager

Sewer Collection Field Crew
- ❑ Immediately notify Supervisor
- ❑ If possible, relieve, contain, and clean-up

Plant Services Division Wastewater Superintendent or On-Call Supervisor
- ❑ Notify Plant Services Division Manager
- ❑ Determine if any plants are causing or being affected by the overflow. If so,
    - isolate the plant and shut it down
    - document and prepare field report

- forward copy of field report to Engineering Services Division's Water Quality Section within 24 hours of incident
- communicate findings to Sewer Collection Superintendent or On-Call Supervisor and Plant Services Division Manager

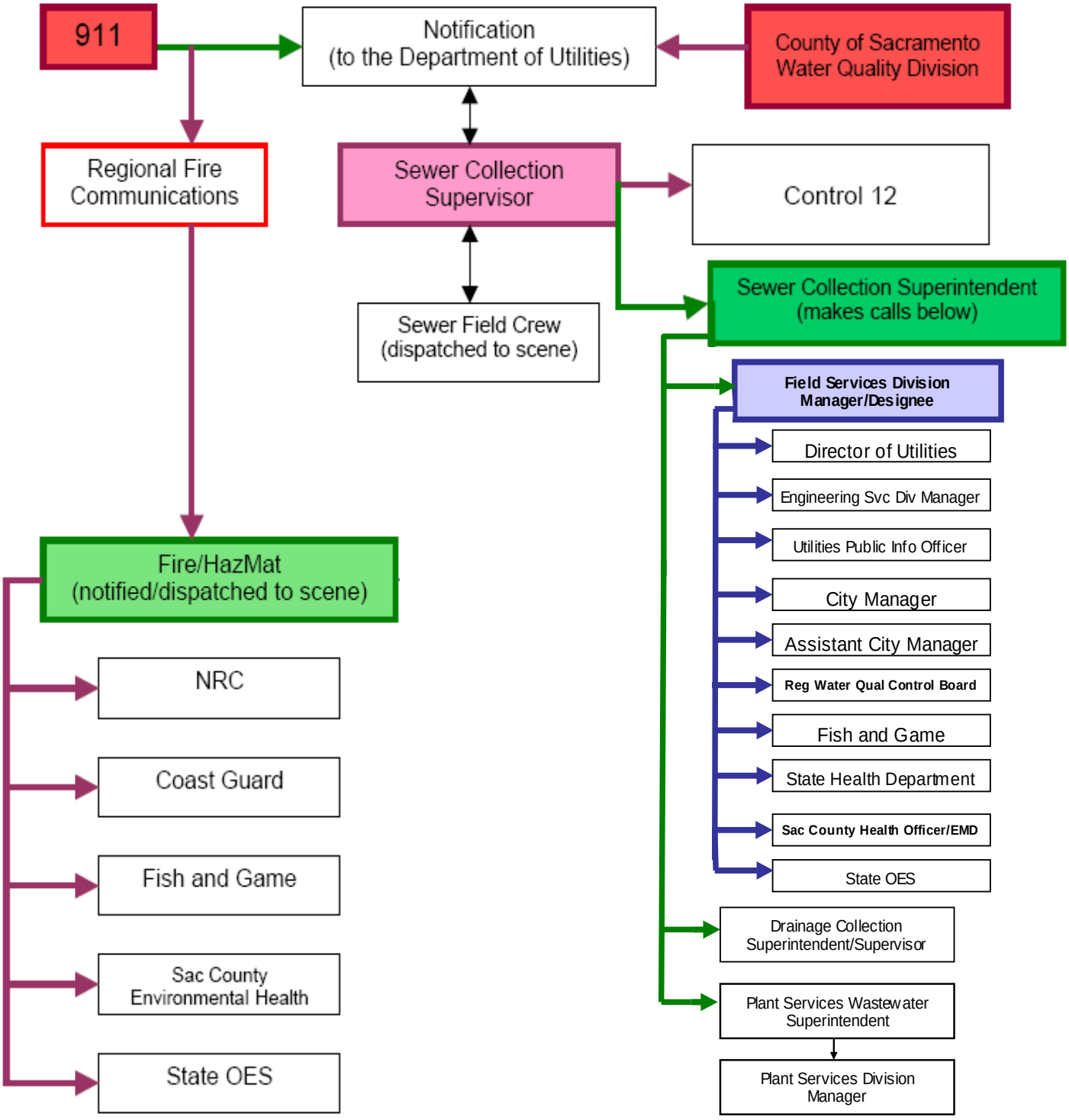
Field Services Division or Plant Services Division Manager/Designee

- ❑ The Field Services Division Manager/Designee or Plant Services Division Manager/Designee will coordinate to notify the following:
  - Director of Utilities
  - Engineering Services Division Manager
  - Department of Utilities Public Information Officer
  - City Manager
  - Assistant City Manager
  - Regional Water Quality Control Board
  - State Department of Fish and Game
  - State Department of Health Services
  - Environmental Management Division (EMD)/Sacramento County Health Officer
  - Office of Emergency Services (OES)
- ❑ Complete Sewer Overflow Notification Checklist, see page 27

Engineering Services Division, Water Quality Section

- ❑ Prepare and submit an overflow report to Regional Water Quality Control Board within 72 hours of incident

Notification Flow Chart
Sewer Overflow Into or Expected to Enter Waters of the State
Any Amount of Flow



Department of Utilities

Sewer Overflow Emergency Response Plan

SECTION III: FORMS

CITY OF SACRAMENTO – DEPARTMENT OF UTILITIES
SEWER OVERFLOW NOTIFICATION LIST

Name	Office	Fax	Cellular	Pager	Home/After Hours
City Operator	264-5011				
Administration					
Gary Reents	808-1433	808-1497	425-7092		967-8912
Jessica Hess	808-8260	808-8658	698-1705	810-7411	392-4714
Control 12 (weekdays)	808-5226	808-7955			
Sac Control (weekends/after hours)	808-4961	808-4994	798-7587		
Field Services					
Syed Rizvi	808-6217	808-6293	205-5475		(530) 758-5833
Mike Malone	808-6226	421-4596	997-5139	810-6083	
Ward Cox	808-6216	808-6328	996-2901	810-6113	386-1034
Jeff Heard	808-6955	391-3128	919-6493	810-6103	983-3289
Plant Services					
Mike Yee	808-5670	808-7955	798-7575		391-9601
Dave Phillips	808-5652	808-7955	952-8809	810-6024	682-1529
Mark Laurenzi	808-5674	808-7955	761-9349		(209) 745-4580
Clark Munkers	808-5653	808-7955	952-8803	810-6030	(530) 633-9115
	808-5651	808-7955	715-1675		
Ron Myers	808-3765	808-3780		810-6123	682-9272
Engineering Services					
Dave Brent	808-1420	808-1497	834-6715		(530) 759-9232
Bill Busath	808-1434	808-1497	801-4697		487-8416
Rick Batha	808-1448	808-1497	712-9373		(530) 758-3122
Bill Zehnder	808-1411	808-1497	826-0465	810-6072	660-1757
City Manager's Office					
Ray Kerridge, City Manager	808-1930				
Marty Hanneman, Assistant City Mgr.	808-7508				
Cassandra Jennings, Asst. City Mgr.	808-8888				
John Dangberg, Assistant City Mgr.	808-1222				
Gus Vina, Assistant City Mgr.	808-1738				
Amy Williams, Public Info. Officer	808-5014				
Fire Department					
Regional Fire Communications	228-3035	228-3082			
Risk Management (Call in order)					
Joe Crady	808-5502	808-5160	396-5045	697-7169	726-6796
Larry Nelson (Claims Manager)	808-5739	808-5160	214-3030		933-9446
Regional Water Control Board					464-3291
State Office of ER Services	845-8911 or 845-8510				
State Dept of Fish & Game	445-0045				
State Dept of Health Services	322-2308	323-9869	799-4256	328-3605	328-3605
Sac. County Environmental Health	875-8440	875-8513			875-5000
U.S. Coast Guard	(510) 437-3073				(510) 437-3073
Sac. County Health Officer	875-5881				875-5000

Revised August 2006

DEPARTMENT OF UTILITIES

Sewer Overflow/Spill Notification Form

Name _____ **Date** _____ **Time** _____

Location: (1) CITY OPERATOR ☐ (2) CONTROL 12 ☐ (3)SAC CONTROL ☐
(4) FIELD SERVICES ☐ (5) PLANT SERVICES ☐ (6) EAFWTP ☐
(7) SRWTP ☐

If a call is received regarding a hazardous material spill record as much of the information as possible below.

PERSON WHO NOTIFIED YOU:

NAME: _____

AGENCY: _____ **PHONE NUMBER:** ( ) -

SPILL INFORMATION

TIME AND DURATION OF SPILL (note if spill is ongoing): _____

EXACT LOCATION/ADDRESS OF SPILL: _____

SOURCE OF SPILL, IF KNOWN: ☐ MANHOLE ☐ MAIN ☐ SERVICE ☐ P.O.S. C/O ☐ TWO WAY C/O

MAIN PLUGGED BETWEEN UPSTREAM MH _____ DOWNSTREAM MH _____

TYPE OF SPILL: ☐ SEWER ☐ HAZMAT MATERIAL _____

RESPONSIBILITY FOR SPILL: ☐ CITY ☐ PROPERTY OWNER ☐ COUNTY SEWER

CAUSE OF SPILL: ☐ ROOTS ☐ GREASE ☐ DEBRIS

VOLUME/AMOUNT OF SPILL: _____ GALLONS

DID THE SPILL ENTER A WATERWAY? ☐ YES ☐ NO **NAME OF WATERWAY** _____

DID THE SPILL ENTER A STORM DRAIN? ☐ YES ☐ NO

WHO ORIGINATED THE SPILL?

NAME: _____

AGENCY: _____

PHONE NUMBER: ( ) -

WHO IS HANDLING THE ON-SITE SPILL RESPONSE?

NAME: _____

AGENCY: _____

PHONE NUMBER: ( ) -

COMMENTS:

PERSONNEL:

EQUIPMENT:

Form Reviewed by: _____ **(Supervisor)**

DEPARTMENT OF UTILITIES

Sewer Overflow Notification Checklist

NOTIFICATION: Refer to Appropriate Spills Procedure for Notification Information

(1) CITY OPERATOR	***Name***	***Time***

(2) CONTROL 12 ***(3) SAC CONTROL***	***Name***	***Time***
☐ City Operator		
☐ SRWTP		
☐ EAFWTP		
☐ On-Call Plant Services Supervisor		
☐ OTHER		

(4) FIELD SERVICES	***Name***	***Time***

(5) PLANT SERVICES	***Name***	***Time***

(6) EAFWTP	***Name***	***Time***
☐ On-Call SPO		
☐ SRWTP		
☐ CONTROL 12		
☐ CITY OPERATOR		
☐ BRYTE BEND WTP		
☐ FAX TO MIKE YEE		
☐ OTHER		

(7) SRWPT	***Name***	***Time***
☐ On-Call SPO		
☐ EAFWTP		
☐ CONTROL 12		
☐ CITY OPERATOR		
☐ ACWS		
☐ CWD		
☐ OTHER		

City of Sacramento Incident/Loss Report

CLAIM NO.

	Risk Mgt.	Org. Number	Dept./Division
INSTRUCTIONS FOR FORM COMPLETION --	Use Only		

SECTION I (Front)	Whenever a third party (public) sustains physical injury while on City property, property damage and/or it appears that the City may be liable, not caused by City-owned vehicle.
SECTION II (Back)	Whenever damage or loss involves City property (i.e., Fire, theft of inventoried equipment, money or securities vandalism – facilities, property, and equipment).

SECTION 1

IMPORTANT!	1.	Call Police 264-5471 advising City involvement.
	2.	Keep calm and assist third party.
	3.	Do not admit fault.
	4.	Get name of injured Party and/or owner of damaged property.
	5.	Carefully examine accident.
	6.	Do not talk to anyone about the accident, except: Your Supervisor, the Police, or City Adjuster.
	7.	If applicable, complete this section of Incident/Loss Report and distribute as required (below) within 24 hours.

NOTE! In case there appears to be serious injuries, or extensive property damage, telephone the City's Safety Officer at 264-5278.
(After normal work hours, call Police 264-5471.)

Date & Time of Occurrence	Location of Occurrence	Time Police Notified	Police Incident Report number	☐	None

Injuries Person(s)	Name & Address			
	Name & Address			
The Injury	The Nature & Location of Injury:	Was injured person taken to hospital?		
		Name of Hospital		
		Name of Doctor		
Property Damage	Owner & Address		Business Phone	
			Residence Phone	
	List of Property Damaged:			
Witness(s)	Name, Address, & Phone number			
	Name, Address, & Phone number			
	Name, Address, & Phone number			
Description of Occurrence				
Report Filed By	Name	Title	Date	Signature
	Org No	Dept.	Division	Phone number

(If additional space is required use supplemental sheet of paper and attach hereto.)

DISTRIBUTION Original and 1 copy to Risk Mgmt. 1 Copy retained by Dept/Div.	Orgn. No.	Dept./Div. Signature	Date	Phone No.
FORM RM 3 (5/99) Cat.No.31524				
	Risk Mgmt. Reviewer		Date	Phone No.

SECTION II of Incident/Loss Report Form

IMPORTANT!	1.	Call Police 264-5471 immediately on theft and vandalism losses, advising if loss involves City property.
	2.	Call Risk Management 264-5459 immediately on fire, money, and securities losses.
	3.	If applicable complete this section of Incident/Loss Report and distribute as required (below) within 24 hours.

Date & Time of Occurrence	Location of Occurrence	Time Police Notified	Police Incident Report number		Shield No		Name	

Description of Occurrence				
Probable Cause				
Proposed Corrective Action				
Witness(s)				
Est. Cost of Replacement				
Inventory Tag number				
Report Filed By	Name	Title	Date	Signature
	Org No / Dept.	Division	Phone number	

(If additional space is required use supplemental sheet of paper and attach hereto.)

Original and 1 copy to Risk Mgmt. 1 Copy retained by Dept/Div.							
	Orgn. No.		Dept./Div. Signature		Date		Phone No.
FORM RM 3 (5/99) Cat.No.31524							
	Risk Mgmt. Reviewer				Date		Phone No.

II. Wet Weather Combined System Overflow Response SOP
Revised 10/26/05

For notification list, see p. 27 of this manual

Level A

- Wet weather event;
- Less than (<) 1000 gallons
- Did/will ***not*** enter waters of the state
- Presents no exposure hazard to the public
    1. Secure the site
    2. Relieve the stoppage
    3. Begin clean-up
    4. Notify Regional Water Quality Control Board within 30 days

Level B

- Wet weather event
- Less than (<) 1,000 gallons;
- Did/will ***not*** enter waters of the State;
- ***High risk of public exposure (schools, daycare, malls, etc.);***
    1. Use chain of command to notify County Environmental Management Department (County EMD)
    2. Secure the site to minimize public exposure, including notifying signs at the site
    3. Post additional exposure notices as directed
    4. Relieve the stoppage
    5. Begin clean-up
    6. Notify Regional Water Quality Control Board (RWQCB) within 30 days

Level C

- Wet weather event
- Greater than (>) 1,000 gallons; **or**
- Spill entered waters of the State
    1. Use chain of command to contact County EMD and other required agencies, including verbally notifying RWQCB within 24 hours and in writing within 5 days
    2. Secure the site to minimize public exposure, including notifying signs at the site
    3. Post additional exposure notices as directed
    4. Relieve the stoppage
    5. Begin clean-up

Level D

- Catastrophic wet weather event, defined as:
- Very high risk of public exposure; and
- Widespread street flooding affecting multiple homes, businesses, one or more schools, day cares, at risk
    1. Use chain of command to contact County Health Officer/County EMD and other required agencies, including verbally notifying RWQCB within 24 hours and in writing within 5 days
    2. Secure the site to minimize public exposure, including notifying signs at the site
    3. Post additional exposure notices as directed
    4. Relieve the stoppage
    5. Begin clean-up

III. Sanitary Sewer Overflow (SSO) Response SOP

Revised 11/9/05

For notification list, see p. 27 of this manual

When responding to an SSO, determine the event level and take immediate action.

Level A

- Less than (<) 1,000 gallons;
- Did/will **not** enter waters of the State;
- Presents no exposure hazard to the public
    5. Secure the site
    6. Relieve the stoppage
    7. Begin clean-up
    8. No notification outside Department of Utilities

Level B

- Less than (<) 1,000 gallons;
- Did/will **not** enter waters of the State;
- **High risk of public exposure (schools, daycare, malls, etc.);**
    7. Use chain of command to notify County Environmental Management Department (County EMD)
    8. Secure the site to minimize public exposure, including notifying signs at site
    9. Post additional exposure notices as directed
    10. Relieve the stoppage
    11. Begin clean-up

Level C

- Greater than (>) 1,000 gallons; or
- Entered waters of the State; or
- High risk of public exposure (schools, daycare, malls, etc.);
    6. Use chain of command to contact County EMD, RWQCB, and other required agencies
    7. Secure the site to minimize public exposure, including notifying signs at site
    8. Post additional exposure notices as directed
    9. Relieve the stoppage
    10. Begin clean-up

Level D

- Catastrophic event, defined as:
- Very high risk of public exposure; and
- Widespread street flooding affecting multiple homes, businesses, one or more schools, day cares, at risk
    1. Use chain of command to contact County Health Officer, County EMD, RWQCB, and other required agencies
    2. Secure the site to minimize public exposure, including notifying signs at site
    3. Post additional exposure notices as directed
    4. Relieve the stoppage
    5. Begin clean-up

IV. Wet Weather CSO and SSO SOP

1. All personnel responding to CSO's and SSO's will carry digital camera, exposure notices, barricades, caution tape, and traffic cones.

2. All personnel responding to CSO's and SSO's will photo document the event.

3. Wastewater Collection personnel will determine if an event is a CSO by the presence of debris (i.e. Fecal matter, toilet paper, condoms, etc.) or witnessing water exiting the combined system. If these conditions are not present, the event will be deemed a system surcharge and monitored for change.

4. The following formula will be used to calculate the volume (in gallons) of a CSO:

   L' X W' X D' X 7.48 = volume in gallons

5. Volume of SSO's will be determined by the on-site Supervisor using the gpm x duration = volume formula.

6. Methods to be used to secure the site may include:
   A. Restricting vehicle traffic using responding equipment, redirecting traffic using traffic cones, street closures, or with the assistance of the Police Department
   B. Restricting pedestrian traffic using caution tape and barricades

V. SSO/CSO Training SOP

1. Review SSO and CSO Response Checklists *(see p. 33)*. Be sure everyone understands the difference and the steps to be taken with each.
2. Review the CSO/Surcharge Decision Tree *(see p. 36)*. Be sure everyone knows the difference between an outflow and a surcharged condition.
3. Review the Wet Weather CSO and SSO Standard Operating Procedure *(see p. 34)*. Be sure everyone understands their responsibilities and equipment they must have at hand.
   Stress the importance of photo documenting the overflow or outflow, securing the site, and calculating the volume of the overflow or outflow.
4. To explain the formula to calculate volume of the overflow or outflow, use the following example:

L' x W' x D' x 7.48 = Volume of spill

(Length in feet times width in feet times depth in feet times the constant of 7.48 gallons per cubic foot equals volume of the overflow or outflow. To make the calculation a bit easier, we will use .1 to equal one inch.)

Substituting 200 for L, 4 for W, .1 for D, the equation will be:

200 x 4 x .1 x 7.48 = Volume
800 x .1 x 7.48 = Volume
80 x 7.48 = Volume
598.4 gallons = Volume of overflow or outflow

(Calculators will be available for this calculation!)

Review this information until everyone understands their duties and responsibilities, and can perform the calculation.

VI. CSO/Surcharge Decision Tree

For notification list, see p. 27 of this manual

Is sewer debris present?
OR
Is water flowing from the system?

NO

↓

Photo document event
Continue to monitor

YES

↓

Photo document event

↓

Estimate volume

↓

Determine spill level from checklist

↓

Notify Superintendent (Notify F.S. Mgr if unable to contact Supt.)

↓

Superintendent to notify County EMD/Health, RWQCB, F.S. Mgr

↓

Supervisor to secure site and complete appropriate level check list steps

VII. Rain Patrol SOP

The Drainage Collection Section is responsible for the implementation of rain patrols. Depending on the amount of rainfall, one of two patrolling plans will be implemented. When appropriate, the Wastewater Collection Section assists Drainage Collection with Rain Patrol. Drainage Collection is responsible for the separated system and Wastewater Collection for the combined system.

Patrolling Plans
During the winter months, the Field Services Division is prepared to implement one or two Rain Patrol Plans for the collection system. The Drainage Collection Section decides whether to implement **Plan A** or **Plan B** based upon the current weather conditions.

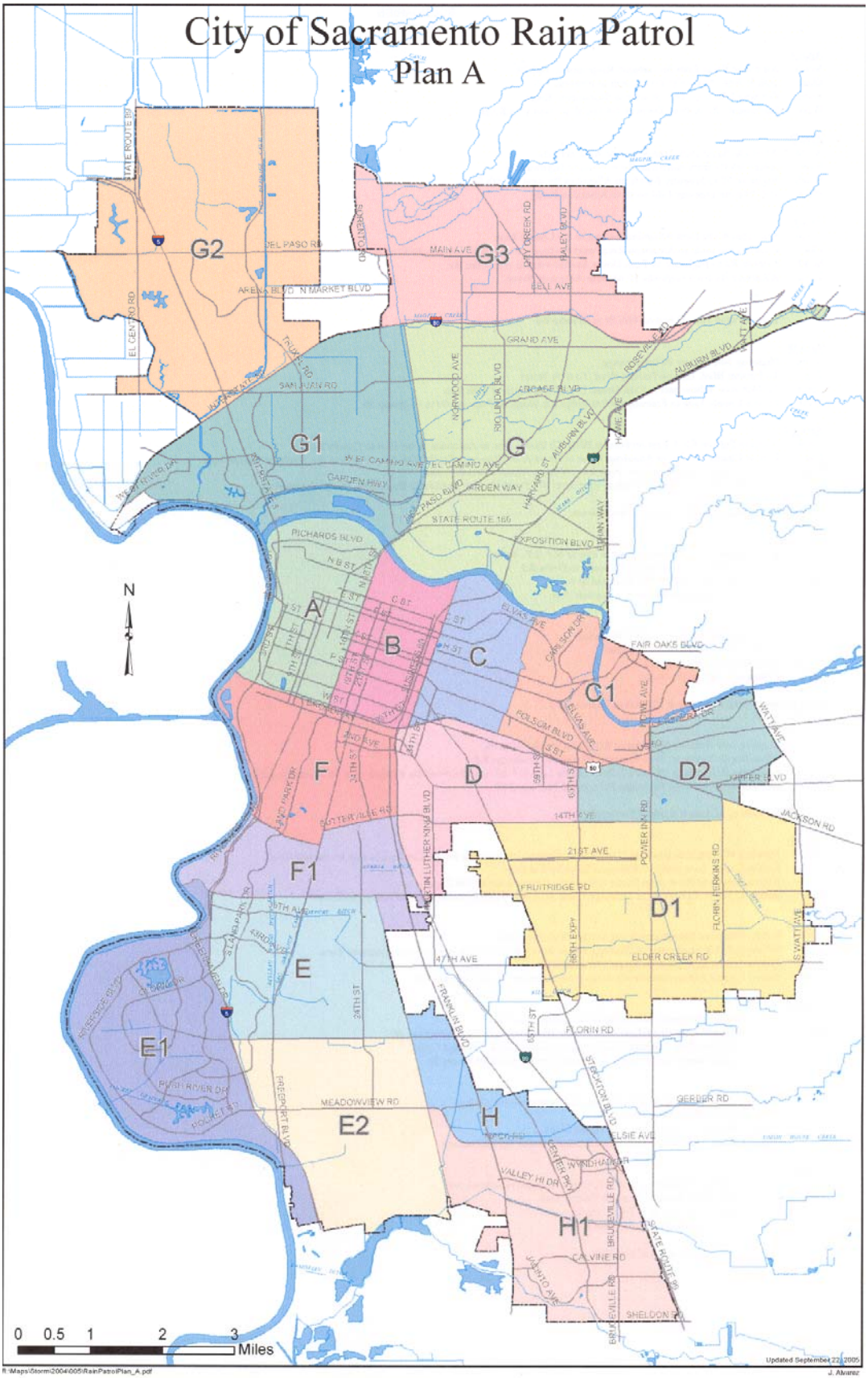
- **Plan A:** Minor Rain Event Where Rainfall Is ½ Inch Or Less in One Hour.

  Plan A is a modified rain patrol plan in which approximately 12 Wastewater Collection personnel (in two-person crews) participate. While using this plan, the City is divided into 17-18 large areas, of which Wastewater Collection is responsible for 6. These sections correspond to A, B, C, D, D2, and F (*see Plan "A" map on the following page).* Generally, one crew is dispatched per area, although additional crews may be assigned depending on the incident, including crews responsible for specific pieces of equipment.

- **Plan B:** Large Rain Event Where Rainfall Is ½ Inch Or More in One Hour.

  When implementing **Plan B**, the City is split into 36 separate areas, of which Wastewater Collection is responsible for 14. These are Areas 1-6, 9-12, and 14-17 (*see Plan "B" map on p. 39)*. Approximately 93 Field Services personnel (Drainage Collection, Water Distribution, and Wastewater Collection) participate in this plan, including roughly 34 personnel from Wastewater Collection (2-person crews).

  The same consideration that is used during the minor rain event is also used to decide when, where and how many crews will be dispatched. In this phase, approximately 40 personnel are drawn from the Water Distribution Section and Public Works' Streets Division.


City of Sacramento Rain Patrol
Plan A
G2
G3
G1
G
A
B
C
C1
F
D
D2
F1
D1
E
E1
E2
H
H1
N
0 0.5 1 2 3
Miles
Updated September 22, 2005
J. Alvarez

BOUNDARIES PLAN A

Area A
North: American River from Sacramento River east to 16th St.
East: 16th St. from American River south to Freeway I-80.
South: Freeway I-80 from 16th St. west to Sacramento River.
West: Sacramento River from Freeway I-80 north to American River.

Area B
North: American River from 16th St. east to Alhambra Bv.
East: Alhambra Bv. From American River south to Highway 50.
South: Highway 50 to Freeway I-80 from Alhambra Bv. West to 16th St.
West: 16th St. from Freeway I-80 north to American River.

Area C
North: American River from Alhambra Bv. East to the County Line.
East: County Line south to American River west to Howe Ave. then south to Jackson Rd.
South: Jackson Rd. to Highway 50 from Howe Ave. west to Alhambra Bv.
West: Alhambra Bv. from Highway 50 north to American River.

Area C1
Everything in Area C east of 48th St. to Coloma Rd.

Area D
North: Highway 50/Freeway 99 interchange.
East: To Folsom Blvd. East on Folsom Blvd. to 65th St.
South: To 14th Ave. follow east to 65th St. Everything north of 14th Ave.
West: Follow County Line to Freeway 99/Fruitridge Rd. North on Freeway 99 to Highway 50.

Area D2
North: North to Folsom Blvd. East on Folsom Blvd. To Howe Ave. to American River East to County Line.
East: Follow County Line from American River at Howe Ave. Change to South Watt Ave., South to the Southern County Line.
South: Follow County Line from South Watt Ave. West to Western County Line.
West: Follow Western County Line South to 14th Ave. West on 14th Ave. to 65th St. Everything North of 14th Ave.

Area D1
Everything in Area D south of 14th Ave.

Area E
North: Fruitridge Rd from Sacramento River east to U.P.R.R. tracks.
East: U.P.R.R. tracks from Fruitridge Rd south to Florin Rd.
South: Follow Florin Rd. from U.P.R.R. tracks to I-5.
West: Follow I-5 from Florin Rd. north to Seamas Ave.

Area E2
North: Florin Rd. from I-5 east to U.P.R.R. tracks.
East: U.P.R.R. tracks south to County Line.
South: Follow County Line west to I-5.
West: Follow I-5 north to Florin Rd.



Area E1

Everything in Area E & E2 west of Freeway I-5.

Area F

North: Freeway I-80 from the Sacramento River east to Alhambra Bv.
East: Alhambra Bv/Highway 50 to Freeway 99 south to Fruitridge Rd.
Fruitridge Rd/Freeway 99 south follow County Line to Fruitridge Rd/Franklin Bv. then west on Fruitridge Rd. to
West: Sacramento River from Fruitridge Rd. north to Freeway I-80.

Area F1

Everything in Area F south of Sutterville Rd.

Area G

North: Follow I-80 from East Drainage Canal east to County Line and then follow County Line east to Auburn Blvd.
East: Follow County Line south to American River by Cal Expo.
South: Follow American River from Route 160 west to County Line by Cal Expo.
West: Follow U.P.R.R. tracks east of Drainage Canal from I-80 south to Route 160 and American River.

Area G1

North: Follow I-80 from Sacramento River to East Drainage Canal.
East: Follow U.P.R.R. tracks east of Drainage Canal from I-80 south to Route 160 and American River.
South: Follow American River from Route 160 west to Sacramento River.
West: Follow County Line on Sacramento River from American River north to I-80.

Area G2

North: Follow County Line from State Route 99 to eastern County Line.
East: From northern County Line follow west of East Main Drainage Canal south to I-80.
South: Follow I-80 from East Drainage Canal west to County Line at Drainage Canal.
West: Follow County Line from I-80 north to northern County Line on Elkhorn Bv.

Area G3

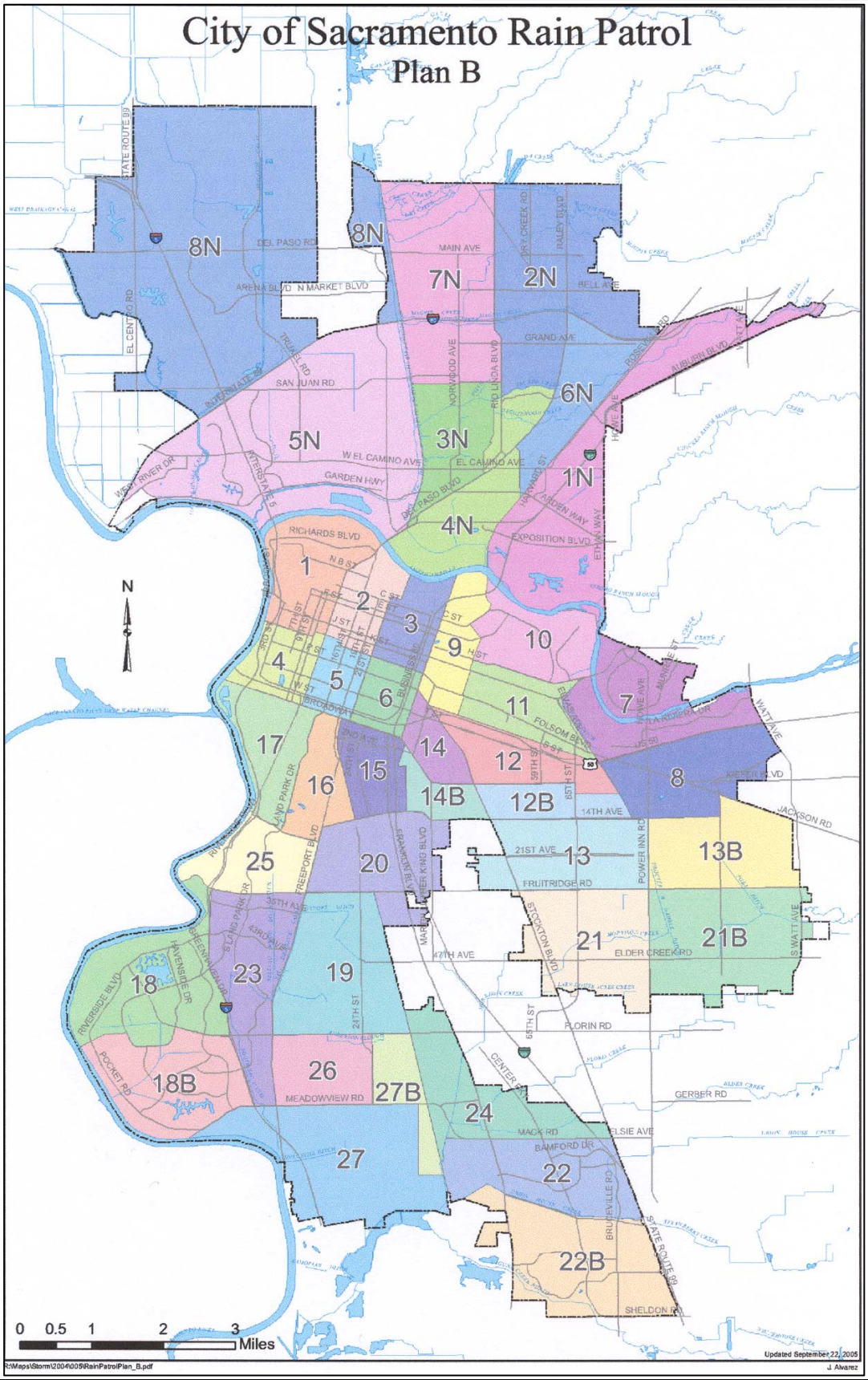
North: Follow County Line from Sorento Rd. east to County Line (Patrol Rd).
East: Follow County Line south to I-80.
South: Follow I-80 west to County Line (Northgate Blvd.)
West: Follow County Line north to East Levee Rd. and Sorento Rd. Intersection.

Area H

North: Follow County Line east from U.P.R.R. tracks to eastern County Line.
East: Follow County Line south to southern County Line.
South: Follow County Line west to U.P.R.R. tracks.
West: Follow U.P.R.R. tracks north to County Line.

Area H1

Everything in Area H south of Mack Rd.


City of Sacramento Rain Patrol
Plan B
8N
7N
2N
6N
5N
3N
1N
4N
1
2
3
4
5
6
7
8
9
10
11
12
12B
13
13B
14
14B
15
16
17
18
18B
19
20
21
21B
22
22B
23
24
25
26
27
27B
N
0 0.5 1 2 3 Miles
Updated September 22, 2005
J. Alvarez

BOUNDARIES PLAN B

Area 1
North: American River from Sacramento River to North 12th St.
West: Sacramento River from Capitol Bridge N to American River Junction.
South: Capitol Mall from Capitol Bridge E to 10th St. N to L St. E to 12th St.
East: 12th St. from N St. to American River.

Area 2
North: American River from North 12th St. to point N of the river N of 25th St.
West: 12th St. from N St. to American River.
South: L St. from 12th St. E to 15th St. S to Capitol Av E to 21st St. then N to the American River.
East: 21st St – Capitol Av N to R.R. W down R.R. tracks to 25th St then N to the American River.

Area 3
North: 21st St. at R.R. tracks E to 23rd St then N to American River E to a point on the American River N of Alhambra Bv
West: 21st St. from the Capitol Av N to R.R. W down R.R. tracks to 25th St. then N to the American River.
South: 21st St. and Capitol Av E to Alhambra Bv
East: Capitol Av N on Alhambra Bv straight to a point on the American River.

Area 4
North: Capitol Mall from Capitol Bridge E to 10th St. N to L St. E to 12th St.
West: Sacramento River from Capitol Mall S to a straight point off Brdwy.
South: Point on Sacramento River E on Brdwy to Riverside Bv N on 11th St. to W St. E to 12th St.
East: 12th from N St. S to W St. W to 11th St. S to Brdwy.

Area 5
North: L St. from 12th St. E to 15th St. S to Capitol Av E to 21st St.
West: 12th St. from N St. S to W St. W to 11th St. S to Brdwy.
South: Brdwy. from 11th E to 21st St.
East: 21st St from Capitol Av S to Brdwy.

Area 6
North: 21st St. and Capitol Av E to Alhambra Bv.
West: 21st St. from Capitol Av S to Brdwy.
South: Brdwy from 21st St E to Alhambra Bv.
East: Alhambra Bv from Brdwy N to Capitol Av

Area 7
North: H St. from S.P.R.R. tracks E to American River. Up the river to County Line. E to Watt Av.
West: S.P.R.R. tracks from H St. S to Hwy 50.
South: Hwy 50 from S.P.R.R. tracks to Watt Av.
East: Watt Av. from Hwy 50 N to County Line.

Area 8
North: Hwy 50 from S.P.R.R. tracks to Watt Av.
West: S.P.R.R. tracks from Hwy 50 S to 14th Av.
South: 14th Av from S.P.R.R. tracks E to Florin Perkins Rd. N to Jackson Rd. E to County Line.
East: County Line from Jackson Rd N to Hwy 50.

Area 8N
North: Follow County Line from State Route 99 to eastern County Line.

West: Follow County Line from I-80 north to northern County Line on Elkhorn Bv.
South: From County Line north of I-80 to East Drainage Canal.
East: From northern County Line follow west of East Main Drainage Canal south to I-80.

Area 9
North: American River from a point N of Alhambra Bv. E to S.P.R.R. tracks.
West: Alhambra Bv from a point on the American River S to Stockton Bv.
South: Stockton Bv from Alhambra to R.R. tracks then E to 39th St.
East: 39th St from R.R. tracks N to C St. E to S.P.R.R.

Area 10
North: American River from S.P.R.R. tracks W of FreeWy I-80 E on river to H St.
West: S.P.R.R. tracks from American River S to C St. then on 39th St. S to H St.
South: H St. from 39th St. E to H St. Bridge over the American River.
East: American River from S.P.R.R. tracks W of FreeWy I-80 E on river to H St.

Area 11
North: H St. from 39th St. E to R.R. tracks E of Elvas Av.
West: 39th St from H St. S to Light Rail R.R. tracks.
South: Light Rail R.R. tracks from 39th St E to S.P.R.R. tracks E of Elvas Av.
East: S.P.R.R. tracks from H St. S to Light Rail R.R. tracks.

Area 12
North: Light Rail R.R. tracks from Stockton Bv E to S.P.R.R. tracks E of Elvas Av.
West: Stockton Bv from Light Rail R.R. tracks S to Brdwy.
South: Brdwy from Stockton Bv E to 65th Expressway then S to San Joaquin St. E on San Joaquin St to S.P.R.R. tracks.
East: S.P.R.R. tracks from Light Rail R.R. tracks S to San Joaquin St.

Area 12B
North: Brdwy from Stockton Bv E to 65th Expressway then S to San Joaquin St. E on San Joaquin St to S.P.R.R. tracks.
West: Stockton Bv from Brdwy S to 14th Av.
South: 14th Av from Stockton Bv E to S.P.R.R. tracks.
East: S.P.R.R. tracks from San Joaquin St. S to 14th Av.

Area 13
North: 14th Av from Stockton Bv to Power Inn Rd.
West: Stockton Bv from 14th Av S to the County Line W along County Line then S along County Line to Fruitridge Rd and 53rd St.
South: Fruitridge Rd from 53rd St. E to Power Inn Rd.
East: Power Inn Rd. from 14th Av S to Fruitridge Rd.

Area 13B
North: 14th Av from S.P.R.R. tracks E to Florin Perkins Rd. N to Jackson Rd. E to County Line.
West: Power Inn Rd. from 14th Av S to Fruitridge Rd.
South: Fruitridge Rd from Power Inn Rd E to South Watt Av.
East: County Line from Jackson Rd S to Fruitridge Rd.

Area 14
North: Stockton Bv from Alhambra Bv S to Brdwy.
West: Alhambra Bv from Stockton Bv S to Brdwy.
South: Brdwy from Alhambra Bv S then E to Stockton Bv.
East: Stockton Bv from Alhambra Bv S to Brdwy.

Area 14B
North: Brdwy from Alhambra Bv S then E to Stockton Bv.
West: 32nd from Brdwy S to Marshall Wy. E on Marshall Wy to 33rd St. S on 33rd St to 16th Av.
South: 14th Av from 33rd St E to County Line to Stockton Bv.
East: Stockton Bv from Brdwy S to 14th Av.

Area 15
North: Brdwy from U.P.R.R. tracks E to Alhambra Bv.
West: U.P.R.R. tracks from Brdwy S to Sutterville Rd.
South: Sutterville Rd from U.P.R.R. tracks E, changes into 12th Av, to 33rd St.
East: 32nd St from Brdwy S to Marshall Wy. E on Marshall Wy to 33rd St. S on 33rd St to 12th Av.

Area 16
North: Brdwy from 16th St E to U.P.R.R. tracks.
West: Land Park Dr from Brdwy S to Sutterville Rd.
South: Sutterville Rd from Land Park Dr E to Freeport Bv. N on Freeport Bv E on Sutterville Rd to U.P.R.R. tracks.
East: U.P.R.R. tracks from Brdwy S to Sutterville Rd.

Area 17
North: Point on Sacramento River E on Brdwy to Land Park Dr (16th St).
West: Sacramento River from Brdwy S to Sutterville Rd.
South: Point on Sacramento River E on Sutterville Rd. to Land Park Dr.
East: Land Park Dr. from Brdwy S to Sutterville Rd.

Area 18
North: Seamas Av from Freeway I-5 W on Seamas Av to the Sacramento River.
West: Sacramento River from Seamas Av S to Portinao Circle.
South: Florin Rd from Freeway I-5 W on Florin Rd to Havenside Dr. S on Havenside Dr, changes to Gloria Dr, to Rivergate Wy. W on Rivergate Wy to Sacramento River.
East: Freeway I-5 from Seamas Av S to Florin Rd.

Area 18B
North: Florin Rd. from Freeway I-5 W on Florin Rd to Havenside Dr. S on Havenside Dr, changes to Gloria Dr, to Rivergate Wy. W on Rivergate Wy to to Sacramento River.
West: Sacramento River from Portinao Circle S to Pocket Rd at Freeway I-5.
South: Sacramento River from Portinao Circle S to Pocket Rd at Freeway I-5.
East: Freeway I-5 from Pocket Rd N to Florin Rd.

Area 19
North: Fruitridge Rd from Freeport Bv E to U.P.R.R. tracks.
West: Freeport Bv from Fruitridge Rd S to Florin Rd.
South: Florin Rd from Freeport Bv E to U.P.R.R. tracks.
East: U.P.R.R. tracks from Florin Rd N to Fruitridge Rd.

Area 20
North: Sutterville Rd from Freeport Bv E, changes to 12th Av, to County Line by 40th St.
West: Freeport Bv from Sutterville Rd S to Fruitridge Rd.
South: Fruitridge Rd from Freeport Bv E to U.P.R.R. tracks. S on tracks to County Line at Campbell Soup then E on County Line to 39th Av at Freeway I-99.
East: County Line from 14th Av S to 39th Av.

Area 21
North: Fruitridge Rd from County Line at 53rd St E to Power Inn Rd.

West: County Line from Fruitridge Rd S to 47th Av.
South: County Line from 47th Av E to Power Inn Rd.
East: Power Inn Rd from County Line at Cantina Circle N to Fruitridge Rd.

Area 21B
North: Fruitridge Rd from Power Inn Rd E to County Line at South Watt Av.
West: Power Inn Rd from Fruitridge Rd S to County Line.
South: County Line from Power Inn Rd E to Elk Grove Rd and Florin Rd.
East: County Line from Elder Creek Rd N to Fruitridge Rd.

Area 22
North: Mack Rd from Morrison Creek at U.P.R.R. tracks N to Mack Rd then E to Stockton Rd.
West: U.P.R.R. tracks from Morrison Creek S to Union House Creek.
South: Union House Creek from U.P.R.R. tracks to Strawberry Creek E to County Line at Freeway I-99.
East: County Line from Strawberry Creek N to Mack Rd.

Area 22B
North: Union House Creek from U.P.R.R. tracks E to Strawberry Creek E to County Line.
West: County Line.
South: County Line.
East: County Line.

Area 23
North: Seamas Av from Freeway I-5 E, changes to Fruitridge Rd, to Freeport Bv.
West: Freeway I-5 from Seamas Av S to Pocket Rd.
South: Pocket Rd from Freeway I-5 E to Freeport Bv.
East: Freeport Bv from Pocket Rd N to Fruitridge Rd.

Area 24
North: County Line from U.P.R.R. tracks E to 52nd Av S and E to Stockton Bv.
West: U.P.R.R. tracks from Nancy Lake S to Morrison Creek.
South: Mack Rd from Morrison Creek E to Stockton Bv.
East: County Line from U.P.R.R. tracks E to 52nd Av S and E to Stockton Bv.

Area 25
North: Sutterville Rd from Sacramento River E to Freeport Bv.
West: Sacramento River from Sutterville Rd S to Seamas Av.
South: Seamas Av, changes to Fruitridge Rd, from Sacramento River to Freeport Bv.
East: Fruitridge Bv from Sutterville Rd S to Fruitridge Rd.

Area 26
North: Florin Rd from Freeport Bv E to 25th St.
West: Freeport Bv from Florin Rd S to Meadowview Rd.
South: Meadowview Rd from Freeport Bv E to 24th St.
East: 25th St from Meadowview Rd N to 25th St to Florin Rd.

Area 27
North: Pocket Rd to Meadowview Rd from 7942 Pocket Rd P.L, Sacramento River, E to 3250 Meadowview Rd, Nation Guard Armory.
West: Sacramento River from 7942 Pocket Rd P.L. S to Stonecrest Av, County Line.
South: County Line from Freeport Bv E to W.P.R.R. tracks.
East: County Line at W.P.R.R. tracks N to a point S of Detroit Bv W to Meadowview Rd, Nation Guard Amory.

Area 27B
North: Florin Rd from 25th St E to W.P.R.R. tracks.
West: 25th St from Florin Rd to 24th St S to Meadowview Rd.
South: 25th St from Florin Rd to 24th St S to Meadowview Rd.
East: W.P.R.R. tracks from Florin Rd S to end of Detroit Bv.

Area 1N
North: County Line from S.P.R.R. tracks E to County Line.
West: S.P.R.R. tracks from County Line S to American River.
South: American River from S.P.R.R. tracks to County Line.
East: County Line from American River N.

Area 2N
North: Ascot Av from Rio Linda Bv to County Line (Patro Road)
West: Rio Linda Bv from Ascot Av south to Arcade Creek
South: Arcade Creek E of Rio Linda Bv to Marysville Bv. N on Marysville Bv to Freeway I-80 E to County Line.
East: County Line from Freeway I-80 north to Ascot Av.

Area 3N
North: Ford Rd from U.P.R.R. tracks E to Rio Linda Bv.
West: U.P.R.R. tracks from Ford Rd S to Del Paso Bv.
South: Del Paso Bv from U.P.R.R. tracks E to Oakmont St.
East: Oakmont St N from Del Paso Bv to Traction Av. Northeast on Traction Av to Eleanor Av. W to Altos Av then N to Arcade Creek. E to Rio Linda Bv then N to Ford Rd.

Area 4N
North: Arcade Creek from Altos E to Marysville Rd.
West: From Arcade Creek S on Altos Av to Eleanor Av. E on Eleanor Av to Traction Av then S to Oakmont St. S to Del Paso Bv then SW to American River.
South: American River from Del Paso Bv E to S.P.R.R. tracks.
East: S.P.R.R. tracks at American River N to Lexington St. N on Lexington St to Glenrose Av W to Del Paso Bv, changes to Marysville Bv, to Arcade Creek.

Area 5N
North: Freeway I-80 from U.P.R.R. tracks W to County Line by the Sacramento River.
West: Freeway I-80 from U.P.R.R. tracks W to County Line by the Sacramento River.
South: County Line on Freeway I-80 to Sacramento River to American River then E on American River to Del Paso Bv.
East: Del Paso Bv at American River E to U.P.R.R. tracks N to Freeway I-80.

Area 6N
North: Freeway I-80 from S.P.R.R. tracks W to Marysville Bv.
West: Marysville Bv S from Freeway I-80 to Del Paso Bv to Eleanor Av. SE to Lexington St S to S.P.R.R. tracks.
South: Marysville Bv S from Freeway I-80 to Del Paso Bv to Eleanor Av. SE to Lexington St S to S.P.R.R. tracks.
East: S.P.R.R. tracks from Freeway I-80 to Lexington St.

Area 7N
North: Follow northern County Line from U.P.R.R. tracks to Rose Street.
West: East of East Drainage Canal from northern County Line south to Ford Road.
South: Ford Rd from U.P.R.R. tracks (on East Drainage Canal) East to Rio Linda Bv.
East: Rio Linda Bv from Ford Rd North to Ascot Ave

PATROLLING

The Department of Utilities has various patrolling responsibilities during the rainy season which is normally from October through May. These Patrolling responsibilities include levee patrol, rain patrol, pumping plant patrol and combined sewer system patrol.

General Information

The following sections outline rain patrol responsibilities for the Field Services Division and the Plant Services Division. These responsibilities include the stormwater drainage collection system, pumping plants and the combined sewer system service area.

Drainage Collection System Patrol

Field Services Division
During the winter months, the Field Services Division is prepared to implement one or two Rain Patrol Plans for the collection system. The Drainage Collection Section decides whether to implement Plan A or Plan B (see definitions on p. 37) based upon the current weather conditions.

The Field Services Division Rain Patrol Crews will be dispatched into areas from Building 19. Lists of personnel who are qualified for Rain Patrol duty are located at 5730 24th Street, Building 19.

Initial set up of the Rain Patrol plans will be the responsibility of the Drainage Collection Superintendent. Supervisors from the Drainage Collection Division and the Wastewater Collection Division are trained to implement this plan. The Plant Services Division Manger is responsible for the implementation of the Plant Services Patrol Duty.

During off-duty hours, the City Operator will notify the Drainage Collection Section's On-Call Supervisor as trouble calls are received. The On-Call Supervisor has the responsibility to initiate the rain patrol plans and notifies WWC on-call Supervisor.

After the plans are implemented, the North and South Area Supervisors will survey large drainage problems and ditches in their respective areas. Depending on rainfall and reported flooding incidents, additional rain patrol crews may be dispatched.

Plant Services Division
During the winter months, the Plant Services Division is prepared to implement its Rain Patrol Plan for the Sewer and Drainage Pumping Stations. Its rain patrol plan is implemented whenever weather conditions and/or telemetry systems or flow conditions at Sump 1, Sump 1A and Sump 2 dictate. The City is broken down into 123 storm basins which collect the water and feed it to some 98 pumping plants.

Combined System Patrol

Rain Patrol crews patrolling the combined sewer system will keep the Drainage Collection Superintendent informed of major street flooding and what streets are closed. The Drainage Collection Superintendent will keep the Streets Division Manager informed of the conditions. If the Drainage Collection CP or UOC is activated, the rain patrol crews will keep the Operations Section Chief informed of street flooding and of the overall situation. The Operations Section Chief will in turn keep the Incident Commander informed.

Incoming emergency calls referred by the City Operator will be answered by experienced staff at the Drainage Collection CP, located at 5730 24th Street, Building 19.

DEPARTMENT OF UTILITIES

SITUATION REPORT

RAIN PATROL

For Use in a Plan A or B Rain Event

FIELD SERVICES

DATE: _____

START TIME: _____ END TIME: _____ RAIN PATROL PLAN: _____

NUMBER OF PERSONNEL: _____ NUMBER OF CALLS: _____

ANY SIGNIFICANT PROBLEMS: _____

_____

_____

RAIN FALL LAST 24 HOURS: _____ SAC RIVER ELEVATION @ I ST: _____

PLANT SERVICES

NUMBER OF SUMPS IN HIGH ALARM: _____

NUMBER OF POWER FAILURES: _____

SUMPS OPERATING ON GENERATORS: _____

PUMPS DOWN: _____ LOCATIONS: _____

C.W.T.P. DISCHARGE: ⋆☐ PIONEER DISCHARGE: ⋆☐ SUMP II DISCHARGE: ⋆☐

NUMBER OF PERSONNEL: _____

ANY SIGNIFICANT PROBLEMS: _____

_____

_____

START TIME: _____ END TIME: _____

REVIEW OF CITY OF SACRAMENTO PUBLIC VEHICLE MAINTENANCE FACILITIES, MATERIAL STORAGE FACILITIES, AND CORPORATION YARDS

Prepared by Archibald & Wallberg Consultants

June 2004

TABLE OF CONTENTS

CONDUCT OF THE WORK 1

SUMMARY OF RESULTS 2

LIST OF TABLES

Table 1. Summary of Results (a) 2-3

LIST OF ATTACHMENTS

Attachment A Master Table

Attachment B Individual Facility Review Forms

REVIEW OF CITY OF SACRAMENTO PUBLIC VEHICLE MAINTENANCE FACILITIES, MATERIAL STORAGE FACILITIES, AND CORPORATION YARDS

In 2004, a review of City facilities was conducted in order to determine which additional City facilities should prepare and implement Stormwater Pollution Prevention Plans (SWPPPs). This review was conducted as the first step in satisfying the Stormwater NPDES Permit Provision 10. c. i. that states:

> "Each Permittee shall prepare and implement SWPPPs for public vehicle maintenance facilities, material storage facilities, and corporation yards having the potential to discharge pollutants to the MS4 and/or waters of the state. This requirement shall only apply to those facilities not already covered under the General Industrial Permit."

This report addresses this specific permit provision with respect to the need to implement SWPPPs. Other BMPs are implemented by the City to address other municipal facilities and activities that are not addressed by this permit provision.

The conduct of the work in performing the review is described below followed by a summary of results. A master table is attached, which comprehensively summarizes the results of the review. Also attached are descriptive notes on several individual facilities that provide additional information on those facilities. Facility locations are shown on an attached map.

CONDUCT OF THE WORK

The work was principally conducted by Jeanne Wallberg of Archibald & Wallberg Consultants and reviewed by Delia Garrison of the City of Sacramento Department of Utilities. The work consisted of the following steps:

Compiled a comprehensive list of facilities for review. Several sources of information were used in compiling the list including: (1) a list of all City owned properties, (2) individual lists of Public Works Department, Department of Utilities, and Convention and Culture Department facilities, and (3) a list of City facilities with fuel storage onsite. These individual lists were culled for potential vehicle maintenance, materials storage, and corporation yards based on title description. For example, properties described as office buildings or parking lots were not selected.

Sorted the list by drainage. Facilities in areas that drain to the MS4 or to a creek or river were separated from facilities within the combined sewer system (CSS). For information purposes, facilities within the CSS are shown on the attached master table along with some information collected on those facilities. However, since these facilities do not discharge to the MS4 or waters of the state, it was judged that they do not require a SWPPP.

Evaluated the facilities in areas that drain to the MS4 or to a creek or river for the potential to discharge pollutants. This best professional judgment evaluation was based on ascertaining the nature of operations and materials at the facility with respect to potential exposure to runoff, i.e. what activities/storage is done inside or in areas with sanitary sewer drainage versus what is done outside. Information was obtained from phone contacts and/or site visits: facilities where site visits were conducted are noted on the master table. Storage and operations at some facilities was judged benign, insignificant, or protected from storm drain system: no SWPPP is recommended for these facilities. Facilities with potential to discharge pollutants were categorized as: (1) recommended to develop and implement a SWPPP, or (2) no SWPPP recommended if certain modifications to some operational practices are made, or where the potential exposure is solely spill related and a Spill Prevention Control and Countermeasure Plans or Hazardous Materials Plans covers that area of potential exposure.

SUMMARY OF RESULTS

A SWPPP is recommended for the new North Area Corporation Yard and for the 35th Avenue Combined Wastewater Treatment Plant site. A SWPPP is not recommended for several other facilities where:

- Sole exposure is spills and the facility has or will have a spill response plan in 2004.
- The facility has a spill response plan. There are some other types of exposure, however, these could be addressed through changes in operations.
- Materials/chemical storage is benign, insignificant, and/or protected from storm drain system. Vehicle maintenance activities are protected from the storm drain system.

A summary of results is provided in Table 1.

Table 1. Summary of Results (a)

Facility	Review Result
North Area Corporation Yard	SWPPP is needed and will be completed before 2004/05 rain season. (b, c) Other corporation yards in MS4 have SWPPPs.
Combined Wastewater Treatment Plant – 35th Avenue site	Although limited industrial outside activity at this site, wastewater treatment plants fall categorically under the stormwater regulations. A SWPPP will be proposed. (b, d)
Miller Park Marina Haggin Oaks Golf Complex Bing Maloney Golf Complex	These facilities have spill response plans. No SWPPP is recommended if certain modifications to some operational practices are made. (b)
Fire stations with fuel storage Sumps with fuel storage	No SWPPP is recommended - SWPPP would be duplication of spill response plan. (b)

Facility	Review Result
Water treatment plants Police garage facilities Old Sacramento storage building and trash enclosure Park and Softball complex storage buildings Chemical storage at pools Bartley Cavanaugh Golf Course	No SWPPP is recommended - materials/chemical storage is benign, insignificant, and/or protected from storm drain system. Vehicle maintenance, where applicable, is protected from storm drain system.
Police Annex Fleet Maintenance Shop Eleanor Yard Garage	No SWPPP is recommended. Facilities will close in summer 2004.
Sacramento Army Depot	Leased business park - is not a City operation.

(a) See attached master table and (for some facilities) individual review forms for more information.
(b) Spill response plans will be provided to Regional Water Quality Control Board, as requested.
(c) City Safety Officer will develop the SWPPP and file a Notice of Intent for Coverage under the State General Industrial Permit.
(d) The City Wastewater Superintendent will address and incorporate a SWPPP into the upcoming wastewater discharge NPDES Permit renewal application (NPDES Permit Number CA0079111).

Stormwater Program staff will track the development of a SWPPP for the new North Area Corp Yard and the combined wastewater treatment plant, will track that all spill response plans are developed, as planned (this pertains to sumps and fire stations), and will conduct follow-up site visits at the Miller Park Marina, the Haggin Oaks Golf Complex, and the Bing Maloney Golf Complex to ascertain whether the staff have been able to make recommended changes. If not, SWPPPs may need to be developed for these facilities.

In addition, Stormwater Program staff will continue implementing other municipal program BMPs intended to reduce potential pollutant discharges from City facilities and activities not specifically addressed by this permit provision (10.C.i.). Other BMPs include training of municipal staff, revision of facility lease language where necessary, revision of special use permits where necessary, review of pesticide use and application procedures, and review of good housekeeping procedures.

ATTACHMENTS

Attachment A - Master Table

Attachment B - Individual Facility Review Forms

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	**Contact Name and Phone No.**	**Use**	**Site Visit**	**Status and Recommendation**
Drainage to MS4, Creek, and/or River				
Sacramento River Water Treat Plant	Stephen Willey	Chemical storage	Y	See review form
101 Bercut Drive	Plant Supervisor			No SWPPP necessary
	808-7406			
E. A. Fairbairn Water Treatment Plant		Chemical storage	Y	See review form
7501 College Town Drive				No SWPPP necessary
Sacramento Army Depot		Leased for business park	N	Not a City operation
8300 Fruitridge Rd.				No SWPPP necessary
24th Street Corp Yard	Robert Summersett	Materials storage, vehicle	N	Has a SWPPP
5730 24th Street	Fleet Management Superintendant	maintenance, corporation yard		
Meadowview Corp Yard	433-6309	Materials storage, vehicle	N	Has a SWPPP
2812 Meadowview Rd		maintenance, corporation yard		
North Area Corp. Yard		Materials storage, vehicle	N	Will open in summer 2004
Kenmar & Del Paso Blvd		maintenance, corporation yard		Will need a SWPPP
Combined Wastewater Treatment Plant	David Phillips	Some equipment maintenance,	Y	See review form
1391 35th Avenue	Wastewater Superintendent	wash rack		Has SPCCC
	808-5652			SWPPP required under stormwater
				regulations
Miller Park Marina	Michelle Heppner	Fuel and wastewater storage	Y	Review form available
2700 Front Street	Marina Manager			No SWPPP necessary w/some
	264-5712			changes at the facility

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	**Contact Name and Phone No.**	**Use**	**Site Visit**	**Status and Recommendation**
Police Annex Fleet Maintenance Shop	Robert Summersett	Chemical/fuel storage,	N	Will close in 2004 - move to new North Area Corp. Yard
625 H Street	Fleet Management Superintendant	vehicle maintenance		No SWPPP necessary
Kinney Garage Facility	433-6309	Chemical/fuel storage,	Y	See review form
3550 Marysville Blvd		vehicle maintenance		No SWPPP necessary
Rooney Garage Facility	Laura Fisher	Chemical/fuel storage,	Y	See review form
5303 Franklin Blvd.	Risk Management Safety Specialist	vehicle maintenance		No SWPPP necessary
Eleanor Yard Garage	433-2276	Chemical/fuel storage,	N	Will close in 2004 - move to new North Area Corp. Yard
805 Eleanor Avenue		vehicle maintenance		No SWPPP necessary
Fire Station # 01	Laura Fisher	Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
624 Q Street	Risk Management Safety Specialist			that covers storm drain protection
	433-2276			No SWPPP necessary
Fire Station # 02		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
1229 I Street				that covers storm drain protection
				No SWPPP necessary
Fire Station # 03		Fuel storage	N	Haz Mat Plan covers storm drain protection
7208 West Elkhorn Blvd.				No SWPPP necessary
Fire Station # 07		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
6500 Wyndham Drive				that covers storm drain protection
				No SWPPP necessary
Fire Station # 08		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
5990 H street				that covers storm drain protection
				No SWPPP necessary

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	**Contact Name and Phone No.**	**Use**	**Site Visit**	**Status and Recommendation**
Fire Station # 09		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
5801 Florin Perkins Rd.				that covers storm drain protection
				No SWPPP necessary
Fire Station # 16		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
7363 24th Street				that covers storm drain protection
				No SWPPP necessary
Fire Station # 19		Fuel storage	N	Haz Mat Plan covers storm drain protection
1700 Challenge Way				No SWPPP necessary
Fire Station # 20		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
300 Arden Way				that covers storm drain protection
				No SWPPP necessary
Fire Station # 52		Fuel storage	N	Will have Haz Mat Plan or SPCC by July 2004
9780 Elder Creek Rd				that covers storm drain protection
				No SWPPP necessary
Old Sac Storage Building	Cindy Stevens	Stores street decorations	N	No SWPPP necessary
Under I-5 freeway	264-7031			
Old Sac Trash Enclosure No. 1 and No. 2		Trash compactor units	N	No SWPPP necessary
2nd Street Alley				
E. Portal Park Bolla Barn & Storage Shed	Bill Hall	Indoor storage irrigation and	N	No SWPPP necessary
Rodeo Way	Parks Supervisor, No. Sacramento	power equipment		
Softball Complex Maintenance Bldg.	566-6494	Indoor storage maintenance eqpt.	N	No SWPPP necessary
3150 Longview Dr.		Outdoor, tarped storage bagged fertilizer on raised pallets		
Hagginwood Park Storage Bldg.		Indoor storage wood, occasional	N	No SWPPP necessary
Marysville Blvd		bag fertilizer		

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	Contact Name and Phone No.	Use	Site Visit	Status and Recommendation
Tahoe Pool, Wading Pool & Pool Bldng	Greg Narrowmore	Chemical storage	N	See review form
63rd Street	Aquatics Division Superintendant			No SWPPP necessary
Fullertown Swimming Pool	277-6095	Chemical storage	N	See review form
Job Corp Center Pool		Chemical storage	N	No SWPPP necessary
				See review form
Kennedy High Pool		Chemical storage	N	No SWPPP necessary
				See review form
Sacramento High Pool		Chemical storage	N	No SWPPP necessary
				See review form
Clunie Pool, Wading Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
				See review form
Cabrillo Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
67th Street				See review form
Glen Hall Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
Sandburg Dr				See review form
Mangan Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
34th Ave.				See review form
Hagginwood Wading Pool		Chemical storage	N	No SWPPP necessary
Marysville Blvd				See review form
Grant Pool		Chemical storage	N	No SWPPP necessary
21st Street				See review form
Johnston Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
Eleanor Ave.				See review form
Sim Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
Logan Street				See review form
Northgate Park Wading Pool		Chemical storage	N	No SWPPP necessary
Brewerton Dr				See review form

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	Contact Name and Phone No.	Use	Site Visit	Status and Recommendation
Henschel Park Wading Pool		Chemical storage	N	No SWPPP necessary
45th Street				See review form
Hopkins Park Wading Pool		Chemical storage	N	No SWPPP necessary
Matson Dr				See review form
Colonial Park Wading Pool		Chemical storage	N	No SWPPP necessary
54th Street				See review form
Gardenland Wading Pool		Chemical storage	N	No SWPPP necessary
Bowman Ave.				See review form
Mama Marks Wading Pool		Chemical storage	N	No SWPPP necessary
Roanoke Way				See review form
Doyle Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
				See review form
Oki Pool & Pool Bldng		Chemical storage	N	No SWPPP necessary
Wisseman				
Alister MacKenzie/Haggin Oaks Golf	Sam Samuelson	Chemical/fuel storage,	Y	See review form
3645 Fulton Avenue	Golf Course Superintendant	vehicle maintenance		Has SPCC that covers storm drain protection
	932-6680			No SWPPP necessary w/some
				changes at the facility
Bing Maloney Golf	Shane Howe	Chemical/fuel storage,	Y	See review form
6801 Freeport Blvd.	Golf Course Superintendant	vehicle maintenance		Has SPCC that covers storm drain protection
	433-6354			No SWPPP necessary w/some
				changes at the facility
Cavanaugh Golf	Campbell Turner	Chemical/fuel storage,	Y	See review form
8325 River Road	Golf Course Superintendent	vehicle maintenance		Has Haz Mat Plan that covers storm drain protection
	433-6297			No SWPPP necessary

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	**Contact Name and Phone No.**	**Use**	**Site Visit**	**Status and Recommendation**
Utilities Sump 1A	William Miller	Fuel storage	N	Will have Spill Prevention Plan summer 2004-
U St. @ Front St.	Senior Mechanical Engineer			spill resp. & containment, sump operation, inspection
Utilties Sump 2A	808-1705	Fuel storage	N	Will have Spill Prevention Plan summer 2004-
3530 Riverside				spill resp. & containment, sump operation, inspection
Utilities Sump 11		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
Natomas Blvd/N. Park Dr				spill resp. & containment, sump operation, inspection
Utilities Sump 28		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
7788 Freeport Blvd				spill resp. & containment, sump operation, inspection
Utilities Sump 34		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
7851 Freeport Blvd				spill resp. & containment, sump operation, inspection
Utilties Sump 55		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
6203 Gloria Dr				spill resp. & containment, sump operation, inspection
Utilties Sump 101		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
5701 Elvas Ave				spill resp. & containment, sump operation, inspection
Utilties Sump 128		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
3951 Mack Rd				spill resp. & containment, sump operation, inspection
Utilities Sump 132		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
7520 Pocket Rd				spill resp. & containment, sump operation, inspection
Utilities Sump 137		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
8117 Rush River Dr				spill resp. & containment, sump operation, inspection

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	**Contact Name and Phone No.**	**Use**	**Site Visit**	**Status and Recommendation**
Utilities Sump 140		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
181 Pinedale Ave				spill resp. & containment, sump operation, inspection
Utilties Sump 151		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
600 Leisure Ln				spill resp. & containment, sump operation, inspection
Utilties Sump 152		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
Tribute Rd CalExpo Parking				spill resp. & containment, sump operation, inspection
Utilties Sump 160		Fuel storage	N	Will have Spill Prevention Plan summer 2004-
Shorebird @ Kittywake Dr				spill resp. & containment, sump operation, inspection
Drainage to CSS				
28th Street Corp Yard - Sutter's Landing	Robert Summersett	Materials storage, vehicle		
28th & A	Fleet Management Superintendant	maintenance, corporation yard		
	433-6309			
Miller Park Corp Yard Building				
Front Street				
Miller Park Tree Dept. & Chem Storage				
Front Street				
Miller Park Police Equestrian				
Front Street				
Sacramento Zoo	Jim Schnormeier		Y	Review form available
3930 West Land Park Drive	Curator			
	264-7381			

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	Contact Name and Phone No.	Use	Site Visit	Status and Recommendation
Animal Shelter	Kathy Vos		Y	Review form available
2127 Front Street	Chief Animal Care Officer			
	808-5855			
Drill Tower	Laura Fisher			
3230 J Street	Risk Management Safety Specialist			
	433-2276			
Fire Station # 06		Fuel storage		
3301 Martin Luther King Blvd.				
FairyTale Town Barn Tool Shed				
3901 Land Park Dr.				
Fairytale Town Lama House				
3901 Land Park Dr.				
Land Park Pony Barn				
Sutterville & Freeport				
Land Park Corp Yard Maintenance Bldg.				
18th Street between 14th & 15th				
Land Park Maintenance Hay Barn				
Sutterville & Freeport				
Land Park Storage By Tiny Tot				
Sutterville & Freeport				
Garden & Arts Center				
3200 H Street				
McKinley Park Storage Bldg				
3200 H Street				
Southside Park Storage				
6th Street				

CITY OF SACRAMENTO FACILITIES - VEHICLE MAINTENANCE FACILITY, MATERIALS STORAGE FACILITY, AND CORPORATION YARDS				
Facility and Location	Contact Name and Phone No.	Use	Site Visit	Status and Recommendation
Land Park Wading Pool	Greg Narrowmore			
Sutterville & Freeport	Aquatics Division Superintendant			
Southside Pool & Pool Bldng	277-6095			
6th Street				
McClatchy Pool, Wading Pool & Bldng				
33rd Street				
Land Park Golf		Note: a small portion of the course drains to the		
Sutterville and Freeport		storm drainage system		

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Combined Wastewater Treatment Plant

Address: 1391 35th Avenue
Contact Name and Title: Dave Phillips, Wastewater Superintendent
Phone Number: 916-808-5652
Contact Name and Title: Bruce Baker, Supervising Plant Operator
Phone Number: 916-808-5651

Nature of the Operation: Wastewater retention and treatment facility for combined sewer system.
The Combined Wastewater Treatment Plant is part of the City of Sacramento Department of Utilities.
Stormwater runoff from selected areas of the Combined Wastewater Treatment Plant discharges to the Sacramento River via Sump 104. Runoff to the storm drain is principally from areas such as roofs, parking lots, and landscaped areas. There is also some runoff from areas used for outdoor maintenance and storage of large pieces of equipment.

Relevant Activities

Chemical Storage –

There is outside tank storage of sodium hypochlorite and sodium bisulfite. These tanks are surrounded by berms rated to contain the full contents of a tank. Oil storage is in double walled tanks. The plant has a Spill Control and Countermeasure Plan that covers response to chemical spills.

Vehicle Maintenance/Corps Yard Activities –

There is no vehicle maintenance onsite. There is pump and equipment maintenance, most of which is conducted inside, under cover. Some outside maintenance is done on large pieces of equipment. There is a cleaning rack for equipment – the cleaning rack area is not bermed but does drain to the sanitary sewer. The cleaning rack was not in use, so its effectiveness in containing the wash water to the sanitary system drain was not observed.

Other –

When in use, the three bays of rectangular clarifiers release wastewater back to the sanitary sewer system. Under certain storm conditions, the discharge is treated and directed to the Sacramento River – this discharge is covered under NPDES Permit No. CA0079111, Regional Board Order No. 5-01-258.

A March 11, 2003 site inspection made by a Regional Board contractor, Tetra Tech, pursuant to this NPDES permit, reported that the physical condition of the site showed evidence of good housekeeping practices and maintenance.

Recommendation

The areas that discharge to the storm drain system are mostly limited to non-industrial uses. The principal exception is that some outside maintenance is conducted on large equipment. Although the activities in areas that discharge to the storm drain system appear to be quite limited, this is a type of facility that is specified as requiring coverage under the State General Industrial Stormwater Permit. Therefore, it is recommended that the need for a SWPPP to address storm drainage exposure and pollution prevention be specifically discussed with Regional Board staff and addressed and incorporated, as appropriate, into the existing NPDES Permit, which is approaching its renewal period.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Sacramento Marina
Address: 2710 Ramp Way
Contact Name and Title: Michelle Heppner, Marina Manager
Frank Malaki
Phone Number: 916-264-5712

Nature of the Operation: Provide boating amenities including berthing, launching, fueling, and pumpout facilities. No boat maintenance services are provided.
The Sacramento Marina is part of the City of Sacramento Department of Convention, Culture and Leisure
The Sacramento Marina is located on an off-stream basin of the Sacramento River. Drainage from the docks, slips, fueling and pumpout dock, and launch ramp is directly into the river.

Relevant Activities

Fueling and Pumpout –

Fuel and pumpout lines between the dock and onshore storage tanks are double-sleeved. A third sleeve was also on the lines but was not completely connected and water tight.

Materials Storage –

Storage of chemicals is inside – either at the administration building or at the fuel dock.

Spill Management –

The Marina has a Consolidated Contingency Plan that lists emergency spill response procedures for Marina employees. The Plan specifies that employee training is conducted for new hires and annually for all Marina staff. The Marina contracts spill cleanup to Ramos Environmental. Typical spill management techniques are to contain a spill with booms and then deploy absorbent pads.

Recommendations

The potential for contamination at the Marina is principally with respect to the potential for spills. Since the Marina has a Plan that contains spill response and cleanup procedures, a separate Stormwater Pollution Prevention Plan is not recommended. It is recommended that the Marina ensure that the Plan is kept up to date and that the employee training is conducted as described in the Plan. It is further recommended that the Marina keep the third sleeve on the fuel and pumpout lines connected and water tight.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Haggin Oaks Golf Complex
Address: 3645 Fulton Avenue
Contact Name and Title: Sam Samuelson, Golf Course Superintendent
Phone Number: 916-277-6034

Nature of the Operation: Arcade Creek and Alistair MacKenzie 18-hole golf courses. The Haggin Oaks Golf Complex is part of the City of Sacramento Capital City Golf. Stormwater runoff from the Haggin Oaks Golf Complex discharges to Arcade Creek.

Relevant Activities

Chemical Storage –

Pesticide storage is inside in a dedicated raised bed trailer. This trailer has a grated floor providing secondary containment for any pesticides that spill inside the trailer. Cleaning procedures for the under-grate area are not known. Mixing of pesticides and loading into the spray rig is done inside under cover.

Fertilizer storage is inside – bagged fertilizer is stored on pallets. The floor is swept, not hosed.

Janitorial supplies are stored inside.

Drummed oil is stored inside – there is a poly spill pallet providing secondary containment under the drums.

There are two aboveground fuel tanks, one owned by the City and one by Morton Golf – these tanks are double-walled and inspected monthly.

The golf course has a fertigation system that provides a means for tank injection of fertilizers into the irrigation system. This system is used when establishing a course, but is not used for ongoing maintenance. The fertigation system now stands empty.

Vehicle Maintenance –

Maintenance and washing of turf maintenance equipment is conducted by the City of Sacramento. Golf cart maintenance and washing is not under the direct control of the City of Sacramento; it is part of the golf operation that is leased as a concession to Morton Golf.

Turf maintenance equipment – Most maintenance activities are conducted under cover, inside a maintenance building. Some maintenance is done outside on large equipment. Oil and fluid drippings are picked up with absorbents. The floor of the maintenance building is periodically swept, but is not hosed down.

There is a wash rack, under cover, that drains to the sanitary sewer system. This has a filter system that clogs due to grass clippings. Most vehicle wash off is to cleanse grass and mud. Therefore, the wash rack is infrequently used and equipment washing is done in two turfed "swale" areas on the course. A new self-contained wash rack is under consideration.

Golf carts – Cart maintenance (battery operated carts) is done outside. The City is currently discussing additional facilities so these maintenance operations would be under cover. Cart washing is also done outside. Cart storage and cart supplies are under cover in a cart barn.

Spill Response –

City staff receives annual training on pesticide use, fuel spills and dispensing, and shop cleanliness.

There are spill kits with absorbent materials, mats to seal drains, and other spill response supplies.

A newly completed (1/15/04) Spill Prevention Control and Countermeasure (SPCC) Plan was prepared for the Haggin Oaks Golf Complex by Kennedy/Jenks Consultants.

Recommendation

The potential for stormwater contamination at this facility is mostly associated with the potential for spills, which is addressed through secondary containment/double walled tanks, procedures outlined in the SPCC Plan, employee training, and the availability of spill kits. Vehicle wash off is a relatively benign activity consisting of hosing mud and grass clippings off vehicles onto turfed areas on the course. There are three recommendations for additional measures that should be developed and implemented, namely: (1) cleaning procedures for the pesticide trailer, (2) cleanup of the ground surface (as necessary) following outside maintenance activities, and (3) arranging the training schedule so that training for the specific activities listed above occurs coincident with the onset of the rain season as much as is possible.

A Stormwater Pollution Prevention Plan is not recommended if the above three recommendations are addressed and incorporated into existing procedures.

It is preferable, as the City budget allows, to provide facilities so that all vehicle maintenance (large equipment and golf carts) can be done under cover and to provide functioning wash racks.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Bing Maloney Golf Complex
Address: 6801 Freeport Blvd.
Contact Name and Title: Shane Howe, Golf Course Superintendent
Phone Number: 916-433-6354

Nature of the Operation: Bing Maloney 18-hole and executive 9-hole golf courses. The Bing Maloney Golf Complex is part of the City of Sacramento Capital City Golf. Stormwater runoff from the Bing Maloney Golf Complex is mostly sheet runoff that eventually discharges to the MS4.

Relevant Activities

Chemical Storage –

Pesticide storage is inside in a dedicated raised bed trailer. This trailer has a grated floor providing secondary containment for any pesticides that spill inside the trailer. Cleaning procedures for the under-grate area are not known. Mixing of pesticides and loading into the spray rig is done inside under cover. Mixing of pesticides and loading into the spray rig is done outside. A new self-contained wash rack is under consideration. If installed, pesticide mixing will be done in the wash rack. The spray rig is stored inside.

Fertilizer storage is inside – bagged fertilizer is stored on pallets. The floor is swept, not hosed.

Janitorial supplies are stored inside.

Drummed oil is stored inside – there is a poly spill pallet providing secondary containment under the drums.

There are two aboveground fuel tanks – these tanks are double-walled and inspected monthly.

Vehicle Maintenance –

Maintenance and washing of turf maintenance equipment is conducted by the City of Sacramento. Golf cart maintenance and washing is not under the direct control of the City of Sacramento; it is part of the golf operation that is leased as a concession to Morton Golf.

Turf maintenance equipment – Most maintenance activities are conducted under cover, inside a maintenance building. Some maintenance is done outside – on the larger machines. Oil and fluid drippings are picked up with absorbents. The floor of the maintenance building is periodically swept, but is not hosed down.

There is no wash rack. Therefore, equipment washing is done in a turfed area on the course. Most vehicle wash off is to cleanse grass and mud. A new self-contained wash rack is under consideration.

Golf carts – Cart maintenance (gas powered carts) is done inside. The City is currently discussing conversion to battery operated carts and additional cart facilities. Cart washing is also done outside. Cart storage is mostly outside.

Spill Response –

City staff receives annual training on pesticide use, fuel spills and dispensing, and shop cleanliness.

There are spill kits with absorbent materials, mats to seal drains, and other spill response supplies.

A newly completed (1/15/04) Spill Prevention Control and Countermeasure (SPCC) Plan was prepared for the Haggin Oaks Golf Complex by Kennedy/Jenks Consultants.

Recommendation

The potential for stormwater contamination at this facility is mostly associated with the potential for spills, which is addressed through secondary containment/double walled tanks, procedures outlined in the SPCC Plan, employee training, and the availability of spill kits. Vehicle wash off is a relatively benign activity consisting of hosing mud and grass clippings off vehicles onto turfed areas on the course. There are four recommendations for additional measures that should be developed and implemented, namely: (1) providing an inside space for mixing and loading of the pesticide spray rig, (2) cleaning procedures for the pesticide trailer, (3) cleanup of the ground surface (as necessary) following outside maintenance activities, and (4) arranging the training schedule so that training for the specific activities listed above occurs coincident with the onset of the rain season as much as is possible.

A Stormwater Pollution Prevention Plan is not recommended if the above four recommendations are addressed and incorporated into existing procedures.

It is preferable, as the City budget allows, to provide facilities so that all vehicle maintenance (large equipment) can be done under cover and to provide a wash rack.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Bartley Cavanaugh Golf Course
Address: Freeport Blvd
Contact Name and Title: Campbell Turner, Golf Course Superintendent
Phone Number: 916-433-6297

Nature of the Operation: Bartley Cavanaugh 18-hole golf course.
The Bartley Cavanaugh Golf Course is part of the City of Sacramento Capital City Golf. Stormwater runoff from the Bartley Cavanaugh Golf Course discharges to a drainage ditch on the north side of the facility. Eventual discharge is to the Sacramento River.

Relevant Activities

Chemical Storage –

Pesticide storage is inside in a dedicated room. This room is bermed – any pesticides that spill are contained within the berm. Cleaning procedures for the floor include sweeping and pick up or pickup with absorbents – no hosing is done. Mixing of pesticides and loading into the spray rig is done under the wash rack cover.

Fertilizer storage is inside – bagged fertilizer is stored on pallets. The floor is swept, not hosed.

Janitorial supplies are stored inside.

Drummed oil is stored inside on poly spill pallets. There are spill kits with absorbent materials to pick up spills and drips. This building drains to the septic system.

There is a single aboveground fuel tank – this tank has secondary containment.

The golf course has a fertigation system that provides a means for tank injection of fertilizers into the irrigation system. This system is used when establishing a course, but is not used for ongoing maintenance. The fertigation system now stands empty.

Vehicle Maintenance –

Maintenance and washing of turf maintenance equipment is conducted by the City of Sacramento. Golf cart maintenance is not under the direct control of the City of Sacramento; it is part of the golf operation that is leased as a concession to Morton Golf.

Turf maintenance equipment – Maintenance activities are conducted under cover, inside a maintenance building. Oil and fluid drippings are picked up with absorbents. The floor of the maintenance building is periodically swept, but is not hosed down. This building drains to the septic system.
There is a wash rack, under cover, that drains to the septic system. Wash off of heavy grass clippings and mud is done outside in a turfed area.

Golf carts – Cart maintenance (battery operated carts) is done inside. Cart storage and cart supplies are under cover.

Current Training –

City staff receives annual training on pesticide use, fuel spills and dispensing, and shop cleanliness.

The septic tank is set to alarm before it reaches capacity.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Kinney Police Facility
Address: 3550 Marysville Blvd.
Contact Name and Title: James Chapman, Equipment Maintenance Supervisor
Phone Number: 916-566-6477

Nature of the Operation: Maintain City police vehicles.
The Kinney Police Facility garage is part of the City of Sacramento Department of Public Works.
Stormwater runoff from the Kinney Police facility discharges to the MS4.

Relevant Activities

Chemical Storage –

Fuel storage is in underground tanks. The fueling station is under cover.

Oil, batteries, and other chemicals used in vehicle maintenance are stored inside.

Vehicle Maintenance –

Vehicle maintenance is done inside. Occasionally, vehicles too large to fit inside are serviced just outside the bay door. The vehicle maintenance building and immediate area drains to an oil water separator and then to the sanitary sewer.

The wash rack drains to the sanitary sewer.

There are spill kits onsite and spill response is discussed at quarterly safety meetings.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Rooney Police Facility
Address: 5303 Franklin Blvd.
Contact Name and Title: Robert Olsen, Equipment Maintenance Supervisor
Phone Number: 916-277-6010

Nature of the Operation: Maintain City police vehicles.
The Rooney Police Facility garage is part of the City of Sacramento Department of Public Works.
Stormwater runoff from the Rooney Police facility discharges to the MS4.

Relevant Activities

Chemical Storage –

Fuel storage is in underground tanks. The fueling station is under cover.

Oil, batteries, and other chemicals used in vehicle maintenance are stored inside.

Vehicle Maintenance –

Vehicle maintenance is done inside. Occasionally, vehicles too large to fit inside are serviced just outside the bay door. The vehicle maintenance building and immediate area drains to an oil water separator and then to the sanitary sewer.

The wash rack drains to the sanitary sewer.

There are spill kits onsite and spill response is discussed at quarterly safety meetings.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: E. A. Fairbairn Water Treatment Plant

Address: 7501 College Town Drive
Contact Name and Title: Stephen Willey, Plant Supervisor - Operations
Phone Number: 916-808-7406

Nature of the Operation: Conventional water treatment plant.
The E. A. Fairbairn Water Treatment Plant is part of the City of Sacramento Department of Utilities.
Stormwater runoff from the E. A. Fairbairn River Water Treatment Plant discharges to the City of Sacramento storm drainage system (Sump 91) and thence to the American River.

Relevant Activities

Chemical Storage –

> The E. A. Fairbairn Water Treatment Plant is currently under construction to complete a plant expansion project. Construction is expected to be completed by the end of 2004 or early 2005. The construction includes new chemical storage buildings for inside storage of all chemicals. The inside storage areas will have containment areas and/or drainage to the sanitary sewer. The plant has an Emergency Management Plan that covers response to hazardous materials spills.
>
> Runoff to the storm drain will be from areas such as roofs, parking lots, and landscaped areas.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: Sacramento River Water Treatment Plant

Address: 1 Water Street
Contact Name and Title: Stephen Willey, Plant Supervisor - Operations
Phone Number: 916-808-7406

Nature of the Operation: Conventional water treatment plant.
The Sacramento River Water Treatment Plant is part of the City of Sacramento Department of Utilities.
Stormwater runoff from the Sacramento River Water Treatment Plant discharges to the Sacramento River.

Relevant Activities

Chemical Storage –

There is a dedicated chemical storage building that houses chlorine, fluoride, and other chemicals inside. The inside storage areas have containment and/or drainage to the sanitary sewer system. There is outside tank storage of caustic soda, polymer, and lime. These tanks are surrounded by berms and containment areas. The plant has an Emergency Management Plan that covers response to hazardous materials spills.

Runoff to the storm drain is from areas such as roofs, parking lots, and landscaped areas.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO FACILITIES - STORMWATER REVIEW FORM

Facility Name: City Pools and Fountains
Address: various – see master list for pools, fountain locations are listed below

Contact Name and Title: Greg Narrowmore, Community Recreation Services and Aquatics Division Superintendent
Phone Number: 916-277-6095

Nature of the Operation: Disinfection and pH control of City pools and fountains
The Community Recreation Services and Aquatics Division is part of the City of Sacramento Department of Parks and Recreation.
Some City pools and fountains are in the storm drainage system area and some are in the combined sewer system area – see master table for pool locations.

Relevant Activities

Chemical Storage –

For disinfection, the City uses either liquid sodium hypochlorite or liquid or gaseous chlorine. For pH control, liquid muratic acid or liquid sodium hydroxide are used. Two to three carboys of liquid chemicals are delivered and placed by an outside vendor on containment pallets that are rated to contain up to 55 gallons of liquid. The different chemicals are stored separately on different pallets. One pool location (the Meadowview pool) has bulk storage onsite – this bulk storage is within a secondary containment area. Where chlorine gas is used, the cylinders are housed inside.

The City is in the process of revising its Risk Management Plan for the pool chemicals. This plan addresses potential contaminant pathways to the storm drain system. The area around the pools and chemical storage areas drains to the sanitary sewer.

At areas where there are public fountains (Caesar Chavez Park, Fremont Park, and Gardenland), the chemicals are located in covered and sealed units. These units have secondary containment.

Note: When drained for O&M, pool water is discharged to the sanitary sewer system.

Recommendation

No Stormwater Pollution Prevention Plan is necessary.

CITY OF SACRAMENTO
28th Street Landfill
(Closed)

STORM WATER POLLUTION PREVENTION PLAN

Prepared by: Roxanne Livingston, Assistant Civil Engineer
Engineering Services – Water Quality Section
And
Matt Rodgers, P.E., Consultant

September 2007

TABLE OF CONTENTS

1.0 INTRODUCTION ____ *3*
1.1 Purpose of the Storm Water Pollution Prevention Plan (SWPPP) ____ 3
1.2 Storm Water Audit at the Landfill ____ 3
1.3 Responsible Staff ____ 4
1.4 Updating the SWPPP ____ 4

2.0 SITE LOCATION, GENERAL ENVIRONS, AND ACTIVITIES ____ *4*
2.1 Background Information about the 28th St. Landfill ____ 4
2.2 General Nature of Facility Activities ____ 6
2.3 Map of General Area ____ 6
2.4 Facility Layout and Specific Activities ____ 6
2.5 Description of Storm Drainage System ____ 9
2.6 Past Significant Spills and Leaks ____ 10

3.0 DESCRIPTION OF POTENTIAL SOURCES OF POLLUTION ____ *10*
3.1 Pervious Portion of Landfill Discharging to American River ____ 10

4.0 STEPS TO REDUCE NON-STORM WATER DISCHARGES ____ *10*
4.1 What are Best Management Practices? ____ 11
4.2 Treatment Controls ____ 11
4.3 Source Control ____ 12

5.0 MONITORING AND RECORD KEEPING ____ *12*
5.1 Visual Observations ____ 13
5.2 Monitoring of Storm Water ____ 13
5.3 Results of Water Quality Data Collected ____ 13
5.4 Estimate of Annual Quantities of Potential Pollutants in Storm Water Runoff ____ 13
5.5 Record Keeping ____ 14

APPENDICES
Appendix A – Sample Collection and Analysis Plan
Appendix B – Site Map

1.0 INTRODUCTION

The National Pollution Discharge Elimination System (NPDES) Storm Water Permit, administered by the Central Valley Regional Water Quality Control Board (Water Board), requires the City of Sacramento to regulate urban runoff entering into the storm drainage system and local waterways. The purpose of the permit is to protect water quality by reducing the amount of pollutants in the storm water from various urban land uses and activities. There are numerous programs being implemented by the City's Stormwater Quality Improvement Program (Stormwater Program) including those that minimize storm water pollution from new developments, construction sites, and industrial facilities. The City of Sacramento has obtained a General NPDES permit which covers the majority of the City's municipal activities and facilities, but section 402(p) of the Federal clean Water Act requires landfills (both open and closed) to obtain separate coverage. On March 19, 2004, the City Landfill facility obtained a State Industrial Storm Water General Permit, NPDES Order Number R5-2004-0039, from the California Regional Water Quality Control Board, Central Valley Region.

1.1 Purpose of the Storm Water Pollution Prevention Plan (SWPPP)

The SWPPP provides an extensive evaluation of the Landfill for potential activities that may result in storm-water-pollutant runoff. The SWPPP is intended to serve as a blue print for implementation of best management practices (BMPs) to control pollutants within the site's runoff. All paved areas where the corporation yard and the western portion of the pervious areas drain into the combined sewer/stormwater system; furthermore, the south west portion of the pervious area drains to the south were it is retained in a detention pond for sedimentation prior to discharging into the combined sewer/stormwater system. Additionally, the south eastern portion of the pervious area drains to a retention pond located in the furthest, south east corner of the landfill where the runoff infiltrates into the soil. The activities and potential pollutants from within these areas are generally discussed in the SWPPP, but no BMP implementation practices are required under this SWPPP since runoff from these locations do not impact local water bodies; however, discharges into the combined system are mitigated so as to not impact any existing agreements with the Sacramento Regional Sanitation District where wastewater from this facility is treated prior to discharging into the Sacramento River. This SWPPP will be kept on the premises and updated as needed to reflect actual procedures. The Stormwater Program staff will also have a copy of this SWPPP.

1.2 Storm Water Audit at the Landfill

A storm water audit was conducted at the 28th St. Landfill by Stormwater Staff from the Department of Utilities/Engineering Services; audit personnel include, Connie Perkins, Associate Civil Engineer, and Roxanne Livingston, Assistant Civil Engineer. The audit addressed the following areas: activities performed at the corporation yard, materials used and stored inside and outside, equipment and vehicles stored inside and outside, cleaning areas and wash racks, landfill activities, and general comments.

1.3 Responsible Staff

The SWPPP requires identifying personnel to oversee the implementation of any measures to reduce pollution and to modify the SWPPP as necessary over time. The Landfill staff will be responsible for implementing and maintaining storm water BMPs.

1.4 Updating the SWPPP

AT LEAST ONCE PER PERMIT TERM

The SWPPP will be updated on a regular basis to reflect changes in activities that may adversely affect or improve storm water runoff. Any changes to the SWPPP shall include John Olesen, Senior Landfill Engineering Technician, and Stormwater Program Staff. Other Landfill Managers and Safety Office staff can also be involved with updates to the SWPPP.

2.0 SITE LOCATION, GENERAL ENVIRONS, AND ACTIVITIES

The City of Sacramento owns and operates the 28th Street Landfill, a closed Class III landfill, located at the northern end of 28th Street in downtown Sacramento. This chapter contains background information about the landfill, surroundings, and all activities and material storage observed during the site audit.

2.1 Background Information about the 28th St. Landfill

Prior to closure, the landfill was permitted to accept up to 1,200 tons of waste per day. It was estimated that actual waste acceptance was approximately 600 tons of waste per day with the facility operating 5 ½ days per week. The total capacity of the landfill, at final closure, was estimated to be 6,514,000 cubic yards. It is assumed that this applies only to the known waste disposal operations in Waste Management Units (WMU)s A and B.

The landfill was used for disposal of non-hazardous residential, commercial and industrial wastes, primarily collected by the City of Sacramento waste collection services. Most of the waste comes from residential refuse collection vehicles, yard waste collection operations, street sweeping, and other miscellaneous City activities. No commercial haulers or self-haul vehicles are allowed to dispose at the site. Since the beginning of fill operations at this site, the waste stream has been uniform in nature and composition. This has resulted in a very homogenous cross-section for wastes throughout the landfill.

Hazardous wastes and liquid wastes have never been knowingly accepted at the landfill. However, typical early (pre-1980s) disposal procedures did not routinely check incoming wastes closely for liquids and/or hazardous wastes. In addition, all municipal wastes contain some portion of household hazardous wastes, mixed in with the non-hazardous garbage, including used oils, paints, lead-acid batteries, pesticides, etc. An assessment conducted in 1985 of the types and quantities of household hazardous waste in materials accepted at the facility found that less than 0.12% of the total waste stream was categorize as household hazardous waste.

The disposal areas consist of two classified landfill units, and three older, unclassified fill areas. Descriptions of these disposal areas are as follows:

Classified Units

- A 79.5-acre area known as WMU A. This area was filled from 1971 until 1986. This cell was constructed without a base liner or leachate collection system, which were not required by regulations at the time. A final cover system was installed in phases and was completed in 1997. The cover consists of one foot of intermediate cover soil over the waste materials, overlain by two feet of concrete and asphalt rubble, overlain by one foot of low-permeability clay, overlain by a one-foot vegetative soil layer.

- A 27.5-acre area, known as WMU B. This area was filled from 1986 until 1994. This cell was constructed with a base liner and leachate collection and removal system. The base liner consists of 1.5 feet of compacted soil/bentonite mix with a maximum permeability of $1x10^{-7}$ cm/s, overlain by an additional 1.5 feet of native compacted soil with permeability ranging between $1x10^{-5}$ and $1x10^{-7}$ cm/s. A final cover system was completed at WMU B in September 1997. The final cover profile is identical to that described above for WMU A.

Unclassified Disposal Areas (filled during the period 1963 through 1971)

- Area A: Approximately 12.5-acre, unpaved area west of 28th Street was graded to a minimum 3% slope and covered with, from top to bottom, two-feet of soil cover, 6 inches of asphalt street grindings, two-feet of concrete and asphalt rubble, and 6 inches of soil cover.

- Area B: Approximately 10-acres west of 28th Street was covered with, from top to bottom, 3 inches of asphalt concrete (to provide an all weather surface and prevent infiltration of water), 6 inches of asphalt street grindings, two-feet of concrete and asphalt rubble, and one-foot of soil paved with asphalt concrete.

- Area C: Approximately 16 paved acres north of 28th Street was covered in the same manner as the 10-acre section listed above.

As part of closure, the landfill was graded to prevent ponding of water, and a drainage system was installed. Areas of differential settlement are periodically re-graded to maintain proper drainage. Landfill runoff drains by sheet flow over the side slopes and is routed through V-ditches that are lined with low permeability clay and extends to detention basins before the surface runoff leaves the site. The detention basin in the northeast corner discharges into the American River, and the southwest detention basin discharges to the combined sewer system. Locations of these detention basins are shown in Appendix B. The cover and drainage improvements act to prevent or minimize the infiltration of water into waste.

2.2 General Nature of Facility Activities

The vicinity north of 28th Street is now one of the City's corporation yards and is used for:

- Storage; both indoor and outdoor
- Vehicle parking
- Vehicle & Equipment Washing
- Preventative maintenance of City vehicles
- Facility offices

The City Department of Parks and Recreation has also developed small portions of this area as the Sutter's Landing Park which includes such activities as:

- Pedestrian/bike trails
- Paved parking
- Picnic areas
- Skate-park area.

The former compost area and uncovered area west of 28th Street are not currently being used. Many areas of the landfill are now controlled by the City Department of Parks and Recreation, which is considering the areas for incorporation into Sutter's Landing Park.

The City Department of Utilities, Solid Waste Division performs various activities to mitigate pollutants from the covered landfill from impacting the environment. These activities include:

- Pumping of groundwater from groundwater extraction wells
- Pumping and monitoring of leachate from a leachate collection and recovery system
- Monitoring of groundwater from nineteen water quality monitoring wells
- Operation and maintenance of a landfill gas collection system

2.3 Map of General Area

A map of 28th St. Landfill and the immediate surroundings is shown in Appendix B. The City landfill occupies 172 acres and is approximately 15% impervious. The general environs include: the American River to the north; Capital City Freeway to the south; Southern Pacific Railroad tracks to the east; and industrial properties to the west. The site also includes approximately 18 acres of non-filled areas including levees and a buffer area between the landfill and the American River, a storm water retention area east of the landfill, and buffer areas adjacent to the Southern Pacific Railroad tracks east of the landfill.

2.4 Facility Layout and Specific Activities

The location of buildings, storage areas, and pervious areas are shown on the Site Map in Appendix B, and the associated activities are described below. The approximate location is noted in parenthesis based on grid annotation shown along the border of the Site Map.

Building A (E-6) is used for preventative maintenance for light-fleet vehicle and equipment, storage space, offices for Landfill Operations, staff locker room and rest rooms. Maintenance activities include: oil and fluid changes, tire rotation and replacement, and light replacements to vehicles and equipment. Examples of maintained equipment include: Go4s, lawnmowers, light-fleet vehicles, and ambulances. There are four rooms within this building used for storage: Head Start stores school-type supplies; Parks and Recreation stores aquatic supplies, some fertilizers, and miscellaneous park/playground equipment; Solid Waste stores equipment for landfill operations including pesticides and pesticide application equipment.

Building B (E/F-6) has indoor storage of miscellaneous office supplies. There is also an attached, outdoor storage area used to temporarily store miscellaneous building supplies as well as some temporary parking of light, mechanized equipment.

Building C (F/G-6/7) has been converted to a partially enclosed skate park. All runoff from within this building flow to the storm drain drop inlets located off the east end of building C. The storm drain discharges into the combined system.

The following storage areas are paved with asphalt or concrete:

Storage Area 1 (E-7) is managed by Parks and Recreation and is located along the northern edge and the northwest corner of the corporation yard. The northwest corner location contains rock, sand and soil stockpiles that Parks uses for playgrounds and park landscaping. The northern edge contains empty garbage and recycling cans used at parks or for special events.

Storage Area 2 (E-6) is also managed by Parks and Recreation, and is located along the western edge of Building A, there are wood pallets and empty five-gallon chlorine buckets.

Storage Area 3 (F-7) is managed Solid Waste and is along a section of the northern edge of the corporation yard. Solid Waste temporarily stores illegally dumped items, and roll-away garbage bins. There are also some miscellaneous wood, plastic, and metal items stored along the fence near the old bailer building (now the skate park).

The following areas are on a pervious surface:

Storage Area 4 (B/D-4) is managed by Solid Waste. This is a soil storage area within Unclassified Disposal Area A, and is used for maintaining the proper elevations of the landfill.

Hazardous Material Storage Area 1 (E-6) The city landfill possesses an above ground 1,000 gallon recycled oil storage tank, and is located off the west end of building A.

Hazardous Material Storage Area 2 (Fueling Area) (F-6) The diesel and unleaded fueling station is located off the east end of building A. There is a 4000 gallon diesel tank and a 2000 gasoline tank. The fueling area is uncovered, placed on a flat concrete pad, and equipped with an emergency shutoff switch and a spill kit; furthermore, the runoff form this location enters the combined sewer system.

The following sections are parking areas at the Corporation Yard:

Parking Area 1 (G-6/7) is managed by the Department of Parks and Recreation, and is located to the east of Building C. This parking is for the parking for Sutter's Landing Park activities.

Parking Area 2 (E/F-6) is located in front of Buildings A and B, and is staff parking for both Landfill staff and Fleet Management staff.

Parking Area 3 (F-6) is east of Building A and is used for employee parking. There is also large equipment that uses the parking area behind Building A. Surface runoff from all of these parking areas drains to the combined sewer system.

The following features and activities performed at this site are described but are not identified in Appendix B.

Groundwater extraction wells The purpose of the wells is to draw trace substance which have migrated off site back on site at the south property line and to maintain a slight gradient of fresh water near the property line to prevent further migration of groundwater from the landfill. Once the migration of trace substances has been controlled groundwater pumping will be reduced.

Leachate collection and recovery system was installed over WMU B's compacted liner. The collection piping drains to a collection sump/pump station at the west end of WMU B which is equipped with two 150-gallon per minute (gpm) pumps (one serving as back-up). The leachate pumps operate using a float control system, which ensures the sump is emptied when liquids accumulate to a pre-set level. Leachate is pumped out into the City of Sacramento's combined storm water/sanitary sewer system. The leachate quality is monitored on a regular basis.

Water Quality Monitoring Wells (19) are located at the landfill. The groundwater elevation is monitored once a month at each well and three wells are sampled monthly. All nineteen wells are sampled on a quarterly basis. The objectives of the monitoring wells are to track cleanup progress and ensure that groundwater contamination is not spreading further off-site.

Landfill gas collection system includes 100 interior extraction wells—82 interior extraction wells at WMU A and 18 at WMU B—and 66 perimeter extraction wells for migration control purposes. The interior extraction wells extend into the refuse mass to depths ranging from approximately 40 to 60 feet below ground surface, and the perimeter extraction wells are installed in a soil levee/berm along the southern fill perimeter. The Interior extraction wells within WMU A are under a lease agreement with Gas Recovery Systems, Incorporated (GRS) which captures the landfill gas for use as an alternate energy source. Landfill gas extracted from the perimeter system is combined with excess gas from WMU A and WMU B (i.e. landfill gas that is not used for cogeneration) and combusted in one of two ground flares maintained by GRS and the City. The location of the gas recovery system lies within the drainage area discharging to the combined sewer system.

2.5 Description of Storm Drainage System

The drainage system for the 28th St. Landfill is shown on the Site Map in Appendix B. The storm drain system at the landfill consists of open channels, detention basins, and storm drain piping. The storm and sewer systems are separate systems, but all sewer and most drainage discharges into the combined system at the intersection of 28th Street and E Street. For the purpose of this SWPPP, all piping systems for the site will be referred to as the combined sewer/stormwater system. Surface runoff that doesn't discharge into the combined sewer/stormwater system eventually discharges into the American River through a culvert, or is absorbed and evaporated by the Retention Pond. The map in Appendix B shows the drainage sheds and is summarized below.

- All paved areas and the western portion of the pervious areas drain into the combined sewer/stormwater system.
- The south west portions of the pervious area drains to the south were it is retained in a detention pond for sedimentation before discharging into the combined sewer/stormwater system.
- The north central portion drains north to a 12 inch CMP which discharges into a vegetated buffer strip adjacent to the American River.
- The north eastern portion of the landfill drains to the east where it is collected in a combined flood control/water quality detention basin that discharges into the American River.
- The south eastern portion of the pervious area drains to a retention pond located in the furthest, south east corner of the landfill where the runoff infiltrates into the soil.

Non-stormwater discharges from various operations at this site also contribute to the discharge flows into the combined sewer/stormwater, and these flows include:

- Groundwater from production wells.
- Leachate from WMU B (when sufficient amount of runoff present for sump pump to turn on which only occurs during heavy rain events).

- Condensate from methane recovery system.

2.6 Past Significant Spills and Leaks

There have been no known spill events experienced at the Landfill while it has been closed. Typically, the only areas of concern for spills would be on impervious surfaces which can impact storm water drainage systems and local water bodies. The fleet maintenance shop and fueling areas practice good housekeeping and spill response techniques to protect spills from entering the combined system. However, there has been record of the migration of landfill gas, and elevated levels of ammonia in soil found along the American River and south of the landfill near the Capital City Freeway. As a result, a passive landfill gas collection trench east of the active site was constructed to intercept any landfill gas migrating in that direction. In addition to controlling migration of combustible gases, the system serves as a corrective action measure to help prevent migration of gas-borne contaminants, principally volatile organic compounds (VOCs) that could otherwise migrate to groundwater.

3.0 DESCRIPTION OF POTENTIAL SOURCES OF POLLUTION

The following sections describe the potential pollutants and pollutant sources to storm water discharge at the City landfill. The site was designed and is operated in a manner that minimizes potential pollutants to the environment. For example, wet land detention basins were designed to treat runoff before it is discharged into the river. There is also a buffer strip between the discharge location and the American River. As described in greater detail in Section 4 of this Plan, management practices and employee training are utilized to the greatest extent possible to ensure that potential discharge of pollutants to storm water are minimized.

The following section describes the potential pollutants present at the facility and the estimated annual quantities of these pollutants in storm water.

3.1 Pervious Portion of Landfill Discharging to American River

The stormwater runoff discharged to the American River at the two locations shown in Appendix B is currently being monitored, and is limited to surface runoff from the landfill cover and access roads. Potential pollutants would be sediment and possibly some metals and herbicides bound to the sediments.

4.0 STEPS TO REDUCE NON-STORM WATER DISCHARGES

This section of the SWPPP describes the management and operating procedures utilized at the City landfill to control potential pollutants and minimize their possible impacts to storm water. The section includes discussions of structural source controls and facility management practices.

4.1 What are Best Management Practices?

Source Control

Storm water regulations state that BMPs are to be implemented in order to reduce the contamination, or potential for contamination, of storm water to the "maximum extent practicable" (MEP). The most effective, and usually least costly, BMPs are source control measures; for example, regular sweeping around the material bins and storage areas, and closing lids on dumpsters. More expensive source controls, like constructing a permanent cover over material storage areas, are most the most effective.

Treatment Controls

Treatment BMPs, such as storm water interceptors and detention basins are less desirable than source controls for two reasons: 1) they are more cost and maintenance intensive and 2) treatment means that the storm water has already become polluted. As demonstrated by this SWPPP, some treatment BMPs are probably unavoidable because of the nature of the activities at the CWTP; however, the SWPPP attempts to optimize the use of source controls.

4.2 Treatment Controls

4.2.1 Detention Basins

Detention Basin A is a wet detention basin designed for a 100-year, 24-hour precipitation conditions was constructed to retain runoff from the north eastern corner of the landfill before discharging into the American River, and is shown in Appendix B. The design incorporated water quality concerns by retaining the runoff to allow solids to settle. The sediment accumulated in the detention basin is removed on a routine basis.

Detention Basin B, as shown in Appendix B, has been constructed for the runoff flowing to the south west corner of the landfill; furthermore, it is similar in design to the north-east detention basin. Since discharging from this detention basin to the American River is not feasible, the runoff form this detention basin is discharged into the combine system.

4.2.2 Clay Liner

Once the landfill reached maximum capacity, a two foot thick base cover (rock and dirt) was placed over the final lift of refuse followed by a one foot clay cap and a one foot of cover soil. The clay cap reduces percolation down through the refuse and into the groundwater and leachate collection system. Consequently, surface runoff from the capped areas is usually increased. The detention basins discussed above were designed to control runoff from a large portion of the landfill. By preventing percolation, pollutants associated with the buried refuse are kept from commingling with the runoff.

4.2.3 Retention Pond

The Retention Pond is located in the south east corner of the landfill just north of Capitol City Freeway and just west of the Union Pacific Railroad. Surface runoff from a portion of the pervious area within WMU B collects within this retention pond where the runoff infiltrates into the soil.

4.3 Source Control

4.3.1 Erosion Control

A two foot layer of top soil is placed over the clay liner to promote the growth of vegetation. The landfill was seeded for vegetation once the top soil is placed; moreover, the vegetation selected requires minimum irrigation and maintenance needs. By covering bare land, soil erosion will be kept to a minimum and total suspended solids discharged to the river will be reduced. Additionally, these capped sections of the landfill are monitored and maintained to promote runoff and to prevent ponding.

4.3.2 Sump at Maintenance Facility – Drains to Sewer System

A sump was constructed in the wash rack, and is designed to settle out solids and other refuse before the waste water is discharged into the sanitary sewer system.

4.3.3 Training

Training sessions in the form of field visits and/or meetings will be conducted by Stormwater staff as needed. The goal of the training sessions will be to address BMP concerns and weed abatement practices.

5.0 MONITORING AND RECORD KEEPING

City Landfill personnel maintains a surface water monitoring program that complies with the General Industrial Storm Water Permit, ORDER NO. R5-2004-0039. A written Sample Collection and Analysis Plan (sampling plan) that complies with the Permit requirements and has been developed and is included as Appendix A. This written sampling plan identifies monitoring locations, constituents to sample, quality control/quality assurance of sample and sampling protocols. The sampling results will be reviewed as needed to evaluate implementation and effectiveness of BMPs (erosion control inspections vegetated slopes and detention basin inspections). The monitoring for the Landfill will include visual observations of the facility (i.e., vegetated slopes and surface water drainage structures), and storm water sample collection for analysis. These two components of monitoring are outlined below:

5.1 Visual Observations

5.1.1 Facility Inspection

Annually, prior to the anticipated rainy season, but no later than **15 September**, the Municipal Operations staff person from the Department of Utilities Stormwater Section and/or the Landfill staff will assess the north-eastern detention basin for damage.

Any necessary erosion control measures shall be implemented by 15 November; additionally, any construction, maintenance, or repairs of storm water management measures designed to prevent erosion or flooding of the facility and to prevent surface drainage from contacting or percolating through wastes shall also be completed by **15 November**.

5.1.2 Storm Events

Landfill staff will inspect the detention basin and drainage ditches for damage within 7 days following major storm events. Necessary interim repairs will be completed within 10 days of the inspection and permanent repairs are to be completed when feasible.

5.2 Monitoring of Storm Water

Landfill personnel will conduct monitoring at the specified sites when runoff from the facility has combined to form a definable runoff stream; moreover, adequate flow volume must be available for sample collection. See the Sample Collection and Analysis Plan contained within Appendix A.

5.3 Results of Water Quality Data Collected

A review of the water quality data for the landfill was conducted by Larry Walker and Associates (LWA) in November, 2007. Sampling data was prepared by the landfill staff, and consisted of raw data along with a statistical summary of that data. LWA reported that the data are generally within the expected range. The review of this data also revealed the need for a review of sampling procedures and analytical methods. The City has been evaluating the analytical methods, and has established QA/QC methods to be implemented (see Appendix A for the proposed QA/QC measures to be implemented).

5.4 Estimate of Annual Quantities of Potential Pollutants in Storm Water Runoff

Since QA/QC analysis for the data quality was not performed, it was not possible to draw definitive conclusions on the estimation of pollutant loads contained within the Landfill's storm-water runoff. Utilizing the given data and the professional judgment of the reviewer, average annual loads were calculated and are summarized as follows:

Estimated 28th Street Landfill Runoff Annual Average Load

Constituent	Concentration Units	Average Concentration	Average Annual Load	Load Units
Ag, dissolved	µg/L	3.3	56.8	grams
Al, dissolved	µg/L	909	15,645	grams
As, dissolved	µg/L	552	9,501	grams
Ba, dissolved	µg/L	66.9	1,151	grams
Be, dissolved	µg/L	1.9	32.7	grams
Cd, dissolved	µg/L	2.5	43.0	grams
CN, dissolved	µg/L	4.3	74.0	grams
Co, dissolved	µg/L	5.8	99.8	grams
Cr VI, dissolved	µg/L	4.1	70.6	grams
Cr, dissolved	µg/L	18.3	315.0	grams
Cu, dissolved	µg/L	14.2	244.4	grams
Hg, dissolved	µg/L	0.0667	1.1	grams
Mn, dissolved	µg/L	104.2	1,793	grams
Ni, dissolved	µg/L	1,045	17,986	grams
Pb, dissolved	µg/L	87.4	1,504	grams
Sb, dissolved	µg/L	18.3	315.0	grams
Se, dissolved	µg/L	314	5,404	grams
Sn, dissolved	µg/L	38.7	666.1	grams
Tl, dissolved	µg/L	84.1	1,447	grams
V, dissolved	µg/L	9.2	158.3	grams
Zn, dissolved	µg/L	193	3,322	grams
Chloride	mg/L	10.5	181	kilograms
COD	mg/L	79.6	1,370	kilograms
Nitrate	mg/L	1.43	24.6	kilograms
TDS	mg/L	254	4,372	kilograms
TSS	mg/L	39.7	683	kilograms
TOC	mg/L	23.62	407	kilograms

5.5 Record Keeping

Landfill staff retains records of all inspection and monitoring activities as dictated by Permit requirements. In addition to surface water monitoring and visual inspections, Landfill staff collects records for additional Permit requirements not associated with this SWPPP. The surface water monitoring records are included with all other records retained. Annual and semiannual reports for all monitoring activities are generated and submitted to the Regional Water Quality Control Board.

APPENDIX A

Storm Water Sample Collection
and
Analysis Plan

City of Sacramento's 28th Street Landfill
Storm Water Sample Collection and Analysis Plan

Objectives

The objectives of this storm water monitoring program developed for the City of Sacramento's closed Landfill is to ensure that all storm water discharges are in compliance with permit requirements of WDR Order No. R5-2004-0039. Since the majority of the runoff from this facility discharges to the combined sewer system, and only a portion of the capped landfill discharges to the American River, the potential pollutant load is minimized to sediment transported from the vegetated topography and any additional pollutants that could be bound to that sediment (i.e., metals, herbicides, etc.). This monitoring program includes: sample collection procedures; sample preservation information and shipment procedures; Sample quality assurance/quality control (QA/QC) procedures; and Chain of Custody control.

Sample Collection Procedures

Sampling Sites

Storm water sample collections are performed at the landfill's northern detention basin outfall to the American River, and the 12-inch corrugated metal pipe, which drains about 20% of the landfill area to the American River. The 12-inch pipe is slightly northeast and upstream of the landfill, and the detention basin outfall is located slightly northwest and downstream of the landfill. These two sampling locations are indicative of the quality and quantity of sheet flow runoff from this portion of the Landfill and are not commingled with runoff from surrounding areas. Locations of the sample sites are identified on the in Appendix B. Samples are collected and analyzed for the monitoring parameters in accordance with the frequency specified in Table I and methods specified in Table II.

Sample Identification and Labeling

Sample bottles and identification labels are supplied by the contracted lab, Calscience. The lab labels each of the various types of sample-collection bottles with the appropriate constituents to be analyzed for, and the sampling personnel only need to fill in the date and time on the labels.

Sample Collection

Storm water samples are collected after the first storm of the rainy season that produces significant flow and one other time during the wet season. Sampling is conducted during or shortly after storm events or when water is flowing in the drains. One set of grab samples will be taken at each site during each event. It is desired that these grab samples be collected during peak flow; however, due to the difficulty in predicting the time of peak flow, grab sampling during peak flow may be problematic. Once samples are

collected, samples must immediately be placed on ice and remain in ice until transferred to analytical laboratory.

Clean Sample Handling

"Clean sampling" techniques are required in the collection and handling of water samples in a way that does not result in contamination, loss, nor change in the chemical form of the analytes of interest. In order to reduce potential contamination, sample collection personnel will adhere to the following rules while collecting stormwater samples:

- No smoking while collecting samples.
- Never sample near a running vehicle. Do not park vehicles in immediate sample collection area (even non-running vehicles).
- Avoid allowing rainwater to drip from rain gear into sample bottles.
- Do not eat or drink during sample collection.
- Do not breath, sneeze or cough in the direction of an open sample bottle.
- Wear clean gloves when handling bailer, bottles, and caps.

Sampling Chain of Custody

All sample custody and transfer procedures will be based on EPA recommended procedures for documenting sample collection and handling processes. Samplers will adhere to proper custody and documentation procedures for all sampling activities. Chain of custody forms will be used to document the relevant information for each sample bottle and the transfer of bottles to the laboratory. Fill out chain of custody forms prior to each event leaving only the date and time of sample collection blank. Date the time of sample collection will be completed prior to transporting samples to the lab.

Transport to Lab

The primary method of sample delivery is for the samplers to deliver the samples to the lab directly. The contracted lab for these surface water samples is Calscience Environmental Laboratories, Inc. located at 7440 Lincoln Way, Garden Grove, CA 92841-1427

Sample Quality Assurance/Quality Control (QA/QC) Procedures

Quality assurance is the program that assures the reliability of the data, and quality control is the daily activities conducted to meet data quality goals. The importance of a QA/QC program is to increase reliability, credibility, and defensibility of data and decisions made based on the data. QA/QC samples will be collected to evaluate the consistency of sample collection and analyses. The following quality control samples may be analyzed during one of the monitoring events.

- Matrix Spike/Duplicate
- Field Duplicate

Matrix Spike/Duplicate (MS/MSD) give an indication of matrix interference, and laboratories are required to perform these at a frequency of 10%. MS/MSD samples are collected by obtaining additional sample volume; for example, if collecting a 1L volume for the sample then additional1L is required for the MS and 1L for the MSD. The MS/MSD samples should have the same label designation as the sample itself and also marked as a MS/MSD.

Field Duplicate samples are collected by filling two bottles with the same sample and giving the field duplicate a fictitious name and collection time. The fictitious name and location shall be recorded in the field notes by the sampler.

TABLE I

SURFACE WATER MONITORING PROGRAM

Parameter	Units	Frequency
Field Parameters		
Temperature winter[1]	°C	Twice each
Electrical Conductivity winter[1]	µmhos/cm	Twice each
pH winter[1]	pH units	Twice each
Turbidity winter[1]	Turbidity units	Twice each
Monitoring Parameters		
Total Suspended Solids winter[1]	mg/L	Twice each
Total Dissolved Solids (TDS) winter[1]	mg/L	Twice each
Chloride winter[1]	mg/L	Twice each
Sulfate winter[1]	mg/L	Twice each
Nitrate as Nitrogen winter[1]	mg/L	Twice each
Bicarbonate Alkalinity winter[1]	mg/L	Twice each
Constituents of Concern		
Carbonate	mg/L	Annual
Chemical Oxygen Demand	mg/L	Annual
Total Organic Carbon	mg/L	Annual
Total Alkalinity	mg/L	Annual
Dissolved Oxygen	mg/L	Annual
Oil and Grease	mg/L	Annual
Inorganics (dissolved) [2]	mg/L	Annual

1. Surface water samples are collected after the first storm of the rainy season that produces significant flow and during at least one other storm event in the wet season.
2. See Table II

TABLE II

CONSTITUENTS OF CONCERN & APPROVED USEPA ANALYTICAL METHODS

Field Parameters	**Method**
pH	150.1
Electrical Conductivity	2510

General Minerals	**Method**
Bicarbonate	2310B
Chloride	300 (anion scan)
Nitrate – Nitrogen	300 (anion scan)
Sulfate	300 (anion scan)
Total Dissolved Solids (TDS)	2540C

Inorganics (dissolved):	**Method**
Aluminum	200.7/6010
Antimony	200.7/7041
Barium	200.7/6010
Beryllium	200.7/6010
Cadmium	200.7/7131A
Chromium	200.7/6010
Chromium VI^{+}	7199/1636
Cobalt	200.7/6010
Copper	200.7/6010
Silver	200.7/6010
Tin	200.7/6010
Vanadium	200.7/6010
Zinc	200.7/6010
Iron	200.7/6010
Manganese	200.7/6010
Arsenic	200.9/200.8
Lead	200.9/200.8
Mercury	7470A
Nickel	200.9/200.8
Selenium	200.9/200.8
Thallium	200.9/200.8
Cyanide	9010
Sulfide	9030

Other Parameters	**Method**
Total Organic Carbon	415.1
Total Alkalinity	310.1
Total Suspended Solids	160.1
Bicarbonate Alkalinity	130.2
Chemical Oxygen Demand	410.4
Dissolved Oxygen	360.1/360.2
Oil and Grease	5520/1664

APPENDIX B
Site Map



REVISIONS				BENCH MARK	ELEV:	FIELD BOOK
NO.	DESCRIPTION	DATE	BY	DESCRIPTION:		
						SCALE: HORIZ: 1" = 200' VERT: 1" AT 100%

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

DRAWN BY: MER DATE: 9/07
DESIGNED BY: R. LIVINGSTON DATE: 9/07
CHECKED BY: R.C.E.: DATE: 9/07

CITY OF SACRAMENTO SWPPP's AND FPPP's
28TH STREET LANDFILL
SITE MAP
APPENDIX B
2ND DRAFT

P.E. | CCNO | SHEET 1 OF 1

APPDXB



LEGEND

- 12"D — DRAINAGE PIPE
- DRAINAGE SHED BOUNDARY
- OUTDOOR STORAGE AREAS
- HAZARDOUS MATERIAL STORAGE AREAS

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK ELEV: _____
DESCRIPTION:

FIELD BOOK

SCALE:
HORIZ: 1" = 200'
VERT: _____
1" AT 100%

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

DRAWN BY: MER DATE: 9/07
DESIGNED BY: R. LIVINGSTON DATE: 9/07
CHECKED BY: _____ R.C.E.: _____ DATE: 9/07

CITY OF SACRAMENTO SWPPP's AND FPPP's

28TH STREET LANDFILL
SITE MAP
APPENDIX B

2ND DRAFT

P:

CCNO

SHEET 1 — OF — 1

APPENDIX B

CITY OF SACRAMENTO

Sacramento River Water Treatment Plant

FACILITY POLLUTION PREVENTION PLAN (FPPP)

Responsibility for FPPP Implementation:

Accepted by: Steve Willey 2/27/09

Steve Willey Date
Supervising Plant Operator
Phone: (916) 808-7406

Prepared by: Roxanne Dilley, Assistant Civil Engineer
Engineering Services – Water Quality Section
and
Matt Rodgers, P.E., MRPE

February 2009

TABLE OF CONTENTS

1.0 INTRODUCTION *5*

1.1 Purpose of the Facility Pollution Prevention Plan (FPPP) ____ 5

1.2 Storm Water Audit at Sacramento River Water Treatment Plant ____ 5

1.3 Updating the FPPP ____ 5

2.0 DESCRIPTION OF SITE AND POTENTIAL SOURCES OF POLLUTION *6*

2.1 General Nature of Facility Activities ____ 6

2.2 Facility Layout and Specific Activities ____ 6

2.3 Description of Storm Drainage System ____ 14

2.4 Summary Table of Common Materials Used and Stored On-Site ____ 16

2.5 Preliminary List of Pollutants that may be found in Storm Water Runoff ____ 18

3.0 STEPS TO REDUCE NON-STORM WATER DISCHARGES *19*

3.1 Implementation Schedule ____ 19

3.2 BMP Summary Table ____ 19

APPENDICES

Appendix A – Site Maps

Appendix B – Spill Prevention Control & Countermeasure Plan

1.0 INTRODUCTION

The National Pollution Discharge Elimination System (NPDES) Storm Water Permit, administered by the Central Valley Regional Water Quality Control Board (Water Board), requires the City of Sacramento to regulate urban runoff entering into the storm drainage system and local waterways. The purpose of the permit is to protect water quality by reducing the amount of pollutants in the storm water from various urban land uses and activities. There are numerous programs being implemented by the City's Stormwater Quality Improvement Program (Stormwater Program) including those that minimize storm water pollution from new developments, construction sites, commercial and industrial facilities, and municipal activities.

To address potential pollutants entering the drainage system from public facilities containing material storage, vehicle/equipment maintenance, and vehicle/equipment washing activities, the City of Sacramento will implement pollution prevention measures as described within a Facility Pollution Prevention Plan (FPPP).

1.1 Purpose of the Facility Pollution Prevention Plan (FPPP)

The FPPP provides an extensive evaluation of Sacramento River Water Treatment Plant for potential activities that may result in storm-water-pollutant runoff and offers solutions to the problems presented. The FPPP is intended to serve as a blue print for implementation of best management practices (BMPs) to control pollutants within the site's runoff to the maximum extent practicable. The individual(s) responsible for the implementation of the FPPP will be identified, and Stormwater Program staff will inspect the facility annually to ensure proper BMP implementation.

1.2 Storm Water Audit at Sacramento River Water Treatment Plant

A storm water audit was conducted at Sacramento River Water Treatment Plant by Stormwater Program staff from the Department of Utilities/Engineering Services on October 22, 2008. The audit addressed the following areas: activities performed at the site, materials used and stored inside and outside, equipment and vehicles stored inside and outside, spill clean-up equipment, drainage system, and general comments.

1.3 Updating the FPPP

Initially, FPPPs will be updated annually during the first three years of implementation in order to address challenges and transitions. After the first three year period, updating will occur on an as needed basis (at least once per permit term) to reflect changes in activities that may adversely affect or improve storm water runoff. Any changes to the FPPP shall include the individual responsible for FPPP implementation (see cover), and Stormwater Program staff. The individual responsible for FPPP implementation shall review and request modifications to this FPPP from Stormwater Program staff as necessary to maintain conformance with actual practices and site layout.

2.0 DESCRIPTION OF SITE AND POTENTIAL SOURCES OF POLLUTION

Chapter Two contains: general information collected during the site audit, a description of NPDES regulated activities, and identification of potential pollution sources.

2.1 General Nature of Facility Activities

This facility is a conventional water treatment plant. Pre-treatment includes pre-chlorination, grit removal, coagulation flocculation and sedimentation. The water is then filtered and disinfected a second time. Post-treatment includes pH adjustment and fluoridation. A list of specific activities includes, but is not limited to:

- Pumping raw surface water from the Sacramento River for the purpose of municipal drinking water treatment
- Removing solids from the surface water
- Handling (drying and disposing of) water treatment plant residual solids
- Cleaning filtration system backwash water or filter wash water
- Storage of chemicals used to treat water
- Treatment of the water with chemicals
- Storage of treated water
- Maintenance of equipment
- Metal fabrication and machining activities for the purpose of maintenance of water treatment plant equipment and facilities
- Laboratory testing of water and related chemicals
- Administration

2.2 Facility Layout and Specific Activities

A map delineating the location of structures and their immediate surroundings, including drainage, landscaping, and storage areas are shown in Appendix A. Sacramento River Water Treatment Plant covers approximately 40 acres, and is approximately 70% impervious. Over 40% of the site collects and generally contains rain water in the normal water treatment process. Almost 60% is normally piped directly to the Sacramento or American River.

The following describes structures found at this location:

5 MG Filtered Water Storage (Reservoir 1) (G/7) This is the original underground structure where the treated water is stored and released into the City water distribution system. Diluted spent lime is transferred from the reservoir to the Sludge Lagoons. This structure also includes high lift pump stations.

9.5 MG Filtered Water Storage (Reservoir 2) (J/8) This is an above-ground structure where the treated water is stored and released into the City water distribution system. Diluted spent lime is

transferred from the reservoir to the Sludge Lagoons during triennial maintenance operations of the reservoir.

C/T Tank & Clearwell (Reservoir 3) (K/8) This is a 2.8 million gallon, split structure. The CT Basin is an underground portion of the structure where water is sent following filtration prior to going into Reservoirs 1 and 2. Chlorine is added to the water in the C/T Tank. Reservoir 3, the Clearwell, is the above-ground portion which also stores water prior to being released into the distribution system. Lime is added to the water in the Clearwell to adjust pH levels.

Alum and Caustic Soda Storage (G-H/2) See Hazardous Material Storage Area 6.

Boat Storage (H/6) Boats used for inspection and maintenance of the intake structure and collection of water monitoring samples are stored in this building.

Chemical Building (K-L/6-7) See Hazardous Material Storage Area 1.

Chemical Trench (Not shown on the site map) This is an entirely underground trench that is used to carry all chemical lines, electrical conduits, compressed air, utility water, sample lines, and the drain pipes for the drain water off of the Caustic Soda Storage and the Alum Storage containment areas. The trench begins in the Operations Building, heads west to the New 1 – 8 Filters, into the Chemical Building, then works its' way south and west towards the Grit Basin area, and ends in the basement of the Coagulation Building. There are two sump areas, each with two pumps, for pumping spills that occur within the trench. The sump pumps discharges into the Plant Drain System which then flows into the FWW Lagoons. The Chemical Trench sumps are equipped with alarms and controlled by a Supervisory Control and Data Acquisition (SCADA) system for quick response to detected leaks and any pump failures within the trench.

Coagulation Building (G/2) See Hazardous Material Storage Area 5.

Electrical Building (F/7) See Outdoor Storage Area 3.

Filters (H-L/6) This includes the Old 1-8, Old 9-16, and New 1-8 filters and associated buildings. These structures filter the water from the Sedimentation Basins prior to chemical adjustments. Particles removed by the filters are transferred to the FWW Lagoons.

Filter Wash Water (FWW) Lagoons 1 & 2 (N/4-5) These structures were constructed of reinforced concrete (which has inherently low permeability), and constructed below grade with concrete walls extending above ground to prevent the contents from overflowing. The lagoons were designed to operate at a freeboard level designated by regulations (currently two feet), and levels are , at a minimum, visually monitored daily by staff gauges. Decant pumps automatically divert dewatered supernatant to the Flash Mix. Dilute alum residuals generated from the filter backwashing process is discharged to the FWW Lagoons for settling, decanting and solar drying. After the supernatant is decanted and the residuals begin to dry, it is mixed in the lagoon with a front-end loader to facilitate

drying. Best Management Practices (BMPs) are implemented to prevent track-out or migration of residual solids after mixing or loading/hauling operations (See BMP Summary Table in Chapter 3).

Flocculation/Sedimentation Basins (F-K/4) This includes the Basin 1, 2, and 3 Flocculation/Sedimentation Basins. The Flocculation/Sedimentation Basins are reinforced concrete structures where raw water conveyed from the Grit Basin is further treated. Sedimentation Basin 1 is covered, and the remaining basins are uncovered. Adding liquid aluminum sulfate (alum) and slow mixing to the treatment process allows for flocculation and sedimentation of suspended solids; this process creates an environment where suspended particles will stick together and sink. The flocculation and sedimentation process will remove only those particles that can settle within the detention time of the sedimentation basins; therefore, the water will then flow by gravity through the filters to further reduce the amount of suspended solids. Residuals are withdrawn from the bottom of basins 2 and 3, and sent to the Sludge Lagoons for drying and disposal. To remove residuals from Basin 1, the basin is emptied and manually cleaned; the residuals and waste water from basin one is sent to the sludge lagoons.

General Storage Building (F/6) This building stores pipes, fittings, valves, meters, and other miscellaneous plant parts and equipment. This building is directly connected to the High Service Pump Station.

Generator (F/6) This is the location of the backup generator that supplies electricity to the plant in the event of a power outage.

Grit Basin/Flash Mix Flow Split Structure (H-J/2) The Grit Basin is an above ground concrete structure. Water from the river is sent into this basin which is used to settle grit, sand and sediments. Approximately four to twenty cubic yards of solids are generated in the Grit Basin per week. At a point just prior to the Grit Basin, a pre-chlorination chlorine solution is introduced at a dose of 1.0 to 2.5 ppm (parts per million). After passing through the Grit Basin, water moves to the flash mixer, and into the plant. Residual waste from the Grit Basin is loaded into trucks and transported to the Sludge Lagoons. The truck loading area is covered and slopes to a drain that discharges to the sewer system.

Alum, chlorine, polymer, and caustic soda is added to the water in the Flash Mix portion of this structure, All chemical dosing procedures are based on the amount of incoming water being pumped. Water recycled from other parts of the process is also sent to the Flash Mix structure.

Head House (G/6) Contains a .25 MG storage of potable water for backwashing Old Filters 1-16. This structure also contains office spaces for City staff, a break room, locker facilities, and miscellaneous storage of process pumps, piping and equipment utilized for support of the water treatment process and for operation of Old Filters 1-16.

High Service Pump Station (HSPS) (F/6) This building houses the primary pumps that deliver

treated water from the reservoirs into the distribution system. The east and west sides of this building include general storage, lockers and a restroom for staff use. A flammable liquid cabinet is located inside the building near the northeast corner that provides containment for paint and primer stored therein.

Intake Structure (A/2) This structure stands in the Sacramento River and pumps water from the river directing it to the grit basin to begin the treatment process. All associated drainage associated with the intake structure goes directly to the Sacramento River, and runoff from the associated plaza flows into the storm drain system which discharges into the American River.

Machine Shop (F/7) Activities in this building include metal fabrication and welding. The purpose is to build the parts used throughout the facility. Welding and metal-fabrication equipment and associated supplies are utilized within this building. See Hazardous Material Storage 5 for hazardous materials stored in this building. Hosing of the pavement outside the machine shop was observed during the inspection, which runs-off along the surface to Bercut Drive and the public drainage system. Such discharges flow into a porous roadside ditch adjacent to Bercut Drive for several hundred feet before discharging into a drain inlet. The vegetated, roadside ditch provides filtration and infiltration for flows generated from rinsing activities performed in front of the Machine Shop, and such flows may infiltrate prior to entering underground drain pipes.

Oil Room (H-6) See Hazardous Material Storage Area 2.

Operations Building (L/6) This building is the primary location where plant operations are monitored and controlled. Primary uses include offices, control rooms, testing labs, conference/training rooms, and general administration. There is miscellaneous storage of plant parts in the basement of the Operations Building.

Sludge Lagoons 1, 2, 3 & 4 (K-M/4-5 & L-M/7-8) Sludge Lagoons 1, 2, and 3 are constructed and monitored similarly to the FWW Lagoons. Alum residuals from the Flocculation/Sedimentation Basins, and spent lime from Reservoirs 1, 2, and 3, are pumped to the Sludge Lagoons. The lagoons are dewatered using a top weir gate dewatering system, and decant is pumped and recycled into the Flash Mixer. Plumbing for discharge to the sanitary sewer system and to the drainage system exits, but the valve to the storm drainage system has been chained and locked to prevent accidental release to the storm drain system. Similar to the FWW Lagoons, residual solids are solar dried and mixed within the lagoons. Management of solids will be consistent with that mentioned in the above FWW Lagoons description.

Sludge Lagoon 4 is an earthen basin that was constructed above grade with 8-foot berms and 2.5 feet of freeboard. Similar to lagoons 1, 2, and 3, a top-weir-gate system is utilized for dewatering decant that is pumped and recycled in the Flash Mixer or discharged into the sanitary sewer. This basin is used for temporary storage of residuals that been removed from Sludge Lagoons 1, 2, and 3. The sludge may or may not be free-draining when transferred, and completes the drying process here

before being removed to an off-site landfill.

Sludge and FWW Lagoon Pump Station (M/5) This is the location that houses the Sludge Return (SLR) pumps, Sludge Decant (SLD) pumps, Wash Water Return (WWR) pumps, Wash Water Decant (WWD) pumps, Plant Drain pumps, and Storm Drain pumps. The purpose of these pumps are to take decant from sludge and recycle into the FWW, to take decant and recycle from FWW to the Flash Mix or sewer, to take flows from the plant drain system to the FWW Lagoons, and to take flows in the storm drain system to the Stormwater Swale.

South Barn Storage (K/2-3) This building houses miscellaneous equipment and supplies including portable pumps, hoses, compressors, paint (in flammable material cabinet on pallet), weed eaters, de-chlorination tablets, and chlorination granules.

Well Storage (F/6) This building houses well pumps and appurtenances.

The following section describes Hazardous Material Storage:

Hazardous Materials Storage Area 1 (L/6-7) is the Chemical Building. Inside this concrete building are storage tanks and associate pumping and piping equipment for chlorine gas, anionc and nonionic polymers, fluoride, caustic soda, and lime.. A Water Production Emergency Management Plan has been prepared for response to minor and major incidents. This building is divided into separate sections to accommodate each of the chemicals. Each section is equipped with particular precautionary measure for containment and alarms in case of a leak Potential leaks and spills primarily occur within the containment area from storage tanks and associated pumping and piping of the individual chemical sections. Generally, the individual containment areas consist of a concrete pad tapered to flow to either a drain inlet that discharges to the Plant Drain System or a sump which hold the spill until properly disposed. The Plant Drain system has pumps which discharge flows from the Plant Drain System back into the FWW Lagoons where the WWR pumps decant water from the FWW Lagoons and pumps flow back to the Flash Mix structure.

<u>Chlorine:</u>

One-ton cylinders of gaseous chlorine are stored and used at this WTP; twelve cylinders are on-line or standby and stored on scales, and another twelve one-ton cylinders are stored on trunions. The danger of leaks is the most likely during change out of cylinders, a faulty or compromised gasket, or improperly placed connections These types of leaks are rare and normally considered minor; however, a chlorine gas leak from these types of incidents can have a severe effect on local air quality, but may not necessarily impact water quality. The chlorine-storage area is equipped with an emergency chlorine scrubber and gas sensors. A red light attached to the outside of the building will illuminate and an audible horn will sound when a chlorine-gas leak is detected. The sensors will sound the alarm when a concentration of 1 ppm is detected, and the scrubber will be activated when a concentration of 2 ppm is detected. Also stored in the Chemical Building are 150-pound-chlorine cylinders (max of 14) used for numerous ground-water wells city wide. A Risk Management Plan

for Chlorine Handling has been implemented, and staff is trained annually.

Polymer:
There is a 750-gallon mixing tank, a 750-gallon ageing tank, 3 metering pumps and associated piping within a concrete secondary-containment structure. The mixing and aging tanks have floats that will sound an alarm if the fluid level rises above normal operating levels. The polymer tanks are equipped with an overflow pipe which will accommodate some overflow. In the event overflow exceeds the capacity of the overflow pipe, wet polymer will flow into the containment area. There are drains within the containment area which takes flow into the Plant Drain System.

Fluoride:
There are two fluoride 6000 gal. tanks, 2 metering pumps and associated piping within a concrete secondary-containment structure. The tanks are equipped with an electronic level and alarming system. The system is comprised of a light on the exterior of the building that illuminates and an alarm is sent to SCADA when the tank level exceeds normal operating levels. In the event of a leak, a float in the sump of the secondary-containment area sends an alarm to SCADA. There are no drains within the fluoride-containment area. Small leaks will be mechanically pumped by the operators and disposed of properly. In the event that there is a large spill, a trucking operation contracted with the City will respond to collect and transport the spill for proper disposal.

Caustic Soda:
The chlorine scrubber system has a 2 thousand gallon caustic soda storage reservoir. The entire system is within a concrete secondary-containment structure. The chlorine scrubber neutralizes chlorine gas leaks generated from the chlorine storage area, chlorinator room and the chlorinator repair shop. This scrubber section is not equipped with a leak detection system, but the containment area was designed for the total volume of the storage reservoir. Small leaks will be mechanically pumped by the operators and disposed of properly. In the event that there is a large spill, a trucking operation contracted with the City will respond to collect and transport the spill for proper disposal. The caustic soda section of the building is visually inspected once per shift.

Lime:
Another section of the Chemical Building consists of two 100,000 pound storage containers for lime. The lime is stored as powder, but then is slaked into a liquid form. There is no secondary-containment structure in this section of the building. Powder or liquid spills are hosed into the floor drains which discharges into the Plant Drain System. Large dry spills are swept up and disposed of properly. The lime section of the building is visually inspected once per shift.

Hazardous Materials Storage Area 2 (H-6) is known as the Oil Room. This room will contain several 55-gallon portable drums of: industrial oil, hydraulic oil, Engine oil, and gear compound. All new and used oil products for the site will be stored inside this building atop secondary containment pallets. Mobile drums are transported to and from other areas of the site as needed using mobile carts equipped with their own secondary containment. A spill kit is present.

Hazardous Materials Storage Area 3 (F/7) This storage area is located within the Machine shop. Hazardous materials stored in this building include gear lube, oxygen, compressed air, gold gas, propane, carbon dioxide, acetylene, and argon. The gasses are used for welding and metal fabrication.

Hazardous Materials Storage Area 4 (F/6) This is an Aboveground Storage Tank (AST) that was designed with double-walled containment. This tank stores fuel for a large diesel generator used primarily for emergency situations (power outages) so that the plant can continue to distribute water. The tank has a 6000-gallon capacity and usually contains less than 4000 gallons. There is a dispensing hose connected to the tank and can be used for daily refueling; however, it is not expected to be used for daily refueling. Occasionally, for rotating of fuel, the tank will be used for fueling of equipment.

Hazardous Materials Storage Area 5 (G/2) This is the Coagulation Building. Inside this concrete building are storage tanks and associate pumping and piping equipment for cationic polymer, alum, and Caustic Soda. Similar to the Chemical Building, this building is also separated into sections to accommodate each of the chemicals. Each section is equipped with particular precautionary measures for containment and alarms in case of a leak. Potential for leaks and spills primarily occurs within the associated pump and piping of the individual chemical sections. The individual containment areas consist of a concrete pad tapered to flow to a floor drain. Spill discharge to an attached outdoor containment area that can be pumped to the sewer. This outside containment area can hold several thousand gallons of spilled material and rain that falls directly into the containment area. Spilled liquid within the outside containment area is tested for pH prior to pumping into the sewer system. If the pH indicates that the spill is not appropriate for the sewer system, a contracted trucking operation will collect and properly dispose of the spill.

Aluminum sulfate:
Commonly referred to as alum. The alum-storage area consists of a 500-gallon day tank, three pumps and associated piping within a containment area. In the event of a spill wet alum will flow into the containment area. There are drains within the containment area which takes flow into the outside containment area.

Cationic Polymer:
There are several 250 gal. carboys, pumps, two 750 gal. mixing tanks, two 750 gal. aging tanks and associated piping within the containment area. The mixing and aging tanks have floats that will sound an alarm if the fluid level rises above normal operating levels. The polymer tanks are equipped with an overflow pipe which will accommodate some overflow. In the event overflow exceeds the capacity of the overflow pipe, wet polymer will flow into the containment area. There are drains within the containment area which takes flow into the outside containment area.

Caustic Soda:
Sodium hydroxide, commonly know as caustic soda, is used to adjust pH of the water. Adjustment of pH is necessary for the protection of the pipes within the plant and distribution system. <<further description>> Caustic soda inside the Coagulation Building is stored within 500-gallon day tanks<<containment area/precautionary measure description>>

Hazardous Materials Storage Area 6 (G-H/2) includes 5 large Alum and 2 Caustic Soda Tanks. Accidental spills and rainfall landing directly on the surrounding concrete pad is collected by drains that flow to the Coagulation Building's outside containment area. Spills from this location into the outside containment area handled the same as described in above.

The following outdoor storage areas are paved with asphalt or concrete:

Storage Area 1 (K/3-5) Is an outdoor storage area used for temporary storage of various pipes, fittings, wood and other general items. Items are stored all along the easterly edge of the Flocculation/Sedimentation Basins, and plant managers would like to not use this area for storage.

Storage Area 2 (F/6, J/6, L/6) Three locations where general refuse dumpsters are stored. The G/6 location is temporary, and will be removed shortly.

Storage Area 3 (F/7) Is used for storage of electrical equipment. The upper level houses the exposed plant transformer. The lower level provides covered storage for general electrical equipment. Scrap metal bins are stored uncovered immediately east of this storage structure.

Storage Area 5 (F/6) This storage area is covered. It is used to store small portable generators and a Bobcat immediately east of the well pump storage building.

The following section describes the parking lots at this facility:

Parking Area 1 (M-N/5-7) This parking area is used for employee and city vehicles as well as visitor parking. There are additional parking areas for City vehicles throughout the facility.

The following section describes the pervious areas of the facility:

Landscaped Areas:

Landscaped areas throughout the site include various grasses, trees, cobbles and shrubbery. Vegetation management is performed by contracted services operating under the maintenance provisions specified in the Landscape Maintenance Services General Specifications and Provisions. This document was updated in September 2008, and included Integrated Pest Management (IPM)

provisions for pest and vegetative management. The IPM program is intended to assure the quality and beauty of the facilities landscaping utilizing best horticultural/biological practices and least-toxic methods to facilitate a healthy landscape.

2.3 Description of Storm Drainage System

The site's storm drainage run-off flows to three different systems: The Sacramento/American Rivers, the plant drain system, and the public sanitary sewer system.

Sacramento & American River Runoff

The portion of the site that normally flows to the rivers totals over 22 acres,

- Approximately 3 acres along the westerly side of the site flows directly to Bercut drive where it runs northerly along the surface of a vegetated strip until it eventually combines with the freeway drainage system and gets pumped into Sump 111 which discharges into the American River just upstream of the confluence with the Sacramento River,
- About one acre, including a storm-water swale at the southwest corner, of the site is collected by drains connected to the up-stream end of a 30" pipe that discharges directly to the Sacramento River,
- About one-quarter acre located near the easterly entrance flows directly to the public drainage system in North "B" Street that eventually discharges to the American River,
- Half an acre or so along the north and northeast sides appears to flow through adjacent lots, and then to the aforementioned public drainage system,
- Over 7 acres in the central northern portion of the site flows to "The Moat", which surrounds the 9.5 MG water storage tank. The Moat is pumped into the site's primary storm drainage system, which includes another 10 +/- acres along the central eastern and southern portions of the site,
- That 17 acres flows to a sump at the northeast corner of Sludge Lagoon No. 3 where it is pumped to the aforementioned storm-water swale near the southwest corner of the site, which drains to the Sacramento River. In the event of a spill that contaminates the drainage in this 17 acre shed, the pumped flow can be redirected to the FWW Lagoons along with the plant drain system.

Plant Drain System Runoff

About 17 acres of storm runoff is collected by the various processes in the plant. Some of this collected rain water is treated in the normal treatment process. The remainder flows to the plant drain system. The plant drain system also collects flows from the chemical trench and inside buildings with interior drains that don't otherwise flow directly to the sewer.

The plant drain system normally pumps to the FWW Lagoons, but flows from the plant drainage system may be re-directed to the site's storm drainage system in an emergency. In such an event plant drain flows would discharge to the noted pond at the southwest corner of the site and then to the Sacramento River via the noted 30" pipe.

Public Sewer System Runoff

A couple small outdoor areas such as the Alum/Caustic Soda Storage and the Coagulation Building's outdoor containment areas discharge to the sanitary sewer system. The total area of storm water discharging to the public sewer includes about 0.1 acres.

2.4 Summary Table of Common Materials Used and Stored On-Site

Material	Purpose	Location	Likelihood of contact with storm water		
			High	Med	Low
Chlorine Gas	Treatment of the water (water disinfection)	Hazardous Material Storage Area 1 (Chemical Building), supernatant water and treated water			X
Compressed Air (nitrogen and oxygen)	Machine shop activities	Throughout the Plant			X
Acetylene, Argon, Carbon Dioxide, Oxygen, & Gold Gas (Argon & $C0_2$ mixture)	Welding and cutting	Hazardous Material Storage Area 3 (Machine Shop)			X
Propane Gas	Forklift operation	Hazardous Materials Storage Area 3 (Machine Shop)			X
Hydrofluorosilic Acid and	Treatment of the water (water additive)	Hazardous Materials Storage Area 1 (Chemical Building)		X	
Lime	Treatment of the water (pH adjustment)	Hazardous Materials Storage Area 1 (Chemical Building) and lagoons		X	
Polymer	Treatment of the water (Aides in flocculation)	Hazardous Material Storage Area 1 (Chemical Building), Coagulation Building, and the lagoons		X	
Aluminum Sulphate (Alum)	Treatment of the water (aides in flocculation and filtration)	Hazardous Materials Storage Area 6 and Coagulation Building		X	
Sodium Hydroxide Solution (Caustic Soda)	Treatment of the water (chlorine adjustment)	Hazardous Material Storage Area 6, Coagulation Building, and the Chemical Building		X	
Polyaluminum Hydroxychloride (Multi component polymer blend)	Treatment of the water (aides in flocculation and coagulation)	Hazardous Materials Storage Area 5 (Coagulation Building)		X	
Various Oil Products (engine oil, industrial oil, hydraulic oil, etc.)	Equipment operation	Hazardous Material Storage Area 2 (Oil Room)		X	
Waste oil	Equipment operation	Hazardous Material Storage Area 2 (Oil Room)		X	
Gear Lube	Equipment operation	Hazardous Material Storage Area 2 (Machine Shop)		X	

Diesel	Fuel for the generator and loader	Hazardous Material Storage Area 4		X	
Steel	WTP equipment repair & maintenance	Machine Shop and Outdoor Storage Areas 3, 4, & 6	X		
Misc. Metals	WTP equipment repair & maintenance	Outdoor Storage Areas 1 and 4	X		
PVC glue	Miscellaneous WTP maintenance	Machine Shop			X
Wood	Miscellaneous WTP maintenance	Outdoor Storage Areas 1 and 6	X		

2.5 Preliminary List of Pollutants that may be found in Storm Water Runoff

Pollutant	Common Sources/Uses
pH	Elevated pH may result from masonry/concrete wastes, caustic soda, or lime releasing into drainage collection system. Low pH can result from a chlorine, fluoride or liquid aluminum sulfate spill releasing into the drainage collection system, or improper handling of battery acids.
Nutrients (compounds that contain nitrogen, phosphorous and potassium)	Detergents from vehicle & equipment washing and steam cleaning. Dumping of janitorial wastewater. Over irrigation of fertilized landscape.
Oil, Grease, Petroleum & Hydrocarbons	Vehicle & equipment parking, fueling, washing, steam cleaning, and repair. Outdoor loading & unloading of materials, and waste handling & disposal.
Bacteria	Waste handling & disposal (Dumpsters)
Metals (problematic metals dissolved in water include chromium, copper, lead, and Zinc. Other metals specific to water treatment processes include lead, manganese, molybdenum, silver, and thallium)	Vehicle & equipment parking, outdoor loading & unloading of materials, and waste handling & disposal. Mostly associated with motor vehicles, including direct atmospheric deposition from exhaust emissions, dripping or improperly transferred oil and lubricants, tire wear, brake lining wear and degradation of pavement. Other metals associated with the water treatment plant are derived from accidental discharges during solids handling /transport, mechanical failure of decant system (equipment, piping, and pumps), or overflow of the lagoons.
Sediment (Total Suspended Solids/Total Dissolved Solids)	Vehicle & equipment washing and steam cleaning, exposed landscaped areas, accidental discharge from drying lagoons, and accumulated debris within parking areas
Oxygen-Demanding Substances (Organic compounds)	Vehicle & equipment washing and steam cleaning, and waste handling & disposal. Generally occurs from improperly discarded wash water, litter and garbage, and leaking garbage bins.
Synthetic Organics (Adhesives, cleaners, sealants, solvents, etc.)	Vehicle & equipment fueling, washing, steam cleaning, and repairs. Outdoor loading & unloading of materials, and waste handling & disposal.
Gross Pollutants (trash, debris, floatables)	Outdoor loading & unloading of materials, and waste handling & disposal.

3.0 STEPS TO REDUCE NON-STORM WATER DISCHARGES

This section takes a look at the existing measures being implemented, either by design or coincidence that are preventing or reducing storm water pollution. Based on the existing measures and the priority pollutant sources identified in the above section, new Best Management Practices (BMPs) are identified and an implementation schedule is established.

3.1 Implementation Schedule

All non-structural BMPs (those that do not involve any major construction) should be implemented as soon as possible after approving this plan. Any structural BMPs should be evaluated and budgeted for in the following fiscal years.

3.2 BMP Summary Table

The following table provides a summary of the existing and new BMPs and indicates the schedule of implementation.

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Good Housekeeping Practices (storage, use, and cleanup):						
Areas are kept clean and organized. Remove accumulated debris in a timely fashion, and sweep indoor work areas regularly.	2	X				
Avoid hosing down outside work areas discharging to the drainage system.	2	X				
Keep parking areas free from trash and debris.	2	X				
Dispose of used fluids, wash water, sweepings, and other debris properly.	1	X				
Proper Storage of Hazardous Materials/ Wastes - Covered and /or Secondary Containment	1	X				
Dispose of all waste materials according to applicable laws and regulations.	2	X				
Keep janitorial and maintenance oriented chemicals in their original containers, and keep them well labeled.	2	X				
Discard janitorial oriented wash water to the sanitary sewer.	1	X				
Check dumpsters on a regular basis for leaks, and keep lids closed during the rain season (October 1 – May 1).	2		X	X		
Indoor and Outdoor storage containers are checked for damage or leaks on a monthly basis.	2	X				
Ensure storm drain stenciling/markings are installed and legible.	3		X		X	
Clean targeted storm drain inlets & leads once prior to the rain season.	2		X			

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Facility and Equipment						
Switch to low-toxic chemicals for facility maintenance when possible.	3	X				
Minimize use of solvents. Clean parts without using solvents whenever possible.	2	X				
Prohibit the discharge of wastes, including supernatant water and residuals/sludge, to surface waters or drainage collection system.	1	X				
Operate all systems and equipment to optimize the quality of the waste discharged to the lagoons.	2	X				
All treatment, storage, and disposal facilities are designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.	3	X				
All lagoons maintain regulated freeboard levels to prevent overflow, and visual monitoring of staff gauges is performed to ensure freeboard levels are maintained.	1	X				
The concrete liner of each pond and lagoon is inspected at least once per year for cracking, spalling or other damage.	2	X				
Equipment is properly maintained to reduce the potential for negative environmental impacts.	2	X				
Whenever visible tracking occurs on the roadway between sludge lagoon areas, a street sweeper is brought in to clean debris to prevent it from entering the storm drain	2	X				
The front loader is hosed down in lagoons to minimize tracking.	3	X				
Security Measures						
Facility is fenced and equipped with a security gate and security cameras.	2	X				
Maintenance and storage areas are locked when not in use	3	X				
Master flow and drain valve locks so that they remain in the closed position during non-operating or non-standby status.	3	X				
Starter control on the pump associated with the diesel AST is locked and in the "off" position and accessible only to authorized personnel when fuel pump is in a non-operating or non-standby status.	3	X				
Only authorized personnel can gain access to fuel dispenser	3	X				

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Spill Prevention						
Hazardous Materials Plan for inventoried materials in place.	3	X				
Spill Prevention Control and Countermeasure Plan in place, and addresses petroleum products handled and stored on site.	3	X				
Waste Discharge Requirements (WDR) for residuals management in place, and associated waste management plans developed or under development.	3	X				
Spill control material (e.g., sorbent pads, flexible mats for sealing drains, and brooms) are available, and staff knows how to properly contain and cleanup a spill.	1		X	X		
Implement best management practices associated with the Spill Prevention Control and Countermeasure Plan (hydrocarbons):						
Oil delivery contractors and waste oil removal contractors have their delivery procedures and spill response plans on file with the City, and attached to the SPCC.	3		X		X	
Tank-filling operations are normally conducted during daylight hours, and the driver remains with the truck during the entire loading/unloading operation.	1	X				
Aboveground Storage Tank (AST) is double-walled and meets secondary containment requirements.	1	X				
AST are visually inspected weekly.	2	X				
Periodically test the AST for integrity with not more than two years between tests or when material repairs are completed.	3	X				
Aboveground valves and gauges (fuel dispenser) are visually observed monthly.	3	X				
Oil storage units are kept in good condition, and inspected regularly.	2	X				
Any indication of deterioration or leakage that may cause a spill or accumulation of fuel or oil inside the containment areas will be reported to appropriate personnel.	1	X				
Implement best management practices as described in the Water Production Emergency Management Plan to prevent hazardous-materials releases resulting from internal operations at the plant:						
Fluoride system is designed with secondary.	3	X				
Chlorine-gas storage area is equipped with a leak detector, a leak indicator light outside the building, and an audible alarm sounds a horn. Small, localized release of chlorine gas may also be detected by physical observations including seeing, smelling, or hearing. A Risk Management Plan for Handling Chlorine gas is also implemented.	3	X				
Loading operator and plant staff are present during connection and pumping operations of lime into tanks via internal plumbing into top of tanks inside the Chemical Building. Truck-loading location and connection located outside of building.	2	X				
Section of Chemical Building where lime is stored contains a dust collection system for powdered lime.	3	X				

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Implement best management practices associated with the Accidental Discharge Plan required by the WDR:						
BMPs (gravel bags, sand bags, straw bails, wattles, and inlet covers) are readily available and staff is trained on proper installation, inspection and maintenance of these BMPs.	1		X	X		
Residual lagoons will be inspected weekly during the rain season for any type of potential accidental spills from the lagoon areas that may impact the drainage collection system, and the lagoons and temporary storage locations will be inspected monthly during the dry months.	1		X		X	
Lagoon areas will be inspected daily for tracking or accidental spills during hauling operations.	2		X	X		
Residual hauling routes are to be swept after hauling has been completed.	1		X	X		
Most loading activities occur inside the lagoons.	1	X				
Mud-laden loader is washed inside a lagoon to minimize tracking on roadways.	1	X				
Solids loaded into truck beds are packed flat by the loader so that solids are at least 3-4 inches below the highest point of the truck-bed sidewall to prevent material from spilling out. If available, solids with higher moisture content are packed on the top layer of drier solids to prevent dust from occurring during transport.	2	X				
Select drain inlets will be vactored annually (each November).	2		X		X	
To ensure decant-water is always adequately controlled within the plant's containment areas, there is on-site Plant Operations staff monitoring the decant process 24 hrs/day. Plant staff utilizes SCADA controls and operating system which will alarm when a problem is detected.	1	X				
Plant staff visually inspects (using video inspection if necessary) decant equipment periodically.	2	X				
24-hour, on-call maintenance staff are available to fix equipment, piping, and pumps when necessary.	3	X				
The backwash process of the filters only proceeds when the FWW Lagoons are at a level of at most two feet (current regulated level) under the highest overflow elevation.	2	X				
Annual maintenance reviews and inspections of the lagoon decant equipment, piping, and pumps established under the City's Computerized Maintenance Management System (CMMS)	3	X				

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Spill Control and Cleanup						
Implement containment and cleanup practices associated with the Spill Prevention Control and Countermeasure Plan (Hydrocarbons):						
Upon discovery of a spill staff should immediately take appropriate steps to stop the discharge.	1	X				
Apply absorbent material to surface of the liquid, reapplying until all liquid is absorbed.	1	X				
Use cones, tape or signs as needed to isolate spill from human and vehicular contact.	1	X				
Cleanup absorbent material with stiff brooms and shovels and place in approved waste containers.	2	X				
For large spills, call for assistance from the cleanup company which has a formal agreement with the facility as necessary.	2	X				
After completion of cleanup, contaminated absorbents and personal protective equipment will be containerized for transport and disposal in accordance with local, state and federal regulations.	2	X				
Implement containment and cleanup practices as described in the Water Production Emergency Management Plan for hazardous materials releases resulting from internal operations at the plant:						
Emergency response to unexpected release of chlorine gas is only performed by certified, trained employees.	3	X				
Small spills of fluoride can either be allowed to evaporate or can be rinsed down with water.	3	X				
Large spills within the secondary containment structure of the fluoride tanks will need be pumped out and disposed of properly.	2	X				
Small spills occurring within Feed Building will be pumped out into plastic drums and disposed of appropriately.	2	X				
Implement containment and cleanup practices associated with the Accidental Discharge Plan required by the WDR:						
BMPs in place (weighted wattles, staked wattles, inlet covers and gravel bags) to prevent solids from entering the drainage system.	1	X				
Small residual spills are handled with shovels, brooms and/or a sweeper truck.	1	X				
Large residual spills are handled with the loader, shovels, brooms, and a sweeper truck. The spilled residuals are then returned into a truck, lagoon, or storage pile.	1	X				
In the event of a decant-water discharge into the drainage system, Plant Operations will stop the decant process and call maintenance staff to facilitate immediate repairs.	1	X				
After a decant-water-discharge event, any solids remaining in the gutters after filtering through gravel bags and wattles will be removed using a combination of a loader, shovels, brooms, and sweeper trucks (whichever is most appropriate for the clean-up efforts). The solids material will be returned to the functioning lagoon.	1	X				

BMP	PRIORITY	CURRENT BMPS	NEW BMPS	IMPLEMENTATION SCHEDULE		
				FY 09	FY 10	FY 11
Training						
Continually expand knowledge of Best Management Practices	2	X				
Training on FPPP	3	X				
Stormwater Program Training	3	X				
Annual SPCC and precautionary measure training	3	X				

APPENDIX A

1 - Overall Site Exhibit

LEGEND

- 12"D — DRAINAGE PIPE
- DRAINAGE SHED BOUNDARY
- LANDSCAPED AREAS
- OUTDOOR STORAGE AREAS
- HAZARDOUS MATERIAL STORAGE AREAS
- STRUCTURE THAT DRAINS STORM RUNOFF TO ADJACENT SURFACE
- STRUCTURE THAT COLLECTS CAUGHT RAIN

NORTH

100 50 0 50 100 200

SCALE: 1" = 100'

BANNON STREET

VEGETATED DRAINAGE CHANNEL

MACHINE SHOP (3)

GENERATOR (4)

ELECTRICAL BUILDING (3)

WELL STORAGE (5)

(BURIED) 5.0 MG FILTERED WATER STORAGE (RESERVOIR 1)

9.5 MG FILTERED WATER STORAGE (RESERVOIR 2)

(BURIED) C/T TANK & CLEARWELL (RESERVOIR 3)

SLUDGE LAGOON NO. 4 (EARTHEN)

"THE MOAT"

OIL ROOM (2)

OFFICE

BOAT STORAGE

HEAD HOUSE

GENERAL STORAGE

HSPS

OLD 1–8 FILTERS

OLD 9–16 FILTERS

(1) CHEMICAL BUILDING

OPERATIONS BUILDING

PARKING AREA (1)

NEW 1–8 FILTERS

PARKING AREA (1)

PARKING AREA (1)

BANNON STREET

WATER STREET

NORTH "B" STREET

BERCUT DRIVE

INTERSTATE 5

BASIN 1 FLOCCULATION/ SEDIMENTATION BASIN

(FLOCCULATION TANKS)

BASIN 2 FLOCCULATION/ SEDIMENTATION BASIN

(FLOCCULATION TANKS)

BASIN 3 FLOCCULATION/ SEDIMENTATION BASIN

SLUDGE LAGOON NO. 3

SLUDGE LAGOON NO. 2

SLUDGE LAGOON NO. 1

FWW LAGOON NO. 1

FWW LAGOON NO. 2

SLUDGE & FWW LAGOON PUMP STATION (1)

SOUTH BARN STORAGE

UNION PACIFIC RAILROAD

GRIT BASIN/ FLASH MIX FLOW SPLIT STRUCTURE

STORMWATER SWALE

CAUSTIC SODA STORAGE

ALUM STORAGE (6)

COAGULATION BUILDING (5)

SACRAMENTO RIVER

INTAKE STRUCTURE

30"D

REVISIONS			
NO.	DESCRIPTION	DATE	BY

BENCH MARK — ELEV: — DESCRIPTION:

FIELD BOOK

SCALE: HORIZ.:1"=100' VERT.: 1" AT 100%

CITY OF SACRAMENTO
DEPARTMENT OF UTILITIES

DRAWN BY: MER — DATE: 2/09

DESIGNED BY: R. DILLEY — DATE: 2/09

CHECKED BY: — R.C.E.: — DATE:

CITY OF SACRAMENTO SWPPP's AND FPPP's

SACRAMENTO WATER TREATMENT PLANT
APPENDIX A

4th DRAFT

P: — CCNO — SHEET 1 OF 1

APPENDIX A

C:\Active\Projects\Files\07005 City SWPPP's\dwg\F_07005_SRWTP.dwg, Layout1, 5/7/2009 8:36:57 PM, 1:2

APPENDIX B

Spill Prevention Control & Countermeasure Plan

City of Sacramento
California
Department of Utilities

Plant Services Division
1395 35th Avenue
Sacramento, CA 95822

Sacramento River Water Treatment Plant

Spill Prevention Control and Countermeasure Plan

Table of Contents

List of Tables ii

List of Figures ii

List of Attachments ii

Section 1: SPCC Plan Review – 40 CFR 112.5 1

Section 2: Management Approval – 40 CFR 112.7 2

Section 3: Facility Information 3

Section 4: Spill History – 40 CFR 112.4(a) 5

Section 5: Potential Discharges – 40 CFR 112.7(b) 6

Section 6: Containment and Diversionary Structures – 40 CFR 112.7(c) and (d) 7

Section 7: Applicable Guidelines – 40 CFR 112.7 and 112.8 8

7.1 Facility Drainage – 40 CFR 112.8(b)(1) 8
- 7.1.1 Facility Drainage Systems from Diked Areas 8
- 7.1.2 Final Discharge of Drainage 8
- 7.1.3 Facility Drainage Systems and Equipment 8

7.2 Bulk Storage Tanks – 40 CFR 112.8(c)(2) 8
- 7.2.1 Material and Construction 8
- 7.2.2 Secondary Containment 8
- 7.2.3 Drainage of Storm water 9
- 7.2.4 Underground Storage Tanks 9
- 7.2.5 Partially Buried Storage Tanks 9
- 7.2.6 Aboveground Storage Tanks 9
- 7.2.7 Heating Coils 9
- 7.2.8 Fail-Safe Engineering 9
- 7.2.9 Visible Oil Leaks 10
- 7.2.10 Mobile or Portable Oil Storage Tanks 10

7.3 Facility Tank Car and Tank Truck Loading/Unloading- 40 CFR 112.7(h) 10

7.4 Inspections and Records – 40 CFR 112.7(e) 10

7.5 Security – 40 CFR 112.7(g) 11

Table of Contents (cont'd)

7.6 Personnel, Training and Spill Prevention Procedures -- 40 CFR 112.79(f) 11

Section 8: Spill Contingency Plan 12

8.1 Authorities and Responsibilities 12
8.1.1 Primary Emergency Coordinator 12
8.1.2 Alternate Emergency coordinators 12
8.1.3 Employee at the Scene 12
8.2 Response Procedures for Spills 12
8.2.1 Notification 12
8.2.2 Evaluation and Initiation of Action 13
8.2.3 Cleanup and Disposal 14
8.2.4 Documentation 14
8.3 Emergency Assistance 15
8.4 Cleanup/Disposal Resources 15

List of Tables

Table 1 - Bulk Storage Tanks

Appendix A

Emergency and Agency Telephone Numbers

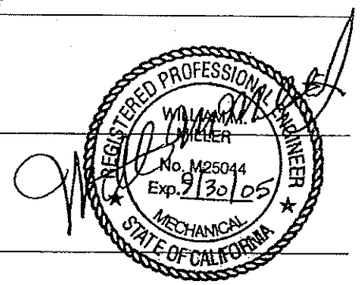
List of Figures

Facility Site Map

Section 1: SPCC Plan Review – 40 CFR 112

In accordance with 40 CFR 112.5(b), a review and evaluation of this Spill Prevention Control and Countermeasure Plan (SPCC Plan) is conducted at least once every five years. A registered professional engineer, in accordance with Section 112.3(d), shall certify all substantive technical amendments to the plan. Evidence of these reviews and applicable certifications is recorded in the table below. (Note: Administrative modifications are made, as appropriate, to ensure the accuracy of plan information in response to modifications in the assignment of personnel or contact information [e.g., telephone numbers]).

Date	Reason for Review	SPCC Coordinator's Name and Initials	Professional Engineer's Name and Initials
9-3-04		Kathy Mullen	WILLIAM M. MILLER, JR



Section 2: Management Approval – 40 CFR 112.7

This SPCC Plan is fully approved by the management of the City of Sacramento, Plant Services Division, which will provide all the necessary funds and manpower to fully implement the plan as it is described in this document.

Kathy Mullen
Signature

9-3-04
Date

Kathy Mullen
Name

Water & Sewer Supt.
Title

Section 3: Facility Information

Facility Name: Sacramento River Water Treatment Plant

Telephone Number: (916) 808-4961

Facility Address: 1 Water Street
Sacramento, CA 95814

Latitude and Longitude: 38.5919, -121.5026

Owner/Operator Name: City of Sacramento
Sacramento River Water Treatment Plant
1 Water Street
Sacramento, CA 95814
Sacramento County
(916) 808-4961

Contact Name and Title: Kathy Mullen, Water and Sewer Superintendent

Contact Telephone Number: 916 808-3105

Facility Description: The Sacramento River Water Treatment Plant is a drinking water treatment facility. This treatment plant, located northwest of the City's downtown area and near the confluence of the American and Sacramento Rivers, is a conventional treatment process, denoted by chemical coagulation, flocculation, sedimentation, filtration, and disinfection. The original plant was placed in operation in 1924.

a. **Facility Operations**
The treatment plant is a 24-hour operation, which takes raw water from the Sacramento River and processes it in to drinking water. The plant is capable of delivering up to 160 million gallons per day.

b. **Facility Storage**
The treatment plant has one above ground storage tank containing diesel oil. This tank is fuel storage for the large diesel generator. It is located just north of the pump house. The tank has a 6000-gallon capacity and usually contains less than 4000 gallons. It is double walled and provides 100 percent containment. There is a dispensing hose connected to the tank and can be use to refuel

equipment; however, it is not expected to be used for daily refueling. Occasionally, for rotation of fuel, the tank will be used for fueling of equipment. The generator is for emergencies and only for use during power outages. Water must continue to be supplied to the citizens of the City of Sacramento even in emergency situations.

c. **Drainage Pathway and Distance to Navigable Waters**
The Sacramento Water Treatment Plant is located one half mile east of the Sacramento River and one mile south of the American River. The Sacramento Water Treatment Plant is separated from the Sacramento River by the Interstate 5 freeway.

The only option for a spill to get to the rivers is via the storm drains. There are five storm drainage inlets located near the diesel tank. The three to the north gravity feed to Bercut Drive. The two to the south are further away from the tank (about 40 yards) and are less likely to be involved if there was a spill. Therefore, in the unlikely event of a catastrophic release, all storm drains will be protected, either by sandbags, plastic or some other way.

List of Aboveground Storage Tanks:

Tank I.D.	Volume (gallons)	Contents
Generator fuel tank	6000	Diesel
55 gal drums	550	oil
Total Volume:	6550	

Section 4: Spill History – 40 CFR 112.4(a)

The Sacramento River Plant has experienced no known spill event, as defined in 40 CFR 112.1(b).

Section 5: Potential Discharges – 40 CFR 112.7(b)

Source	Type of Failure	Volume	Rate	Direction of Flow	Containment
Diesel storage	Rupture of primary containment; leakage.	6000	Rate of flow will vary.	Flow will move to the west and north on Bercut.	Oil absorbent booms will be placed around the spill area and pumped into drums. Mats will be used to seal storm drains.
Primary truck loading operations.	Leakage at hose connection.	Capacity of recovery truck: 6,500 gallons (max)	Rate will vary depending on delivery system and pumping capacity.	Flow will move to the west and north on Bercut.	Curbs, gutters and street grade provide containment when drain inlet mats are in place.
Oil storage room.	Barrels rupture or tip over.	A maximum of 10 drums of 55 gallons each.	About 1 gallon per minute.	All directions. Floor is level.	Drums are stored atop portable secondary containment vessels.

Section 6: Containment and Diversionary Structures -40 CFR 112.7(c) and (d)

Secondary containment and diversionary structures at Sacramento River Water Treatment Plant are described in Table 1. ASTs are double-walled tanks and meet the secondary containment requirement. In addition to visual inspections, the facility will periodically test the ASTs for integrity (40 CFR 112.8(c)(6)). Test shall occur not more than two years between tests or when material repairs are completed.

A spill of 110 gallons or less at this facility would generally be contained within the paved facility boundary and would require implementation of cleanup measures. Spill control material (e.g., sorbent pads, flexible mats for sealing drains, and brooms) are available at the facility in a spill response kit.

A demonstration of impracticality in accordance with 40CFR 112.7(d) is not applicable.

7.1 Facility Drainage – 40 CFR 112.8(b)(1)

7.1.1 Facility Drainage Systems from Diked Areas

Storm water flows by sheet flow, into various Stormwater drainage inlets located in and around areas of the facility. Potential pollutants (oil, unleaded gasoline and diesel) are accumulated and would flow, by sheet flow, into drainage inlets to the City's storm water collection system if unchecked.

7.1.2 Final Discharge of Drainage

Stormwater sheet flows enter various Stormwater drainage inlets located in and around areas of the facility. Potential pollutants (oil, unleaded gasoline and diesel) are accumulated and would flow, by sheet flow, into drainage inlets to the City's combined sanitary sewer collection system.

7.1.3 Facility Drainage Systems and Equipment

Washwater generated during equipment cleaning activities flows to a sump equipped with an oil/water separator. Washwater enters the oil/water separator prior to discharging to the City's combined sewer collection system. Stormwater gravity flows to Bercut Drive, where it enters the City's storm water collection system.

7.2 Bulk Storage Tanks – 40 CFR 112.8(c)(2)

7.2.1 Material and Construction

Fuel and oil storage ASTs located onsite are described in Table 1. This table includes the storage content, size, materials or construction, and fail-safe engineering features of each tank onsite.

All tanks reportedly are constructed according to American Petroleum Institute, American Society for Testing and Materials, or Underwriters Laboratory specifications. Tank materials and construction reportedly are compatible with the stored products at the temperature and pressure at which storage occurs.

7.2.2 Secondary Containment

Secondary containment for each tank is described in Table 1. All of the ASTs are double-walled tanks constructed in accordance with nationally accepted industry standards.

7.2.3 Drainage of Stormwater

Stormwater runoff discharges off the roof of the buildings and from direct surface deposition onsite. Stormwater sheet flows to the drop inlets located throughout the facility. Runoff from the ground also discharges to drop inlets discharging to the City's storm collection system.

7.2.4 Underground Storage Tanks

Underground storage tanks are not located at the facility.

7.2.5 Partially Buried Storage Tanks

Partially buried storage tanks are not located at the facility.

7.2.6 Aboveground Storage Tanks

Visual inspections of the tanks will be performed weekly during normal activities at the facility. Aboveground valves and gauges will be visually observed monthly. Any indication of deterioration or leakage that may cause a spill or accumulation of fuel or oil inside the containment areas will be reported to appropriate personnel. A documented inspection of the tanks and secondary containment systems will be completed monthly. Tank inspections and any corrective action work orders will be tracked using AST inspection forms. Completed inspection forms will be kept in the facility's office files and retained for at least three years.

In addition to visual inspection, the facility will periodically test the ASTs for integrity. Testing shall occur with not more than two years between tests or when material repairs are completed.

7.2.7 Heating Coils

Tanks equipped with heating coils are not located at the facility.

7.2.8 Fail-Safe Engineering

The generator fuel storage tank is equipped with gauges to determine the fill levels and to detect leaks between the inner and outer walls. Float gages are located at the top of the tank to indicate fluid levels.

7.2.9 Visible Oil Leaks

If visible oil leaks from tank seams, gaskets, rivets and bolts are observed that may cause significant accumulation of oil in containment areas, any oil will be promptly cleaned and leaks will be investigated and corrected.

7.2.10 Mobile or Portable Oil Storage Tanks

Fifty-five gallon drums containing oil, lubricants or anti-freeze are stored at the facility in the oil storage building (Figure 1). If a leak were to occur, the spill would be contained by the secondary containment pallets first, and the buildings secondary containment curbs second. Spilled product would be removed by using a portable pump and/or absorbent materials.

7.3 Facility Tank Car and Tank Truck Loading/Unloading – 40 CFR 112.7(h)

Tank truck loading/unloading procedures meet the minimum requirements and regulations of the U.S. Department of Transportation. The driver remains with the truck during the entire loading/unloading operation.

The primary tank truck loading/unloading area is located at the tank. The area is paved and drains to drop inlets. These inlets will be sealed with rubber mats during transfer operations.

Signs will be posted reminding drivers not to overfill or "top off" their tanks and to prevent vehicles from departing before complete disconnection of flexible or fixed transfer lines. Additionally, drains and outlets on tank trucks are checked for leakage before loading/unloading or departure.

7.4 Inspections and Records – 40 CFR 112.7(e)

Inspections are conducted on a monthly schedule in accordance with written procedures developed for this facility. Completed forms are to be maintained by Maintenance Personnel for at least three years.

7.5 Security – 40 112.7(g)

The facility is equipped with the following security measures:

- The entire facility is fully fenced and the entrance gates are locked when not in use.
- Tank-filling operations are normally conducted during daylight hours and maintenance staff periodically inspects oil storage and fueling areas.
- Master flow and drain valves have locks so that they remain in the closed position during non-operating or non-standby status.
- Starter controls on each pump are locked and in the "off" position and accessible only to authorized personnel when pump is in a non-operating or non-standby status.

7.6 Personnel, Training and Spill Prevention Procedures – 40 CFR 112.7(f)

The facility has determined that Operations and Maintenance will be accountable for oil spill prevention. The designated person is Steve Willey.

The SPCC Plan will be included in the Operations/Maintenance Training Program. A training sign-off sheet for attendance of this training will be included at the completion of every training session. Records of training will be kept in the division's "Training Tracker Software".

Once a year, training will include the SPCC Plan and will provide training in known spill events or failures, malfunctioning components, and recently developed precautionary measures.

Section 8: Spill Contingency Plan

8.1 Authorities and Responsibilities

The following discussion defines the authorities and responsibilities of personnel as they pertain specifically to spills and associated emergencies.

8.1.1 Primary Emergency Coordinator

The Primary Emergency Coordinator is Steve Willey. The Primary Emergency Coordinator is responsible for coordinating emergency response measures at the facility. The Primary Emergency Coordinator is familiar with the facility's contingency plan, operations and activities at the facility, the location of records for the facility and the facility layout. This person has the authority to commit resources needed to carry out the contingency plan and the responsibility to respond to the emergencies as described in this SPCC Plan.

8.1.2 Alternate Emergency Coordinators

In the event of an emergency in which the Primary Emergency Coordinator is not available, Mary Krizanosky, assumes the role of Alternate Emergency Coordinator. The Alternate Emergency Coordinator will coordinate with the Primary Emergency Coordinator or act in their behalf. The Alternate Emergency Coordinator is familiar with the facility's contingency plan, operations and activities at the facility, the location of records for the facility and the facility layout. This individual also has the authority to commit the resources needed to carry out the contingency plan and the responsibility to respond to the emergency as described in the SPCC Plan.

8.1.3 Employee at the Scene

Employees are instructed to call the Primary Emergency Coordinator, or the Alternate Emergency Coordinator, when a spill is observed and take preventive measures to control the spread of spilled material.

8.2 Response Procedures for Spills

8.2.1 Notification

Upon discovery of an oil spill, the Emergency Coordinator is to be notified. The Emergency Coordinator will contact the Emergency Response Contractor, and the appropriate government agencies, when it is a non-contained reportable spill of 42 gallons or more. Spills are not reportable if they occur within an impervious surface or are otherwise contained. The Emergency Coordinator will prepare written reports required by the agencies.

8.2.2 Evaluation and Initiation of Action

The Emergency Coordinator must gather as much information as possible to assess the magnitude and severity of the spill in order to initiate appropriate cleanup actions and provide required information to the response contractor. The Emergency Coordinator should perform the following:

1. Upon discovery of a spill, attempt to keep the situation from worsening by:

   a. Contacting a second person to assist.

   b. Immediately stopping the source of the discharge. This may involve:

      - Shutting off equipment or pumps;
      - Plugging a hole in operating equipment or a tank; or
      - Closing a valve.

   c. The following containment techniques should only be performed by personnel who are appropriately trained:

      - Prevent discharge into storm drains by sealing off with drain covers, absorbent socks and /or granular absorbent material.
      - Apply absorbent to the surface of the liquid and reapply until liquid is absorbed.

2. Attend to any injured personnel. Administer First Aid if you have been trained and certified in First Aid. Otherwise, call an ambulance or paramedic.

3. Assess the possible immediate hazard to human health and take appropriate actions:

   a. Isolate spill from human and vehicular contact by using cones, tape and posting signs. Instruct personnel not involved with the cleanup operation to leave the area.

   b. If the emergency threatens the health or safety of personnel, instruct employees to evacuate and contact the supervisor/manager and safety coordinator immediately.

   c. If the emergency threatens human health outside the facility boundaries, or the spilled quantity is greater than 42 gallons, Emergency Coordinator must notify local authorities. The State Office of Emergency Services and the local emergency assistance organizations (listed in Sections 8.2 and 8.3) are to be notified.

4. Brief emergency response personnel on the nature and quantity of spilled material.

5. Implement prompt cleanup and disposal actions to remove the spilled substance, as well as contaminated soil or other materials.

8.2.3 Cleanup and Disposal

1. Cleanup

   Cleanup efforts must be undertaken to restore the affected area to its pre-spill condition.

   For small spills, which may be encountered during fuel transfer or normal maintenance operations, absorbent socks will be used to contain the spill, and granular absorbent will be applied and reapplied until there is enough to absorb the liquid. This material will be picked up with stiff brooms and shovels and be placed in approved waste containers for disposal in accordance with applicable regulations.

   For larger spills, the Emergency Coordinator will call for the assistance of the cleanup company that has a formal agreement with the facility. The cleanup company will be directed to remove free product from catch basins or containment areas utilizing pumps, booms, and absorbent pads as appropriate.

2. Disposal

   After completion of cleanup, contaminated absorbents and personal protective equipment will be containerized for transportation and disposal in accordance with local, state and federal regulations.

8.2.4 Documentation

Reportable spills grater than 42 gallons will be documented. The following facts about the spill will be recorded:

1. Location of the incident;
2. Time, date and duration (hours) of spill;
3. Source(s) of spill;
4. Description and quantity of product spilled;
5. Cause(s) of spill, including a failure analysis of system in which the failure occurred;
6. Resources affected or threatened by the spill; and
7. Description and status of cleanup efforts.

8.3 Cleanup/Disposal Resources

The following local authorities will be called for assistance, if needed, during and emergency:

Local Agency	Telephone No.
Ambulance/Paramedics	911
Fire Department	911 or (916) 433-1300
Police	911 or (916) 264-5471
Hospital – **UCD Medical Center**	911 or (916) 734-2011
Spill Response Contractor	
Ramos Environmental	(916) 371-5747
City of Sacramento Hazardous Material Division	(916) 264-7070
Office of Emergency Services	(800) 852-7550

8.4 Cleanup/Disposal Resources

The following firm(s) will be called, if needed, to assist with cleanup and disposal operations:

Local Agency	Telephone No.
Ramos Environmental	(916) 371-5747
City of Sacramento Hazardous Material Division	(916) 264-7070

Table 1. Bulk Storage Tanks

Aboveground Storage Tanks

Tank No.	Size (gal)	Contents	Materials or Construction	Fail-Safe Features	Containment	Containment Size (gal)
1	6000	Diesel fuel	Steel		Double Wall Construction	>6000

Mobile/Portable Storage Tanks

Tank Type	Size (gal)	Number at Facility	Contents	Location	Containment	Containment Size (gal)
drum	55	10	oil	adj. to Mach..Lunch Rm		

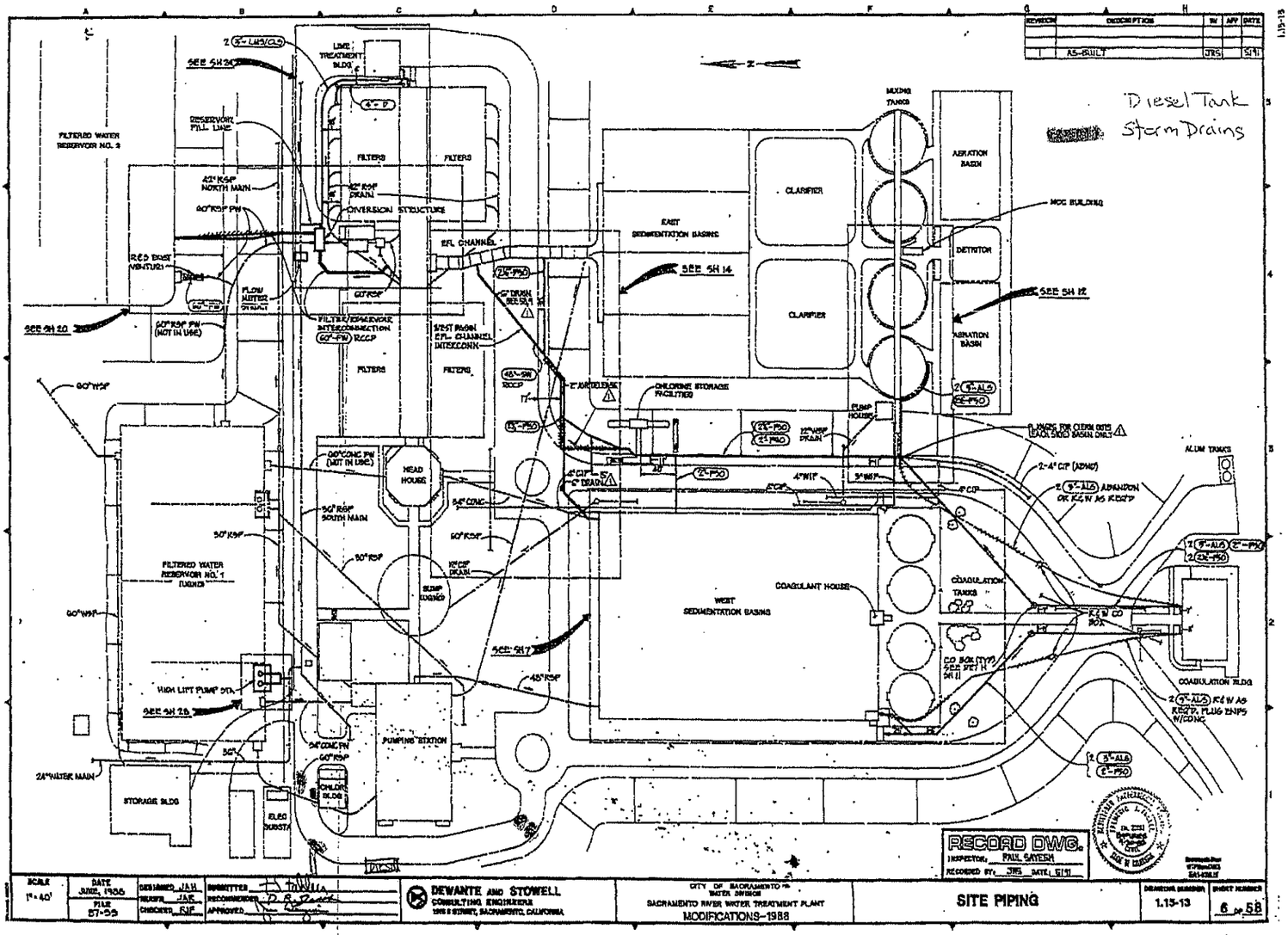
Figures

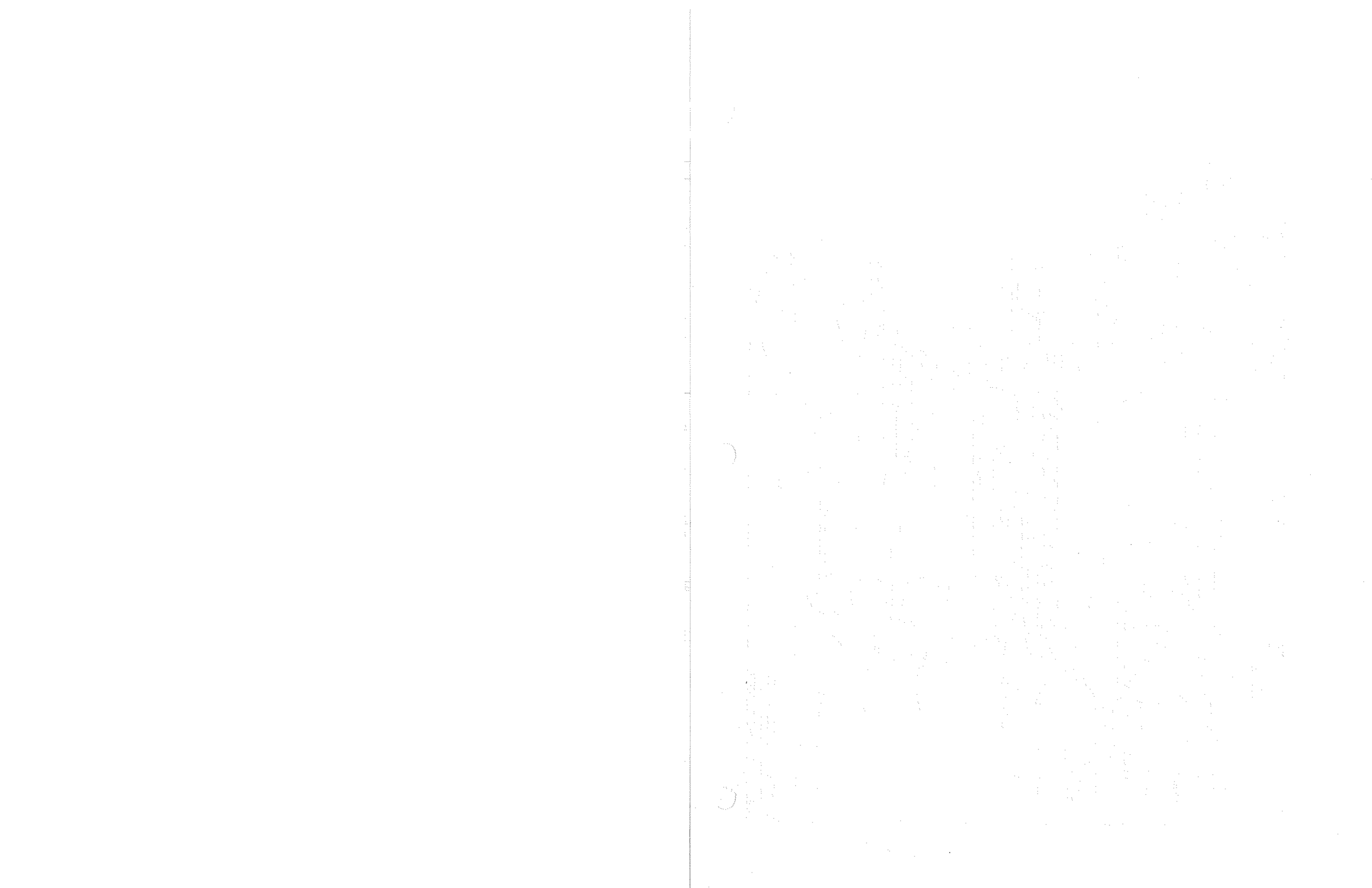
Map of Sacramento River Water Treatment Facility

Appendix A: Emergency and Agency Telephone Numbers

Emergency and Agency Telephone Numbers

Agency	Contact Person	Bus. Phone	24-hour Phone
City of Sacramento, Primary Emergency Coordinator	Stephen Willey, Supervising Plant Operator	916-808-7406	916-264-5011
City of Sacramento, Alternate Emergency Coordinator	Mary Krizanosky, Supervising Plant Operator	916-808-3111	916-264-5011
City of Sacramento, Department Public Information Officer	Jessica Hess, Public Information Officer	916-808-8260	916-264-5011
Ambulance/ Paramedics		911	911
City of Sacramento, Fire Department		916-433-1300	911
City of Sacramento, Police Department		916-264-5471	911
UCD Med Center		916-734-2011	911
National Response Center			800-424-8802
State Office of Emergency Services			800-852-7550
County Office of Emergency Services			916-874-4670
Regional Water Quality Control Board			916-434-3291
California Air Resources Board			916-322-0476
Department of Toxic Substance Control			916-324-1826
California Environmental Protection Agency			916-445-3846
Cal OSHA – for serious injuries or death			916-263-2800


Diesel Tank
Storm Drains
RECORD DWG.
INSPECTOR: PAUL SAYESH
RECORDED BY: JRS DATE: 5/91
DEWANTE AND STOWELL
CONSULTING ENGINEERS
1500 I STREET, SACRAMENTO, CALIFORNIA
CITY OF SACRAMENTO
WATER DIVISION
SACRAMENTO RIVER WATER TREATMENT PLANT
MODIFICATIONS-1988
SITE PIPING
SCALE 1"=40'
DATE JUNE, 1988
FILE 87-39
DESIGNED JAH
DRAWN JAK
CHECKED RJF
SUBMITTED
RECOMMENDED
APPROVED
DRAWING NUMBER 1.15-13
SHEET NUMBER 6 OF 58
AS-BUILT
FILTERED WATER RESERVOIR NO. 2
FILTERED WATER RESERVOIR NO. 1 (UNDER)
LIME TREATMENT BLDG.
RESERVOIR FILL LINE
42" RSF NORTH MAIN
60" RSF PW
DIVERSION STRUCTURE
EFL CHANNEL
FILTERS
EAST SEDIMENTATION BASINS
WEST SEDIMENTATION BASINS
CLARIFIER
MIXING TANKS
AERATION BASIN
DETRITOR
MCC BUILDING
CHLORINE STORAGE FACILITIES
PUMP HOUSE
HEAD HOUSE
SUMP DRAIN
COAGULANT HOUSE
COAGULATION TANKS
COAGULATION BLDG.
ALUM TANKS
HIGH LIFT PUMP STA.
PUMPING STATION
STORAGE BLDG
CHLOR. BLDG.
24" WATER MAIN
SEE SH 20
SEE SH 14
SEE SH 12
SEE SH 17
SEE SH 28



City of Sacramento
Operational Policy for
Integrated Pest and Vegetation Management

BACKGROUND

The Central Valley Regional Water Quality Control Board recently approved a Pesticide Plan to be implemented by the City of Sacramento (City) as required by the municipal stormwater National Pollutant Discharge Elimination System (NPDES) Permit No. CAS082597. The Pesticide Plan is a comprehensive plan with a goal to reduce the discharge of pesticides from municipal stormwater systems to urban creeks within Sacramento County to the maximum extent practicable. It was decided that the best way to minimize the water quality risks associated with pesticides was to promote Integrated Pest Management (IPM), and to ensure that the pesticides' benefits to society outweigh their potential risks to human and environmental health. The control of pests in urban environments is shifting away from routine applications of chemicals to the utilization of a balanced approach consisting of physical/mechanical, cultural, biological, and chemical controls. Moreover, these controls focus primarily on an environmentally compatible, economically feasible approach to manage pest populations under acceptable levels. All pesticide management activities performed by City staff and City contracted services are to be in compliance with the NPDES Permit requirements, the Pesticide Plan and the City's internal pesticide use policies

The City owns and maintains various types of municipal land use areas and facilities each requiring varying levels of maintenance. Departments within the City provide landscape and vegetation management services for: approximately 2000 acres of park spaces, including all trees within the parks, park strips, and right-of-ways; vegetation management along 65 miles of drainage channels, 25 miles of levees, and approximately 233 acres of detention basin areas, including several miles of roadside ditches and alleys; and community spaces including 699 acres of golf courses, 44 acres at the Historic City Cemetery, 16.5 acres within the Zoo and Fairytale Town, and several acres of landscaped areas around community buildings. In addition to vegetation management, the City also oversees structural pest management at approximately 120 public facilities. All City Departments involved with pest management are organized into Divisions and Sections each having responsibilities for specific management areas.

POLICY STATEMENT

The purpose of this Operational Policy (hereafter referred to as policy) is to direct all operations within the City that manage pests or vegetation on City lands, including waterways, buffer zones, rights-of-way, developed landscapes, lawns and turf, natural open spaces, weed management areas, detention basins, easements, and structures. The policy is intended to provide a common basis for pest and vegetation management by the City that will address public health, safety, economic, legal and/or aesthetic requirements. The policy applies to internal City operations plus contracted services, but not to the residents or businesses of the City.

The City and all of its departments and functions, including contracted services, shall make pest management decisions consistent with the principles of IPM. The overall goal of the City's IPM Program is to implement pest-control measures that emphasize the reduction of pesticide usage and its associated risks at City owned and maintained property.

IPM PROGRAM

IPM program implementation is the function of various departments within the City. The individual departments, divisions, and sections within the City that control pests or manage vegetation shall develop and implement a written integrated pest management program consistent with this policy and tailored to the needs of each division/section's within each department. The IPM program may contain, but is not limited to:

1. General approaches to be used to implement the IPM policy.
2. Identify staff member(s) responsible for program implementation.
3. Planning, design and maintenance standards consistent with the IPM approach for facilities, structures, landscapes, rights-of-way, and bodies of water.
4. Pest tolerances (injury and action levels).
5. Typical pest management strategies for common sites or pests.
6. Weed abatement control plans.
7. Specific pesticide limitations.
8. Acquaint City workers and City contracted services with the IPM approach and new best management practices (BMPs) as they become known.
9. Monitoring, record-keeping and effectiveness evaluation strategies.

Where feasible, the division/section shall consider practices that include the following guidelines:

1. Establish an IPM Implementation Plan for each pest.
2. Monitoring (inspection procedures to monitor pest population levels).
3. Treatment and threshold levels for each site based on how much biological, aesthetic, or economic damage each site can tolerate.
4. Determine corrective actions when the established action threshold is reached.
5. Determine the most effective treatment time based on pest biology/physiology and other variables such as weather, seasonal changes in wildlife use, and local conditions.
6. Identify and evaluate conditions that encourage pest problems.
7. Design building remodels and construction specifications to reduce or eliminate pest habitats.
8. Modify management practices such as control measures when applicable.
9. Monitor treatment to evaluate effectiveness.
10. Establish and maintain an accurate record-keeping system to catalog monitoring information and to document and evaluate effectiveness of pest management procedures.

11. Evaluate the effectiveness of the IPM Program and make adjustments as needed.
12. Conduct an on-going education program for staff and contracted employees.
13. Use low risk, low concentration type pesticides when possible.
14. Use preventative applications when known pest pressures are recognized to avoid high rate corrective applications.

These guidelines are a companion to the IPM policy and describe in greater detail what constitutes an IPM approach. As new research and implementation experience evolves, these guidelines will be revised. The purpose of these guidelines is to offer consistent and constructive advice to the City's departments as the IPM Implementation Plans are being developed. Each plan shall contain general implementation steps as well as specific maintenance standards and IPM strategies.

IPM MANAGEMENT

The City has established a Pesticide Advisory Committee (PAC) that is responsible for the development of the IPM implementation program and monitoring. The PAC includes representatives from each department/division responsible for pest or vegetation management. IPM experts will be consulted to develop, review, refine, or implement IPM Program elements.

The IPM program promotes learning and adapting based on experience. This process is known as adaptive management. Periodic review and/ or extreme situations may result in the need for modifications and additions to this policy and/or the City's IPM program over time.

The PAC will meet periodically to evaluate progress and experiences in implementing the City's IPM policy. The PAC requirements shall include, but are not limited to:

1. Meeting no less than two times per year.
2. Annual evaluation of pest management practices of all departments with regards to the pesticide plan and policy and NPDES Permit changes.
3. Establishing pest management decisions based on the best science and data available.
4. Ensuring that any decisions and positions taken are understood by affected departments.
5. Clearly communicating any decisions, guidelines and actions in a manner that facilitates informed review by all affected departments.
6. Working together to address transition challenges.
7. Assisting departments in developing strategies, funding, and resources to make the IPM program successful.
8. Exploring creative, common-sense approaches for achieving transitions to least-toxic pest control.
9. Suggesting revisions to the City's IPM program.

DEPARTMENT
OF UTILITES

ENGINEERING
SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

1395 35TH AVENUE
SACRAMENTO, CA
95822-2911

PH 916-808-1400
FAX 916-808-1497/1498

Responsibility for Implementation of Operational Policy for Integrated Pest and Vegetation Management

Execution of this signature page by an authorized representative of the applicable City Department confirms the Department's adoption and acceptance of responsibility for the implementation of the City's Operational Policy for integrated pest and vegetation management, in accordance with the NPDES Permit and Pesticide Plan.

Accepted by: _____ Date: _____

Printed Name: _____

Title: _____

Department: _____

Address: _____

_____

Phone/ Fax: _____

CITY CLERK'S COPY

ORIGINAL

CITY OF SACRAMENTO

Applied Pest Management

PROCUREMENT SERVICES DIVISION

FILED

OCT 24 2007

By The
Office of The City Clerk

Bid Number: B081181018

INVITATION FOR BID
And
Contract Specifications

FOR: Integrated Pest Management Services

Bids Must Be Received Prior To 2:00 P.M. on **October 17, 2007**

CITY CONTRACT NO. 2007-295

Bids Must Be Submitted To:

U.S.Mail	Expedited Non-U.S. Mail	Personal Delivery
City Clerk's Office P.O. Box 122391 Sacramento, CA 95812-2391	City Clerk's Office 915 I Street, Ste. 122391 Sacramento, Ca 95814-2604	City Clerk's Office Historic City Hall 915 I Street, Ste. 116 Sacramento, CA 95814

Pre-Bid Conference: **Monday, October 1, 2007 8:00 a.m.**
Mandatory: [ ] Yes **Meadowview Corporation Yard**
[X] No **2812 Meadowview Rd., Bldg. 1**
Sacramento, CA 95822

NAME AND ADDRESS OF BIDDER SUBMITTING THIS BID:
(Bidder to complete the following information)

Name of Bidder: APPLIED PEST MANAGEMENT

Address: 2425 SONOMA BLVD

City, State, Zip Code: VALLEJO, CA. 94590

Phone Number: 1-800-244-1176

Email Address: APM2APPLIEDPESTMGT.COM

CITY CLERK'S COPY

CITY CONTRACT NO. 2007-295

CITY OF SACRAMENTO
PROCUREMENT SERVICES DIVISION

Bid No. B081181018

TABLE OF CONTENTS
(Formal – Services)

Document Title	Page No. or N/A
SECTION I - REQUIREMENTS	
A. "No Bid" Response Form	4
B. Bid Instructions and Requirements	6
C. Bid Signature Page	9
D. Prevailing Wage In Certain Services Requirements	N/A
E. Equal Benefit Ordinance (EBO) Requirements	12
F. Living Wage Ordinance (LWO) Requirements	16
SECTION II – CONTRACT DOCUMENTS	
A. General Conditions	21
B. Special Provisions	29
C. Technical Specifications	32
SECTION III – BIDDER RESPONSE DOCUMENTS	
A. Items Requiring Bidder Response	39
B. Submittals Required Prior to Start of Contract	41
C. Bid Guarantee	N/A
D. Performance Bond	N/A
E. Payment Bond	N/A
F. Drug Free Workplace Affidavit	N/A
G. Prevailing Wage in Certain Services Declaration of Compliance	N/A
H. Equal Benefits Ordinance (EBO) Declaration of Compliance	47
I. Living Wage Ordinance (LWO) Declaration of Compliance	50
J. Pricing Schedule	51

SECTION I
REQUIREMENTS

DATE BID OPENED 10-24-07
EMPLOYEE INITIALS V.M.
MARK ONE BOX FOR EACH ITEM ONLY

BID SECURITY
(X) NONE REQUIRED
( ) PROPERLY SIGNED

BID DEPOSIT TYPE
( ) BID BOND
( ) CALIF. BANK CASHIER'S CHECK
( ) CERTIFIED CHECK
( ) CASH
( ) CALIF. BANK MONEY ORDER

AFTER AWARD OF BID
( ) SECURITY RETURNED
( ) SECURITY ACCEPTED
EMPLOYEE INITIALS _____
DATE _____

SECTION I – REQUIREMENTS

A. "NO BID" RESPONSE FORM

Bid No.: _____
Buyer: _____

NOTE: COMPLETE AND RETURN THIS FORM

ONLY IF YOU DO NOT WANT TO SUBMIT A BID

If you do not want to submit a bid for this requirement, we are interested in knowing why. Please remove this form, complete the requested information, and return it to the Procurement Services Division. The reverse side of the form is pre-addressed, so that it can be folded in thirds, sealed with tape, and mailed. **If you would rather FAX your response to our office, the FAX number is (916) 808-5747.** If you have questions, please call the Procurement Office at (916) 808-6240. Thank you for your cooperation.

"NO BID" QUESTIONNAIRE

(Please complete all items that apply)

☐ We do not sell the products/services called for in this invitation for bid, but **we want to stay on the City's Bid List**. Please send necessary information so that the products/services we do provide can be updated on the City's Bid List.

☐ We are not interested in doing business with the City of Sacramento, because_____

_____

☐ Other reasons/comments: _____

_____

☐ Please send application forms for certification as an emerging and/or small business enterprise (E/SBE): ***(Note: Application forms and information about becoming certified as an emerging and/or small business can also be obtained via the Internet at:*** **http://www.cityofsacramento.org/esbd*).***

_____ Date: _____
(Business Name)

_____ Phone: _____
(Street Address/P.O. Box)

_____ Contact:_____
(City, State, Zip)

_____
(E-mail address)

B. BID INSTRUCTIONS AND REQUIREMENTS

No Bid Is In Legal Form Unless the Following Instructions Are Fully Complied With

1. **Additional Copies.** VENDORS ARE REQUIRED TO SUBMIT AN ORIGINAL BID AND _1_ ADDITIONAL COPY OF THIS BID, INCLUDING ALL REQUIRED ATTACHMENTS SUCH AS BROCHURES AND CATALOGS, TO THE CITY CLERK ON THE DATE AND AT THE TIME AND LOCATION SPECIFIED ON THE COVER SHEET. FAILURE TO DO SO MAY CAUSE YOUR BID TO BE REJECTED.

2. **Bid Forms. Bid must be submitted on these printed forms and sealed in an appropriate envelope or package.**

   a. To obtain an electronic version of this bid go to Procurement's website at www.pwsacramento.com/bids.

   b. Bids will be opened, in public, in the City Clerk's Hearing Room, 915 "I" Street, Second Floor, Sacramento, CA, at or after 2:00 P.M., October 17, 2007 .

   (Note: Bids must be submitted prior to 2:00 P.M. on the above date)

   c. All bids shall be clearly and distinctly written without erasure or modification, and properly signed by an authorized party, who shall indicate the capacity in which the signature is executed.

3. **Alternate Bids.** Alternate bids are invalid unless invited and covered by the specifications.

4. **Bid Security.** Bid Security is: [ ] Required [X] Not Required

   If required, bid security approved by the City must accompany the bid, in the amount of ___ % of the total amount of the bid. Bid security can be in the form of a cashier's check, certified check, or a bid bond from a surety company authorized to do business in the State of California. Bid securities will be returned to all except the three lowest Bidders within ten days after the opening of bids. The bid security of the two unsuccessful Contractors will be returned after the successful Contractor has executed the contract. Bid security of the successful Contractor will be returned when the contract is signed and all other contract award requirements have been met.

5. **Interest in More Than One Bid.** No bidder shall be interested in more than one bid (submit more than one bid for this solicitation) as provided by City Code Section 3.56.130(D).

6. **Rejection of Bids.** The right to reject any and all bids is reserved by the City, in its absolute discretion.

7. **Right to Waive.** The City reserves the right to waive any informalities or minor irregularities, as determined in its sole discretion, in connection with bids received.

8. **City Code.** All provisions of Chapter 3.56 of the City Code are applicable to any bid submitted or contract awarded.

9. **Equipment.** If equipment is bid, it shall be the newest and latest model in current production. Used, re-manufactured, shopworn, demonstrator, prototype or discontinued models are not acceptable unless otherwise stipulated by the City.

10. **Faithful Performance Bond.** A faithful performance bond is: [ ] Required [X] Not Required

    If required, the successful bidder must submit a performance bond in a form approved by the City Attorney, in the amount of _____.

11. **Payment Discounts.** Payment discounts offered for payment in less than twenty (20) days will not be considered as a basis of award. Payment discounts offered for payment in twenty (20) or more days will be subtracted from the total bid price for the purposes of bid evaluation. Any payment discount offered by the successful bidder will be accepted by the City of Sacramento, whether or not it was considered as a basis of award.

12. **Mandatory Pre-Bid Conference.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, all bidders are required to attend the conference. **Failure to attend this conference will result in rejection of your bid.** If a mandatory Pre-Bid Conference is indicated on the Invitation for Bid, bid packages will be made available only through the time and date of the conference. Subsequent addenda, if applicable, will be furnished only to those bidders who attended the Mandatory Pre-Bid Conference.

13. **Bid Inquiries.** Questions regarding this bid should be referred to:

General Questions:	Technical Questions:
Procurement Services Division	Facilities Management Division
Attention: Marc Robles	Attention: Gary Holm
Email: mrobles@cityofsacramento.org	Email: gholm@cityofsacramento.org
(916) 808-6240	(916) 808-6321

These inquiries must be submitted at least 10 days prior to the bid opening date. Any interpretations by the City will be made in the form of a written amendment. The receipt of such an amendment must be acknowledged in accordance with the directions on the amendment. Oral explanations or instructions given before the award of the contract will not be binding.

14. **Bid Evaluation.** In determining the amount bid by each bidder, the City shall disregard mathematical errors in addition, subtraction, multiplication and division that appear obvious on the face of the Bid. When such a mathematical error appears on the face of the Bid, the City shall have the right to correct such error and to compute the total amount bid by the bidder on the basis of the corrected figure or figures.

When an item price is required to be set forth in the Bid, and the total for the item set forth separately does not agree with a figure which is derived by multiplying the item price times the City's estimate of the quantity to be provided or performed for said item, the item price shall prevail over the sum set forth as the total for the item unless, in the sole discretion of the City, such a procedure would be inconsistent with the intent of the bid process. The total paid for each such item of work shall be based upon the item price and not the total price.

Should the Bid contain only a total price for the item and the item price is omitted, the City shall determine the item price by dividing the total price for the item by City's estimate of the estimated quantities to be provided or performed.

If the Bid contains neither the item price nor the total price for the item, then it shall be deemed incomplete and the Bid shall be disregarded.

15. **Determination of Lowest Responsible Bidder.** Sacramento City Code '3.56.020 provides that the lowest responsible bidder shall be determined as follows:

a. In determining whether a bidder is responsible, consideration shall be given to: (i) the quality and performance of the supplies to be provided by the bidder; (ii) the ability, capacity and skill of the bidder to perform the contract or effectuate the transaction; (iii) the ability of the bidder to perform the contract or effectuate the transaction within the time specified, without delay; (iv) the character, integrity, reputation, judgment, experience and efficiency of the bidder; (v) the quality of the bidder's performance on previous purchases by, or contracts with, the City; (vi) the ability of the bidder to provide future maintenance, repair parts and services for the supplies provided.

b. Based on the information provided in the bids, the City Council or the City Manager, as the case may be, shall identify those bids that are subject at the time of bid opening to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. This deduction shall be in addition to the application of any bid price preferences authorized by subsection c, below.

c. The City Council may by resolution, from time to time, adopt programs or procedures for providing bid price preferences, including but not limited to, preferences to promote the participation and utilization of small business enterprises, energy conservation and sustainability in the City's contracting for supplies and

nonprofessional services. The lowest responsible bidder shall be the responsible bidder whose bid price is the lowest after all bid prices are calculated to include any such preferences. The calculation of such preferences shall be in addition to any deduction of sales or use tax required by subsection b, above.

16. **Pre-Award Conference.** The apparent lowest responsible bidder may be required to attend a pre-award conference at a mutually acceptable time at which requirements of the Contract will be reviewed. At that time, samples of forms, reports etc., will be submitted by the Contractor for final approval.

17. **Award by Item or Group.** The City reserves the right to make separate awards for any item or category/group of items to the lowest responsible bidders for such items or category/groups of items.

18. **Multiple Awards.** The City reserves the right to make multiple awards in order to provide for back-up, to insure continuity of supply if meeting the City's **requirements** within an acceptable time period exceeds the capacity or capability of the primary contractor(s).

19. **Contract Award.** Within thirty (30) days after the bid opening a contract will be awarded by the City to the lowest responsible bidder, subject to the right of the City to reject all bids or waive informalities or minor irregularities, as it may deem proper. The time for awarding a contract may be extended in the sole discretion of the City, if required to evaluate bids or for such other purposes as the City may determine, unless the Bidder objects to such extension in writing with his/her bid.

SUBJECT TO PARAGRAPH 7 ABOVE, THE CITY CANNOT ACCEPT A BID FAILING TO COMPLY WITH ANY OF THE ABOVE REQUIREMENTS.

C. BID SIGNATURE PAGE

BID NO. B081181018

FOR SERVICES/SUPPLIES: Integrated Pest Management Services

To the City of Sacramento:

The undersigned bidder (hereafter referred to as the "bidder" or the "Contractor") submits the attached bid, and certifies as follows: that the only persons or parties interested in this bid as principals are those named herein as bidder; that this bid is made without collusion with any other person, firm, or corporation; that in submitting this bid the bidder has examined all of the Contract Documents identified below; that the bidder proposes and agrees that if this bid is accepted, the bidder will execute and fully perform the contract for which bids are called; that the bidder shall perform all the work and/or furnish all the materials specified in the Contract Documents, in the manner and time therein prescribed, and according to the requirements as therein set forth; and that the bidder shall take in full payment therefore, the prices set forth in the attached Pricing Schedule.

CONTRACT DOCUMENTS

Performance of and payment for the contract for which bids are called shall be subject to all terms and conditions of the Invitation for Bid, the Bid Instructions and Requirements, the Bid, the Pricing Schedule(s), the Items Requiring Bidder Response, the Required Submittals, the General Conditions, and any Addenda, Amendments, Special Provisions, Specifications, Plans, or other requirements applicable to performance of the work and/or furnishing the materials specified herein. Such documents referred to herein as the "Contract Documents", are fully incorporated herein by this reference and are collectively referred to as the "Contract". By submitting this Bid, the Contractor agrees to fully perform each and every provision of the Contract, provided that City awards the Contract to the Contractor, and provided further that City shall have no obligation hereunder unless and until such award is made. Contractor shall not make any changes to this form without City's written approval, and any changes made without such approval shall be void.

NAME OF CONTRACTOR: APPLIED PEST MANAGEMENT, INC.

ADDRESS: 2425 SONOMA BLVD VALLEJO, CA 94590

PHONE # 800-244-1176 FAX#: (707)554-0191 E-MAIL APM@APPLIEDPEST1967.COM

STATE TAX I.D. #: 301-5935 FEDERAL TAX I.D.#: 68-0020879

City of Sacramento Business Operation Tax Certificate #: _____
(Contract award will not be processed without a valid and current Certificate Number.)

TYPE OF BUSINESS ENTITY *(check one)*: ____ Individual/Sole Proprietor ____ Partnership
X Corporation ____ Limited Liability Company
____ Other (*please specify:* _____)

BY: (signature of authorized person) Imogene Barker

PRINT NAME: Imogene Barker

TITLE: President

Note: All information submitted in or in connection with a bid is submitted under penalty of perjury. The City shall have the right to terminate at any time any contract awarded pursuant to a bid that contains false information.

FOR CITY USE ONLY

The Bid was opened on 10.24.07.

Bid Bond Required: [X] No; [ ] Yes - Amount: $_____

Received: [ ] Cashiers or Certified Check drawn on a California bank; [ ] Surety Bond

_____
City Clerk/Procurement Services Manager

CONTRACT AWARD

Bid Items Included in the Contract: All Items, unless otherwise specified below

Specify: _____

Contract Not-to-Exceed Amount: $ 230,000.00

Award Date: 12.4.07

CONTRACT APPROVAL

Approved as to Form: Approved: Attest:

City Attorney

Marty Hanneman, Assistant City Manager
for Ray Kerridge, City Manager/December 6, 2007

Dawn Bullwinkel
Asst City Clerk
12-7-07

CITY
CONTRACT NO. 2007-295

CITY
CONTRACT NO 2007-295

D. PREVAILING WAGE IN CERTAIN SERVICES REQUIREMENT

THIS SECTION IS NOT APPLICABLE TO THIS BID

E. EQUAL BENEFITS ORDINANCE (EBO) REQUIREMENTS

REQUIREMENTS OF THE NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

INTRODUCTION

The Sacramento Non-Discrimination In Employee Benefits Code (the "Ordinance"), codified as Sacramento City Code Chapter 3.54, prohibits City contractors from discriminating in the provision of employee benefits between employees with spouses and employees with domestic partners, and between the spouses and domestic partners of employees.

APPLICATION

The provisions of the Ordinance apply to any contract or agreement (as defined below), between a Contractor and the City of Sacramento, in an amount exceeding $25,000.00. The Ordinance applies to that portion of a contractor's operations that occur: (i) within the City of Sacramento; (ii) on real property outside the City of Sacramento if the property is owned by the City or if the City has a right to occupy the property; or (iii) at any location where a significant amount of work related to a City contract is being performed.

The Ordinance does not apply: to subcontractors or subcontracts of any Contractor or contractors; to transactions entered into pursuant to cooperative purchasing agreements approved by the Sacramento City Council; to legal contracts of other governmental jurisdictions or public agencies without separate competitive bidding by the City; where the requirements of the ordinance will violate or are inconsistent with the terms or conditions of a grant, subvention or agreement with a public agency or the instructions of an authorized representative of any such agency with respect to any such grant, subvention or agreement; to permits for excavation or street construction; or to agreements for the use of City right-of-way where a contracting utility has the power of eminent domain.

DEFINITIONS

As set forth in the Ordinance, the following definitions apply:

"Contract" means an agreement for public works or improvements to be performed, or for goods or services to be purchased or grants to be provided, at the expense of the City or to be paid out of moneys deposited in the treasury or out of the trust money under the control or collected by the City. "Contract" also means a written agreement for the exclusive use ("exclusive use" means the right to use or occupy real property to the exclusion of others, other than the right reserved by the fee owner) or occupancy of real property for a term exceeding 29 days in any calendar year, whether by singular or cumulative instrument, (i) for the operation or use by others of real property owned or controlled by the City for the operation of a business, social, or other establishment or organization, including leases, concessions, franchises and easements, or (ii) for the City's use or occupancy of real property owned by others, including leases, concessions, franchises and easements.

"Contract" shall not include: a revocable at-will use or encroachment permit for the use of or encroachment on City property regardless of the ultimate duration of such permit; excavation, street construction or street use permits; agreements for the use of City right-of-way where a contracting utility has the power of eminent domain; or agreements governing the use of City property that constitute a public forum for activities that are primarily for the purpose of espousing or advocating causes or ideas and that are generally protected by the First Amendment to the United States Constitution or that are primarily recreational in nature.

"Contractor" means any person or persons, firm partnership or corporation, company, or combination thereof, that enters into a Contract with the City. "Contractor" does not include a public entity.

"Domestic Partner" means any person who has a currently registered domestic partnership with a governmental entity pursuant to state or local law authorizing the registration.

"Employee Benefits" means bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; pension and retirement benefits; vacation; travel benefits; and any other benefit given to employees. "Employee benefits" shall not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state.

CONTRACTOR'S OBLIGATION TO PROVIDE THE CITY WITH DOCUMENTATION AND INFORMATION

Contractor shall provide the City with documentation and information verifying its compliance with the requirements of the Ordinance within ten (10) days of receipt of a request from the City. Contractors shall keep accurate payroll records, showing, for each City Contract, the employee's name, address, Social Security number, work classification, straight time pay rate, overtime pay rate, overtime hours worked, status and exemptions, and benefits for each day and pay period that the employee works on the City Contract. Each request for payroll records shall be accompanied by an affidavit to be completed and returned by the Contractor, as stated, attesting that the information contained in the payroll records is true and correct, and that the Contractor has complied with the requirements of the Ordinance. A violation of the Ordinance or noncompliance with the requirements of the Ordinance shall constitute a breach of contract.

EMPLOYER COMPLIANCE CERTIFICATE AND NOTICE REQUIREMENTS

(a) All contractors seeking a Contract subject to the Ordinance shall submit a completed Declaration of Compliance Form, signed by an authorized representative, with each proposal, bid or application. The Declaration of Compliance shall be made a part of the executed contract, and will be made available for public inspection and copying during regular business hours.

(b) The Contractor shall give each existing employee working directing on a City contract and (at the time of hire), each new employee, a copy of the notification provided as Attachment "A."

(c) Contractor shall post, in a place visible to all employees, a copy of the notice provided as Attachment "B."

ATTACHMENT A

YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS CODE

On ..... (date), your employer (the "Employer") entered into a contract with the City of Sacramento (the "City") for ..... (contract details), and as a condition of that contract, agreed to abide by the requirements of the City's Non-Discrimination In Employee Benefits Code (Sacramento City Code Section 3.54).

The Ordinance does not require the Employer to provide employee benefits. The Ordinance does require that if certain employee benefits are provided by the Employer, that those benefits be provided without discrimination between employees with spouses and employees with domestic partners, and without discrimination between the spouse or domestic partner of employee's.

The Ordinance covers any employee working on the specific contract referenced above, but only for the period of time while those employees are actually working on this specific contract.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

(Employee Benefits does not include benefits that may be preempted by federal or state law.)

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, or in the application of these employee benefits, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of the Ordinance, and after having exhausted all remedies with your employer,

You May . . .

- Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

  City of Sacramento
  Procurement Services Division
  915 I Street, 2nd Floor
  Sacramento, CA 95814

- Bring an action in the appropriate division of the Superior Court of the State of California against the Employer and obtain the following remedies:
  - Reinstatement, injunctive relief, compensatory damages and punitive damages
  - Reasonable attorney's fees and costs

ATTACHMENT B

YOUR RIGHTS UNDER THE CITY OF SACRAMENTO'S NON-DISCRIMINATION IN EMPLOYEE BENEFITS BY CITY CONTRACTORS ORDINANCE

If your employer provides employee benefits, they must be provided to those employees working on a City of Sacramento contract without discriminating between employees with spouses and employees with domestic partners.

The included employee benefits are:

- Bereavement leave
- Disability, life and other types of insurance
- Family medical leave
- Health benefits
- Membership or membership discounts
- Moving expenses
- Pension and retirement benefits
- Vacation
- Travel benefits
- Any other benefits given to employees

If you feel you have been discriminated against by your employer . . .

You May . . .

O Submit a written complaint to the City of Sacramento, Procurement Services Division, containing the details of the alleged violation. The address is:

City of Sacramento
Procurement Services Division
915 I St., 2nd Floor
Sacramento, CA 95814

O Bring an action in the appropriate division of the Superior Court of the State of California against the employer and obtain reinstatement, injunctive relief, compensatory damages, punitive damages and reasonable attorney's fees and costs.

Discrimination and Retaliation Prohibited.

If you feel you have been discriminated or retaliated against by your employer in the terms and conditions of your application for employment, or in your employment, because of your status as an applicant or as an employee protected by the Ordinance, or because you reported a violation of this Ordinance.

You May Also . . .

Submit a written complaint to the City of Sacramento, Procurement Services Division, at the same address, containing the details of the alleged violation.

F. LIVING WAGE ORDINANCE (LWO) REQUIREMENTS

LIVING WAGE ORDINANCE

The Living Wage Ordinance (LWO) requires certain firms that enter into contracts to provide certain services to or for the City, to pay a specified minimum level of compensation to their employees for time spent performing any work on the City contract. The LWO also applies to certain subcontractors.

The LWO applies to contracts entered into, amended, renewed or extended at the City's discretion.

Contracts and Contractors Covered by the LWO

Determining whether the LWO applies to a specific City contract, contractor or subcontractor, depends on whether the contract, contractor and/or subcontractor meet the criteria specified in the LWO for contract type, contract amount, contractor size (# of employees), subcontract amount and subcontractor size (# of employees). These criteria are summarized below.

Contract Type

The LWO applies only to contracts for Nonprofessional Services. Under the LWO, this includes contracts for any services of a nonprofessional character, including but not limited to tree trimming services, repair services for motor vehicles and office equipment, vehicle towing, and security services.

The LWO does not apply to: (1) Incidental services, such as delivery, installation or maintenance, that are provided under contracts for the purchase or lease of equipment, supplies, or other personal property; (2) contracts that are subject to City, state, or federal prevailing-wage requirements; (3) contracts for professional services (including but not limited to services rendered by engineers, architects, auditors, banks, consultants, actuaries and attorneys); and (4) contracts with nonprofit corporations that are organized under section 501 of the Internal Revenue Code and have fewer than 100 employees, whether full or part time.

Contract Amount

The LWO applies to contracts entered into or amended after the LWO Effective Date that provide compensation from the City of $100,000 or more. In addition, the LWO applies to a contract entered into or amended after the LWO Effective Date that, by itself, does not reach this amount, if the aggregate value of that contract and of any other Nonprofessional Services contracts covered by the LWO that the City has awarded to the same person or firm within the previous 12 months, is $100,000 or more. **IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE WHETHER THIS AGGREGATE VALUE IS $100,000 OR MORE, AND TO NOTIFY THE CITY IN WRITING WHENEVER THIS IS THE CASE.**

Contractor Size

The LWO only applies to a contractor that has at least 25 employees, working either full or part time. The number of employees that a contractor has is determined by adding the contractor's employees and the employees of any other person or entity deemed to be a "Related Person" under the LWO.[1]

Subcontract Amount

The LWO applies to a subcontractor providing services under a covered contract if the amount of the subcontract is at least 25 % of the contract amount, without regard to the number of employees the subcontractor has.

Subcontractor Size

The LWO also applies to a subcontractor providing services under a covered contract if the subcontractor has at least 25 employees, working either full or part time, whether or not the amount of the subcontract is at least 25 % of the contract amount.

Payment of Living Wage to Covered Employees

If a contractor or subcontractor meets the criteria specified in the LWO for contract type, contract amount, contractor size, subcontract amount and/or subcontractor size, the contractor or subcontractor is deemed to be a "Covered Employer" under the LWO. The LWO requires a Covered Employer to provide specified minimum compensation to its employees who perform work directly related to the City contract (these employees are called "Covered Employees" under the LWO), for all hours the Covered Employees perform under the City contract.[2]

The minimum compensation required is as follows:

a. If health benefits are provided to Covered Employees and the Covered Employer's contribution for the benefits is at least $1.50 for each hour, then the rates are as follows:

(a) During 2004, $9.00 per hour.
(b) During 2005, the greater of $9.33 an hour or $9.00 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2004.

---

1 The LWO provides that a person or entity is a Related Person when any of the following circumstances exists:

(1) The person or entity and the contractor are both corporations, and (i) share a majority of members of their governing boards, or (ii) have two or more officers in common, or (iii) are controlled by the same majority shareholder or shareholders (control means more than 50% of the corporation's voting power), or (iv) are in a parent-subsidiary relationship (such a relationship exists when one corporation directly or indirectly owns shares possessing more than 50% of another corporation's voting power); or

(2) The person or entity otherwise controls and directs, or is controlled and directed by, the contractor, as determined by the City Manager.

2 A Covered Employee includes full-time, part-time, contingent, contract and temporary employees, but does not include: (1) individuals who participate in job-training-and-education programs that have, as their express purpose, the provision of basic job skills and education to participants, with the goal of earning a high-school-equivalency diploma and education to participants, with the goal of earning a high-school-equivalency diploma and permanent employment; (2) student interns; (3) individuals participating in specialized-training programs; and (4) an employee whose term and conditions of employment are governed by a bona fide collective-bargaining agreement containing an express waiver of the LWO.

(c) During 2006, the greater of $9.67 an hour or $9.00 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2005.

(d) During 2007, the greater of $10.00 an hour or $9.00 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2006.

b. If health benefits are not provided to Covered Employees or if health benefits are provided but the Covered Employer's contribution for the benefits is less than $1.50 for each hour, then the rates are as follows:

(a) During 2004, $10.50 per hour.

(b) During 2005, the greater of $10.87 an hour or $10.50 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2004.

(c) During 2006, the greater of $11.17 an hour or $10.50 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2005.

(d) During 2007, the greater of $11.50 an hour or $10.50 adjusted by the increase in the Consumer Price Index for All Urban Consumers, San Francisco-Oakland-San Jose area (1982-1984=100) from January 1, 2004, through December 31, 2006.

Notification to Covered Employees

The LWO requires a Covered Employer to give each existing employee and (at the time of hire) each new employee a copy of the following written notification:

> **This company may enter into a contract to perform services for the City of Sacramento. If you work on such a contract, then you are entitled to be paid a living wage for each hour so worked. In 2004, the living wage is $9.00 an hour with health benefits and $10.50 an hour without health benefits. In 2005, the living wage is at least $9.33 an hour with health benefits and $10.87 an hour without health benefits. In 2006, the living wage is at least $9.67 an hour with health benefits and $11.17 an hour without health benefits. And in 2007, the living wage is at least $10.00 an hour with health benefits and $11.50 an hour without health benefits. For more information, see chapter 3.58 of the Sacramento City Code, which can be viewed at www.cityofsacramento.org.**

The LWO requires the above notification to be provided in each language spoken by 10% or more of the Covered Employer's workforce.

The LWO also requires a Covered Employer to inform all employees who earn less than $12 an hour of their possible right to the federal Earned Income Credit (EIC), and to make available to those employees any forms required to secure advance EIC payments from the Covered Employer.

Subcontractor Compliance

A contractor is responsible for requiring all of its subcontractors who are covered by these requirements to comply with the provisions of the LWO, by including these requirements in all subcontracts covered by the LWO.

Other Provisions of the LWO

Use of Funds Paid Under City Contracts

Under the LWO, Covered Employers may not directly use City funds to persuade Covered Employees to support or oppose unionization, and Covered Employers may not directly use City funds to schedule or hold meetings related to union representation during the Covered Employees' working hours. These restrictions do not apply to expenditures made during good-faith collective bargaining or to expenditures required under bona fide collective-bargaining agreements.

No Reduction in Non-Wage Benefits

Under the LWO, Covered Employers may not fund any wage increases required by the LWO, nor shall Covered Employers otherwise respond to the enactment of the LWO, by reducing the health, insurance, pension, vacation, or other non-wage benefits of any of their employees.

No Retaliation

The LWO prohibits a Covered Employer from taking any adverse action against a Covered Employee because the Covered Employee does any of the following: (1) exercises or asserts his or her rights under the LWO; (2) informs or assists other Covered Employees concerning their rights and the Covered Employer's obligations under the LWO; (3) complains about the Covered Employer's failure to comply with the LWO; or (4) seeks to enforce the LWO.

No Reduction in Collective-Bargaining Wage Rates

The LWO does not require or authorize any Covered Employer to reduce wages set by a collective-bargaining agreement or required under any prevailing-wage law.

Violations and Monitoring

The LWO provides that any violation of the LWO by a City contractor constitutes a material breach of the contract, and authorizes the City to terminate the contract and pursue all available legal and equitable remedies. In order to monitor compliance, the LWO authorizes the City to require Covered Employers to verify their compliance with the LWO by submitting certified payroll records to the City, and to take such other steps as may be necessary for the City to determine whether the requirements of the LWO have been satisfied.

The LWO also includes provisions authorizing an employee or interested person to file a judicial action against a contractor or subcontractor for violation of the LWO.

Declaration of Compliance

To assure compliance with the LWO, any person or entity entering into a contract to provide Nonprofessional Services to or for the City, is required to provide the City with a signed Declaration of Compliance in the form attached hereto, prior to the City's execution of the contract. The Declaration of Compliance shall be signed by a duly authorized representative of the person or entity entering into the contract, and, when accepted by the City, shall constitute part of the contract.

Additional Information

For a complete description of LWO provisions, refer to the LWO codified at Sacramento City Code Chapter 3.58. The Sacramento City Code is available on the internet at www.cityofsacramento.org. For more information on the LWO requirements and the City's LWO program, contact Procurement Services Department, (916) 808-6240.

SECTION II
CONTRACT DOCUMENTS

A. GENERAL CONDITIONS

1. **Independent Contractor.**

A. It is understood and agreed that CONTRACTOR (including CONTRACTOR's employees) is an independent contractor and that no relationship of employer-employee exists between the parties hereto for any purpose whatsoever. Neither CONTRACTOR nor CONTRACTOR's assigned personnel shall be entitled to any benefits payable to employees of CITY. CITY is not required to make any deductions or withholdings from the compensation payable to CONTRACTOR under the provisions of this Agreement, and CONTRACTOR shall be issued a Form 1099 for its services hereunder. As an independent contractor, CONTRACTOR hereby agrees to indemnify and hold CITY harmless from any and all claims that may be made against CITY based upon any contention by any of CONTRACTOR's employees or by any third party, including but not limited to any state or federal agency, that an employer-employee relationship or a substitute therefor exists for any purpose whatsoever by reason of this Agreement or by reason of the nature and/or performance of any Services under this Agreement. (As used in this Exhibit D, the term "Services" shall include both Services and Additional Services as such terms are defined elsewhere in this Agreement.)

B. It is further understood and agreed by the parties hereto that CONTRACTOR, in the performance of its obligations hereunder, is subject to the control and direction of CITY as to the designation of tasks to be performed and the results to be accomplished under this Agreement, but not as to the means, methods, or sequence used by CONTRACTOR for accomplishing such results. To the extent that CONTRACTOR obtains permission to, and does, use CITY facilities, space, equipment or support services in the performance of this Agreement, this use shall be at the CONTRACTOR's sole discretion based on the CONTRACTOR's determination that such use will promote CONTRACTOR's efficiency and effectiveness. Except as may be specifically provided elsewhere in this Agreement, the CITY does not require that CONTRACTOR use CITY facilities, equipment or support services or work in CITY locations in the performance of this Agreement.

C. If, in the performance of this Agreement, any third persons are employed by CONTRACTOR, such persons shall be entirely and exclusively under the direction, supervision, and control of CONTRACTOR. Except as may be specifically provided elsewhere in this Agreement, all terms of employment, including hours, wages, working conditions, discipline, hiring, and discharging, or any other terms of employment or requirements of law, shall be determined by CONTRACTOR. It is further understood and agreed that CONTRACTOR shall issue W-2 or 1099 Forms for income and employment tax purposes, for all of CONTRACTOR's assigned personnel and subcontractors.

D. The provisions of this Section 1 shall survive any expiration or termination of this Agreement. Nothing in this Agreement shall be construed to create an exclusive relationship between CITY and CONTRACTOR. CONTRACTOR may represent, perform services for, or be employed by such additional persons or companies as CONTRACTOR sees fit provided that CONTRACTOR does not violate the provisions of Section 5, below.

2. **Licenses; Permits, Etc.** CONTRACTOR represents and warrants that CONTRACTOR has all licenses, permits, City Business Operations Tax Certificate, qualifications, and approvals of whatsoever nature that are legally required for CONTRACTOR to practice its profession or provide any services under the Agreement. CONTRACTOR represents and warrants that CONTRACTOR shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses,

permits, and approvals that are legally required for CONTRACTOR to practice its profession or provide such Services. Without limiting the generality of the foregoing, if CONTRACTOR is an out-of-state corporation, CONTRACTOR warrants and represents that it possesses a valid certificate of qualification to transact business in the State of California issued by the California Secretary of State pursuant to Section 2105 of the California Corporations Code.

3. **Time.** CONTRACTOR shall devote such time and effort to the performance of Services pursuant to this Agreement as is necessary for the satisfactory and timely performance of CONTRACTOR's obligations under this Agreement. Neither party shall be considered in default of this Agreement, to the extent that party's performance is prevented or delayed by any cause, present or future, that is beyond the reasonable control of that party.

4. **CONTRACTOR Not Agent.** Except as CITY may specify in writing, CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to act on behalf of CITY in any capacity whatsoever as an agent. CONTRACTOR and CONTRACTOR's personnel shall have no authority, express or implied, to bind CITY to any obligations whatsoever.

5. **Conflicts of Interest.** CONTRACTOR covenants that neither it, nor any officer or principal of its firm, has or shall acquire any interest, directly or indirectly, that would conflict in any manner with the interests of CITY or that would in any way hinder CONTRACTOR's performance of Services under this Agreement. CONTRACTOR further covenants that in the performance of this Agreement, no person having any such interest shall be employed by it as an officer, employee, agent or subcontractor, without the written consent of CITY. CONTRACTOR agrees to avoid conflicts of interest, or the appearance of any conflicts of interest with the interests of CITY at all times during the performance of this Agreement. If CONTRACTOR is or employs a former officer or employee of the CITY, CONTRACTOR and any such employee(s) shall comply with the provisions of Sacramento City Code Section 2.16.090 pertaining to appearances before the City Council or any CITY department, board, commission or committee.

6. **Confidentiality of CITY Information.** During performance of this Agreement, CONTRACTOR may gain access to and use CITY information regarding inventions, machinery, products, prices, apparatus, costs, discounts, future plans, business affairs, governmental affairs, processes, trade secrets, technical matters, systems, facilities, customer lists, product design, copyright, data, and other vital information (hereafter collectively referred to as "City Information") that are valuable, special and unique assets of the CITY. CONTRACTOR agrees to protect all City Information and treat it as strictly confidential, and further agrees that CONTRACTOR shall not at any time, either directly or indirectly, divulge, disclose or communicate in any manner any City Information to any third party without the prior written consent of CITY. In addition, CONTRACTOR shall comply with all CITY policies governing the use of the CITY network and technology systems, as set forth in applicable provisions of the City of Sacramento Administrative Policy Instructions # 30. A violation by CONTRACTOR of this Section 6 shall be a material violation of this Agreement and shall justify legal and/or equitable relief.

7. **CONTRACTOR Information.**

A. CITY shall have full ownership and control, including ownership of any copyrights, of all information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement. In this Agreement, the term "information" shall be construed to mean and include: any and all work product, submittals, reports, plans, specifications, and other deliverables consisting of documents, writings, handwritings, typewriting, printing, photostatting, photographing, computer models, and any other computerized data and every other means of recording any form of information, communications, or representation, including letters, works, pictures, drawings, sounds, or symbols, or any combination thereof. CONTRACTOR shall not be responsible for any unauthorized modification or use of such information for other than its intended purpose by CITY.

B. CONTRACTOR shall fully defend, indemnify and hold harmless CITY, its officers and employees, and each and every one of them, from and against any and all claims, actions, lawsuits or other proceedings alleging that all or any part of the information prepared, produced, or provided by CONTRACTOR pursuant to this Agreement infringes upon any third party's trademark, trade name, copyright, patent or other intellectual property rights. CITY shall make reasonable efforts to notify CONTRACTOR not later than ten (10) days after CITY is served with any such claim, action, lawsuit or other proceeding, provided that CITY's failure to provide such notice within such time period shall not relieve CONTRACTOR of its obligations hereunder, which shall survive any termination or expiration of this Agreement.

C. All proprietary and other information received from CONTRACTOR by CITY, whether received in connection with CONTRACTOR's proposal to CITY or in connection with any Services performed by CONTRACTOR, will be disclosed upon receipt of a request for disclosure, pursuant to the California Public Records Act; provided, however, that, if any information is set apart and clearly marked "trade secret" when it is provided to CITY, CITY shall give notice to CONTRACTOR of any request for the disclosure of such information. The CONTRACTOR shall then have five (5) days from the date it receives such notice to enter into an agreement with the CITY, satisfactory to the City Attorney, providing for the defense of, and complete indemnification and reimbursement for all costs (including plaintiff's attorney fees) incurred by CITY in any legal action to compel the disclosure of such information under the California Public Records Act. The CONTRACTOR shall have sole responsibility for defense of the actual "trade secret" designation of such information.

D. The parties understand and agree that any failure by CONTRACTOR to respond to the notice provided by CITY and/or to enter into an agreement with CITY, in accordance with the provisions of subsection C, above, shall constitute a complete waiver by CONTRACTOR of any rights regarding the information designated "trade secret" by CONTRACTOR, and such information shall be disclosed by CITY pursuant to applicable procedures required by the Public Records Act.

8. **Standard of Performance.** CONTRACTOR shall perform all Services required pursuant to this Agreement in the manner and according to the standards currently observed by a competent practitioner of CONTRACTOR's profession in California. All products of whatsoever nature that CONTRACTOR delivers to CITY pursuant to this Agreement shall be prepared in a professional manner and conform to the standards of quality normally observed by a person currently practicing in CONTRACTOR's profession, and shall be provided in accordance with any schedule of performance specified in Exhibit A. CONTRACTOR shall assign only competent personnel to perform Services pursuant to this Agreement. CONTRACTOR shall notify CITY in writing of any changes in CONTRACTOR's staff assigned to perform the Services required under this Agreement, prior to any such performance. In the event that CITY, at any time during the term of this Agreement, desires the removal of any person assigned by CONTRACTOR to perform Services pursuant to this Agreement, because CITY, in its sole discretion, determines that such person is not performing in accordance with the standards required herein, CONTRACTOR shall remove such person immediately upon receiving notice from CITY of the desire of CITY for the removal of such person.

9. **Term; Suspension; Termination.**

A. This Agreement shall become effective on the date that it is approved by both parties, set forth on the first page of the Agreement, and shall continue in effect until both parties have fully performed their respective obligations under this Agreement, unless sooner terminated as provided herein.

B. CITY shall have the right at any time to temporarily suspend CONTRACTOR's performance

hereunder, in whole or in part, by giving a written notice of suspension to CONTRACTOR. If CITY gives such notice of suspension, CONTRACTOR shall immediately suspend its activities under this Agreement, as specified in such notice.

C. CITY shall have the right to terminate this Agreement at any time by giving a written notice of termination to CONTRACTOR. If CITY gives such notice of termination, CONTRACTOR shall immediately cease rendering Services pursuant to this Agreement. If CITY terminates this Agreement:

(1) CONTRACTOR shall, not later than five days after such notice of termination, deliver to CITY copies of all information prepared pursuant to this Agreement.

(2) CITY shall pay CONTRACTOR the reasonable value of Services rendered by CONTRACTOR prior to termination; provided, however, CITY shall not in any manner be liable for lost profits that might have been made by CONTRACTOR had the Agreement not been terminated or had CONTRACTOR completed the Services required by this Agreement. In this regard, CONTRACTOR shall furnish to CITY such financial information as in the judgment of the CITY is necessary for CITY to determine the reasonable value of the Services render by CONTRACTOR. The foregoing is cumulative and does not affect any right or remedy that CITY may have in law or equity.

10. Indemnity.

A. Indemnity: CONTRACTOR shall indemnify and save harmless, CITY, its officers and employees, and each and every one of them, from and against all actions, damages, costs, liability, claims, demands, losses, judgments, penalties, costs and expenses of every type and description, including, but not limited to, any fees and/or costs reasonable incurred by CITY's staff attorneys or outside attorneys and any fees and expenses incurred in enforcing this provision (hereafter collectively referred to as "Liabilities"), to the extent such Liabilities are caused by or arise from any negligent act or omission, recklessness or willful misconduct of CONTRACTOR, its subcontractors or agents, and their respective officers and employees, in connection with the performance or nonperformance of this Agreement, whether or not (i) such Liabilities also are caused in part by the passive negligence of the CITY, its officers or employees, (ii) the CITY, its officers or employees reviewed, accepted or approved any service or work product performed or provided by the CONTRACTOR, or (iii) such Liabilities are litigated, settled or reduced to judgment.

B. Obligation to Defend: CONTRACTOR shall, upon CITY's request, defend at CONTRACTOR's sole cost any action, claim, suit, cause of action or portion thereof that asserts or alleges Liabilities caused by or arising from any negligent act or omission, recklessness or willful misconduct of CONTRACTOR, its subcontractors or agents, and their respective officers and employees, in connection with the performance or nonperformance of this Agreement, whether such action, claim, suit, cause of action or portion thereof is well founded or not.

C. Insurance Policies; Intellectual Property Claims: Except as may be expressly provided in this Section 10, the existence or acceptance by CITY of any of the insurance policies or coverages described in this Agreement shall not affect or limit any of CITY's rights under this Section 10, nor shall the limits of such insurance limit the liability of CONTRACTOR hereunder. This Section 10 shall not apply to any intellectual property claims, actions, lawsuits or other proceedings subject to the provisions of Section 7.B., above. The provisions of this Section 10 shall survive any expiration or termination of this Agreement.

11. Insurance Requirements. During the entire term of this Agreement, CONTRACTOR shall maintain the insurance coverage described in this Section 11.

Full compensation for all premiums that CONTRACTOR is required to pay for the insurance coverage described herein shall be included in the compensation specified for the Services provided by CONTRACTOR under this Agreement. No additional compensation will be provided for CONTRACTOR's insurance premiums.

It is understood and agreed by the CONTRACTOR that its liability to the CITY shall not in any way be limited to or affected by the amount of insurance coverage required or carried by the CONTRACTOR in connection with this Agreement.

A. Minimum Scope & Limits of Insurance Coverage

(1) Commercial General Liability Insurance, providing coverage at least as broad as ISO CGL Form 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars ($1,000,000) per occurrence. The policy shall provide contractual liability and products and completed operations coverage for the term of the policy.

(2) Automobile Liability Insurance providing coverage at least as broad as ISO Form CA 00 01 on an occurrence basis for bodily injury, including death, of one or more persons, property damage and personal injury, with limits of not less than one million dollars ($1,000,000) per occurrence. The policy shall provide coverage for owned, non-owned and/or hired autos as appropriate to the operations of the CONTRACTOR.

No automobile liability insurance shall be required if CONTRACTOR completes the following certification:

"I certify that a motor vehicle will not be used in the performance of any work or services under this agreement." _____ (CONTRACTOR initials)

(3) Workers' Compensation Insurance with statutory limits, and Employers' Liability Insurance with limits of not less than one million dollars ($1,000,000). The Worker's Compensation policy shall include a waiver of subrogation for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

__X__ Workers' Compensation waiver of subrogation in favor of the City is required for all work performed by the CONTRACTOR.

No Workers' Compensation insurance shall be required if CONTRACTOR completes the following certification:

"I certify that my business has no employees, and that I do not employ anyone. I am exempt from the legal requirements to provide Workers' Compensation insurance." _____ (CONTRACTOR initials)

B. Additional Insured Coverage

(1) Commercial General Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects general liability arising out of activities performed by or on behalf of CONTRACTOR, products and completed operations of CONTRACTOR, and premises owned, leased or used by CONTRACTOR. The general liability additional insured endorsement must be signed by an authorized representative of the insurance carrier for contracts involving construction or maintenance, or if required by the CITY by selecting the option below:

__X__ Additional insured endorsement must be signed by an authorized representative of the insurance carrier.

If the policy includes a blanket additional insured endorsement or contractual additional insured coverage, the above signature requirement may be fulfilled by submitting that document with a signed declaration page referencing the blanket endorsement or policy form.

(2) Automobile Liability Insurance: The CITY, its officials, employees and volunteers shall be covered by policy terms or endorsement as additional insureds as respects auto liability.

C. Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

(1) CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officials, employees and volunteers. Any insurance or self-insurance maintained by CITY, its officials, employees or volunteers shall be in excess of CONTRACTOR's insurance and shall not contribute with it.

(2) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to CITY, its officials, employees or volunteers.

(3) Coverage shall state that CONTRACTOR's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(4) CITY will be provided with thirty (30) days written notice of cancellation or material change in the policy language or terms.

D. Acceptability of Insurance

Insurance shall be placed with insurers with a Bests' rating of not less than A:V. Self-insured retentions, policy terms or other variations that do not comply with the requirements of this Section 11 must be declared to and approved by the CITY Risk Management Division in writing prior to execution of this Agreement.

E. Verification of Coverage

(1) CONTRACTOR shall furnish CITY with certificates and required endorsements evidencing the insurance required. The certificates and endorsements shall be forwarded to the CITY representative named in Exhibit A. Copies of policies shall be delivered to the CITY on demand. Certificates of insurance shall be signed by an authorized representative of the insurance carrier.

(2) The CITY may withdraw its offer of contract or cancel this Agreement if the certificates of insurance and endorsements required have not been provided prior to execution of this Agreement. The CITY may withhold payments to CONTRACTOR and/or cancel the Agreement if the insurance is canceled or CONTRACTOR otherwise ceases to be insured as required herein.

F. Subcontractors

CONTRACTOR shall require and verify that all subcontractors maintain insurance coverage that meets the minimum scope and limits of insurance coverage specified in subsection A, above.

12. **Equal Employment Opportunity.** During the performance of this Agreement, CONTRACTOR, for itself, its assignees and successors in interest, agrees as follows:

A. Compliance With Regulations: CONTRACTOR shall comply with the Executive Order 11246 entitled "Equal Opportunity in Federal Employment", as amended by Executive Order 11375 and 12086, and as supplemented in Department of Labor regulations (41 CFR Chapter 60), hereinafter collectively referred to as the "Regulations".

B. Nondiscrimination: CONTRACTOR, with regards to the work performed by it after award and prior to completion of the work pursuant to this Agreement, shall not discriminate on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation in selection and retention of subcontractors, including procurement of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in discrimination prohibited by the Regulations.

C. Solicitations for Subcontractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiations made by CONTRACTOR for work to be performed under any subcontract, including all procurement of materials or equipment, each potential subcontractor or supplier shall be notified by CONTRACTOR of CONTRACTOR's obligation under this Agreement and the Regulations relative to nondiscrimination on the ground of race, color, religion, sex, national origin, age, marital status, physical handicap or sexual orientation.

D. Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or by any orders or instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

E. Sanctions for Noncompliance: In the event of noncompliance by CONTRACTOR with the nondiscrimination provisions of this Agreement, the CITY shall impose such sanctions as it may determine to be appropriate including, but not limited to:

(1) Withholding of payments to CONTRACTOR under this Agreement until CONTRACTOR complies;

(2) Cancellation, termination, or suspension of the Agreement, in whole or in part.

F. Incorporation of Provisions: CONTRACTOR shall include the provisions of subsections A through E, above, in every subcontract, including procurement of materials and leases of equipment, unless exempted by the Regulations, or by any order or instructions issued pursuant thereto. CONTRACTOR shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, CONTRACTOR may request CITY to enter such litigation to protect the interests of CITY.

13. **Entire Agreement.** This document, including all Exhibits, contains the entire agreement between the parties and supersedes whatever oral or written understanding they may have had prior to the execution of this Agreement. No alteration to the terms of this Agreement shall be valid unless approved in writing by CONTRACTOR, and by CITY, in accordance with applicable provisions of the Sacramento City Code.

14. **Severability.** If any portion of this Agreement or the application thereof to any person or circumstance shall be held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

15. **Waiver.** Neither CITY acceptance of, or payment for, any Service or Additional Service performed by CONTRACTOR, nor any waiver by either party of any default, breach or condition precedent, shall be construed as a waiver of any provision of this Agreement, nor as a waiver of any other default, breach or condition precedent or any other right hereunder.

16. **Enforcement of Agreement.** This Agreement shall be governed, construed and enforced in accordance with the laws of the State of California. Venue of any litigation arising out of or connected with this Agreement shall lie exclusively in the state trial court or Federal District Court located in Sacramento County in the State of California, and the parties consent to jurisdiction over their persons and over the subject matter of any such litigation in such courts, and consent to service of process issued by such courts.

17. **Assignment Prohibited.** The expertise and experience of CONTRACTOR are material considerations for this Agreement. CITY has a strong interest in the qualifications and capability of the persons and entities who will fulfill the obligations imposed on CONTRACTOR under this Agreement. In recognition of this interest, CONTRACTOR shall not assign any right or obligation pursuant to this Agreement without the written consent of the CITY. Any attempted or purported assignment without CITY's written consent shall be void and of no effect.

18. **Binding Effect.** This Agreement shall be binding on the heirs, executors, administrators, successors and assigns of the parties, subject to the provisions of Section 17, above.

SECTION II – CONTRACT DOCUMENTS

B. SPECIAL PROVISIONS

SCOPE

The Contractor shall demonstrate an understanding of the concept of IPM principles and practices of pest control; furthermore, the Contractor must be able to identify important pests and describe life cycles, habits, and conditions that affect populations of those pests. The implementation of management practices in an IPM program is not based on the routine application of pesticides, but on monitoring and inspecting for pests, modifying structures, improving sanitation, and changing personnel practices that can contribute to pest problems. Pest control is achieved in an IPM program by emphasizing pest prevention and making informed, accurate decisions as to when control measures are needed and the type of control measures to be used.

The City of Sacramento will be requiring structural pest control applicators to be fully IPM Certified, or in the process of achieving certification, by a certifying agency such as EcoWise or equivalent. Contractors claiming to have comprehensive IPM services but are not IPM certified may be awarded a contract contingent upon the Contractors ability to demonstrate adequate knowledge and experience in IPM principles and practices. City representatives will determine if non-certified IPM practitioners contain adequate knowledge and skills to implement a comprehensive IPM program satisfactorily meeting the needs of the City; additionally, there must be at least one, City-approved IPM practitioner overseeing the implementation of the IPM program, and all technicians will be required to attend annual IPM training programs.

CONTRACT PERIOD

This agreement shall be effective for one year from the date of award by City Council.

CONTRACT EXTENSION

Any resultant contract may be extended on a year to year basis under the same terms and conditions at the City's discretion. However, in no case shall the renewal extend beyond 4 years from the date of award of the original contract.

PRICE ADJUSTMENT

No price changes are permitted during the first year of the contract. If the contract extends beyond one year, prices quoted may be made subject to adjustment. In the event of a price decline, the benefit of such lower prices shall be immediately extended to the City.

FACILITIES AND PESTS COVERED IN CONTRACT

The City facilities listed in the preceding Price Schedule will require either Comprehensive Integrated Pest Management (IPM) Services or Routine IPM Services. Designated facilities will receive comprehensive Pest Management Plans for pest control services, and remaining facilities are to receive Routine IPM services as needed; moreover, Comprehensive and Routine services shall include the control of all pests in and around facilities such as, but not necessarily be limited to: ants, fleas, stinging insects and nests, mites, mice, rats, roaches, spiders, birds, bats, and squirrels utilizing proper and safe use of least toxic pesticides.

Provisions for the more Comprehensive IPM services and provisions for Routine IPM services for pest control are indicated in the Technical Specifications.

TOTAL CHARGE PER YEAR

The contractor shall furnish all labor, materials, and equipment to implement the surveillance, trapping, and pesticide application aspects for a comprehensive IPM program in designated facilities. The contractor shall also make detailed, site-specific recommendations for structural and procedural modifications to achieve pest suppression for all listed facilities.

The price(s) bid is/are the total charge per month/year for each area listed in the Pricing Schedule and shall include all wages, payroll taxes, fringe benefits, insurance, transportation, equipment, materials, supplies, overhead and profit.

MODIFICATION OF CONTRACT

The City may order changes in the work herein required and may order extra work in connection with the performance of the contract and the Contractor may comply with such orders, except that:

A. If changes in requirements, reports, or materials are of such a nature as to increase or decrease the cost of any part of the work, the price fixed in the contract will be increased or decreased by such amount as the Contractor and the Procurement Services Manager may agree upon as the reasonable and proper allowance for the increase or decrease in the cost of work.

B. No order for any alteration, modification, or extra work which will increase or decrease the cost of the work shall be valid unless the resulting increase or decrease in price shall have been agreed upon in writing and approved by the Procurement Services Manager. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this contract, including the requirements of the specifications.

CONTRACT REPRESENTATIVES

During performance of the contract, the City will be represented by Malyssa Berry, telephone (916) 808-1242; Dennis Neillson for the Sacramento Public Library, telephone (916) 264-2820; and Allison Winebrenner for Fairytale Town (916) 264-7060. The City IPM Contact Person for IPM services will be Roxanne Livingston, telephone (916) 808-1458.

DEFAULT BY CONTRACTOR

In case of default by Contractor, the City reserves the right to procure the articles or services from other sources and to hold the Contractor responsible for any excess costs occasioned to the City thereby.

DRUG-FREE WORKPLACE POLICY

The City of Sacramento is committed to providing a safe workplace for its employees and citizens alike. An essential part of this commitment is keeping the work environment free from drugs. In 1989, to assist in the achievement of this end, the City established a Drug-Free Workplace Policy.

As a contractor doing business with the City, it is expected that your firm will also implement a drug-free policy that informs your employees of the dangers and prohibition of drug abuse and that you will join with the City in maintaining a drug-free workplace.

If, in the performance of work under this contract, any employee of the Contractor exhibits unacceptable behavior that may be related to use of drugs or alcohol, the City reserves the right to discuss the employee's behavior with the Contractor. If the unacceptable behavior persists, the City may require that the employee be removed from all work under this contract.

CONTINUED USE OF FACILITIES

The buildings involved in this project will continue to be occupied during the contract. Work will be performed in an orderly manner with minimum disturbance and inconvenience to the occupants. The Contractor shall confine and limit its personnel to only those areas required in performing the work. Contractor agrees to perform work as called for between the hours of 7 A.M. and 7 P.M. Work accomplished on weekends or legal holidays, if done at Contractor's option and authorized by City Representative, will be performed at no additional expense to the City.

MATERIAL SAFETY DATA SHEETS (MSDS)

It is mandatory for the service contractor to supply a MSDS for all chemicals used during the performance of this contract to the City Safety Office, 915 I Street, 4th Floor Sacramento, CA 95814. Also, at any time the content of a MSDS is revised, the Contractor will provide new information to same. For facilities containing a comprehensive Pest Management Plans, MSDS will be included within the Plan.

CONTRACT INTENT

Specifications contained within this Statement of Work are written with the intent to meet and comply with all requirements but the final certification to comply shall rest with the Contractor and not the City of Sacramento. Should requirements as specified not comply, the Contractor is required to re-figure and revise the specifications to meet all laws, rules and regulations where it applies, and the City of Sacramento is to be notified thereof.

DISMISSAL OF UNSATISFACTORY EMPLOYEES

The Contractor shall only furnish employees who are competent and skilled for work under this contract. If, in the opinion of the City, an employee of the Contractor is incompetent or disorderly, refuses to perform in accordance with the terms and conditions of the contract, threatens or uses abusive language while on City property, or is otherwise unsatisfactory, that employee shall be removed from all work under this contract.

PROTECTION OF EXISTING FACILITIES

Contractor shall take every precaution to protect all public and private property during the performance of this contract. Any damages caused by Contractor's personnel or equipment will be promptly repaired to the condition existing before the damage or be replaced. All such costs for such repairs or replacement shall be the sole responsibility of the Contractor.

C. TECHNICAL SPECIFICATIONS

General Provisions

1. The city reserves the right to add or delete locations according to its needs. Additional locations shall be quoted on the same cost basis as other locations. The City is not limited to purchasing all of its requirements from any contract resulting from this bid.

2. All work performed under this agreement shall be performed under the rules and regulations of the Structural Pest Control Act in effect at the time of performance.

3. All materials and workmanship shall be industry standard in every respect. All work shall be subject to general supervision and satisfaction of the City representative in change, who may exercise such control of the work as is required to safeguard the interests of the City.

4.Contractor shall plan and conduct the work in a manner that will safeguard all persons from injury and take all precautions required by applicable regulations of the State Department of Industrial Relations and OSHA

5. Contractor shall be licensed by the State of California Structural Pest Control Board and shall possess a valid structural pest control operator's license in branches I, II and III. Persons employed by the contractor to perform pest control services on this contract shall either be licensed by the same board and possess a field representative's license in the proper branch or be under the direct on-site supervision of an employee holding a valid field representative's license in the proper branch.

6. It is incumbent upon the contractor and those in its employ to be aware of the injurious nature of any pesticide used and to insure proper safeguards in the application of those pesticides. It is the responsibility of the contractor to secure any necessary use permits or licenses required for the use of any pesticides and to abide by any conditions set forth in those permits or licenses.

7. The date and time of regularly scheduled service shall, in advance of service, be as agreed upon between the contractor and the individual building manager/supervisor or, if none, the City representative. Service reports must be submitted to City Service Building Manager / Supervisor or designated employee when service is performed and a copy submitted with invoice. All invoices with the exception of Library and Fairytale Town should be mailed to:

City of Sacramento
5730 24th Street, Bldg. #1
Sacramento, CA 95822
Attn: Accounts Payable

The invoice for all the libraries, items 21-34, should be mailed to:

Central Library
828 I Street
Sacramento, CA 95814
Attn: Dennis Neillson

The invoice for Fairytale Town, item 88, should be mailed to:
Kathy Fleming
3901 Land Park Drive
Sacramento, CA 95822

10. Whenever, in the opinion of the City, the said service is not satisfactory, the contractor shall be advised of the reasons. If the contractor fails to correct the unsatisfactory conditions with ten (10) days, the City Purchasing Agency may declare this contract terminated and contract with another services supplier. It shall be understood and agreed that the contract may be terminated by either party to the contract upon thirty days notice in writing. In the event of unresolvable differences of service to be performed, the City may call upon the State of California Structural Pest Control Board or clarification.

11. Notwithstanding any provision to the contrary herein, City shall have no obligation to give more than two notices of unsatisfactory performance in any calendar year. In the event two such notices of unsatisfactory performance are given in any calendar year, and in the event that contractor(s) shall again fail to satisfactorily perform services pursuant to this contract, City may thereupon terminate this contract immediately.

Comprehensive Integrated Pest Management (IPM) Services

Background

The Central Valley Regional Water Quality Control Board recently approved a Pesticide Plan to be implemented by the City of Sacramento as required by the municipal storm water National Pollutant Discharge Elimination System (NPDES) Permit No. CAS082597. The Pesticide Plan is a comprehensive plan with a goal to reduce the discharge of pesticides from municipal storm water systems to urban creeks within Sacramento County to the maximum extent practicable. It was decided that the best way to minimize the water quality risks associated with pesticides was to promote Integrated Pest Management (IPM).

IPM is a relatively new concept in urban areas. Traditional structural pest control,as contracted by the City government in the past, was largely reactive to pest infestations and bases much of its response on the routine, scheduled spraying of pesticides. This spraying was often done in locations remote from the centers of pest populations with limited effectiveness in providing adequate control.

Conversely, IPM is a process, or planned program, for long-term pest suppression. The process is based on surveillance and the interpretation of data to estimate the pest population in a given area. This monitoring allows accurate decisions to be made on when control measures are needed, the type of control measure(s) selected, and the method of application. Control practices in an IPM program must extend beyond the application of pesticides to predominantly include structural and procedural modifications, which establish physical barriers to pests, and reduce the food, water, and harborage available to them.

The City of Sacramento is in the process of establishing IPM policies and procedures for its facilities and land use areas; consequently, the City is beginning to implement Pest Management Plans for designated facilities only, and will develop Plans for remaining facilities as budget allows and as a greater understanding of IPM services evolves.

1.0 GENERAL IPM PROGRAM REQUIREMENTS

This program incorporates the advantageous use of all appropriate control options including: education, habitat modification, sanitation, alteration of maintenance activities, trapping and chemical controls -- so that pests and the environment can be managed in such a way as to balance cost, benefits, public health, safety, and environmental quality through the cooperation of all concerned.

1.1 Routine IPM SERVICES

For facilities without Pest Management Plans, the Contractor shall also demonstrate an understanding of the concept of the IPM method of pest control. Routine IPM Services shall include the control of all pests in around the facilities based on monitoring and inspecting for such pests. Any structural modifications, sanitation improvements, and personnel practices observed that may be contributing to pest problems shall be reported to the Facility Liaison or the IPM Contact Person. Services shall be provided monthly to all Routine IPM Service sites.

General requirements of the IPM program shall include the following for each building specified in this contract:

1.2 Initial Site Assessment

A thorough, initial inspection shall be conducted during the first few months of the contract by the Contractor's entomologist (or experienced IPM technician) and the user Facility Liaison. The purpose of this initial inspection is for the contractor to evaluate the pest control needs of the premises and to discuss these needs with the Department.

The following specific points should be addressed:

a) Identification of problem areas in and around the building.

b) Identification of structural features or personnel practices that are contributing to pest infestations.

c) Discussion of the effectiveness of previous control efforts.

d) Facilitation of contractor access to all necessary areas. Access to building space shall be coordinated with the facility liaison.

e) Informing the contractor of any restrictions or special safety precautions.

1.3 Submission of Plan

Following the initial inspection, the contractor will develop a detailed Pest Management Plan and Service Schedule for each of the designated buildings. This written plan and schedule must be submitted to the user Department representative/Facility Liaison for approval prior to initiation. The plan and schedule should address any structural or operational changes, which might facilitate the pest management effort. In addition, the plan must identify the proposed primary pesticides and alternatives by California Environmental Protection Agency (EPA) accepted common name (generic name); the building; and rationale for each type of use. Proposed trapping, exclusion devices for pests, if any, should also be included. The plan should describe in detail the contractor's means for monitoring pest populations in and around the building.

Frequency of inspections and treatment by the contractor shall depend on the specific pest control needs of the premises. At the minimum, the inspections shall be done monthly. The following **guidelines** will help you to define your IPM Inspection Frequency for the designated facilities:

a) Food preparation, Storage & service areas (such as cafeteria) shall be monitored weekly (excluding vending machines, Break rooms, Employee Lunch Room and similar small food storage & service areas).

b) Employee lunchroom, Break Room (inclusive of Refrigerator, Microwave, Coffee Stations and similar devices and kitchenettes) shall be monitored at least two times per month.

c) Vending machines, Beverage Dispensing units, Water Dispensing Coolers and similar devices shall be monitored at least once per month.

d) Basements & Ground Floor shall be inspected at least once per month.

e) Washrooms, Pipe Chases, Elevator pits, Telephone & Electrical conduit chases, Mechanical Rooms, General Storage Rooms & structures of similar nature shall be inspected each alternate month (Arrange your schedule in such a way so that such areas are rotated, inspected & serviced as needed at least six times per year).

f) Interior landscape such as Atrium shall be inspected at least once per month. Potted plants in the offices, lobby etc. shall be inspected on need basis or upon request.

g) Exterior Grounds or Perimeter of the Building shall be visually inspected for the signs of arthropods, rodents, birds and other wild life at least once per month.

h) Exterior Bait Stations shall be inspected at least once per month or more frequent as needed in case of any problem encountered.

i) Trapped rodent shall be removed with in 24 hours or as requested by the user department representative.

j) If you encounter rodent, birds or any other wild life problem and intend to place traps (such as glue traps or mechanical traps), you must ensure to provide daily, weekly or biweekly follow up as needed until problem is solved. Traps shall be removed, once problem is over and you return to routine maintenance inspections.

k) Preventive placement of traps is suggested, only if you are in a position to monitor the same at least on weekly basis.

The plan and schedule shall be submitted not more than **ten (10) working days** following the initial inspection of the premises. The user Department will render a decision regarding the acceptability of the plan and schedule **within ten (10) working days** following receipt. The contractor shall be on-site to implement the plan and schedule within **five (5) working days** following notice of approval of the plan. If the plan is disapproved, the contractor shall have **three (3) working days** to submit a revised plan and schedule. The schedule may be amended by Contractor upon City Approval. In this initial phase of the IPM program, the City reserves the right to request amendments/revisions to the plan as a greater understanding of what level of IPM services the City is capable of achieving.

1.4 Monitoring and Inspection

A critical aspect of the Pest Management Plan shall be the establishment of a monitoring and inspection program to identify infested zones and allow an objective assessment of pest population levels.

Monitoring and inspection shall be continued throughout the duration of this contract. Where appropriate, glue traps (insect monitors) shall be employed to monitor cockroach populations in selected areas.

1.5 Structural Modifications

Unless otherwise stated in the project definition, structural modifications for pest suppression shall **not** be the responsibility of the contractor. The contractor shall make recommendations to the user department of what structural modifications can reasonably be accomplished. However, Contractor must provide adequate pest management even if structural modifications have not been accomplished as requested. Non compliance to the structural modification can be discussed with the Department Representative/Facility Liaison so that issues can be resolved to provide effective, efficient, economical IPM program.

1.6 Pesticide Treatment

As a general rule, application of pesticides in any area inside or outside the premises - i.e. in any room, closet, hallway, stairwell, court, driveway, planting bed, and similar locations - shall not occur unless inspections or monitoring indicate the presence of pests in that specific area and alternate IPM methods or measures (physical, cultural, mechanical, biological) fail to suppress the pest population. An actual specimen of an insect pest, or active signs of same, must be seen before pesticides are applied. A rodent dropping, burrow, or runway is sufficient to indicate the presence of rodents in an area.

Preventive treatments as applicable by California law & Regulations (Department of Pesticide Regulations) and or California Structural pest control Board, of inside and outside areas where inspections indicate a potential insect or rodent infestation are acceptable only on a case-by-case basis with approval from the user department. The contractor must indicate areas for the preventive treatment in the Pest Management Plan for the building and list the methods of application.

1.7 Record Keeping

The contractor shall be responsible for maintaining a complete and accurate pest management log for the designated facilities. Each of the designated buildings that contains a Pest Management Plan shall have its own binder, which will be kept in the user department designated office and maintained on each visit by the contractor and copies of all service receipts.

The Binder shall contain the following items:

a) A copy of the Pest Management Plan and Service Schedule for the building.

b) A copy of the current label and EPA registration number (California DPR Registration Number) for each pesticide used in the building or site, including the Material Safety Data Sheet. Pesticide labels are normally interpreted as including in-depth safety and use documentation.

c) Pest surveillance data sheets which record, in a systematic fashion, the number of pests or other indicators of pest population levels revealed by the contractor's monitoring program for the building: For example, number and location of cockroaches trapped by zone monitors, number and location of rodents trapped or carcasses removed, number and location of new rat burrows observed, degree of feeding in rodent bait stations, etc.

d) The location of all traps, trapping devices, and bait stations in or around the premises. This information can be in either tabular, list, or map format. However, map format is preferred.

e) The user department's work order or other requests to service log form. These forms will be supplied by the contractor and will be used to advise the contractor of routine service requests and to document the performance of all work. Upon completion of a service visit to the building, the contractor's representative performing the service shall complete, sign and date the log, and return it to the user department's office on the same or succeeding day of the performance of the service.

f) The contractor's Service Report forms, documenting arrival and departure time of the contractor's representative performing the service, and all information on pesticide application required by statute. These report forms may incorporate some or all of the past surveillance data required in item c) above.

g) A Pest Sighting Log for City staff to report any observed pest activity. During the technician's visit to the service site, they shall refer to the Pest Sighting Log for reports of pest activity. If there is a report in the log book, the technician shall contact the reporting person for more information if necessary and then proceed to identify:

The extent of the infestation.

The control options that are most appropriate to the specific location of pest(s)

The conditions conducive to the pest(s)

If the technician can treat the pest using a non-chemical method or make arrangements with the necessary building staff to do so. If necessary, the technician shall make a follow-up visit prior to the next monthly service to evaluate the effectiveness of the treatment.

1.8 Chemical Controls

Since this is an IPM contract, chemical controls shall be used primarily as a last resort and only after approval by the user department representative on a case-by-case basis.

1.9 IPM Contact Person and Facility Liaison

To provide the degree of oversight and consistency of services necessary for a successful IPM program, the City shall designate an IPM Contact Person for the City and a Facility Liaison for each of the designated facilities. These people should have the interest and capability to address pest management issues. The IPM Contact Person should participate in all decisions that may directly or indirectly affect pest management. A list of personnel designated as Facility liaisons should be provided to the Contractor by the City. The Contractor's pest management technician should meet with the facility liaison, upon initiation of the contract, and prior to performing pest management services. The Contractor and Facility Liaison will:

1. Identify and discuss specific problem areas in the facility;

2. Facilitate access to all management areas for that facility;

3. Identify and discuss building features or personnel practices that might contribute to pest infestations;

4. Discuss effectiveness of previous control efforts; and

5. Notify pest management personnel of any new restrictions or special safety precautions.

SECTION III
BIDDER RESPONSE DOCUMENTS

A. ITEMS REQUIRING BIDDER RESPONSE

NOTE: *Bidders must provide responses where indicated to the following items. Failure to provide a response to each of the items in this section may be grounds for rejection of bid.*

1. SBE/EBE FIVE PERCENT (5%) BID EVALUATION PREFERENCE

On February 9, 1999, the Sacramento City Council adopted an Emerging and Small Business Development program to provide enhanced opportunities for the participation of small business enterprises (SBEs) and emerging business enterprises (EBEs) in the City's contracting and procurement activities. Any bid or quotation submitted by a firm that is certified as a SBE by the City of Sacramento, or that is certified as an EBE by the City of Sacramento, will receive a five percent (5%) bid evaluation preference for the purpose of determining the lowest responsible bidder. If, after applying the 5% bid evaluation preference, the bid of an SBE/EBE firm receiving such preference is determined to be the lowest responsible bid, the award will be made for the actual amount bid. To receive this bid evaluation preference, a firm must be certified as a SBE or EBE at the time of bid opening. Questions regarding eligibility for SBE/EBE certification should be addressed to the City of Sacramento Procurement Division, at (916) 808-6747.

A. SMALL BUSINESS ENTERPRISE (SBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as a small business enterprise? Check the appropriate block below:

☒ **YES** –the firm submitting the bid is certified by the City of Sacramento as a small business enterprise.

☐ **NO** -the firm submitting the bid is not certified by the City of Sacramento as a small business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number APP5000A30P.

B. EMERGING BUSINESS ENTERPRISE (EBE) CERTIFICATION

Is the firm submitting the bid certified by the City of Sacramento as an *emerging* business enterprise? Check the appropriate block below:

☒ **YES** - the firm submitting the bid is certified by the City of Sacramento as an emerging business enterprise.

☐ **NO** - the firm submitting the bid is not certified by the City of Sacramento as an emerging business enterprise.

If the response to the above is YES, provide the City of Sacramento Certification Number: APP5000A30P.

1. LOCAL BUSINESS SALES/USE TAX DEDUCTION

The Sacramento City Code requires the City to identify those bids that are subject to the City's local sales or use tax under the provisions of Part 1.5 of Division 2 of the California Revenue and Taxation Code and Chapter 3.24 of the Sacramento City Code. The lowest responsible bidder shall be determined after the amount of local sales or use tax that would be received by the City is deducted from such bids. The current rate at which such local sales or use tax is received by the City is one percent (1%). Therefore, in evaluating bids to determine the lowest responsible bidder, bids that are subject to this tax at the time of bid opening shall have an amount equal to one percent (1%) of the taxable total deducted from the bids. This deduction shall be in addition to the application of any bid price preferences or other deductions authorized by the City Code. Such deductions shall be made for bid evaluation purposes only. Contract awards shall be made at the actual bid amount.

In order to identify those bids that are subject to the City's local sales or use tax, all bidders shall respond to the following:

DEPARTMENT OF FINANCE
PROCUREMENT SERVICES DIVISION

CITY OF SACRAMENTO
CALIFORNIA

915 - I STREET
2nd FLOOR
SACRAMENTO, CA 95814

CENTRAL SERVICES
CONTRACT SERVICES
OFFICE OF SMALL BUSINESS DEVELOPMENT
PURCHASING

PHONE: 916-808-6240
FAX: 916-808-5747

January 3, 2007

APPLIED PEST MANAGEMENT INC
P. O. BOX 3317
VALLEJO, CA 94590

Subject: Emerging and Small Business Enterprise Certification

Congratulations! The City of Sacramento Office of Small Business Development (OSBD) has determined that your firm meets the criteria for certification under the **Emerging and Small Business Development Program (ESBD).**

Effective this day, your firm has been certified as a **Small Business Enterprise.** This certificate will expire **December 30, 2009.** It is your responsibility to notify this office, within thirty (30) days, of any change in certification status of your firm. Failure to do so will result in revocation of this certification issued by this office. The City's Office of Small Business Development reserves the right to review the certification at any time for purposes of certification compliance.

Your vendor code number is **APP5000A30P.** It may be used when working with any City of Sacramento procurement or contracting project. You must notify this office within (30) days if there is a change of ownership, business name, or address. It will also be your responsibility to contact our office prior to your expiration date for a recertification application.

Keep this letter as proof of ESBD certification. Thank you for joining the City of Sacramento ESBD Program family. If you have any questions about your certification, please call our new number **(916) 808-6747.**

Sincerely,

Trevor Walton
Program Specialist

Does the bidder have fixed offices or locally taxable distribution points within the boundaries of the City of Sacramento? X Yes; or ___ No

If the answer to Question #1 is "Yes":

1) Provide the address of the bidder's fixed offices or locally taxable distribution point(s):

4551 ORANGEGROVE AVENUE
SACRAMENTO, CA. 95841

Specify: fixed office location or distribution point(s): FIXED OFFICE LOCATION

2) Provide the bidder's current, valid City of Sacramento Business Operations Tax Certificate Number: 52973

3. PAYMENT DISCOUNT

Will you offer a prompt payment discount? Yes [X] or No [ ] (Net 30 days)

If Yes, the Payment Discount is 5 % for payment within 30 calendar days, which will be computed from the date service is complete and is accepted by the City, or the date a proper invoice is received, whichever is later.

PAYMENT DISCOUNTS SHALL BE CONSIDERED IN AWARDING THE CONTRACT AS SET FORTH IN THE "BID INSTRUCTIONS AND REQUIREMENTS", PARAGRAPH 11 (ENTITLED "PAYMENT DISCOUNTS").

SECTION III – BIDDER RESPONSE DOCUMENTS

B. ITEMS THAT MUST BE SUBMITTED BY SUCCESSFUL BIDDER PRIOR TO START OF CONTRACT

The following documents are required to be completed and submitted by the successful bidder prior to the award of contract of the contract:

1. CERTIFICATE OF INSURANCE

Successful bidders are REQUIRED to submit the necessary Certificate(s) of Insurance as called for in the General Conditions prior to award of the contract.

2. BUSINESS OPERATIONS TAX CERTIFICATE

Chapter 3.08 of the Sacramento City Code requires that anyone conducting business in the City of Sacramento obtain a **Business Operations Tax Certificate** and pay the applicable tax if necessary. Successful bidders will be REQUIRED to show compliance with this requirement prior to award of the contract.

To obtain information about the Business Operations Tax Certificate, contact the City of Sacramento, Revenue Division, 915 I Street, Room 1214, Sacramento, CA 95814, or telephone (916) 808-8500.

C. BID GUARANTEE

THIS SECTION IS NOT APPLICABLE TO THIS BID

D. PERFORMANCE BOND

THIS SECTION IS NOT APPLICABLE TO THIS BID

E. PAYMENT BOND

THIS SECTION IS NOT APPLICABLE TO THIS BID

F. DRUG FREE WORKPLACE POLICY AND AFFADAVIT

THIS SECTION IS NOT APPLICABLE TO THIS BID

b. In the event I am unable to provide a certain benefit, despite taking reasonable measures to do so, if I provide the employee with a cash equivalent, I will not be deemed to be discriminating in the application of that benefit.

c. If I provide employee benefits neither to employee's spouses nor to employee's domestic partners.

d. If I provide employee benefits to employees on a basis unrelated to marital or domestic partner status.

e. If I submit, to the Program Coordinator, written evidence of making reasonable efforts to end discrimination in employee benefits by implementing policies which are to be enacted before the first effective date after the first open enrollment process following the date the Contract is executed with the City.

I understand that any delay in the implementation of such policies may not exceed one (1) year from the date the Contract is executed with the City, and applies only to those employee benefits for which an open enrollment process is applicable.

f. Until administrative steps can be taken to incorporate, in the infrastructure, nondiscrimination in employee benefits

The time allotted for these administrative steps will apply only to those employee benefits for which administrative steps are necessary and may not exceed three (3) months from the date the Contract is executed with the City.

g. Until the expiration of a current collective bargaining agreement(s) where, in fact, employee benefits are governed by a collective bargaining agreement(s).

h. I take all reasonable measures to end discrimination in employee benefits by either requesting the union(s) involved agree to reopen the agreement(s) in order for me to take whatever steps are necessary to end discrimination in employee benefits or by my ending discrimination in employee benefits without reopening the collective bargaining agreement(s).

i. In the event I cannot end discrimination in employee benefits despite taking all reasonable measures to do so, I provide a cash equivalent to eligible employees for whom employee benefits (as listed previously), are not available.

Unless otherwise authorized in writing by the City Manager, I understand this cash equivalent must begin at the time the union(s) refuse to allow the collective bargaining agreement(s) to be reopened or no longer than three (3) months from the date the Contract is executed with the City.

6. I understand that failure to comply with the provisions of Section 5. (a) through 4. (i), above, will subject me to possible suspension and/or termination of this Contract for cause; repayment of any or all of the Contract amount disbursed by the City; debarment for future contracts until all penalties and restitution have been paid in full; deemed ineligible for future contracts for up to two (2) years; the imposition of a penalty, payable to the City, in the sum of $50.00 for each employee, for each calendar day during which the employee was discriminated against in violation of the provisions of the Ordinance.

7. I understand and do hereby agree to provide each current employee and, within ten (10) days of hire, each new employee, of their rights under the Ordinance. I further agree to maintain a copy of each such letter provided, in an appropriate file for possible inspection by an authorized representative of the

City. I also agree to prominently display a poster informing each employee of these rights.

8. I understand that I have the right to request an exemption to the benefit provisions of the Ordinance when such a request is submitted to the Procurement Services Division, in writing with sufficient justification for resolution, prior to contract award.

   I further understand that the City may request a waiver or exemption to the provisions or requirements of the Ordinance, when only one contractor is available to enter into a contract or agreement to occupy and use City property on terms and conditions established by the City; when sole source conditions exist for goods, services, public project or improvements and related construction services; when there are no responsive bidders to the EBO requirements and the contract is for essential goods or services; when emergency conditions with public health and safety implications exist; or when the contract is for specialized legal services if in the best interest of the City.

9. In consideration of the foregoing, I shall defend, indemnify and hold harmless, the City, its officers and employees, against any claims, actions, damages, costs (including reasonable attorney fees), or other liabilities of any kind arising from any violation of the City's Equal Benefits Requirements or of the Ordinance by me.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

Signature of Authorized Representative

10/9/2007
Date

CAROLYN FORE
Print Name

ASST. TO THE PRESIDENT
Title

SECTION III – BIDDER RESPONSE DOCUMENTS

I. DECLARATION OF COMPLIANCE
Living Wage Ordinance

Name of Contractor: APPLIED PEST MANAGEMENT, INC / PARATEX TERMITE

Address: 4551 ORANGEGROVE AVE, SACRAMENTO, CA- 95841

The above named contractor ("Contractor") hereby declares and agrees as follows:

1. I have read and understand the Living Wage Requirements provided to me by the City of Sacramento ("City") in connection with the City's request for proposals or other solicitation for the performance of services under a City contract.

2. As a condition of receiving the City contract, I agree to fully comply with the Living Wage Requirements, as well as any additional requirements that may be specified in the City's Living Wage Ordinance codified at Chapter 3.58 of the Sacramento City Code (the "Ordinance"). If required by the Ordinance, I will pay not less than the minimum compensation specified in the Ordinance to my employees, for all time spent performing any work under my City contract.

3. If the amount of my City contract is less than $100,000, as a condition of receiving this contract I will notify the City in writing if the aggregate value of my City contract and of any other Nonprofessional Services contract(s) covered by the Ordinance that the City has awarded to me within the previous 12 months, is $100,000 or more.

4. I acknowledge and agree that the Living Wage Requirements, the Ordinance and this Declaration shall constitute part of my City contract, and that these provisions shall govern in the event of any conflict with any other provisions of the contract.

5. I further acknowledge and agree that any violation of the Living Wage Requirements or the Ordinance constitutes a material breach of my City contract, and that, if such a breach occurs, the City will be authorized to terminate the contact, and pursue all available legal and equitable remedies.

6. If requested by the City, I will promptly submit certified payroll records to the City, for myself and/or for my subcontractor(s), as requested by the City, and I will take any other steps as may be required by the City to determine whether my subcontractor(s) or I have complied with the Living Wage Requirements and the Ordinance.

7. I will require all of my subcontractors who are covered by these requirements to comply with the Living Wage Requirements and any additional requirements that may be specified in the Ordinance, and I will include these requirements in all subcontracts covered by the Ordinance.

8. I will defend, indemnify and hold harmless the City, its officers and employees against any claims, actions, damages, costs (including reasonable attorney fees) or other liabilities of any kind arising from any violation of the City's Living Wage Requirements or the Ordinance by me or by any subcontractor retained to perform work or provide services under my City contract.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind the Contractor to the provisions of this Declaration.

Signature of Authorized Representative

Date: 10/9/2007

Print name: CAROLYN FORE

Title: ASST. TO THE PRESIDENT

J. PRICING SCHEDULE

For furnishing to the City of Sacramento prices in accordance with the provisions and specifications contained herein. Pricing shall be all inclusive. No surcharges or additional fees will be allowed.

Note: All items must be priced in order for your bid to be considered responsive.

Item no.	Facility	Address	Annual Cost
1	City Hall (Historic)	915 I Street	$ 876.00
2	City Hall (new)	915 I Street	$ 1,080.00
3	911 Call Center	7397 San Joaquin Street	$ 408.00
4	Max Baer Community Center	7815 35th Ave.	$ 288.00
5	Clunie Club House	3301 H Street	$ 420.00
6	Coloma Community Center	4623 T Street	$ 840.00
7	Belle Cooledge Community Center	5699 South Land Park Dr.	$ 288.00
8	Ethel McLoud Hart Senior Center	915 27th Street	$ 840.00
9	Evelyn Moore Community Center	1402 Dickson Street	$ 360.00
10	Garden & Arts Community Center	3316 McKinley Blvd.	$ 300.00
11	Joe Mims Jr. / Hagginwood Community Center	3271 Marysville Blvd.	$ 360.00
12	Johnston Park (Carl) Community Center	231 Eleanor Ave.	$ 336.00
13	Clunie Community Center	601 Alhambra Blvd.	$ 360.00
14	Miller Park (Fredrick) Boat Harbor Office	2701 Harbor View Drive	$ 348.00
15	Oak Park Child Care Center	3930 8th Ave.	$ 348.00
16	Oak Park Community Center	3425 M. Luther King Blvd.	$ 348.00
17	Robertson Community Center	3525 Norwood Ave.	$ 360.00
18	Sam Pannell Community Center	2450 Meadowview Road	$ 300.00
19	George Sim Park Community Center	6207 Logan Street	$ 420.00
20	Public Safety Admin Building (Police)	5770 Freeport Blvd.	$ 720.00
21	Arcade Library	2443 Marconi Ave.	$ 600.00
22	Arden Library	891 Watt Ave.	$ 324.00
23	Belle Cooledge Library	5600 South Land Park Dr.	$ 324.00
24	Central Library	828 I Street	$ 360.00
25	Colonial Heights Library	4799 Stockton Blvd.	$ 300.00
26	Del Paso Library	920 Grand Ave.	$ 300.00
27	Fair Oaks Library	1160 Fair Oaks Blvd.	$ 300.00
28	Martin Luther King Regional Library	7340 24th St.	$ 300.00
29	McClatchy Library	2112 22nd Ave.	$ 300.00
30	McKinley Library	601 Alhambra Blvd.	$ 240.00
31	Rancho Cordova Library	9845 Folsom Blvd.	$ 348.00
32	South Natomas Library	2901 Truxel Road	$ 300.00
33	Southgate Library	6132 66th Ave.	$ 300.00
34	Sylvan Oaks Library	6700 Auburn Blvd.	$ 360.00
35	Animal Shelter	2127 Front Street	$ 960.00
36	Bing Maloney Golf Pro Shop/Restaurant	6801 Freeport Blvd.	$ 360.00
37	Cavanaugh Golf Course Club House	8325 River Road	$ 480.00

38	Cavanaugh Golf Course Hack House	8325 River Road	$348.00
39	Cavanaugh Golf Course Snack Bar/Restroom	8325 River Road	$180.00
40	Haggin Oaks Pro Shop/Restaurant	3645 Fulton Avenue	$660.00
41	Wm. Land Park Golf Pro Shop & Restaurant	1501 Sutterville Rd.	$660.00
42	Meadowview Service Center Admin - Bldg A	2812 Meadowview Road	$540.00
43	Meadowview Service Center Lockers - Bldg B	2812 Meadowview Road	$540.00
44	Meadowview Service Center Security - Bldg E	2812 Meadowview Road	$120.00
45	Meadowview Service Center Shops - Bldg C	2812 Meadowview Road	$480.00
46	New Building	300 Richards Blvd.	$660.00
47	Plaza Building	921 10th Street	$348.00
48	Sutter's Landing	20.28th Street	$360.00
49	City Cemetery Office	1001 Broadway	$348.00
50	Sequoia Pacific Building	551 Sequoia Pacific Blvd.	$480.00
51	Plaza Parking Garage	1000 I Street	$336.00
52	Joseph E. Rooney Police Facility	5303 Franklin Blvd	$480.00
53	Sequoia Pacific Police Property Warehouse	555 Sequoia Pacific Blvd.	$480.00
54	William J. Kinney Police Facility	3550 Marysville Blvd.	$420.00
55	Drill Tower Fire Maint Bldg.	3230 J Street	$360.00
56	Drill Tower Fire Maint Bldg.No 2	3230 J Street	$360.00
57	Fire Maintenance Building	3230 J Street (rear)	$240.00
58	Fire Station # 01	624 Q Street	$336.00
59	Fire Station # 02	1229 I Street	$336.00
60	Fire Station # 03	7208 West Elkhorn Blvd.	$336.00
61	Fire Station # 04	3145 Granada	$336.00
62	Fire Station # 05	731 Broadway	$336.00
63	Fire Station # 06	3301 M. Luther King Blvd.	$336.00
64	Fire Station # 07	6500 Wyndham Way	$336.00
65	Fire Station # 08	5990 H Street	$336.00
66	Fire Station # 09	5801 Florin Perkins Rd.	$336.00
67	Fire Station # 10	5642 66th Street	$336.00
68	Fire Station # 11	785 Florin Road	$336.00
69	Fire Station # 12	4500 24th Street	$336.00
70	Fire Station # 13	1341 43rd Ave.	$336.00
71	Fire Station # 14	1341 N. C Street	$336.00
72	Fire Station # 15	1591 Newborough	$336.00
73	Fire Station # 16	7363 24th Street	$336.00
74	Fire Station # 17	1311 Bell Ave.	$336.00
75	Fire Station # 18	746 N. Market Blvd.	$336.00
76	Fire Station # 19	1700 Challenge Way	$336.00
77	Fire Station # 20	300 Arden Way	$336.00
78	Fire Station # 56 (Old 22)	3720 47th Ave.	$336.00
79	Fire Station # 57 (Old 23)	7927 East Parkway	$336.00
80	Fire Station # 60 (Old 21)	3301 Julliard Dr.	$336.00
81	Fire Station # 70 (Old 11,25)	1910 Arica Way	$336.00
82	Fire Training Center	3230 J Street (rear)	$336.00
83	Memorial Auditorium	1515 J Street	$480.00
84	Convention Center Theater	1301 L Street	$480.00
85	Convention Center	1100 14th Street	$1,080.00
86	Convention Center (Classique Catering)	1100 14th Street	$480.00
87	Convention Center Admin. (Pannatoni)	1030 15th Street	$360.00

Integrated Pest Management Services

BID NO. B081181018

88	Fairytale Town, Admin, Gift Shop & Cafe	3901 Land Park Drive	$360.00
89	Crocker Art Museum	216 O Street	$480.00
90	Corp Yard Building # 01	5730 24th Street	$120.00
91	Corp Yard Building # 03	5730 24th Street	$120.00
92	Corp Yard Building # 04	5730 24th Street	$120.00
93	Corp Yard Building # 05	5730 24th Street	$120.00
94	Corp Yard Building # 06	5730 24th Street	$120.00
95	Corp Yard Building # 07	5730 24th Street	$120.00
96	Corp Yard Building # 08	5730 24th Street	$120.00
97	Corp Yard Building # 09	5730 24th Street	$120.00
98	Corp Yard Building # 10	5730 24th Street	$120.00
99	Corp Yard Building # 11	5730 24th Street	$120.00
100	Corp Yard Building # 12	5730 24th Street	$120.00
101	Corp Yard Building # 13	5730 24th Street	$120.00
102	Corp Yard Building # 14	5730 24th Street	$120.00
103	Corp Yard Building # 16	5730 24th Street	$120.00
104	Corp Yard Building # 19	5730 24th Street	$120.00
105	Corp Yard Building # 20	5730 24th Street	$120.00
106	Corp Yard Building # 21	5730 24th Street	$120.00
107	Corp Yard Building # 22	5730 24th Street	$120.00
108	Corp Yard Guard House	5730 24th Street	$120.00
109	Discovery Museum	101 I Street	$348.00
110	Natomas Community Center	2921 Truxel Road	$300.00
111	North Area Corp Yard (NACY)	918 Del Paso Road	$480.00
112	Police IA Unit	5760 Freeport Blvd.	$420.00
113	Police Equestrian/Boat Units Bldg.	Miller Park Corp Yard	$360.00
114	Police Barn	Miller Park Corp Yard	$240.00
115	Water Conservation Office	2260 Glen Ellen Circle	$600.00
116	Woodlake Clubhouse	500 Arden Way	$360.00
		Total Cost	$42,024.00

RESOLUTION NO. 2007-862

Adopted by the Sacramento City Council

December 4, 2007

AWARD CONTRACT FOR INTEGRATED PEST MANAGEMENT SERVICES

BACKGROUND

A. The City of Sacramento has a requirement for pest management services for all City-owned and occupied buildings. The Department of General Services, Facilities Management Division, is responsible for delivering these services to their customers throughout the City.

B. In October 2007, the City issued a formal Invitation to Bid (B0811811018) for integrated pest management services and eight bidders responded. Two apparent low bidders, Ecolab and True Value Pest Control, were found to be non-responsive and rejected. The lowest responsive and responsible bidder was found to be Applied Pest Management, Inc.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

Section 1. Award a one-year contract with three one-year renewal options to Applied Pest Management, Inc., the lowest responsive and responsible bidder, for the purchase of integrated pest management services in an amount not to exceed $230,000.

Section 2. Authorize the City Manager or the City Manager's designee to execute the contract specified above and enter into such extension(s), provided that sufficient funds are available in the budget adopted for the applicable fiscal year(s).

Adopted by the City of Sacramento City Council on December 4, 2007 by the following vote:

Ayes: Councilmembers Cohn, Fong, Hammond, McCarty, Pannell, Sheedy, Tretheway, and Waters.

Noes: None.

Abstain: None.

Absent: Mayor Fargo.

Kevin McCarty, Vice-Mayor

Attest:

for Shirley Concolino, City Clerk

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID SR: APPLPE1 | DATE (MM/DD/YYYY): 05/01/07

PRODUCER
*ISU McNeil Insurance Agency, INC.
7200 Redwood Blvd., Suite 400
Novato CA 94945-3249
Phone:415-892-8575 Fax:415-899-8668

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Applied Pest Management Inc.
& Paratex Termite and
Construction Company
P.O. Box 3317
Vallejo, CA 94590
93Q083

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Fireman's Fund Insurance Co.	
INSURER B: Oak River Insurance Company	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [X] OCCUR X Incl. Pesticide & Herbicide Endorse GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY [ ] PRO-JECT [ ] LOC	MZG80873313	05/01/07	05/01/08	EACH OCCURRENCE	$ 1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurence)	$ 1,000,000
						MED EXP (Any one person)	$ 5,000
						PERSONAL & ADV INJURY	$ 1,000,000
						GENERAL AGGREGATE	$ 2,000,000
						PRODUCTS - COMP/OP AGG	$ 2,000,000
A		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	MZG80873313	05/01/07	05/01/08	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
						BODILY INJURY (Per person)	$
						BODILY INJURY (Per accident)	$
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT	$
						OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
		EXCESS/UMBRELLA LIABILITY X OCCUR [ ] CLAIMS MADE				EACH OCCURRENCE	$
						AGGREGATE	$
		[ ] DEDUCTIBLE [ ] RETENTION $					$
							$
							$
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	2210017961-071	01/01/07	01/01/08	X WC STATU-TORY LIMITS / OTH-ER	
						E.L. EACH ACCIDENT	$ 1,000,000
						E.L. DISEASE - EA EMPLOYEE	$ 1,000,000
						E.L. DISEASE - POLICY LIMIT	$ 1,000,000
		OTHER					

RECEIVED
MAY 09 REC'D
RISK MGMT.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

THE CITY OF SACRAMENTO, ITS OFFICIALS, AGENTS AND EMPLOYEES & VOLUNTEERS ARE NAMED AS ADDITIONAL INSURED PER ATTACHED ENDORSEMENT AS RESPECTS TO WORK PERFORMED BY OR ON BEHALF OF THE NAMED INSURED IN THE COURSE OF THIS AGREEMENT. 10 DAY NOTICE OF CANCELLATION APPLIES IN THE EVENT OF NON-PAYMENT OF PREMIUM.

CERTIFICATE HOLDER

CITYSC1

CITY OF SACRAMENTO
DEPT OF HUMAN RESOURCES
RISK MANAGEMENT DIVISION
921 TENTH STREET, 7TH FLOOR
SACRAMENTO CA 95814-2713

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
William W. Quan, Jr., CIC

© ACORD CORPORATION 1988

Additional Insured – Owners, Lessees or Contractors – Scheduled Person or Organization - CG 20 10 07 04

Policy Amendment (s) Commercial General Liability

Insured: Applied Pest Management, Inc. Policy Number: MZG80873313

Producer: ISU McNeil Insurance Agency, Inc. Policy Period: 05/01/07 TO 05/01/08

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

Schedule:

Name of Additional Insured Person (s) or Organization (s)

City of Sacramento, Its Officials, Agents Employees & Volunteers

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. **Section II – Who is an Insured** is amended to include as an additional insured the person (s) or organization (s) shown in the Schedule, but only with respect to liability for **bodily injury, property damage** or **personal and advertising injury** caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

In the performance of your ongoing operations for the additional insured (s) as the location (s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to **bodily injury** or **property damage** occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured (s) at the location of the covered operations has been completed; or

2. That portion of **your work** out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

CG2010 7-04

Copyright, ISO Properties, Inc. 2004

ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID SR APPLPE1 | DATE (MM/DD/YYYY) 05/01/07

PRODUCER
*ISU McNeil Insurance Agency, INC.
7200 Redwood Blvd., Suite 400
Novato CA 94945-3249
Phone: 415-892-8575 Fax: 415-899-8668

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Applied Pest Management Inc.
& Paratex Termite and
Construction Company
P.O. Box 3317
Vallejo, CA 94590
93d083

INSURERS AFFORDING COVERAGE	NAIC #
INSURER A: Fireman's Fund Insurance Co.	
INSURER B: Oak River Insurance Company	
INSURER C:	
INSURER D:	
INSURER E:	

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR X Incl. Pesticide & Herbicide Endorse GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC	MZG80873313	05/01/07	05/01/08	EACH OCCURRENCE	$1,000,000
						DAMAGE TO RENTED PREMISES (Ea occurence)	$1,000,000
						MED EXP (Any one person)	$5,000
						PERSONAL & ADV INJURY	$1,000,000
						GENERAL AGGREGATE	$2,000,000
						PRODUCTS - COMP/OP AGG	$2,000,000
A		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS	MZG80873313	05/01/07	05/01/08	COMBINED SINGLE LIMIT (Ea accident)	$1,000,000
						BODILY INJURY (Per person)	$
						BODILY INJURY (Per accident)	$
						PROPERTY DAMAGE (Per accident)	$
		GARAGE LIABILITY ANY AUTO				AUTO ONLY - EA ACCIDENT	$
						OTHER THAN AUTO ONLY: EA ACC	$
						AGG	$
		EXCESS/UMBRELLA LIABILITY X OCCUR CLAIMS MADE DEDUCTIBLE RETENTION $				EACH OCCURRENCE	$
						AGGREGATE	$
							$
							$
							$
B		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	2210017961-071	01/01/07	01/01/08	X WC STATU-TORY LIMITS OTH-ER	
						E.L. EACH ACCIDENT	$1,000,000
						E.L. DISEASE - EA EMPLOYEE	$1,000,000
						E.L. DISEASE - POLICY LIMIT	$1,000,000
		OTHER					

RECEIVED
MAY 09 RECD
RISK MGMT.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

THE CITY OF SACRAMENTO, ITS OFFICIALS, AGENTS AND EMPLOYEES & VOLUNTEERS ARE NAMED AS ADDITIONAL INSURED PER ATTACHED ENDORSEMENT AS RESPECTS TO WORK PERFORMED BY OR ON BEHALF OF THE NAMED INSURED IN THE COURSE OF THIS AGREEMENT. 10 DAY NOTICE OF CANCELLATION APPLIES IN THE EVENT OF NON-PAYMENT OF PREMIUM.

CERTIFICATE HOLDER

CITYSC1

CITY OF SACRAMENTO
DEPT OF HUMAN RESOURCES
RISK MANAGEMENT DIVISION
921 TENTH STREET, 7TH FLOOR
SACRAMENTO CA 95814-2713

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE
William W. Quan, Jr., CIC

Additional Insured – Owners, Lessees or Contractors – Scheduled Person or Organization - CG 20 10 07 04

Policy Amendment (s) Commercial General Liability

Insured: Applied Pest Management, Inc. Policy Number: MZG80873313

Producer: ISU McNeil Insurance Agency, Inc. Policy Period: 05/01/07 TO 05/01/08

This endorsement modifies insurance provided under the following:

Commercial General Liability Coverage Part

Schedule:

Name of Additional Insured Person (s) or Organization (s)

City of Sacramento, Its Officials, Agents Employees & Volunteers

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

A. **Section II – Who is an Insured** is amended to include as an additional insured the person (s) or organization (s) shown in the Schedule, but only with respect to liability for **bodily injury, property damage** or **personal and advertising injury** caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

In the performance of your ongoing operations for the additional insured (s) as the location (s) designated above.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to **bodily injury** or **property damage** occurring after:

1. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured (s) at the location of the covered operations has been completed; or

2. That portion of **your work** out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

CG2010 7-04

Copyright, ISO Properties, Inc. 2004

Department of Transportation
Street Maintenance Services

Pavement Maintenance

Best Management Practices as applies to storm water protection

Practice:

It shall be the practice of the City of Sacramento Department of Transportation personnel involved in street maintenance to reduce to the maximum extent practicable the flow, migration, or spillage of contaminates, silt and other debris into the storm water drainage system.

Pavement Maintenance core services will conform to the following general practices and procedures;

1. Maintenance planning and scheduling will include consideration of potential impacts to stormwater quality. Due to the nature of paving operations, the scheduling of patching, resurfacing and surface sealing naturally corresponds with the dry weather seasons. Scheduling considerations of other core services shall include:
    a. Time of season
    b. Weather forecast
    c. Viability/ practicality of method
    d. Presence of downstream BMP's (i.e., pumping station, maintained drainage ditches)
    e. Materials being used

2. Storm drains in **applicable** work zones will be covered or blocked to prevent debris from entering the stormwater system during operations. During some paving operations, work is done in the center of a wide corridor which may not require inlet protection; in such circumstances, work will be monitored by the Supervisors to ensure equipment is in place to keep debris from paving operations out of the gutter and associated drain inlets.
    a. As part of the initial assessment of all jobs, the work zone and immediate area will be checked for possible points where debris may enter the storm drain system before work begins.
    b. Filter fabric is to be placed at drain inlets adjacent to work site and downstream inlets close to work area.
        i. **Remove inlet protection after job is complete or after water form emulsified oil sealants has drained or evaporated.**
    c. Although pollution potentials generated by paving operations are generally benign, drain inlet protection shall be evaluated in cases where:

i. There is a potential for water/irrigation line fracture
ii. There is the presence of "nuisance flows"
    1. Excessive water flowing off adjacent parcels into gutter.
    2. Irrigation flowing off nearby parcels into gutter.

d. Work sites that have been identified as having nuisance flows associated with them will require gravel bags or some other measure designed to filter turbid water generated from work-related sediment interacting with the nuisance flow.
    i. In the event of turbid water discharging in the gutter, the measure put in place shall be monitored to:
        1. Proper functioning of measure (i.e., adequate filtering of turbid flow prior to discharging into drain inlet).
        2. Ensure that there is no localized flooding at any intersection or street that may impact traffic.
        3. Ensure no turbid flows enter any downstream drain inlets.
    ii. If work is conducted on a relatively steep hill, additional gravel bags shall be placed **in the gutter** leading to the next downstream drain inlets in order to.

e. Where there is no practical method to cover or block off stormwater facilities, work shall be planned and conducted so as to minimize or exclude materials falling into the stormwater system
    i. All sediment and debris is contained within the work area by crews either sweeping or vacuuming.
    ii. Spoils may be used to block any flow in the gutter as long the downstream portion of the gutter is monitored for any turbid flows threatening to enter a storm drain, and that there is no localized flooding issues.

3. Materials from operations will be kept within the work zone at all times. Sides of work zone and gutters are kept clean so no loose debris associated with paving operations are left on the street or in the gutter.

4. All crews and supervisors will identify and cleanup (or schedule for cleanup) stormwater contaminates observed entering drain inlets during operations.

5. Supervisors will inspect and document work site's erosion and sediment control measures before, during, and after storm events and makes necessary corrections as is required.

6. Vehicles carry sand to absorb any spills of gas, oil, vehicle fluids or other liquid contaminates, and clean up debris shall be disposed of properly.
    a. Any diesel/release agent applied to paving equipment (Paver) to prevent asphalt from sticking shall be done over porous surfaces, contained within paving operations site, or absorbed with sand and swept up.

7. Selection of the most effective, low-toxic release agents applied to tool, boot, and equipment to keep asphalt from sticking.
    a. Application of oil is done over pervious surfaces or over asphalt mix (i.e., truck positions apron over the Paver prior to oil being sprayed onto the apron.

8. Materials, cut, dug, or otherwise displaced by operations will be removed.

9. Sawcutting operations performed by the paving crews shall occur during dry weather, and all slurry is to be contained and removed using an on-site vacuum.

10. At no time will the work area be washed down with water to clean up.

11. All Department of Transportation vehicles will conform with the Vehicle Code Section 23115 which states in part; No vehicle loaded with garbage, swill, cans, bottles, wastepaper, ashes, refuse, trash, or rubbish, or any other noisome, nauseous or offensive matter, or anything being transported to a dump site for disposal shall be driven or moved upon any highway unless the load is totally covered in a manner which will prevent the load or any part of the load form spilling or falling from the vehicle.

12. All vehicles and equipment leaking vehicle fluids will be reported to the repair shop.
    a. Catch drips from equipment that is not in use with pans or absorbent material placed under the machines.
    b. Dispose of collected material and absorbents properly.

Department of Transportation
Street Maintenance Services

In-Source Concrete Maintenance

Best Management Practices as applies to storm water protection

Practice:

It shall be the practice of the City of Sacramento Department of Transportation personnel involved in street maintenance to reduce to the maximum extent practicable the flow, migration, or spillage of contaminates, silt and other debris into the storm water drainage system.

In- Source Concrete Maintenance core services will conform to the following general practices and procedures;

1. Maintenance planning and scheduling will include consideration of potential impacts to stormwater quality. Scheduling considerations shall include:
    a. Time of season
    b. Weather forecast
    c. Viability of method
    d. Materials being used

2. Storm drains in the work zone will be covered or blocked to prevent debris from entering the stormwater system during operations.
    a. As part of the initial assessment of all jobs, the work zone and immediate area will be checked for possible points where debris may enter the storm drain system before work begins.
    b. Filter fabric and/or gravel bags are to be placed at the immediate drain inlets downstream of any work. Remove inlet protection after job is complete.
        i. If work is conducted on a relatively steep hill, additional gravel bags shall be placed in the gutter leading to the next downstream drain inlets.
        ii. In the event of turbid water discharging in the gutter, the filter fabric and gravel bags shall be monitored to ensure proper functioning, and to ensure no turbid flows enter any downstream drain inlets.
    c. Where there is no practical method to cover or block off stormwater facilities, work shall be planned and conducted so as to minimize or exclude materials falling into the stormwater system
        i. All sediment and debris is contained within the work area by crews either sweeping or vacuuming.

ii. Spoils may be used to block any flow in the gutter as long the downstream portion of the gutter is monitored for any turbid flows threatening to enter a storm drain, and that there is no localized flooding issues.

3. Materials form operations will be kept within the work zone at all times. Sides of work zone and gutters are kept clean so no loose debris is left on the street or in the gutter.

4. All crews and supervisors will identify and cleanup (or schedule for cleanup) stormwater contaminates observed entering drain inlets during operations.

5. Supervisors will inspect and document work site's erosion and sediment control measures before, during, and after storm events and makes necessary corrections as is required.

6. Vehicles carry sand to absorb any accidental spills of gas, oil, vehicle fluids or other liquid contaminates, and clean up debris shall be disposed of properly.

7. Materials, cut, dug, or otherwise displaced by operations will be removed.

8. At no time will the work area be washed down with water to clean up.

9. All Department of Transportation vehicles will conform with the Vehicle Code Section 23115 which states in part; No vehicle loaded with garbage, swill, cans, bottles, wastepaper, ashes, refuse, trash, or rubbish, or any other noisome, nauseous or offensive matter, or anything being transported to a dump site for disposal shall be driven or moved upon any highway unless the load is totally covered in a manner which will prevent the load or any part of the load form spilling or falling from the vehicle.

10. All vehicles and equipment leaking vehicle fluids will be reported to the repair shop.

    a. Catch drips from equipment that is not in use with pans or absorbent material placed under the machines.
    b. Dispose of collected material and absorbents properly.

1,403 TOTAL

DEPARTMENT OF
UTILITIES

SOLID WASTE DIVISION

CITY OF SACRAMENTO
CALIFORNIA

2812 Meadowview Road
Sacramento, CA 95832

Phone: 916-808-4900
Fax: 916-808-4999

August 10, 2007

New Service
Voluntary Containerized Yard Waste Collection Service will begin on:
Thursday, August 30, 2007

Dear Sacramento Resident:

Your Councilmember, in conjunction with Solid Waste Services, has identified your community as having a heavy interest in the Voluntary Containerized Yard Waste Program. Residents that participate in the Voluntary Containerized Yard Waste Collection program will receive a 24% reduction on their garden refuse fee.

In addition to the weekly containerized service, the program also includes 8 loose-in-the-street collections. These occur as follows:

- Leaf Season: Twice per month during November and December
- Pruning Season: Last week of the month during February, May and October
- Christmas Trees: Second week of January

Your containerized yard waste collection service will begin on Thursday, August 30, 2007. Service is weekly and will be the same as your trash collection day. Residents that participate in the program will receive their last weekly loose-in-the-street collection on Tuesday, August 28, 2007.

While this is a voluntary program, residents must only use their container if they choose to participate in the program. Yard waste must not be placed on the street other than the above schedule. For residents that use a gardening service, please make sure they are aware of the program and have access to your container. You will begin to see containers delivered on August 26, 2007. Residents that do not wish to participate in the program can continue to place their yard waste loose-in-the-street.

Please contact Customer Service at (916) 808-5454 if you **DO NOT** want the container or if you have additional questions contact Doug Huston, Program Analyst, at (916) 808-4935.

Sincerely

Enrique Hernandez
Integrated Waste Collection Superintendent

CALL
我們講中文
Hablamos Español
Мы говорим по-русски
Peb hais lus Hmoob
Chúng tôi nói tiếng Việt

cc: Heather Fargo, Mayor
Steve Cohn, Councilmember, District 3
Ray Kerridge, City Manager

RESOLUTION NO. 2004-691

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF AUG 2 4 2004

RESOLUTION ADOPTING A VOLUNTARY CONTAINERIZED COLLECTION SERVICE PROGRAM FOR GARDEN REFUSE AND ADOPTING PROGRAM REGULATIONS

WHEREAS, pursuant to Article III of Chapter 13.10 of the Sacramento City Code, the City operates a garden refuse collection and disposal program. Under this program, the City periodically collects garden refuse deposited in City streets, disposes of the garden refuse and sweeps the City streets. The owners of properties fronting on streets where these services are provided are required to pay the lawn and garden service fee established by resolution of the City Council to cover the City's cost to provide these services; and

WHEREAS, on June 29, 2004, the City Council adopted Ordinance No. 2004-036 enacting City Code Section 13.10.475 that authorizes the City Council to adopt, by resolution, a voluntary containerized collection service program for garden refuse. Such a program would allow qualifying residential property owners in the city with an option to subscribe to containerized garden refuse collection and disposal service as an alternative to depositing garden refuse in city streets for collection, and such property owners would not be entitled to deposit garden refuse in the street for City collection except to the extent that the deposit of garden refuse in the street is authorized under the City's voluntary containerized collection service program. Under City Code Section 13.10.475, a property owner's decision whether to subscribe to the program is voluntary, and participation in the program is not required as a condition of owning residential property in the City; and

WHEREAS, City Code Section 13.10.475 authorizes the City's Integrated Waste General Manager to promulgate regulations for operation of a voluntary containerized collection service program, which shall become effective when adopted by City Council resolution, and requires customers who voluntarily subscribe to containerized garden refuse collection service to pay the rates, fees and charges established for this service by City Council resolution; and

WHEREAS, the fees for containerized collection of garden refuse, consisting of the fee for containerized lawn and garden service and the fee for street sweeping service, were established by City Council Resolution No. 2004-514 adopted on June 29, 2004; and

---

FOR CITY CLERK USE ONLY

RESOLUTION NO: 2004-69

DATE ADOPTED AUG 2 4 200

WHEREAS, pursuant to Section 13.10.475 of the Sacramento City Code, the City Council now desires to adopt a voluntary containerized collection service program for garden refuse and adopt the regulations for such program.

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO THAT:

1. The City Council hereby adopts a Voluntary Containerized Collection Service Program for garden refuse (hereafter referred to as the "Program"), pursuant to Section 13.10.475 of the Sacramento City Code. Under the Program, residential property owners in the City who qualify for the Program may voluntarily request to subscribe to containerized garden refuse collection service in accordance with the applicable provisions of City Code Chapter 13.10, the Program Regulations adopted by this resolution, and such administrative procedures as may be adopted by the City's Integrated Waste General Manager to implement the Program Regulations. Property owners who subscribe to the Program shall pay the fees established by City Council resolution for containerized lawn and garden service and street sweeping service.

2. The Program Regulations promulgated by the City's Integrated Waste General Manager and attached hereto as **Exhibit A**, are hereby adopted.

Heather Fargo
MAYOR

ATTEST:

CITY CLERK

FOR CITY CLERK USE ONLY

RESOLUTION NO: 2004-691

DATE ADOPTED: AUG 24 2004

PROGRAM REGULATIONS
VOLUNTARY CONTAINERIZED LAWN AND GARDEN COLLECTION PROGRAM

1. The collection schedule shall be weekly for voluntary containerized (96 gallon greenstone container) lawn and garden service and include bi-weekly collection of loose material during Leaf Season (months of November and December), Pruning Season (end of February and March), and Growth Season (end of month of April, and August).

2. Residents who participate in the voluntary containerized Lawn and Garden Collection Program must agree to subscribe to the service for a minimum of 5 years to fully recover program's capital costs.

3. Participants in the Voluntary Lawn and Garden collection program that place improper material in their lawn and garden collection container will be warned three times.

    a. 1st Warning – A notice will be placed on the container (stating that improper material was found in the green waste container) and the container will be dumped as garbage by a garbage truck (utility bill account will be noted).
    b. 2nd Warning – A notice will be placed on the container (stating that this is the second time improper material was placed in the container) the container will be dumped as garbage by a garbage truck and a Supervisor will try to make contact with the customer (utility bill account will be noted).
    c. 3rd Warning – A notice will be placed on the container, stating that the container was not dumped because it contains improper material. The container can be dumped as garbage by a garbage truck for a fee of $11.62 (which is the Additional 90 gallon garbage container charge established in Resolution 2004-514). In addition, a letter will be sent to the customer stating future occurrences of placement of improper materials in the Lawn and Garden container will result in an automatic charge of $11.62 per occurrence.

4. Upon the first anniversary date of participation in the program, residents will be eligible for a second lawn and garden collection container at a reduced rate, if such rate has been adopted in the annual Fee and Charges report adopted by Council resolution.

5. Residents wanting a second lawn and garden container before their one year anniversary date in the program, will be required to pay the containerized lawn and garden rate for a second container established in the Annual Fee and Charges report. The current rate approved by Council on June 29, 2004, Resolution 2004-514, is $13.15 (rate includes $7.15 for containerized service and $6.00 for service of second container.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2004-691

DATE ADOPTED: AUG 2 4 2004

RESOLUTION NO. 2004-514

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF JUN 2 2 2004

RESOLUTION ADOPTING FINDINGS AND AMENDING THE CITY OF SACRAMENTO FEE AND CHARGE REPORT TO ESTABLISH ADJUSTED SOLID WASTE FEES AND CHARGES

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

WHEREAS, Articles XIIIC and D of the California Constitution (Proposition 218) establish various procedures for the approval of local taxes, assessments and property-related service fees; and

WHEREAS, for the imposition or increase of water, sewer and refuse collection service fees that are "property-related fees" are within the meaning of Proposition 218, Proposition 218 requires that a notice describing the proposed fee or fee increase and establishing a date, time and location of a public hearing on the proposed fee or fee increase, be mailed to the record owner of each parcel subject to the proposed fee or fee increase; and

WHEREAS, at such hearing (held not less than 45 days after the notice is mailed), Proposition 218 requires the agency proposing such fee or fee increase to consider all protests filed against the proposed fee or fee increase, and prohibits the agency from approving the proposed fee or fee increase if written protests against the proposed fee or fee increase are presented by a majority of the owners of the affected parcels; and

WHEREAS, on April 16, 2004, the City mailed a notice to all owners of property subject to the City's refuse collection service fees, which notice: (i) described proposed adjustments, including decreases and increases, in these fees for all parcels; (ii) provided the date, time and location of the public hearing when these proposed fee adjustments would be considered for adoption by the City Council; and (iii) notified such owners of their right to file a written protest against the proposed fee increases and proposed new fee with the City Clerk at or before the time set for public hearing; and

WHEREAS, the City Council has held such public hearing, and has considered all protests against the proposed fee adjustments, including decreases and increases, as well as all testimony and other information presented by City staff and members of the public.

FOR CITY CLERK USE ONLY

RESOLUTION NO. 2004-514

DATE ADOPTED: JUN 2 2 2004

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

1. Based on the testimony and other information presented to it, the City Council hereby finds that as of the date and time of the public hearing on this matter:

   The number of written protests received by the City Clerk against the proposed rate increases in the City's solid waste (garbage, recycling, lawn and garden refuse and street sweeping) service fees, is less than a majority of the record owners of the parcels that will be subject to the proposed increased fees.

2. That, pursuant to Sections 13.10.100, 13.10.440, 13.10.450, 13.10.460 of the Sacramento City Code, the City of Sacramento Fee and Charge Report is hereby amended to include the solid waste service fees and charges attached hereto as Exhibit A to take effect for services billed on or after July 1, 2004, for fiscal year 2004-2005 fees and charges..

3. That based on the information presented to it and upon all information in the public record, and in compliance with Public Resources Code Section 21080(b)(8), the City Council finds that the adjusted and increased solid waste service fees are for the purpose of:

   a. Providing funds to meet operating expenses.

   b. Permitting the generation of necessary cash flow to finance maintenance of the solid waste collection system and meeting financial reserves requirements.

   c. Permitting the purchase of necessary equipment for the system.

   d. Being a source of funds for capital projects necessary to maintain the system.

Heather Fargo
MAYOR

Attest:

CITY CLERK

FOR CITY CLERK USE ONLY

RESOLUTION NO. 2004-514

DATE ADOPTED: JUN 22 2004

Exhibit 1

Monthly Solid Waste Fees and Charges

FY2004/05 Rates

The City of Sacramento Fee and Charge Report is herby amended to include the following Solid Waste fees and charges to be effective for services billed on or after July 1, 2004 (FY2004/05).

Description	Rate Code	Amount of Service	FY2004/05 Rate
I. GARDEN REFUSE COLLECTION (LAWN & GARDEN) AND STREET SWEEPING			
A. Lawn & Garden Services			
Single family residence (non-containerized)	500	Weekly *	$8.32
Single family (containerized) residence	510	Weekly *	$7.15
Double family residence	501	Weekly *	$13.37
Mute-Family Residential Units			
3-5 units	502	Weekly *	$14.50
6-10 units	503	Weekly *	$19.00
11-25 units	504	Weekly *	$24.00
26-50 units	505	Weekly *	$29.00
51 units and over * *	509	Weekly *	$32.00
Non-Residential/Commercial			
2 cubic yards of garden refuse	506	Weekly *	$20.00
3 cubic yards of garden refuse	507	Weekly *	$25.00
4 cubic yards of garden refuse	511	Weekly *	$32.00
Miscellaneous Services		charge special rate	

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 22 2004

2nd can for containerized L &G service (customer owns can)		$37.50
2nd L &G service for 2nd can of containerized service		$6.00

(**51 units and over are billed as same as commercial 4 cubic yard rate)

B. Street Sweeping Services

Single family residence	508	$1.07
Double family residence	512	$1.71
Mute-Family Residential Units		
3-5 units	513	$3.00
6-10 units	514	$3.25
11-25 units	515	$3.25
26-50 units	516	$3.25
51 units and over	517	$3.25
	518	$3.25
Non-Residential /Commercial		
		$260/hour
Special/Extra Sweeping Services		

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 22 2004

II. RECYCLING SERVICES

Non-Residential/Commercial (WITH GARBAGE SERVICES)

1 yard commingled recycling	685	1 pickup/bi-weekly	$21.50
2 yard commingled recycling	686	1 pickup/bi-weekly	$28.00
3 yard commingled recycling	687	1 pickup/bi-weekly	$37.00
4 yard commingled recycling	688	1 pickup/bi-weekly	$42.00
In-office recycle (auto lift)	692	1 pickup/weekly	$7.00
Multi-family/commercial commingled recycle	694	1 pickup/bi-weekly	$7.00

Non-Residential/Commercial (WITHOUT GARBAGE SERVICES)

1 yard commingled recycling	690	1 pickup/bi-weekly	$26.00
2 yard commingled recycling	679	1 pickup/bi-weekly	$34.00
3 yard commingled recycling	693	1 pickup/bi-weekly	$43.00
4 yard commingled recycling	691	1 pickup/bi-weekly	$48.00
In-office recycle (auto lift)	692	1 pickup/weekly	$7.00
Multi-family/commercial commingled recycle	694	1 pickup/bi-weekly	$7.00

Residential

Commingled 96-gallon	675	Weekly	$2.50
Commingled 64-gallon	699	Weekly	$2.50

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Commingled Disabled	698	Weekly	$2.50

Miscellaneous Recycling Services

Recycling services for 2nd recycling can	$2.50
Delivery of second can	$24.00
Replacement can within one year	$37.50
Fee if service is changed less than 6 months after service is started	$37.50

III. GARBAGE COLLECTION SERVICE

Residential Manual Services

32 gal or less non-curb*	600	1 pickup/wk	$22.06
		2 pickups/wk	$44.13
		3 pickups/wk	$57.96
		Additional can/pickup	$10.75
33-40 gal non-curb*	601	1 pickup/wk	$24.30
		2 pickups/wk	$48.61
		3 pickups/wk	$64.86
		Additional can/pickup	$13.96
32 gal or less curbside	604	1 pickup/wk	$15.25
		2 pickups/wk	$30.51
		3 pickups/wk	$45.38
		Additional can/pickup	$7.74
33-40 gal curbside	605	1 pickup/wk	$16.89
		2 pickups/wk	$33.78
		3 pickups/wk	$50.66
		Additional can/pickup	$9.94

(* "non-curb" is defined as container placement more than 6 feet from curb.)

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Miscellaneous Residential Manual Services

Collection on special call (manual)	40 gal or less	$30.15
	Each additional can	$11.39
Extra bag on normal route	All sizes	$5.50
Fee if service is changed less than 6 months after service is started		$25.00
Replacement can within one year		$37.00
VACANCY STOP (One-time fee to stop garbage & recycling charges temporarily)		$50.00

Residential Automated Services

Auto-lift (90 gallon)	608	1 pickup/wk per res. unit	$14.53
Auto-lift DISABLED (90 gallon)	697	1 pickup/wk per res. unit	$14.53
Additional 90 gallon		Each additional can (sitting together)	$11.62
Auto-lift (60 gallon)	673	1 pickup/wk per res. unit	$12.18
Auto-lift DISABLED (60 gallon)	696	1 pickup/wk per res. unit	$12.18
Additional 60 gallon	684	Each additional can (sitting together)	$10.20
Additional 60 gallon		With 90 gallon service (sitting together)	$10.20

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Auto-lift container (32 gallon)	609	1 pickup/wk per res. unit	$10.09
Auto-lift DISABLED (32 gallon)	695	1 pickup/wk per res. unit	$10.09
Additional 32 gallon	683	Each additional can (sitting together)	$8.58
Additional 32 gallon	683	With 90 or 60 gallon service (sitting together)	$8.58

Miscellaneous Residential Automated Services

Collection on special call (autolift)	90-gallon	$26.12
	Additional can/bag	$13.66
	60-gallon	$23.62
	Additional can/bag	$12.11
	32-gallon or less	$21.26
	Additional can/bag	$10.65
Extra bag on normal route	90-gallon	$8.35
	60-gallon	$6.30
	32-gallon or less	$5.25

Fee if service for additional container is stopped less than six months after service is started	$25.00
Replacement can within one year	$37.00
VACANCY STOP (One-time fee to stop garbage & recycling charges temporarily)	$50.00

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Multi-Family/Commercial Manual Cans Services			
Com 32 gal or less	630	1 pickup/wk	$27.10
		2 pickup/wk	$54.19
		3 pickup/wk	$75.86
		4 pickup/wk	$101.16
		5 pickup/wk	$126.45
		6 pickup/wk	$151.74
		Additional can	$15.50
Com 33-40 gal	631	1 pickup/wk	$29.84
		2 pickup/wk	$59.70
		3 pickup/wk	$80.38
		4 pickup/wk	$107.18
		5 pickup/wk	$133.98
		6 pickup/wk	$160.77
		Additional can	$19.50
Com 41-50 gal	632	1 pickup/wk	$35.86
		2 pickup/wk	$71.71
		3 pickup/wk	$107.58
		4 pickup/wk	$143.43
		5 pickup/wk	$179.29
		6 pickup/wk	$215.15
		Additional can	$22.45
Com 51-60 gal	633	1 pickup/wk	$41.24
		2 pickup/wk	$82.49
		3 pickup/wk	$123.73
		4 pickup/wk	$164.97
		5 pickup/wk	$206.21
		6 pickup/wk	$247.46
		Additional can	$26.20

Miscellaneous Multi-Family/Commercial Manual Can Services

Commercial manual collection on special call	32 gal or less	$35.25
	Each additional can	$17.50
Replacement can within one year		$37.50

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Multi-Family/Commercial Automated Can Services

Commercial Auto-lift (90 gallon)	678	1 pickup/wk	$20.25
Commercial Auto-lift (60 gallon)	677	1 pickup/wk	$17.80
Commercial Auto-lift (32 gallon)	676	1 pickup/wk	$15.90
Commercial - additional can		Each additional 90 gallon can	$15.90
Commercial - additional can		Each additional 60 gallon can	$14.45
Commercial - additional can		Each additional 32 gallon can	$13.95
Replacement can within one year			$37.50

Miscellaneous Multi-Family/Commercial Automated Can Services

Commercial automated collection on special call		90-gallon automated can	$27.24
		60-gallon automated can	$23.69
		32-gallon automated can	$20.50
		Each additional can	$15.50
1 yd bin loose/owned for multi-family res over 4 units	612	1 pickup/wk	$51.30
		2 pickup/wk	$102.61
		3 pickup/wk	$153.91
		4 pickup/wk	$205.21
		5 pickup/wk	$256.51
		6 pickup/wk	$307.81
1 yd bin loose/owned for multi-family res over 4 units	612	1 pickup/wk	$51.30
		2 pickup/wk	$102.61
		3 pickup/wk	$153.91
		4 pickup/wk	$205.21
		5 pickup/wk	$256.51
		6 pickup/wk	$307.81

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

1 yd bin compacted/owned for multi-family res over 4 units	614	1 pickup/wk	$96.74
		2 pickup/wk	$193.46
		3 pickup/wk	$290.20
		4 pickup/wk	$386.93
		5 pickup/wk	$483.66
		6 pickup/wk	$580.39
2 yd bin loose/owned for multi-family res over 4 units	616	1 pickup/wk	$67.15
		2 pickup/wk	$134.29
		3 pickup/wk	$201.45
		4 pickup/wk	$268.59
		5 pickup/wk	$335.74
		6 pickup/wk	$402.88
2 yd bin compacted/owned for multi-family res over 4 units	618	1 pickup/wk	$122.97
		2 pickup/wk	$245.94
		3 pickup/wk	$368.91
		4 pickup/wk	$491.88
		5 pickup/wk	$614.84
		6 pickup/wk	$737.81
3 yd bin owned for multi-family res over 4 units	620	1 pickup/wk	$82.99
		2 pickup/wk	$165.98
		3 pickup/wk	$248.96
		4 pickup/wk	$331.94
		5 pickup/wk	$414.93
		6 pickup/wk	$497.91
3 yd bin compactor for multi-family res over 4 units	621	1 pickup/wk	$108.49
		2 pickup/wk	$216.97
		3 pickup/wk	$325.46
		4 pickup/wk	$433.94
		5 pickup/wk	$542.43
		6 pickup/wk	$650.92

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

4 yd bin owned for multi-family res over 4 units	623	1 pickup/wk	$98.84
		2 pickup/wk	$197.67
		3 pickup/wk	$296.50
		4 pickup/wk	$395.33
		5 pickup/wk	$494.16
		6 pickup/wk	$592.99
5 yd bin owned for multi-family res over 4 units	625	1 pickup/wk	$114.68
		2 pickup/wk	$229.36
		3 pickup/wk	$344.04
		4 pickup/wk	$458.72
		5 pickup/wk	$573.00
		6 pickup/wk	$688.08
6 yd bin owned for multi-fam res over 4 units	627	1 pickup/wk	$130.53
		2 pickup/wk	$261.04
		3 pickup/wk	$391.56
		4 pickup/wk	$522.08
		5 pickup/wk	$652.60
		6 pickup/wk	$783.12
8 yd bin loose for multi-fam res over 4 units	628	1 pickup/wk	$184.97
		2 pickup/wk	$369.92
		3 pickup/wk	$554.87
		4 pickup/wk	$739.82
		5 pickup/wk	$924.77
		6 pickup/wk	$1,109.74
8 yd bin compacted for multi-fam res over 4 units	629	1 pickup/wk	$287.67
		2 pickup/wk	$575.35
		3 pickup/wk	$863.02
		4 pickup/wk	$1,150.69
		5 pickup/wk	$1,438.36
		6 pickup/wk	$1,726.04

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

COMMERCIAL BINS SERVICE (3 Months Continuous Service Required)

Com 1 yd bin loose/owned	635	1 pickup/wk	$51.30
		2 pickup/wk	$102.61
		3 pickup/wk	$153.91
		4 pickup/wk	$205.21
		5 pickup/wk	$256.51
		6 pickup/wk	$307.81
Com 1 yd bin compacted/owned	637	1 pickup/wk	$96.74
		2 pickup/wk	$193.46
		3 pickup/wk	$290.20
		4 pickup/wk	$386.93
		5 pickup/wk	$483.66
		6 pickup/wk	$580.39
Com 2 yd bin loose/owned	639	1 pickup/wk	$67.15
		2 pickup/wk	$134.29
		3 pickup/wk	$201.45
		4 pickup/wk	$268.59
		5 pickup/wk	$335.74
		6 pickup/wk	$402.88
Com 2 yd bin compacted/owned	641	1 pickup/wk	$122.97
		2 pickup/wk	$245.94
		3 pickup/wk	$368.91
		4 pickup/wk	$491.88
		5 pickup/wk	$614.84
		6 pickup/wk	$737.81
Com 3 yd bin owned	643	1 pickup/wk	$82.99
		2 pickup/wk	$165.98
		3 pickup/wk	$248.96
		4 pickup/wk	$331.94
		5 pickup/wk	$414.93
		6 pickup/wk	$497.91

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Com 3 yd bin compactor	644	1 pickup/wk	$108.49
		2 pickup/wk	$216.97
		3 pickup/wk	$325.46
		4 pickup/wk	$433.94
		5 pickup/wk	$542.43
		6 pickup/wk	$650.92
Com 4 yd bin owned	646	1 pickup/wk	$98.84
		2 pickup/wk	$197.67
		3 pickup/wk	$296.50
		4 pickup/wk	$395.33
		5 pickup/wk	$494.16
		6 pickup/wk	$592.99
Com 4 yd bin compactor	647	1 pickup/wk	$133.04
		2 pickup/wk	$266.07
		3 pickup/wk	$399.11
		4 pickup/wk	$532.14
		5 pickup/wk	$665.18
		6 pickup/wk	$798.21
Com 5 yd bin owned	649	1 pickup/wk	$114.68
		2 pickup/wk	$229.36
		3 pickup/wk	$344.04
		4 pickup/wk	$458.72
		5 pickup/wk	$573.40
		6 pickup/wk	$688.08
Com 5 yd bin compactor	650	1 pickup/wk	$141.64
		2 pickup/wk	$283.29
		3 pickup/wk	$434.93
		4 pickup/wk	$566.57
		5 pickup/wk	$708.22
		6 pickup/wk	$849.86
Com 6 yd bin owned	652	1 pickup/wk	$130.53
		2 pickup/wk	$261.04
		3 pickup/wk	$391.56
		4 pickup/wk	$522.08

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

		5 pickup/wk	$652.60
		6 pickup/wk	$783.12
Com 6 yd bin compactor	653	1 pickup/wk	$181.92
		2 pickup/wk	$363.83
		3 pickup/wk	$545.75
		4 pickup/wk	$727.67
		5 pickup/wk	$909.59
		6 pickup/wk	$1,091.50
Com 10 yd bin loose	654	1 pickup/wk	$305.00
		2 pickup/wk	$610.00
		3 pickup/wk	$915.00
		4 pickup/wk	$1,220.00
		5 pickup/wk	$1,525.00
		6 pickup/wk	$1,830.00
Com 10 yd bin compacted	655	1 pickup/wk	$393.43
		2 pickup/wk	$786.85
		3 pickup/wk	$1,180.27
		4 pickup/wk	$1,573.69
		5 pickup/wk	$1,967.12
		6 pickup/wk	$2,360.54
Com 20 yd bin loose	656	1 pickup/wk	$351.58
		2 pickup/wk	$703.15
		3 pickup/wk	$1,054.71
		4 pickup/wk	$1,406.28
		5 pickup/wk	$1,757.85
		6 pickup/wk	$2,109.42
Com 20 yd bin compacted	657	1 pickup/wk	$619.44
		2 pickup/wk	$1,238.87
		3 pickup/wk	$1,858.28
		4 pickup/wk	$2,477.73
		5 pickup/wk	$3,097.15
		6 pickup/wk	$3,716.59
Com 25 yd bin loose	658	1 pickup/wk	$408.49
		2 pickup/wk	$816.98
		3 pickup/wk	$1,225.47

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

		4 pickup/wk	$1,633.97
		5 pickup/wk	$2,042.45
		6 pickup/wk	$2,450.95
Com 25 yd bin compacted	659	1 pickup/wk	$733.28
		2 pickup/wk	$1,466.55
		3 pickup/wk	$2,199.83
		4 pickup/wk	$2,933.09
		5 pickup/wk	$3,666.36
		6 pickup/wk	$4,399.64
Com 30 yd bin loose	660	1 pickup/wk	$465.41
		2 pickup/wk	$930.82
		3 pickup/wk	$1,396.23
		4 pickup/wk	$1,861.64
		5 pickup/wk	$2,327.06
		6 pickup/wk	$2,792.47
Com 30 yd bin compacted	661	1 pickup/wk	$845.44
		2 pickup/wk	$1,690.88
		3 pickup/wk	$2,536.33
		4 pickup/wk	$3,381.76
		5 pickup/wk	$4,227.20
		6 pickup/wk	$5,072.64
Com 35 bin loose	662	1 pickup/wk	$520.66
		2 pickup/wk	$1,041.32
		3 pickup/wk	$1,561.97
		4 pickup/wk	$2,082.63
		5 pickup/wk	$2,603.29
		6 pickup/wk	$3,123.95
Com 35 bin compacted	663	1 pickup/wk	$959.29
		2 pickup/wk	$1,918.57
		3 pickup/wk	$2,877.85
		4 pickup/wk	$3,837.13
		5 pickup/wk	$4,796.41
		6 pickup/wk	$5,755.69
Com 40 yd bin loose	664	1 pickup/wk	$577.59
		2 pickup/wk	$1,155.16

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 22 2004

		3 pickup/wk	$1,732.73
		4 pickup/wk	$2,310.32
		5 pickup/wk	$2,887.89
		6 pickup/wk	$3,465.47
Com 40 yd bin compacted	665	1 pickup/wk	$1,071.45
		2 pickup/wk	$2,142.90
		3 pickup/wk	$3,214.35
		4 pickup/wk	$4,285.80
		5 pickup/wk	$5,357.25
		6 pickup/wk	$6,428.69
Com 1 blanket	666	1 pickup/wk	$20.47
		2 pickup/wk	$40.95
		3 pickup/wk	$61.42
		4 pickup/wk	$81.88
		5 pickup/wk	$102.35
		6 pickup/wk	$122.82
Com 2 blanket	667	1 pickup/wk	$33.64
		2 pickup/wk	$67.26
		3 pickup/wk	$100.88
		4 pickup/wk	$134.52
		5 pickup/wk	$168.14
		6 pickup/wk	$201.77
Com 3 blanket	668	1 pickup/wk	$52.27
		2 pickup/wk	$104.52
		3 pickup/wk	$156.78
		4 pickup/wk	$209.03
		5 pickup/wk	$261.30
		6 pickup/wk	$313.55
Com 4 blanket	669	1 pickup/wk	$70.91
		2 pickup/wk	$141.82
		3 pickup/wk	$212.71
		4 pickup/wk	$283.62
		5 pickup/wk	$354.52
		6 pickup/wk	$425.43

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Com 5 blanket	670	1 pickup/wk	$88.63
		2 pickup/wk	$177.27
		3 pickup/wk	$265.90
		4 pickup/wk	$354.52
		5 pickup/wk	$443.15
		6 pickup/wk	$531.78
Com Cart	671	5 pickups	$89.00
Trailer	672	5 pickups	$371.86
Two-person route surcharge	610	1 pickup/wk	$17.85
		2 pickups/wk	$35.70
		3 pickups/wk	$53.55
		4 pickups/wk	$71.40
		5 pickups/wk	$89.25
		6 pickups/wk	$107.10

IV. OLD SACRAMENTO SERVICE COURTS

The property adjacent to each service court will be billed for solid waste service utilizing the following criteria:

Parcel size	25%	
Square footage of building	50%	
Front footage of building	25%	
Com 6 yd compact unit	1 pickup	$545.19
	2 pickups	$746.34
	3 pickups	$947.49
	4 pickups	$1,251.30
	5 pickups	$1,348.41
	6 pickups	$1,649.43
	Special call/ daily	$101.00
	Special call/ Sunday	$149.96
Commercial 8 yd bin loose	1 pickup/wk	$184.97
	2 pickups/wk	$369.92
	3 pickups/wk	$554.87
	4 pickups/wk	$739.82
	5 pickups/wk	$924.77
	6 pickups/wk	$1,109.74

Commercial 8 yd bin compacted	1 pickup/wk	$287.67
	2 pickups/wk	$575.35
	3 pickups/wk	$863.02
	4 pickups/wk	$1,150.69
	5 pickups/wk	$1,438.36
	6 pickups/wk	$1,726.04
V. SPECIAL GARBAGE COLLECTION SERVICES		
Bins/daily	1 cubic yard	$42.89
	2 cubic yards	$56.02
	3 cubic yards	$68.96
	4 cubic yards	$81.91
	5 cubic yards	$94.86
	6 cubic yards	$107.80
Bins/Sunday	1 cubic yard	$77.20
	2 cubic yards	$100.85
	3 cubic yards	$124.13
	4 cubic yards	$147.44
	5 cubic yards	$170.74
	6 cubic yards	$194.04
Roll-off containers/weekly (inert materials)	10 cubic yard (inert materials)	$185.00
	20 cubic yards	$206.81
	25 cubic yards	$240.29
	30 cubic yards	$273.77
	35 cubic yards	$306.27
	40 cubic yards	$339.76
Roll-off containers/Sunday	10 cubic yard	$211.24
	20 cubic yards	$310.22
	25 cubic yards	$360.44
	30 cubic yards	$410.66
	35 cubic yards	$459.40
	40 cubic yards	$509.63
Deliver bin and pickup	1 cubic yard	$85.77
	2 cubic yards	$112.05
	3 cubic yards	$137.92
	4 cubic yards	$163.82

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 2 2 2004

Compactors/daily	3 cubic yards	$79.77
	4 cubic yards	$106.09
	5 cubic yards	$132.62
	6 cubic yards	$159.14
Compactors/Sunday	3 cubic yards	$119.65
	4 cubic yards	$159.14
	5 cubic yards	$198.92
	6 cubic yards	$238.71
Compacted Roll-off container/daily	10 cubic yard	$231.43
	20 cubic yards	$364.37
	25 cubic yards	$431.34
	30 cubic yards	$497.32
	35 cubic yards	$564.29
	40 cubic yards	$630.26
Compacted Roll-off container/Sunday	10 cubic yard	$347.14
	20 cubic yards	$546.56
	25 cubic yards	$647.01
	30 cubic yards	$745.98
	35 cubic yards	$846.43
	40 cubic yards	$945.40
Special cleanups/per hour (per worker)		$45.00
(Time required to remove, load in truck, and haul rubbish or waste matter, plus travel time. Two person and one hour minimum.)		
Out of City limits charge for commercial bins/roll-offs services		$50.00
Special waste hauling		
10 cubic yards		$361.81
20 cubic yards		$531.34
25 cubic yards		$617.36
30 cubic yards		$703.38
35 cubic yards		$786.87
40 cubic yards		$872.91

FOR CITY COUNCIL USE ONLY

RESOLUTION NO.: 2004-514

DATE ADOPTED: JUN 22 2004

ORDINANCE NO. 2004-036

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON THE DATE OF JUN 2 9 2004

AN ORDINANCE AMENDING SECTION 13.10.010 AND ARTICLE III OF CHAPTER 13.10 OF THE SACRAMENTO CITY CODE RELATING TO VOLUNTARY CONTAINERIZED COLLECTION OF GARDEN REFUSE

BE IT ENACTED BY THE COUNCIL OF THE CITY OF SACRAMENTO:

SECTION 1

The Sacramento City Council hereby finds and declares that:

1. Pursuant to Article III of Chapter 13.10 of the Sacramento City Code, the city operates a garden refuse collection and disposal program. Under this program, the city periodically collects garden refuse deposited in city streets, disposes of the garden refuse and sweeps the city streets. Owners of properties fronting on streets where these services are provided pay a fee to cover the city's cost to provide these services, as established by resolution of the city council.

2. On September 27, 1977, city voters approved Measure A, which adopted an ordinance to prohibit the city from requiring the mandatory containerization of yard and garden refuse in the city, unless this prohibition is repealed or amended by a vote of the majority of the electors of the city at any municipal election. The city's garden refuse collection and disposal program complies with Measure A.

3. The deposit and collection of garden refuse in city streets results in various impacts, including (i) damage to street pavement by the claw loaders used to collect garden refuse deposited in city streets, (ii) pooling of storm drainage blocked by garden refuse improperly deposited in storm gutters, (iii) potential traffic and safety impacts where garden refuse is deposited in bike lanes and/or on narrow streets, (iv) improper deposits of trash and other unauthorized materials on garden refuse piles, and (v) and visual and aesthetic impacts considered undesirable by many city residents. For these reasons, numerous city residents have requested that the city provide an option to subscribe to containerized garden refuse collection service as an alternative to depositing garden refuse in city streets for collection.

4. Measure A prohibits mandatory containerization, but does not prohibit the city from providing property owners in the city with an option to voluntarily subscribe to containerized garden refuse collection and disposal service as an alternative to depositing garden refuse in city streets for collection, because the property owner's decision to participate in such a program would be voluntary, and the city would not be mandating or requiring that anyone make this decision. Establishment of such a program would serve the public interest and promote the public health, safety and welfare, because participation in the program would reduce the undesirable impacts associated with the deposit and collection of garden refuse in city streets that are described above.

SECTION 2

The definition of "solid waste manager" in Section 13.10.010 of the Sacramento City Code is amended to read as follows:

Solid waste manager or manager means the integrated waste general manager of the city general services department.

SECTION 3

Article III of Chapter 13.10 of the Sacramento City Code is amended to read as follows:

Article III. Garden Refuse*

*Editors Note: Measure A adopted 09-27-77 provides that mandatory containerization of yard and garden refuse shall not be required in the city without a majority vote of the electors of the city of Sacramento at a municipal election.

13.10.350 Garden refuse defined.

As used in this article, the term "garden refuse" means leaves, grass cuttings and garden trimmings, weeds and roots from which all dirt has been removed, shrubbery and tree trimmings of which no single piece shall exceed thirty-six (36) inches in length, four inches in diameter or forty (40) pounds in weight.

13.10.360 Lawn and garden service defined.

As used in this article, the term "lawn and garden service" means the periodic collection by the city of garden refuse from city streets, the disposal of the garden refuse, and the periodic sweeping of those streets.

13.10.370 Property classification defined.

As used in this article, property is classified as follows:

A. Residential.

Single-family residences: each property where there is only one dwelling unit on one parcel of property which is used primarily for single-family purposes.

Two-family residences: each property used primarily for two-family residential purposes.

Multi-family residences: each property used primarily for residential purposes having more than two but less than fifty-one (51) dwelling units.

Multiple family residences containing more than fifty (50) dwelling units shall be considered as being property used primarily for nonresidential purposes.

B. Nonresidential. Each property used primarily for nonresidential purposes. For purposes of this article, any residential condominium, residential planned development, residential stock cooperative, or mobilehome park shall be classified as nonresidential property.

13.10.375 Voluntary containerized collection service defined.

As used in this article, the term "voluntary containerized collection service" means the periodic collection and disposal by the city of garden refuse placed in containers on city streets pursuant to section 13.10.475 of this code, and the periodic sweeping of those streets.

13.10.380 Legislative findings.

The city council finds and determines:

A. That the public health, safety and welfare of all the citizens of the city requires that the accumulation and disposal of garden refuse from properties within the city be handled in a manner producing the greatest good and least public inconvenience, cost and maintenance to the city and its citizens.

B. That depositing garden refuse in the streets in front of properties within the city for periodic collection, disposal and street sweeping by the city is a service afforded by the city which is of substantial benefit to owners of all

properties within the city to which the service is extended.

C. That the costs to the city in providing for the periodic collection, disposal of garden refuse from the streets in front of properties within the city, and sweeping of the streets should be collectively borne by the owners of the properties through the collection of a lawn and garden service fee.

D. That depositing garden refuse in the streets of the city for periodic collection and disposal by city forces should be limited and restricted to:

1. The owners of those residential properties with concrete curbs and gutters.
2. The owners of those residential properties without concrete curbs and gutters, who have requested the service, been approved by the director of public works, and have agreed to pay the required fee.
3. The owners of those nonresidential properties with concrete curbs and gutters who have requested the service and have agreed to pay the required fee based upon the amount deposited in the street.

E. That depositing garden refuse in the streets of the city in front of properties not provided the periodic garden refuse collection and disposal services by city forces is prohibited.

F. That street sweeping services are to be continued for, and charged to, all properties (residential and non-residential) having concrete curbs and gutters.

G. That the city manager, in order to promote the public health, safety and welfare, should have the authority to prohibit the placement of garden refuse in the streets and at curbside upon the occurrence of adverse environmental conditions. If the city manager determines that a prohibition on placement of garden refuse would facilitate effective drainage, storm water runoff, prevention of flooding, or other public interest, he or she should have the authority to accomplish the prohibition by publicly declaring that such adverse conditions have arisen.

13.10.390 Deposit of rubbish and waste matter on streets regulated.

It is unlawful and an infraction punishable by a fine not to exceed five hundred dollars ($500.00) for any person to deposit rubbish, waste matter, or garden refuse in the streets of the city in a manner other than that expressly authorized by this article.

13.10.400 Deposit of garden refuse authorized--Residential property.

A. Garden refuse produced on residential properties with concrete curbs and gutters may be deposited in the streets of the city at the times and in the manner prescribed by this article. Garden refuse from eligible residential property shall be placed in the street in front of and contiguous to the properties from which the garden refuse is removed. Any eligible residence on a corner parcel may place garden refuse in the street in front of or on the side of and contiguous to the property.

B. Service to Properties Without Concrete Curbs and Gutters.

1. Owners of residential properties without concrete curbs and gutters who wish to have periodic collection and disposal of garden refuse from the streets in front of their properties may petition the solid waste manager to have their property serviced. The solid waste manager will grant or deny the petition based on feasibility, cost, and efficiency requirements of the city. Any petition granted under this section will bind the property owner to continue the service for the remainder of time the property owner owns the property.
2. The solid waste manager will notify the property owner of the granting of the petition and of the irrevocability of the provision of service. Those owners of residential properties without concrete curbs and gutters whose petitions are approved by the solid waste manager under this section shall receive the service at the times and in the manner prescribed by this article for owners of residential properties with concrete curbs and gutters, or in such other manner as mandated by the solid waste manager.

C. Garden refuse produced on residential properties not provided garden refuse collection and disposal services by city forces shall not be deposited in the streets of the city.

D. No garden refuse shall at any time be placed for collection in a manner which shall:

1. Impede traffic or constitute a hazard to traffic;
2. Impede the flow of water through any drainage channel or in any manner impede the drainage of water; or
3. Be on or impede any public sidewalk or other public walkway. All garden refuse placed in the streets will be placed and maintained in as compact a pile as possible.

E. No garden refuse shall be placed for collection within a set of undulations.

F. The placement of garden refuse in the street or at curbside shall be

prohibited at the direction of the city manager if and when:

1. The city manager finds that such prohibition is reasonably necessary to facilitate effective storm drainage and runoff, to prevent flooding, to counteract adverse environmental conditions, or to promote other public interest;
2. The city manager issues a declaration of emergency specifying the condition or conditions necessitating such prohibition and describing the prohibited activities and the duration of the prohibition; and
3. The city manager distributes a press release containing the declaration of emergency to local broadcast media, the Sacramento Bee newspaper, and local radio stations.

In addition to the foregoing prohibition, garden refuse in the street or at curbside at the time the city manager makes a declaration of emergency as set forth herein shall be removed from the street and curbside so as not to impede the flow and drainage of water.

13.10.410 Maximum amount of deposit.

The maximum amount of garden refuse that may be deposited in the streets during a calendar week is as follows:

A. For single and two-family residential structures, two cubic yards;

B. For multi-family residential structures containing at least three dwelling units and not more than fifty (50) dwelling units, one cubic yard per dwelling unit.

13.10.420 Time of deposit.

Garden refuse may be deposited in the streets in front of residential properties within the city at any time.

13.10.430 Garden refuse from nonresidential properties.

No person shall deposit garden refuse from nonresidential properties in the streets of the city without first obtaining the prior written authorization of the solid waste manager. The failure of any person to obtain such written authorization shall not absolve him or her from liability for any fee assessed for collection of unauthorized deposits of garden refuse. The solid waste manager may refuse to authorize the deposit of garden refuse for collection if a determination is made by the solid waste manager that the property lacks concrete curbs and gutters, or that the collection by the city could be impractical, uneconomic, or otherwise create problems involving public health or safety. In authorizing the deposit in

city streets of garden refuse from nonresidential properties the solid waste manager shall specify the time, manner, and place of the deposit.

13.10.440 Lawn and garden service fee established--Residential properties.

It is found and determined that availability of the service allowing the deposit of garden refuse from residential properties in the streets of the city for the collection, disposal, and street sweeping by city forces is a benefit to the owners of all eligible residential properties within the city and such owners are made liable for the payment of the lawn and garden service fee imposed by this article irrespective of their actual use of city streets for deposit of garden refuse.

A. Except as provided otherwise in section 13.10.475 of this code, the fee shall be and is imposed on all properties within the city and on any newly constructed residence to commence at the beginning of the third full month after such newly constructed residence obtains garbage and water service.

B. The fee shall not exceed the cost of making available and providing the service, as determined by the solid waste manager, utilizing normal and reasonable accounting procedures, and taking into account the future needs of the division responsible for garden refuse collection.

13.10.450 Rate of fee--Residential properties.

Notwithstanding any provision of this code to the contrary, the rates, fees, and charges for residential purposes as established or provided for in this article shall hereafter be established by resolution of the city council. In establishing the rates, fees, and charges, the portion of the lawn and garden service fee attributable to street sweeping shall be separately set forth and established.

13.10.460 Rate of fee--Nonresidential property.

The lawn and garden service fee imposed upon depositing garden refuse in city streets from any nonresidential property, where authorized by the solid waste manager pursuant to Section 13.10.430 of this code, shall be based upon the approximate average monthly quantity of garden refuse so deposited from the property. All nonresidential properties shall be liable for the portion of the lawn and garden service fee attributable to street sweeping, as established from time to time in accordance with the provisions of this section.

The approximate average monthly quantity of garden refuse deposit shall be determined by the solid waste manager and may be revised from time to time to reflect actual approximate average quantities deposited in the city streets from the properties to which the service is provided. Any garden refuse placed for collection pursuant to this section shall be subject to the provisions of this article

specifying the time, manner and place for placement for collection of garden refuse from residential properties.

Notwithstanding any provision of this code to the contrary, the rates, fees, and charges established or provided for in this section shall hereafter be established by resolution of the city council. In establishing the rates, fees and charges, the portion of the lawn and garden service fee attributable to street sweeping shall be separately set forth and established.

13.10.470 Optional fee--Multi-family residential properties.

The owner of any residential property on which three or more dwelling units are located may elect to be charged the lawn and garden service fee as if it were being used primarily for nonresidential purposes for the sole purpose of establishing the rate to be paid for such property; provided, in no event shall any such election establish an exemption from the lawn and garden service fee. This election shall be filed with the solid waste manager on such form as may be prescribed by the solid waste manager and the election shall remain in effect until revoked in writing by the owner or the owner's successor in interest. Provided further that this election shall not exempt the owner from payment of the portion of the fee attributable to street sweeping, which portion shall be billed to and paid by the owner.

13.10.475 Establishment and operation of voluntary containerized collection service program

Notwithstanding any provision of this article to the contrary:

A. The city council may by resolution adopt or amend a voluntary containerized collection service program. Under such a program, residential customers who otherwise would be required to pay the lawn and garden service fee specified in section 13.10.440 of this code and who would otherwise deposit garden refuse in city streets would be allowed to request voluntary containerized collection service instead.

B. If the city council adopts a voluntary containerized collection service program, the solid waste manager shall have the authority to promulgate regulations (hereafter the "program regulations") as necessary to operate the program, which shall become effective when adopted by resolution of the city council. The solid waste manager may adopt administrative procedures to implement the program regulations adopted by city council resolution.

C. A residential customer who voluntarily requests containerized collection service and is authorized to receive such service in accordance with the program regulations and administrative procedures shall be allowed to

subscribe to the voluntary containerized collection service program in accordance with the terms, conditions and requirements of this chapter, the program regulations and the administrative procedures.

D. A residential customer who subscribes to the voluntary containerized collection service program shall not be charged the lawn and garden service fee specified in section 13.10.440, shall be required to place garden refuse in a container specified by the city for city collection, and shall not be entitled to deposit garden refuse in the street for city collection, except to the extent that the deposit of garden refuse in the street is expressly authorized under the program regulations.

E. Garden refuse containers shall be placed for collection in accordance with the provisions of section 13.10.190, unless different requirements are specified in the program regulations.

F. Residential customers who subscribe to the voluntary containerized collection service program shall pay the rates, fees and charges established by resolution of the city council. The voluntary containerized collection service program rates, fees, and charges shall include the street sweeping fee, but in establishing these rates, fees, and charges, the portion attributable to street sweeping shall be separately set forth and established. These rates, fees and charges shall not exceed the City's costs of providing the voluntary containerized collection service and street sweeping service.

13.10.480 Collection of fees.

The lawn and garden service fee and voluntary containerized collection service fee shall be billed and collected in accordance with the provisions of Chapter 13.12 of this code.

13.10.490 Neighborhood cleanup programs.

Rubbish and waste matter may be deposited in the city streets for collection and removal by city forces when such deposits are expressly authorized by the solid waste manager in connection with a neighborhood cleanup program. The time and manner of deposit, together with any limitation upon the nature and extent of materials to be deposited, shall be determined by the solid waste manager and shall be communicated to the neighborhood in which the program is to be conducted.

13.10.500 Bare lot and multiple use property classifications--Fees--Lawn and garden service fees--Lawn and garden service fee classification board.

A. Definition. For the purpose of this section only, the term residential

property shall mean and refer to residential property classified for the purposes of this article in a classification established by Section 13.10.370 of this article excluding multiple family dwelling units having more than fifty (50) dwelling units.

B. Application. Any owner of residential property may apply for reclassification of such property according to the procedures set forth in this section. Any such application shall be filed on forms provided by the city and shall be filed with the revenue division of the city.

C. Lawn and Garden Service Fee Classification Board. The lawn and garden service fee classification board shall be composed of two city employee members, one of whom shall be from the department of finance and one of whom shall be from the department of general services. The membership of the board shall be appointed by, and shall serve at the pleasure of, the city manager. The board shall process all applications under and make the classifications of property described by this section.

D. Classifications. In addition to the classifications established by Section 13.10.370(A) of this code, there shall be two additional classifications of residential property. These two classifications shall be:

Bare lot: the bare lot classification shall include only residential property which, by virtue of the fact that it has no vegetation outside the dwelling unit, will not produce any garden refuse. The term outside the dwelling unit means outside the surface of the exterior surfaces. The term exterior surfaces means those surfaces of the dwelling unit on the exterior perimeter through at least one of which persons customarily and reasonably enter or exit the dwelling unit.

Multiple use lot: the multiple use lot classification shall include only parcels of residential property on which different types of use occur (e.g., residential and commercial) such that two or more different lawn and garden service fees according to classification rather than rate are collected on the property. No property exceeding one-quarter acre shall be classified in this classification.

In no event shall classification in either of these classes qualify any property for any other classification or fee.

E. Fees. Any property classified in the bare lot classification shall pay the lawn and garden service fee imposed by this article of $0.00 per month. Any property classified in the multiple use lot classification shall pay the lawn and garden service fee imposed by this article equal to the single highest fee which would be imposed on any one structure located on the property according to the other classifications in this article. Such fee shall

be charged to the owner of the entire parcel of property.

F. Processing Applications and Classifications. The board shall process all applications for classification in the bare lot and multiple use lot classifications. Each application shall initially be referred to the department of general services which shall inspect the property and report the results of such inspection to the board. The board shall evaluate each application based on the information contained in such application and the department of general service report and shall determine the proper classification for each such property. In the event the board determines that the proper classification for such property is either the bare lot or the multiple use lot classification, regardless of the date such determination is made, the effective date of the classification shall be the date the application was submitted to the revenue division. In the event the lawn and garden service fee collected by the city after the effective date of the classification exceeds the fee prescribed by this article, such excess shall be refunded to the then owner of the property as shown on the records of the revenue division as of the date of the refund.

G. Notices and Hearings. In the event a property for which application for classifications is made pursuant to this section is not reclassified, notice shall be given to the applicant which shall briefly specify the reason for the decision of the board. Any applicant who receives such notice who desires to have the application reconsidered by the board may apply for a hearing before the board. Any such application must be filed with the revenue division within fifteen (15) calendar days of the date of the notice that the property was not reclassified. The board shall within thirty (30) calendar days after an application for hearing schedule a hearing upon ten (10) days written notice to the applicant. The applicant may be present at such hearing and may present any evidence relevant to the classification of the property. The board shall reevaluate the classification and shall classify the property in the classification which it shall deem proper in light of the application, the report of the department of general services and the evidence submitted by the applicant at the hearing. In considering the application on rehearing the board may obtain a supplemental inspection report from the department of general services. Written notice of the action of the board shall be given to the applicant and the classification established by the board shall be final except as herein otherwise provided.

H. Reclassification Upon Changed Circumstances. In the event the nature of any property classified in the bare lot or multiple use lot classifications changes such that it is no longer properly classified in such classification, the board may reclassify the property into an appropriate classification after written notice to the property owner and a reasonable opportunity to the property owner to be heard on such reclassification.

SECTION 4

Should any part of this ordinance be declared invalid by a court of competent jurisdiction, the remaining provisions of this ordinance shall remain in full force and effect.

DATE PASSED FOR PUBLICATION: JUN 2 2 2004

DATE ENACTED: JUN 2 9 2004

DATE EFFECTIVE: JUL 3 0 2004

Heather Fargo
MAYOR

ATTEST:

Stephanie Nygard
CITY CLERK

FOR CITY CLERK USE ONLY

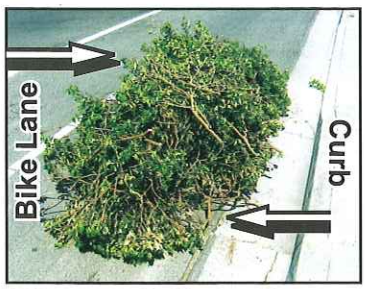
ORDINANCE NO. 2004-036
DATE ADOPTED: JUN 2 9 2004

Yard Waste Collection

The City of Sacramento collects yard waste two ways:

Loose-in-the-Street Program

Yard Waste Collection is provided by the City of Sacramento Department of Utilities Solid Waste Services. Residents can place a single pile of yard waste, up to two cubic yards, in front of their homes for collection each week.



Please follow these guidelines:

- No more than two cubic yards of yard waste material (3'x3'x6' pile) per collection.
- Additional amounts of material may be picked up for an extra fee. Call in advance to get a quote at 916-808-5454.
- Place pile six feet from any obstruction (cars, boats, basketball hoops, etc.), away from the gutter and out of the bike lane.
- Keep unacceptable materials out of your yard waste pile.
- Please do not prune during leaf season (October through December)

Containerized Yard Waste Collection Program



More than 50,000 residents currently participate in the Containerized Yard Waste Collection Program. The program utilizes 96 gallon yard waste containers and includes loose-in-the-street collections during peak seasons. Collection is the same day as your trash and recycling.

Please see the back panel for the loose-in-the-street collection schedule for this program.

Please follow these guidelines:

- Place containers out for collection by 6:00 AM on the day of collection
- Place all containers at least three feet apart
- Place containers six feet from any obstruction (cars, boats, basketball hoops, etc.)
- Place containers on the street and not on the curb, sidewalk or in the bike lane.

Acceptable Materials:

- Leaves
- Grass Trimmings
- Tree and Shrub Prunings
- Christmas Trees
- Sod (with dirt removed)

Unacceptable Materials:

- Trash and Debris
- Pet Feces
- Excessive Amount of Dirt
- Lumber and Concrete.

Yard Waste Contamination Increases Disposal Costs!

Are You Composting?

Backyard composting allows you to recycle your yard clippings and fruit and vegetable scraps into a valuable soil amendment right in your own yard. Call 808-5454 to learn about FREE Backyard Composting Seminars offered by Solid Waste Services.

Containerized Yard Waste Program
Loose-in-the-Street
Collection Schedule

- **January** - collection second week
- **February** - collection last week
- **May** - collection last week
- **October** - collection last week
- **November and December** - collection every other week

Share This Schedule With Your Gardner!

Important Information About Leaf Season
(October - December)

- Almost 25% of the annual total of yard waste is collected during leaf season.
- Delays in collection can take place due to the large volume of leaves. Rain can also impact the collection schedule.
- During leaf season view our online map with the daily projected collection schedule www.cityofsacramento.org/utilities
- To reduce flooding, place leaves in the street away from the gutters and storm drains

If you have questions visit us at
www.cityofsacramento.org/utilities
or call customer service at

916-808-5454

CALL
我們講中文
Hablamos Español
Мы говорим по-русски
พวกเรา้ำเา้าพาาลาวได้
Peb hais lus Hmoob
Chúng tôi nói tiếng Việt

City of Sacramento
Yard Waste Collection Services



Keep Sacramento Clean

CITY OF SACRAMENTO
DEPARTMENT
OF UTILITIES

8-08DH

North Natomas Detention Basin 7B
Adaptive Management Plan



Prepared for: City of Sacramento
Department of Utilities

FOOTHILL ASSOCIATES
ENVIRONMENTAL CONSULTING • PLANNING • LANDSCAPE ARCHITECTURE
© 2003

Table of Contents

1.0 Site Description 1

2.0 Basin Objectives 3

2.1 Flood Control 3
2.2 Water Quality 3
2.3 Vegetation/Wildlife Habitat 4
2.4 Public Use 5
2.5 Fuel Load Management and Fire Control 6
2.6 Maintenance 6

3.0 Basin Management Overview 7

3.1 Management Priorities 7
3.2 Adaptive Management Plan Review 7
3.3 Level of Maintenance 7
3.4 Public Participation 8
3.5 Maintenance Zones 8

4.0 Key Maintenance Issues 9

4.1 Algae Control 9
4.2 Vegetation Management 9
4.3 Fuel Load Management and Fire Control 9
4.4 Inlets 10
4.5 Pond Sediment Removal 10
4.6 Irrigation 10
4.7 Paved Paths 11
4.8 Signage 11
4.9 Hydrology 11
4.10 Water Quality 11
4.11 Wildlife 11
4.12 Nuisances and Public Uses 12

5.0 Maintenance PREscriptions 13

5.1 Permanent Pond 14
5.2 Inlets and Outfalls 15
5.3 Islands 16
5.4 Pond Edge 17
5.5 Basin Floor 18
5.6 Basin Slopes 20
5.7 Path/Maintenance Access Roads 22
5.8 General (all areas) 23

Appendix A : Baseline Biological Assessment 25

Appendix B : Special Status Species Protection Measures 27

Appendix C : Nuisance Wildlife Species 31

Appendix D : Invasive Plant Species 33

Appendix E : Water Quality Sampling Parameters 39

Appendix F : Water Quality Screening 41

Appendix G : Plant Lists by Zone 43

Appendix H : Planting Plan 49

1.0 SITE DESCRIPTION

Detention Basin 7B is a 10.5 acre conjunctive use basin located in the North Natomas area of Sacramento immediately south of San Juan Road and east of the West Drainage Canal. The basin serves a developing urban watershed of approximately 100 acres. The pond is a sinuous channel of open water which is crossed by a recreation path in two locations dividing the pond into three pieces. The largest pond segment contains a small island. Runoff that collects in Basin 7B flows north through a pipe under San Juan Road into Basin 7A. The primary land use in the watershed is single family residential and freeway commercial.

Basin 7B has been designed to meet the flood control requirements of the North Natomas area and to provide the regional storm water quality control measures for the watershed it serves. The detention basin area features a year-round permanent pond for water quality; inlet structures on both the east and west sides of the basin; and a forebay located immediately downstream of the west inlet. The water quality basin will be subject to frequent, short-term inundation in the winter months while during the dry season only the pond and shoreline will be wet. A paved recreational path runs around the rim of the basin and another path follows the shore of the pond to create another loop in the basin floor. The paths also serve as an access to the basin for maintenance vehicles.

Table 1: Basin 7B Design Parameters

Minimum Year Round WSE	Maximum Storage (Acre Ft)	10-Year Event WSE	100-Yr Event WSE	Basin Rim Elev	Liner Present	Acres	Watershed Acreage	Capacity of Avg Annual Rainfall
0.00	51.40	5.00	6.50	11.50	Yes	10.3	100.50	80%

2.0 BASIN OBJECTIVES

The management and maintenance objectives for Basin 7B are described below. These objectives are implemented through the management measures described under Section 5.0 below. While every effort will be made to manage the basin in a manner that supports the habitat and recreation values of the site, the primary purpose of the basin as a drainage facility will always be given precedent over these secondary functions. In urgent situations any means deemed necessary by the Department of Utilities to maintain the function and safety of the facility will be employed.

2.1 Flood Control

During large storm events, the basin is designed to fill to within 5 feet of the outer rim elevation (11.5') and store up to 51.4 acre-feet of storm runoff during a 100-year, 10-day storm. Summertime flows and flows from small and moderate storms stay within the meandering channel. The volume of vegetation and other material in the basin will be controlled to allow unimpeded flow through the channel and to maintain the basin's stormwater volume capacity.

Objective FC-A: Maintain basin flood control capacity to store up to 51.4 acre-feet of storm run-off during a 100-year, 10-day storm.

Objective FC-B: Minimize impedance of flow out of basin following storm events.

2.2 Water Quality

Based on the City's water quality design criteria, the basin provides a combination of extended dry and wet detention for 80% of the average annual stormwater runoff. The design residence time within the channel provides for water quality enhancement through sedimentation and biological uptake of stormwater pollutants. Excess sediment and debris will be periodically removed from the basin to retain the basin's capacity for trapping sediment. Water quality will also be enhanced by maintaining emergent vegetation for biological uptake, to the extent that this vegetation doesn't interfere with flood control objectives.

Objective WQ-A: Maintain basin sediment trapping capacity for water quality enhancement.

Objective WQ-B: Maintain aquatic vegetation for biological uptake to enhance water quality.

Objective WQ-C: Prevent water contamination that would result from spills, urban runoff, debris, and waste material entering the basin.

Objective WQ-D: Prevent erosion of basin banks and slopes that could result in excess sedimentation and water quality degradation in basin.

2.3 Vegetation/Wildlife Habitat

Basin 7B has suitable conditions for supporting wildlife species typically found in aquatic, freshwater marsh, woodland, and grassland habitats. Aquatic and freshwater marsh species that have been identified at Basin 7B include great blue heron and egret. Special status wildlife species that could occur in the aquatic and marsh habitat within Basin 7B include giant garter snake and tri-colored blackbird. Raptor and woodland passerine species (perching birds and songbirds such as jays, blackbirds, finches, warblers, and sparrows) could potentially nest in the wooded portions of the basin once established. Valley elderberry longhorn beetle could potentially occur where elderberry shrubs have been established on-site. Wildlife species observed at Basin 7B that are typical of open grassy areas include sparrow, black phoebe, and black-tailed jackrabbit. A wintering resident western burrowing owl, a special status species, was observed at Basin 7B. The open grassland habitat also provides potential upland habitat for giant garter snake and foraging habitat for western burrowing owl, and foraging habitat for raptors.

To the extent that flood control and water quality objectives are not compromised, the vegetation within Basin 7B will be maintained to maximize its value for native wildlife species. This will be accomplished through maintaining native plant species characteristic of native wildlife habitat, and through control of invasive non-native vegetation. The establishment of nuisance wildlife species such as Canada geese, pigeons, skunks, and raccoons will be minimized through maintenance of vegetation that provides minimal shelter and keeping the basin clear of trash that would attract such species. Seasonal and location constraints on particular maintenance activities will be established to avoid and minimize impacts to sensitive and special status wildlife species.

Objective WH-A: Maintain native vegetation compatible with physical conditions of each distinct habitat area to maximize wildlife value.

Objective WH-A1: Pond Edge (aquatic habitat within 5 feet of edge of pond). Reduce spread of cattails and algae, while encouraging growth of non-invasive freshwater marsh plants such as sedges and rushes, to the extent that such vegetation does not interfere with flood control objectives.

Objective WH-A2: Islands. Encourage growth of native riparian trees and shrubs (sycamores, willows, alders) to support raptors and native passerines.

Objective WH-A3: Basin Floor Trees. Encourage growth of native riparian trees (sycamores, willows, alders) to support raptors and native passerines. Trees should be arranged in dispersed groupings separated by a predominance of open grassland (see WH-A4 below) to emulate the naturally occurring patterns consistent with the pre-development character of the North Natomas area.

Objective WH-A4: Basin Floor Open Grassland Habitat. Encourage establishment of native grasses and forbs (non-woody plants such as annuals and perennials) on the basin floor to provide cover, forage, and nesting habitat.

Objective WH-A5: Upper Basin and Slopes Woodland Habitat (>10-year flood event area). Encourage growth of native woodland trees (oaks, sycamores) and shrubs interspersed with native grasses and forbs. This area will have more vertical structure than the basin floor but will still have significant areas of open grassland as is typical of the upland oak habitats in the area. Maintain snags for raptor perches.

Objective WH-B: Minimize establishment of nuisance animal species such as skunks, pigeons, starlings, and stray pets. A variety of management measures may be used including vegetation control, trash control, habitat modifications, leash laws, and wildlife relocation depending on the severity of the problem.

Objective WH-C: Minimize impacts to sensitive wildlife species such as migratory songbirds and raptors (including burrowing owl), giant garter snake, western pond turtle, and valley elderberry longhorn beetle during maintenance activities. Include specific seasonal constraints for particular types of activities.

Objective WH-D: Establish sufficient cover and density of native species to successfully compete with invasive weed species.

2.4 Public Use

Basin 7B will be accessible to the public for limited recreational and environmental educational activities. Additionally, the cooperation of the surrounding neighborhoods in policing and maintaining the basin will be encouraged and is considered a key management objective for the basin. Programs that involve the community in stewardship activities such as litter patrols, weed removal, or Neighborhood Watch will be fostered to help reduce vandalism, to assist in maintenance, and to provide early detection of maintenance problems.

A variety of passive recreation activities are supported by the Basin 7B design. A paved pathway meanders along the pond offering views to pedestrians and cyclists of birds and other wildlife on the open water habitat of the pond. Interpretive signage describes the basin features including the water quality and flood control functions and the various habitat opportunities provided by the diversity of vegetation. During periods of inundation, portions of the pathway will be under water and unavailable for recreation use. Active recreation activities, such as those requiring sports fields or permanent equipment, will not be allowed in Basin 7B due to conflicts with vegetation management goals, habitat preservation, and facility operations.

Basin 7B will be maintained to provide easy public access by keeping the paths and view points clean and free of obstacles. The aesthetic and educational value of the basin will be maximized by encouraging the establishment of vegetation adjacent to public access points that is aesthetically pleasing (e.g., shade plants, flowering plants, etc.) and that attracts wildlife of interest to the public (e.g., hummingbirds, butterflies, raptors, etc.), and by maintaining accurate interpretive signs to ensure they remain in place and free of vandalism.

Any vandalism or other undesirable activities that occur at Basin 7B will be reported to the City of Sacramento Police Department or other appropriate department for code enforcement.

Objective P-A: Maintain access to recreational trails.

Objective P-B: Establish and maintain an aesthetically pleasing landscape, especially in vicinity of trails.

Objective P-C: Encourage establishment of vegetation that attracts wildlife species favorable for viewing purposes, in the vicinity of trails.

Objective P-D: Provide educational amenities that increase community awareness of the basin's flood control and ecological values.

Objective P-E: Establish community stewardship programs to enhance community awareness, help reduce vandalism, assist in maintenance, and provide early detection of maintenance problems.

2.5 Fuel Load Management and Fire Control

As with all detention areas, strategic maintenance will be performed to prevent fire hazards such as the accumulation of flammable debris and vegetation.

Objective F-A: Maintain vegetative fuel load to minimize fire hazard.

Objective F-B: Prevent accumulation of flammable debris.

2.6 Maintenance

Design and operational parameters will be established for the pond and the surrounding area that will minimize maintenance costs as much as possible while still preserving the other basin objectives. Preferred maintenance practices will emphasize techniques and materials that limit the amount of labor, frequency, material costs and environmental impact. Banks and slopes within the basin will be monitored and re-vegetated or re-contoured where necessary to prevent erosion that might otherwise lead to costly maintenance problems. Maintenance access routes will be kept free of vegetation and other obstacles.

Objective M-A: Maintain native vegetation compatible with site conditions to minimize long-term maintenance needs and support other basin functions.

Objective M-B: Minimize erosion of slopes and banks.

Objective M-C: Utilize the most cost-effective and least environmentally harmful approach to maintenance issues.

Objective M-D: Keep maintenance roads and other access points clear of vegetation, debris, and other obstacles that would impede maintenance activity.

3.0 BASIN MANAGEMENT OVERVIEW

Adaptive basin management consists of three major elements: operations, maintenance, and monitoring. Operations include the various activities associated with controlling water flow and volume in the basin, such as turning pumps on and off, and closing inlets during sediment removal. Maintenance refers to all of the tasks required to keep the basin functioning properly according to its intended purposes of storm water management, habitat, and recreation. Monitoring encompasses those activities performed to evaluate how well the basin is functioning and to identify when operational or maintenance practices need to be modified. Adaptive management is achieved when all three of these components are integrated and respond to each other.

3.1 Management Priorities

It is important to establish maintenance priorities because the multifunctional objectives for the water quality feature at Basin 7B may present opportunities for maintenance conflicts. While every effort will be made to manage the basin in a manner that supports the habitat and recreation values of the site, the primary purpose of the basin as a drainage facility will always be given precedent over these secondary functions. In urgent situations any means deemed necessary by the Department of Utilities to maintain the function and safety of the facility will be employed.

All reasonable steps will be taken to conduct maintenance activities in a manner that will not unnecessarily disturb plants and animals within the basin area. Routine maintenance activities will be scheduled to avoid critical times for the various plant and animal species.

3.2 Adaptive Management Plan Review

Many factors, such as the eventual build-out of the surrounding neighborhoods, maturation of the vegetation, and seasonal considerations will contribute to changes in the function and conditions of the pond. Therefore, the maintenance practices employed in this basin are expected to evolve over time. Periodic review of maintenance activities will consider the results of regular monitoring and will include an assessment of the type, scope and frequency of activities. Should maintenance practices need to be modified the Basin Management Database will be updated to reflect changes in practices and contracting specifications revised accordingly.

3.3 Level of Maintenance

The maintenance goal of this plan is to establish design and operational parameters for the pond and the surrounding area that will minimize maintenance costs as much as possible while still preserving the basin objectives as described in Section 2 of this plan. Preferred maintenance practices will emphasize techniques and materials that limit the amount of labor, frequency and material costs.

3.4 Public Participation

The basin has been designed to be an important open space and recreation feature in the community. The cooperation of the surrounding neighborhoods in policing and maintaining the area will be encouraged and is considered a key component to the success of the area. Programs that involve the community in stewardship activities such as litter patrols, weed removal, or Neighborhood Watch will be fostered to help reduce maintenance, vandalism and to provide early detection of problems.

3.5 Maintenance Zones

In order to establish appropriate management procedures for the basin, maintenance zones have been identified based on considerations of vegetation, hydrology, topography, infrastructure improvements and anticipated uses. A management prescription has been developed for each zone that describes:

- The target condition of the zone,
- Types of management activities needed to maintain the target condition,
- Frequency of management activities
- Recommended monitoring activities
- Frequency of monitoring activities, and
- Performance standards.

4.0 KEY MAINTENANCE ISSUES

This Adaptive Management Plan is intended to provide guidance for the long-term maintenance and operations of Basin 7B. However, it is likely that certain maintenance considerations may arise in the future that cannot specifically be anticipated at present. A brief discussion of the key maintenance issues associated with the basin is provided in this section to establish a conceptual and policy framework to guide future modifications to this plan and operation of the basin.

4.1 Algae Control

While shoreline vegetation and algae blooms are expected within the ponds during certain times of the year, major outbreaks of either one can impede flows, cause pump station operation problems and create unacceptable nuisance conditions that must be controlled. One of the major components of this maintenance plan will be implementation of measures to prevent and eliminate problematic algae blooms. Algae blooms should be controlled through the use of the least environmentally damaging methods that will provide an effective treatment of the problem. Options include biological water quality enhancers, as well as pond dyes, which filter UV light to help further avoid algae blooms. Alternative methods are being researched and tested regularly and maintenance staff should make an effort to keep abreast of new approaches as they emerge. Removal of dead plant material is also an important aspect of controlling algae blooms because it helps to eliminate waste that can feed algae. Chemicals that are not selective and may harm other species, such as copper sulfate, should not be used.

4.2 Vegetation Management

Most of the plantings installed in the basin are native to the Central Valley. When non-native plantings fail, replacement with a native counterpart is recommended to help meet basin objectives. It is the intent of this plan to sequentially reduce maintenance of the basin vegetation as the area matures. However, for the first 3 to 5 years, maintenance and monitoring activities will be needed to ensure that a healthy native plant community develops. Aggressive maintenance may be necessary during the first few years to assure that non-native exotic species do not become established and compete with the desirable native species. Any maintenance prescriptions should address objectives for:

- Plant Vigor,
- Plant Cover,
- Species Diversity,
- Age Class,
- Replacement Species, and
- Invasives Removal.

4.3 Fuel Load Management and Fire Control

The proximity of Basin 7B to residential neighborhoods requires that precautions be taken to manage and prevent fire hazards such as the accumulation of flammable debris and vegetation. This is especially important since public access to the basin will be encouraged and it's possible that careless human activity such as throwing away a

cigarette or match could result in a significant fire. Maintenance equipment must also be properly maintained and operated to prevent sparks or spills of flammable materials.

4.4 Inlets

Runoff enters the pond through several inlets located at both the west and east sides of the basin. Maintenance issues associated with the inlets include keeping the inlets clear of obstructions that would impede flow, preventing wildlife from occupying the inlet structures during the dry months, removal of trash or other debris that accumulate, and assuring that the gates to close the inlets remains operational.

4.5 Pond Sediment Removal

One of the important water quality features of the basin is its capacity to trap sediment contained in stormwater and to prevent them from entering surface waters. Stormwater sediment is problematic for several reasons. They can contain elevated levels of metals, impede pump and culvert function, and may degrade habitat by raising water temperatures and clogging spawning gravels. Sediment is trapped either by settling or by adhering to plant tissue. The primary settling area is located just downstream of the western inlet to the basin. Sediment may also settle throughout the pond, where the pond is crossed by the recreational trail, and even in the upland areas of the basin in high water events. The pond will need to be emptied periodically to allow the removal of accumulated sediment in order to preserve capacity, and to keep the inlets and outfall operating properly.

4.6 Irrigation

Currently, there is not an irrigation system installed at this basin. In addition to normal precipitation and inundation from storm events, all plants and trees have been hand watered during the summer months. So far this has supplied sufficient water for the survival of all of the plants and grasses. Hand watering will continue for a several year establishment period. Should there be a need in the future for an irrigation system, such as in a drought year, one may be installed. The main maintenance issues associated with the irrigation system are proper operation and periodic inspection of system components, such as main lines, laterals, heads, emitters, and control valves.

If an irrigation system is installed, operation of the system needs to be adjusted over time to respond to the changing needs of the plants and soil moisture levels. Many of the native plants will need less water once they are established, and will be adversely impacted by excessive irrigation. This is especially true during the summer months since most native species are adapted to grow best in the wet winter, dry summer climate of the Sacramento region. Regular monitoring should occur to detect signs of either drought stress or excessive soil saturation, and irrigation delivery should be adjusted accordingly. This is especially important because the impermeable liner underlying the basin will reduce the soil's natural capacity for percolation. Consequently, some plant roots will actually have access to significant subsurface water at times when the top soil layers appear to be dry.

Monitoring should also include inspection of the irrigation system itself to make sure that components are in good working order and no line breaks or malfunctions are occurring.

4.7 Paved Paths

Public access through the basin is provided by a paved path around the rim of the basin and along the edge of the ponds in the bottom of the basin. The whole recreation path system connects to San Juan Road and to the adjacent neighborhood. The path system is an important feature because it allows residents to pass through the basin and enjoy close-up views of the plantings and wildlife habitat. It also provides an access path for maintenance equipment and personnel. Maintenance issues associated with the path system may include removal of weeds and debris from the path surface, checking for cracks, subsidence or heaving, and graffiti removal.

4.8 Signage

Interpretive signage will eventually be installed at Basin 7B. Monitoring should be conducted periodically to check the signs for vandalism, fading or discoloration caused by UV exposure, and for general wear or deterioration. The content of the signs should also be reviewed periodically to make sure the interpretive information accurately reflects the evolving vegetation and habitat conditions in the basin.

4.9 Hydrology

The proper functioning of Basin 7B is dependent on maintaining and adjusting water surface elevations (WSE) to provide adequate capacity for stormwater catchment, and desired vegetation and habitat conditions. When the pond is drained for sediment removal in the summer, emergent vegetation will begin to dry out and die back. Water levels should be restored as soon as possible and not more than two weeks later to insure the continued health of the emergent plants. During high volume storm events the water levels in the basin will overtop the pond and inundate the basin slopes. The plant species growing in this area can tolerate short, infrequent periods of inundation typically not lasting more than a day or two. Thus it will be important to pump the water from the basin as soon as possible to avoid drowning these plants.

4.10 Water Quality

The capacity of Basin 7B to enhance storm water quality is based on sediment settling and vegetative 'scrubbing', including the ability of plants to sequester pollutants contained in the water through uptake and adsorption into plant tissue, and the potential for plants to act as sediment trapping filters. Maintaining these functions in the basin depends on proper maintenance of the vegetation and the pond capacity as described above in 4.5.

4.11 Wildlife

Wildlife will be attracted to the various habitats that are evolving throughout Basin 7B. Appendix A includes a list of species that have already been observed. A special status species has been observed at Basin 7B and the potential also exists for other special status species to use the basin as habitat (Appendix B). While providing habitat opportunities for wildlife is an important objective of the basin management plan, the primary function of the basin is water quality enhancement. As wildlife become established, it will be necessary to monitor the species and number to make sure that they are not interfering with basin operations or creating a public safety issue. If special

status species do become established in the Basin, avoidance measures (Appendix B) will need to be observed to prevent impacts.

4.12 Nuisances and Public Uses

Basin 7B has been designed to accommodate the complementary objectives of water quality enhancement, public use and wildlife habitat. These uses may be compromised by certain factors such as vandalism, undesirable activities, or the establishment of invasive plants or nuisance wildlife species. The Department of Utilities will work with the Police Department to address issues related to code enforcement or public nuisance behaviors. Proper maintenance of the Basin that includes regular monitoring and management of vegetation and wildlife will be essential to early identification and correction of any related nuisances.

5.0 MAINTENANCE PRESCRIPTIONS

Basin 7B has been divided into seven separate maintenance zones based on a variety of factors including slope, topography, hydrology and anticipated uses. The seven zones (illustrated in Figure 1) are:

- Permanent Pond (1.91 acres)
- Inlets/Outfalls (0.15 acres)
- Islands (0.03 acres)
- Pond Edge (0.41 acres)
- Basin Floor (4.15 acres)
- Side Slopes (2.26 acres)
- Path/Maintenance Access Road (1.57 acres)

Maintenance prescriptions for each of these zones address the target condition of the area, the types of management activities needed to maintain the target condition, and frequency of management activities. Recommended monitoring activities are included as a type of maintenance activity to support the adaptive approach to basin management. Thus, as monitoring activities indicate the need for certain maintenance measures, those measures can be implemented immediately and in some cases by the same crew performing the monitoring. A set of general maintenance prescriptions has also been developed for the overall basin.

5.1 Permanent Pond

Target condition: Maintain target basin capacity with minimum year round water surface elevation at 0.0' contour and manage water quality to prevent nuisances such as odors, insects, and excessive algae blooms.

Activity	Frequency	Criteria
1a. Monitor and treat for algae blooms using appropriate biological, chemical or mechanical methods.	Monitor monthly and treat as needed based on monitoring observation.	Reduce presence of algae to 15% or less of pond surface.
1b. Conduct basic water quality screening.	Monthly	No negative conditions evident (Appendix F).
1c. Conduct comprehensive water quality monitoring.	Semi-annually	All constituents within target limits (Appendix E)
1d. Monitor pond maintenance access point and keep clear of obstructing vegetation.	Monitor quarterly and remove vegetation as needed.	Access point is clear of obstructions.
1e. Monitor and remove decomposed organic matter from basin.	Monitor semi-annually and remove organic matter as needed.	Basin is able to hold 100% of target capacity. Organic debris is not supporting algae blooms or creating other nuisances.
1f. Monitor and remove sediment from settling areas in basin.	Monitor quarterly and remove sediment as needed.	Settling areas have adequate capacity to hold anticipated sediment load until next maintenance period. Sediment level shall be at least 1 foot (0.3 m) below outlet elevation.
1g. Follow measures to minimize impacts to giant garter snake and tri-colored blackbird (Appendix B).	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.2 Inlets and Outfalls

Target condition: All inlets and outfalls shall be kept free of obstructions to flow and adequately armored as needed to prevent erosion.

Activity	Frequency	Criteria
2a. Monitor inlets and outfalls and remove obstructions such as vegetation and debris.	Monitor monthly during dry season and following major events during rainy season. Treat as needed based on monitoring observation.	Water flow shall not be impeded for an area of at least 20 feet from headwall.
2b. Monitor condition of inlet and outfall structures such as rock aprons, spillways and pipes for structural failure, undercutting and erosion and repair.	Monthly with repairs as needed.	No evidence of structural failure, erosion or undercutting.
2c. Follow measures to minimize impacts to giant garter snake and tri-colored blackbird (Appendix B).	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.3 Islands

Target condition: All islands will have well-established vegetation with structural diversity providing habitat refuge and nesting opportunities, and stable shoreline. Species will include emergents, native grasses, forbs (non-woody plants such as annuals and perennials), and trees.

Activity	Frequency	Criteria
3a. Monitor health of trees and herbaceous species on island. Address mortality or disease with replanting, or replacement with other species as appropriate.	Monthly with replanting to occur between September and February for trees or forbs, and year round for emergents.	100% of island surface is vegetated. Emergent species not more than 2' into pond or 3' above pond edge. Tree canopy over 75% of island surface.
3b. Monitor island perimeter for erosion. Identify cause of erosion and stabilize with bioengineered measures such as fiber blankets, additional planting, and regrading.	Monthly with repairs as needed.	Island perimeter stabilized with no evidence of erosion.
3c. Follow measures to minimize impacts to giant garter snake and tri-colored blackbird (Appendix B).	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.4 Pond Edge

Target condition: Maintain diverse mix of native sedges and rushes in limited area of pond and around perimeter of pond to support habitat for water fowl and other wildlife, enhance water quality treatment, and protect pond from encroachment that could create excess organic debris or impact pond capacity and conveyance.

Activity	Frequency	Criteria
4a. Monitor extent of emergent vegetation. Remove plants encroaching into pond or basin floor.	Monthly with removal as needed.	Emergents shall not become established more than 2' into pond or more than 3' outside of pond.
4b. Monitor health and distribution of emergent species. Add supplemental plantings as needed to maintain adequate cover and species diversity (*Juncus, Carex, Eleocaris sp*.) Limit spread of cattails (*Typha sp.*) to allow other species to become established.	Monthly with removal and replanting as needed.	Plants should provide a minimum of 80% cover in this area above water's edge, with no fewer than six native wetland plants established per square meter (6/m^2). Cattails should not represent more than 35% of the emergent cover.
4c. Follow measures to minimize impacts to giant garter snake (Appendix *)	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.5 Basin Floor

Target condition: Maintain diverse mix of predominantly native grasses with several isolated trees. The landscape should generally emulate the ecology of the local native grassland landscapes with species adapted to seasonal variations in weather including dry summers and regular but short periods of inundation in the winter. Appropriate plant species for this zone may need to be revisited if the ponds' water surface elevation is changed from the design elevation of 0.0'.

Activity	Frequency	Criteria
5a. Monitor for and remove all invasive plants as needed using manual and mechanical methods and selective application of herbicides (Appendix D).	Monthly for at least 1 year; reduce to every other month in year 2	Invasive species are not allowed to set seed. Less than 1% cover by invasive weeds.
5b. Monitor germination of native grass species on site. Catalog those that are well-adapted to conditions and reseed with these species in areas with poor germination.	Monthly for 3 years	Monthly logs maintained of monitoring observations. 100% cover of zone with native grass species in 4 years at density of at least 20 plants per square meter ($20/m^2$).
5c. Monitor condition of trees. Remove any that decline or die and replace with native species better suited to conditions.	Monthly for 2 years	Monthly logs maintained of monitoring observations and any tree removals/replacements.
5d. Mow grasses in July and October if conditions will permit, after staking all trees to be protected.	July and October annually	Set mowing level at not less than 3". Remove clippings if in excess of 4" of material. Direct mower throw away from water.
5e. Maintain temporary irrigation to trees until established (3 - 5 yrs.) Check heads, emitters, lines and controllers and replace any elements that are malfunctioning. Adjust watering schedule seasonally. Check for over spray and run-off.	Monthly	Irrigation system is supplying appropriate quantities of water to desired locations. No leaks or malfunctions.

5f. Follow measures to minimize impacts to giant garter snake, Swainson's hawk, valley elderberry longhorn beetle, and burrowing owl (Appendix B)	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.6 Basin Slopes

Target condition: Maintain mix of predominantly native grasses with dispersed trees. The basin slope landscape should generally emulate the ecology of the local native grassland landscapes with a predominance of grasses interspersed with scattered grouping of trees. The species should be adapted to seasonal variations in weather including dry summers and infrequent short periods of inundation in the winter.

Activity	Frequency	Criteria
6a. Monitor for and remove all invasive species as necessary using manual and mechanical methods and selective application of herbicides (Appendix D).	Monthly for at least 1 year; reduce to every other month in year 2	Invasive species are not allowed to set seed. Less than 1% cover by invasive weeds.
6b. Monitor germination of native grass species on site. Catalog those that are well-adapted to conditions and reseed with these species in areas with poor germination.	Monthly for 3 years	Monthly logs maintained of monitoring observations. 100% cover of zone with native grass species after 4 years at density of at least 20 plants per square meter ($20/m^2$).
6c. Monitor condition of trees. Remove any that decline or die and replace with native species better suited to conditions.	Monthly for 2 years	Monthly logs maintained of monitoring observations and any tree removals/ replacements.
6d. Mow grasses in July and October if conditions will permit, after staking all trees to be protected.	July and October annually	Set mowing level at not less than 3". Remove clippings if in excess of 4" of material. Direct mower throw away from water.
6e. Maintain temporary irrigation to trees until established (3 - 5 yrs.) Check heads, emitters, lines and controllers and replace any elements that are malfunctioning. Adjust watering schedule seasonally. Check for over spray and run-off.	Monthly	Irrigation system is supplying appropriate quantities of water to desired locations. No leaks or malfunctions.

6f. Follow measures to minimize impacts to giant garter snake, Swainson's hawk, valley elderberry longhorn beetle, and burrowing owl (Appendix B)	Necessary precautions for all maintenance/monitoring activities.	No adverse impact to special status species.

5.7 Path/Maintenance Access Roads

Target condition: Path/maintenance access roads and paths for pedestrians are to be clear of physical and visual obstructions, ADA accessible, and provide good visibility of the pond.

Activity	Frequency	Criteria
7a. Inspect and repair path/access road as necessary to maintain accessibility for pedestrians, bicycles, and wheelchairs. Inspect surface for settling, cracking, or heaving. Consider replacement with concrete if cost to maintain asphalt is excessive.	Monthly	Travel surface is maintained free of irregularities greater than 1/4" displacement.
7b. Keep path/access roads clean and free of debris, including trash and vegetation. Empty trash receptacles.	Weekly	Travel ways are not obstructed.
7c. Monitor adjacent vegetation to maintain sight lines throughout basin paths/access roads for public safety.	Monthly	Users of paths and access roads can clearly see approaching people and vehicles, and views of ponds.
7d. Inspect signs and replace or repair damaged or missing signs where necessary.	Monthly	Signs are legible and attractive.

5.8 General (all areas)

Activity	Frequency	Criteria
8a. Monitor and remove debris, trash and evidence of vandalism throughout entire basin (pond, path/access road, basin floor and slopes).	Weekly	Debris does not accumulate onsite and trash receptacles are not full.
8b. Monitor for violations and enforce ordinances such as leash law and illegal dumping ordinance.	Ongoing	Monitoring logs containing records of observations.
8c. Monitor for and be responsive to cleanup of spills and hazardous materials.	Ongoing	Monitoring logs containing records of observations.
8d. Implement community stewardship projects and activities.	Quarterly	4 announcements with outreach events in the community each year.
8e. Note presence of any nuisance wildlife species during spring survey and other site inspections (Appendix C).	Spring and ongoing	Monitoring logs containing records of observations.
8f. Perform general wildlife survey, especially noting any sensitive wildlife species, elderberry shrubs, and nesting raptors or other native bird species. Notify basin manager of sensitive species present.	Spring and Fall	Monitoring logs containing records of observations.
8g. Monitor for visible rills, gullies, or other signs of erosion forming throughout basin.	Ongoing	Monitoring logs containing records of observations.
8h. Monitor for evidence of qualitative water quality problems when on site for any maintenance activities and implement first screen quantitative monitoring as required. (Appendix F).	Ongoing	First screen quantitative monitoring will be triggered by presence of murky water, noxious odor, sudden increase in algae, or evidence of biological wastes in water.

Appendix A: Baseline Biological Assessment

1.0 Overview

A baseline field assessment of vegetation and overall conditions at Basin 7B was conducted in January, 2003. At the time of the assessment, a few vegetation management concerns were noted. The site appeared to be well maintained with relatively recent mowing of the side slopes. Generally 100% vegetative cover had been established across the entire basin.

2.0 Condition of Trees

Trees planted in the basin at the time of observation were generally consistent with species indicated on the proposed planting plan. All trees planted in the basin are native to Sacramento County. Trees were generally healthy.

3.0 Condition of Shrubs

Shrubs had been planted in the basin at the time of observation and most of the shrubs were performing well. All of the shrubs planted in the basin are native to the region. The health of the shrubs was generally good.

4.0 Condition of Herbaceous Layer

Basin 7B is dominated by non-native forbs and native grasses. Deer Grass (*Muhlenbergia rigens*) has been planted in large clumps on the side slopes and has been maintained well. In the lower terrace several low spots have begun filling in with vegetation growing in various clumps. Willows (*Salix*) and California cottonwood (*Populus fremontii*) seedlings are sprouting in these depressions. Ox tongue (*Picris echinoids*) and other invasive weeds were present in the center grass area. The herbaceous layer was not as well established in the central lower terrace. The emergent vegetation extended about 2' from the edge of the water and did not extend beyond the top lip of the main channel of water. The emergent vegetation was composed of a couple varieties of sedges (*Carex sp.*) and some cattails (*Typha latifolia*). Both were also observed growing around the inlets. The cattails do not appear to have been planted. There are still gaps in the emergent vegetation that was planted that have not filled in.

5.0 Wildlife Observed at the Basin

Wildlife species observed during the site survey at Basin 7B included the following:

- Sparrow
- Western Burrowing Owl
- Black-tailed Jackrabbit
- Black Phoebe
- Great Blue Heron
- Egret

There was a western burrowing owl observed in the southeast corner of the basin. The owl seemed to be living inside of a large concrete pipe. The burrowing owl is a species of special status.

6.0 Water Quality Observed at the Basin

The water was observed to be turbid in the basin. Odor was not detected in the basin. The presence of some algae was present in the water. Erosion did not appear to be a problem at this basin.

Appendix B: Special Status Species Protection Measures

1.0 Burrowing Owl (*Athene cunicularia*)

- Maintenance activities will avoid impacts to burrowing owls consistent with the Burrowing Owl Mitigation Guidelines adopted by CDFG. Specifically, do not disturb occupied burrows during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive measures that either: 1) the birds have not begun egg-laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.



Burrowing Owl and Burrow

2.0 Giant Garter Snake *(Thamnophis gigas)*

- Restrict desilting and/or resloping of channels to after May 1 and before October 1 in any calendar year.
- Limit re-sloping of any channels to one side in any calendar year.
- If mowing vegetative cover on the top or inside of channel banks to the water line, or within 200 feet of open water, mow to not less than 6 inches in height measured from the ground.
- Limit activity involving habitat disturbance to the period between May 1 and September 30. This is the active period for giant garter snake and direct mortality is lessened, because snakes are expected to actively move and avoid danger.

- If aquatic habitat must be filled in or excavated between April 15 and September 30, the habitat should first be completely dewatered for at least 15 consecutive days prior to excavation or filling. Make sure dewatered habitat does not continue to support giant garter snake prey – if site cannot be completely dewatered, netting and salvaging of prey items may be necessary. This dewatering measure is also adequate to avoid direct harm of northwestern pond turtle.

- If giant garter snake is found in an area where it would be directly harmed by maintenance activities, cease such activity and allow snake to leave on its own. Notify FWS and biological monitor if snake remains in harm's way and activity must continue. Qualified biological monitor shall remain in the area to make sure snake is not harmed. Escape routes for giant garter snake should be determined in advance of undertaking the maintenance activity to allow the snake to leave on its own. If the snake does not leave on its own within 1 working day, consult further with FWS.



Giant Garter Snake

3.0 Swainson's Hawk *(Buteo swansoni)*

- Preserve valley oaks and other large trees wherever possible.

- Do not remove any trees containing raptor nests without first consulting with qualified biological monitor. If tree must be removed, biological monitor should determine whether nest is used by Swainson's hawk. Do not remove nest trees during Swainson's hawk breeding season (March 15 to September 15) unless absolutely necessary. If a Swainson's hawk nest tree is to be removed during the Swainson's hawk breeding season, the tree may not be removed until the biological monitor has determined that breeding is completed and no young are present, or, if young are present, until CDFG has determined that the young have fledged and are not longer dependent upon the nest tree.



Swainson's Hawk

4.0 Valley Elderberry Longhorn Beetle *(Democeros californicus dimorphus)*

- Avoiding planting elderberry shrubs (*Sambucus spp.)* in detention basins.
- Remove all shrubs with stems less than one inch in diameter at ground level.
- Avoid pruning or removing shrubs with stems at least one inch in diameter at ground level.





Elderberry Shrub w/Flowers and Fruit and Elderberry Longhorn Beetle

- Do not apply insecticides, herbicides, fertilizers, or other chemicals that might harm VELB or elderberry shrubs within 100 feet of any elderberry shrubs with stems at least one inch in diameter at ground level.

- Mowing within 100 feet of elderberry shrubs may occur during July through April. No mowing should occur within five (5) feet of elderberry stems. Mowing should be done in a way that avoids damaging plants (e.g., stripping away bark through careless use of equipment).

5.0 Tricolored Blackbird *(Agelaius tricolor)* and Migratory Bird Species

- Avoid removal or disturbance of emergent wetland vegetation or blackberry shrubs during tricolored blackbird breeding season (April through July).

- Avoid removal of any vegetation or structures with bird nests during avian breeding season (March 15 though July 31).



Tricolored Blackbird

Appendix C: Nuisance Wildlife Species

Certain wildlife species have the potential to become a nuisance due either to their unchecked capacity for predation of other desirable species, or because their presence is incompatible with the operation and anticipated human uses of the basin. Domestic species may also prey on other desirable wildlife species and their presence should be should be discouraged. Regular monitoring should be conducted to observe the presence of the following species and to control or eradicate their presence as needed.

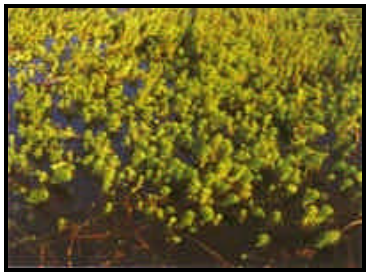
	Management Approach *Nuisance Issues*
Skunk	Removal by City Animal Control • *Presence incompatible with recreation and adjacent residential land use*
Raccoons	Removal by City Animal Control if nuisance develops • *May become dependent on residential food sources such as garbage cans, animal food, etc.* • *Animals may become aggressive towards recreational users walking through basin trails and maintenance workers during breeding season*
Beaver	Removal by City Animal Control if nuisance develops and demolition of dens/dams if basin operation impaired • *May kill trees and shrubs in basin to get materials to build dams* • *Structures may impede basin operation*
Starlings	Remove nests occupied by starlings • *Will occupy nests of native species and prevent native species from reproducing*
Canada Geese	Maintain emergent vegetation to prevent unimpeded access to water. Encourage diverse forbs interspersed with turf areas to reduce food supply. • *May defoliate turf areas from excessive feeding* • *Droppings are incompatible with recreation uses* • *May become aggressive towards residents and maintenance workers.*
Voles, Rats and Other Rodents	Destroy burrows and removal by City Animal Control if nuisance develops. Provide protective cages on young seedlings. • *May destroy irrigation components by gnawing* • *May feed on roots and stems of young seedlings*
Cats	Removal by City Animal Control • *May harass wildlife*
Dogs	Removal by City Animal Control • *May harass wildlife, recreational users or maintenance staff.*
Mosquitoes	Control by Sacramento/Yolo Mosquito & Vector Control District if nuisance develops • *Vector for disease* • *Incompatible with recreation uses*

Appendix D: Invasive Plant Species

Common Name ***Latin Name***	**Management Approach** ***Nuisance Issues***	**Zones**						
		Permanent Pond	**Inlets/Outfalls**	**Island**	**Pond Edge**	**Basin Floor**	**Basin Slopes**	**Trails/Access Roads**
Mosquito Fern *Azolla sp.* 	Appropriate herbicide • *Impedes water flow* • *Clogs pumps*	■	■		■			
Bermuda Grass *Cynodon dactylon* 	Herbicide, manual removal and shading by other species • *Displaces native vegetation*			■		■	■	■

Common Name *Latin Name*	Management Approach *Nuisance Issues*	Zones						
		Permanent Pond	Inlets/Outfalls	Island	Pond Edge	Basin Floor	Basin Slopes	Trails/Access Roads
Black Locust *Robinia pseudoacacia* 	Mechanical removal, cutting root shoots repeatedly, herbicides • *Displaces native vegetation* • *Seeds, leaves and bark toxic to humans*			■		■	■	■
Dallis grass *Paspalum dilitatum* 	Manual removal and mowing before seed sets • *Displaces native species*			■		■	■	■
Eichhornia crassipes *Water Hyacinth* 	Mechanical removal and approved foliar spray • *Dominates waterways* • *Degrades open water habitat* • *Can clog pumps* • *Breeding habitat for mosquitoes* • *Displaces native species*	■	■		■			

Common Name *Latin Name*	Management Approach *Nuisance Issues*	Zones						
		Permanent Pond	Inlets/Outfalls	Island	Pond Edge	Basin Floor	Basin Slopes	Trails/Access Roads
Giant Reed *Arundo donax* 	Manual removal and approved herbicide • *Displaces native plants and associated wildlife* • *Reduces habitat* • *Fuel load fire hazard* • *Reduces basin capacity*	■	■	■	■			
Himalayan Blackberry *Rubus discolor* 	Manual removal of canes and roots and appropriate herbicide • *Competes with native species* • *Can limit access to water for wildlife* • *Limits access for maintenance* • *Limits recreation uses*			■		■	■	■
Water Primrose *Ludwigia peploides.* 	Mechanical removal and appropriate herbicide • *Displaces native species* • *Clogs waterways and pumps*	■	■		■			

Common Name *Latin Name*	Management Approach *Nuisance Issues*	Zones						
		Permanent Pond	Inlets/Outfalls	Island	Pond Edge	Basin Floor	Basin Slopes	Trails/Access Roads
Medusa Head Grass *Taeniatherum caput-medusae* 	Mowing before annual seed is set to prevent dispersal • *Competes with native species* • *Inhibits germination of native species* • *Fuel load fire danger*			■		■	■	■
Parrot's Feather *Myriophyllum aquatica* 	Mechanical removal preferred • Competes with native aquatic plants • Forms dense mats that can entirely cover open water • Can block pumps and water intakes • Provides optimal habitat for mosquitoes	■	■		■			
Bristly Ox-tongue *Picris echinoids* 	Manual removal and repeated mowing before seed sets • *Displaces native species*			■		■	■	■

Common Name *Latin Name*	Management Approach *Nuisance Issues*	Zones						
		Permanent Pond	Inlets/Outfalls	Island	Pond Edge	Basin Floor	Basin Slopes	Trails/Access Roads
Water Lettuce *Pistia stratiotes* 	Manual removal or appropriate herbicide • *Displaces native species* • *Damages habitat value of open water*	■	■		■			
Scotch Broom *Cystus scoparius* 	Manual removal and appropriate foliar spray • *Displaces native vegetation* • *Fuel load fire hazard*			■		■	■	■
Red Sesbania *Sesbania punicea* 	Manual removal at any time, but especially before seed sets • *Rapidly displaces native species*			■	■			

Common Name *Latin Name*	Management Approach *Nuisance Issues*	Zones						
		Permanent Pond	Inlets/Outfalls	Island	Pond Edge	Basin Floor	Basin Slopes	Trails/Access Roads
Cattails *Typha latifolia* 	Manual removal to limit spread and allow other natives to become established • *Competes with other natives* • *Decomposition of plants can reduce pond capacity*			■	■			
Yellow Star Thistle *Centaurea solstitialis* 	Mechanical removal with post-emergent herbicide. Important control times are late winter/early spring and mid-summer before seed sets. • *displaces native plants and animals* • *limits recreation use*					■	■	■

Appendix E: Water Quality Sampling Parameters

Bi-Annual (Summer/Winter) Sampling and Analysis with recommended EPA analysis method*
Alkalinity (Titration Method)
BOD (5-day)
D.O.
Fecal Coliform (Colilert-18 Quanti-Tray)
Nitrate (EPA 300.0 Ion Chromatography)
Oil and Grease
pH (field meter)
Phosphorus (amino acid, ascorbic acid and molybdovanadate methods)
TOC
Lead (GFAA)
Zinc (GFAA)
Copper (GFAA)
Temp (field meter)
pH (field meter)
Conductivity (field meter)
Turbidity (field neptholometer)
Organophosphorous Pesticides (EPA 8141A)

*First Flush sampling and analysis will not be done at this basin because the City already has adequate data on urban runoff water quality from other storm water monitoring efforts.

Appendix F: Water Quality Screening

On-going water quality screening should occur whenever staff or maintenance crews are on site for any activities such as vegetation monitoring or cleaning screens. Qualitative monitoring will consist of observing general character of water. If negative indicators are present, first screen quantitative monitoring procedures and corrective measures are to be implemented. Second screen quantitative monitoring measures should be implemented only if quantitative monitoring indicates problems and corrective measures do not work

Qualitative Monitoring	First Screen Quantitative Monitoring	Secondary Screen Quantitative Monitoring
Outflow is murky	Turbidity	If continued turbid, examine watershed for source of turbid water
Inflow is murky	Turbidity	If continued turbid, examine watershed for source of turbid water
Obvious signs of waste in basin	Enterococcus and *e. coli*	DNA Typing of bacteria to determine source (e.g. dog, duck, or human) – or perform a "watershed survey" to determine source (e.g. septic tanks, sewage spills, homeless camps, etc.)
Excessive Algal Growth	Nitrate and Phosphorous	With continued excess growth, examine upstream sources
Noxious Odor	Sample for Dissolved Oxygen at incremental depths	If low D.O. exists, sample for Nitrate, Nitrite, and Phosphorous or examine current nitrate and phosphorous results. If high, examine watershed for source.
Plant die-off or dead animals	Visual inspection for oil, filmy surface, foam, discoloration or odor	Sample for toxicants such as heavy metals or poisons

Appendix G: Plant Lists by Zone

Island

Trees	Latin	Common	Mature Size (ft.)	Native	Features
	Acer negundo	Box Elder	40H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Fraxinus latifolia	Oregon Ash	60H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Populus fremontii	Fremont Cottonwood	50H x 30W	Sacramento County	Tolerates seasonal wet soils/drought
	Salix gooddingii	Black Willow	40H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Salix lasiolepis	Arroyo Willow	20H x 20W	Sacramento County	Native Tree, Tolerates seasonal wet soils/drought

Shrubs	Latin	Common	Mature Size (ft.)	Native	Features
	Cephalanthus occidentalis	Buttonbush	12H x 12W	Sacramento County	Tolerant of wet soils, flowers
	Vitis californica	California Wild Grape	Indefinite	Sacramento County	Tolerant of wet soils, wildlife value

Native Grass	Latin	Common	Mature Height (inches)	Native	Features
	Elymus glaucus	Blue Wild Rye	20-60	Sacramento County	Drought tolerant
	Leymus triticoides	Creeping Wild Rye	20-48	Sacramento County	Drought tolerant
	Melica californica	California Melic	20-40	Sacramento County	Drought tolerant
	Muhlenbergia rigens	Deer Grass	24-60	Sacramento County	Drought tolerant
	Nassella cernua	Nodding Stipa	15-35	Sacramento County	Drought tolerant
	Nassella pulchra	Purple Needlegrass	15-35	Sacramento County	Drought tolerant

Pond Edge

Trees	Latin	Common	Mature Size (ft.)	Native	Features
	Acer negundo	Box Elder	40H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Fraxinus latifolia	Oregon Ash	60H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Populus fremontii	Fremont Cottonwood	50H x 30W	Sacramento County	Tolerates seasonal wet soils/drought
	Salix gooddingii	Black Willow	40H x 40W	Sacramento County	Tolerates seasonal wet soils/drought
	Salix lasiolepis	Arroyo Willow	20H x 20W	Sacramento County	Tolerates seasonal wet soils/drought

Shrubs	Latin	Common	Mature Size (ft.)	Native	Features
	Cephalanthus occidentalis	Buttonbush	12H x 12W	Sacramento County	Tolerant of wet soils, flowers
	Vitis californica	California Wild Grape	Indefinite	Sacramento County	Tolerant of wet soils, wildlife value

Emergent Plants	Latin	Common	Mature Size (ft.)	Native	Features
	Carex barbarae	Santa Barbara Sedge	2-3	Sacramento County	Tolerant of wet soils, habitat value
	Carex praegracillis	Slender Sedge	2-3	California	Tolerant of wet soils, habitat value
	Equisetem hyemale	Common Scouring Rush	2-7	Sacramento County	Tolerant of wet soils, habitat value
	Juncus effuses 'Brunneus'	Common Rush	2-4	California	Tolerant of wet soils, habitat value
	Juncus xiphiodes	Flat-Bladed Rush	1-3	Sacramento County	Tolerant of wet soils, habitat value
	Scirpus acutus 'Occidentale'	Common Tule	5-13	Sacramento County	Tolerant of wet soils, habitat value

Basin Floor

Trees	Latin	Common	Mature Size (ft.)	Native	Features
	Acer negundo	Box Elder	50H x 40W	Sacramento County	Drought tolerant
	Alnus rhombifolia	White Alder	50H x 40W	Sacramento County	Drought tolerant
	Fraxinus latifolia	Oregon Ash	60H x 40W	Sacramento County	Drought tolerant
	Juglans californica hindsii	California Black Walnut	30H x 30W	Sacramento County	Drought tolerant
	Platunus racemosa	California Sycamore	50H x 30W	Sacramento County	Drought tolerant
	Populus fremontii	Fremont Cottonwood	50H x 30W	Sacramento County	Drought tolerant

Shrubs	Latin	Common	Mature Size (ft.)	Native	Features
	Baccharis salicifolia	Mulefat	10H x 6W	California	Drought tolerant, evergreen
	Cephalanthus occidentalis	Buttonbrush	12H x 12W	Sacramento County	Flowers
	Rosa californica	California Wild Rose	6H x 5W	Sacramento County	Flowers, drought tolerant
	Rubus ursinus	California Blackberry	Indefinite	Sacramento County	Wildlife value
	Vitus californica	California Wild Grape	Indefinite	Sacramento County	Wildlife value

Native Grass	Latin	Common	Mature Height (inches)	Native	Features
	Elymus glaucus	Blue Wild Rye	20-60	Sacramento County	Drought tolerant
	Leymus triticoides	Creeping Wild Rye	20-48	Sacramento County	Drought tolerant
	Melica californica	California Melic	20-40	Sacramento County	Drought tolerant
	Muhlenbergia rigens	Deer Grass	24-60	Sacramento County	Drought tolerant
	Nassella cernua	Nodding Stipa	15-35	Sacramento County	Drought tolerant
	Nassella pulchra	Purple Needlegrass	15-35	Sacramento County	Drought tolerant

Side Slopes

Trees	Latin	Common	Mature Size (ft.)	Native	Features
	Quercus kellogii	Blue Oak	40H x 50W	Sacramento County	Form, colorful foliage, drought tolerant
	Quercus lobata	Valley Oak	70H x 70W	Sacramento County	Form, drought tolerant
	Quercus wislizenii	Interior Live Oak	50H x 60W	Sacramento County	Evergreen, drought tolerant
	Umbellularia californica	California Bay Laurel	25H x 20W	California	Fragrant, evergreen, drought tolerant

Shrubs	Latin	Common	Mature Size (ft.)	Native	Features
	Baccharis pilularis	Coyote Bush	8H x 8W	Sacramento County	Drought tolerant, evergreen
	Ceanothus cuneatus	Buck Brush	6H x 6W	Sacramento County	Drought tolerant, evergreen
	Mimulus auranticus	Sticky Monkey Flower	3H x 3W	Sacramento County	Flowers, drought tolerant, evergreen
	Rosa californica	California Wild Rose	6H x 5W	Sacramento County	Flowers, drought tolerant

Native Grass	Latin	Common	Mature Height (inches)	Native	Features
	Elymus glaucus	Blue Wild Rye	20-60	Sacramento County	Drought tolerant
	Leymus triticoides	Creeping Wild Rye	20-48	Sacramento County	Drought tolerant
	Melica californica	California Melic	20-40	Sacramento County	Drought tolerant
	Muhlenbergia rigens	Deer Grass	24-60	Sacramento County	Drought tolerant
	Nassella cernua	Nodding Stipa	15-35	Sacramento County	Drought tolerant
	Nassella pulchra	Purple Needlegrass	15-35	Sacramento County	Drought tolerant

Wild-flowers	Latin	Common	Mature Height (inches)	Native	Features
	Achillea millefolium	White Yarrow	8-40	California	Drought tolerant, white flowers
	Clarkia elegans	Elegant Clarkia	6-36	Sacramento County	Drought tolerant, pink flowers
	Collinsia heterophylla	Chinese Houses	12-24	Sacramento County	Drought tolerant, lavender flowers
	Eschcholzia californica	California Poppy	8-24	Sacramento County	Drought tolerant, orange flowers, long flowering season
	Gilia capitata	Globe Gilia	4-35	Sacramento County	Drought Tolerant, Yellow to White Flowers
	Lasthenia gabrata	Goldfields	4-10	Sacramento County	Drought tolerant, golden yellow flowers
	Layia platyglossa	Tidytips	1-28	Sacramento County	Drought tolerant, yellow flowers with white tips
	Linium lewisii	Blue Flax	6-31	California	Drought tolerant, blue flowers
	Lupinus microcarpus 'Ed Gedling'	Golden Lupine	4-32	Sacramento County	Drought tolerant, white to dark yellow flowers
	Lupinus succulentus	Arroyo Lupine	8-39	Sacramento County	Drought tolerant, blue to purple flowers
	Nemophila menziesii	Baby Blue Eyes	4-12	Sacramento County	Drought tolerant, blue flowers

	Phacelia campanularia	California Blue Bells	8-30	California	Drought tolerant, dark blue flowers
	Triphysaria versicolor	Yellow Owl's Clover	4-16	California	Drought tolerant, yellow flowers

Appendix H: Planting Plan

WESTLAKE

BASIN 8A DRAINAGE AGREEMENT.

OFFICE OF THE
CITY CLERK

VALERIE A. BURROWES, CMC/AAE,
CITY CLERK

VIRGINIA K. HENRY, CMC/AAE,
ASSISTANT CITY CLERK

WWW.CITYOFSACRAMENTO.ORG

CITY OF SACRAMENTO
CALIFORNIA

CITY HALL
915 I STREET
ROOM 304
SACRAMENTO, CA
95814-2671

FAX 916-264-7672

ADMINISTRATION
PH 916-264-5799

OPERATIONS SERVICES
PH 916-264-5427

SPECIALIZED SERVICES
PH 916-264-7200

Post-it® Fax Note 7671	Date 6/19/01	# of pages ▶ 22
To JOE Robinson	From STU Williams	

June 2, 2000

Winncrest Natomas LLC
2240 Douglas Blvd., Ste.200
Sacramento, CA 95822

Dear Mr. Winn:

On May 16, 2000, the Sacramento City Council authorized the execution of Resolution No.2000-239 approving Agreement No.2000-063 regarding Construction of Drainage Improvements, North Natomas Basin 8a.

Enclosed, for your records, is one fully certified copy of said resolution and agreement.

Sincerely,

Virginia K. Henry
Assistant City Clerk

jn Item 1.9

Enclosures

cc: Utilities (B. Busath)
Risk Management

RESOLUTION NO. 2000-239

ADOPTED BY THE SACRAMENTO CITY COUNCIL

ON DATE OF MAY 16 2000

A RESOLUTION ADOPTING THE FINDINGS RELATING TO THE ENVIRONMENTAL IMPACTS ASSOCIATED WITH APPROVAL THE NORTH NATOMAS DRAINAGE BASIN 8a DRAINAGE AGREEMENT, AND APPROVING THE DRAINAGE AGREEMENT

WHEREAS:

1. On May 20, 1997, the City Council adopted the North Natomas Comprehensive Drainage Plan, certified the adequacy of the Final Environmental Impact Report ("FEIR") prepared in connection with the Plan, adopted Findings of Fact and a Statement of Overriding Considerations, and approved a Mitigation Monitoring Plan; and

2. The drainage agreement for the North Natomas Basin 8a implements the Comprehensive Drainage Plan, by providing for the construction of the Basin 8a Common Drainage Facilities as identifies in the Basin 8a Drainage Master Plan; and

3. The Basin 8a Drainage Master Plan and the drainage agreement are consistent with the North Natomas Comprehensive Drainage Plan and provide complete drainage for properties located within this basin; and

4. All of the environmental impacts associated with this Master Plan and the drainage agreement, and the construction of the Common Facilities, were fully analyzed and considered in the FEIR; and

5. There are no changed circumstances which would require new or further environmental review; and

6. There is no need for further environmental review in order to approve the drainage agreement .

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2000-239

DATE ADOPTED: MAY 16 2000

CERTIFIED AS TRUE COPY
OF Res. 2000-239
5-31-00
DATE CERTIFIED
Valerie A. Burrowes
CITY CLERK, CITY OF SACRAMENTO

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO THAT:

1. The findings set forth above are true and correct.

2. Subject to the following conditions, the Basin 8a Drainage Agreement ("Agreement") is approved, and the City Manager is authorized to execute that agreement:

    a. No Final Master Parcel Map, Subdivision Map, or other map shall be recorded on the land subject to the Agreement, unless and until the provisions of Section 7 of the Agreement, relating to posting of security, have been fully satisfied.

    b. No person shall be permitted to occupy any structure located on the property subject to the Agreement unless and until the Landowner has formed a homeowner's association in accordance with the requirements of Section 2.B.(5) of the Agreement, and said association is in existence and in good standing.

    c. No bonds shall be issued in City of Sacramento North Natomas - Westlake Community Facilities District No. 2000-01, unless and until the community facilities district or similar financing mechanism has been fully and completely formed and is in existence, pursuant to Section 2.B.(6) of the Agreement .

    d. The Landowner shall execute and acquisition and shortfall agreement relating to City of Sacramento North Natomas - Westlake Community Facilities District No. 2000-01 prior to the approval of a Resolution of Formation relating to the said district.

JIMMIE R. YEE

MAYOR

ATTEST:

VALERIE BURROWES

CITY CLERK

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 2000-239

DATE ADOPTED: MAY 16 2000

CITY OF SACRAMENTO

CITY COUNCIL AGENDA ITEM - TRANSMITTAL FORM

Agenda Items are due in City Manager's Office by 3:00 PM Friday, 2 weeks (11 days) before the Council meeting

FROM
Department: Utilities
Contact Name / Phone #: Andy Hunt, x-1408
COUNCIL MEETING DATE: May 16, 2000

REVIEWED BY (initials)
1) Dept Fiscal Officer _____
2) Admin/Policy (Budget) _____
3) City Clerk _____

SUBJECT: ADOPT THE DRAINAGE AGREEMENT FOR THE CONSTRUCTION OF THE NORTH NATOMAS BASIN 8a COMMON DRAINAGE FACILITIES

AGENDA PLACEMENT

Time Needed for Item? 0 minutes
(Factor-in council questions and discussions)
(Not applicable to Consent Items)
Controversial? ● No ○ Yes... Why?

● **Afternoon Meeting**
■ Consent
☐ Public Hearings
☐ Staff Reports

○ **Evening Meeting** (Controversial/Public Concern)
☐ Special Presentations
☐ Public Hearing
☐ Staff Reports

○ **Committee Agenda:**
☐ Law and Legislative
☐ P & PE
☐ Other _____

Votes Required for Passage:
● Majority
○ 2/3
○ Other _____

○ **Graphics Display System Needed**
(arrange with City Clerk)

FORM COMPLETED BY:
Bill Busath 4/26/00 x1410

FISCAL IMPACT
○ Budget Change? $_____
○ Contract Approval? $_____
○ Change Order? $_____
○ Change in FTE? $_____
○ Supplemental Agreement $_____

POLICY ISSUES
○ MBE/WBE?
○ Environmental?
○ Legal?
○ Other? _____

COMMENTS

SPECIAL INSTRUCTIONS TO CITY CLERK

This cover sheet must be completed and attached to your City Council Agenda Item

Department of Utilities
Engineering Services Division

CITY OF SACRAMENTO
CALIFORNIA

1395 35th Avenue
Sacramento, CA 95822-2911
phone (916) 264-1400
fax (916) 264-1497/1498

April 28, 2000

City Council
Sacramento, California

Honorable Members in Session:

SUBJECT: ADOPTION OF A DRAINAGE AGREEMENT FOR THE CONSTRUCTION OF THE NORTH NATOMAS BASIN 8a COMMON DRAINAGE FACILITIES

LOCATION AND COUNCIL DISTRICT:

This drainage agreement includes all the North Natomas Basin 8a Common Drainage Facilities. (See attached map). Basin 8a is in Council District 1

RECOMMENDATION:

Staff recommends that the City Council authorize the City Manager and City Clerk to execute a drainage agreement between the City of Sacramento and Lennar Communities, requiring Lennar Communities to design, finance, and construct all facilities required for drainage pursuant to the North Natomas Comprehensive Drainage Plan.

CONTACT PERSON: Gary A. Reents, Engineering Services Manager, 264-1433
Andrew A. Hunt, Senior Engineer, 264-1408

FOR COUNCIL MEETING OF: May 16, 2000

SUMMARY

In May 1994 the City Council approved the revised North Natomas Community Plan and certified the Supplemental EIR. In May 1997 the City Council approved the North Natomas Comprehensive Drainage Plan for North Natomas and certified the project EIR. On October 26, 1999, the City Council approved the Westborough Planned Unit Development (P98-112) and ratified a Negative Declaration for the project. The Drainage Master Plan for Basin 8a has been accepted by the Department of Utilities, and the Drainage Agreement has been signed by the land owner. Staff recommends the City Council adopt the Drainage Agreement.

BACKGROUND INFORMATION

Basin 8a, one of the watersheds identified in the North Natomas Comprehensive Plan, is located in the North Natomas area west of Interstate 5. The proposed project will drain approximately 331 acres and is bounded on the south by Del Paso Boulevard, on the east by El Centro Road, on the north by Interstate 5 and on the west by the Sacramento City Boundary. All runoff within the Basin 8a area will be collected in pipes and drain to the Westborough Lake/Detention Basin and then into the West Drain Canal. The Basin 8a Common Drainage Facilities covered by this drainage agreement include the following improvements:

- Outfall weir structure to limit outflow from the lake to 33 cfs during storm events;
- Lake / Water Quality / Detention Basin to provide water quality and storm water detention for extreme rainfall events;
- Drainage Pipes to serve The Westborough Development and the EC property.
- Drainage pass through for area to east and north

The North Natomas Comprehensive Drainage Plan identified the necessary drainage improvements required to remove the area within Basin 8a from the 100-year flood plain. The proposed Basin 8a improvements satisfy the requirements to meet this goal.

The Basin 8a common drainage improvements covered by this drainage agreement, will be designed, financed, and constructed by Lennar Communities. All improvements will be constructed in accordance with plans and specifications approved by the City Department of Utilities, and will be subject to normal inspection by the City.

The drainage agreement is to ensure the provision of storm water drainage for the basin and is a requirement (Mitigation Measure 2) of the Mitigation Monitoring Plan. The agreement covers design and construction of the common drainage facilities associated with the Westborough

development, City review and inspection of the common drainage facilities, conveyance and dedication of the common drainage facilities to the City, and completion and acceptance of the common drainage facilities by the City. The drainage agreement also provides financial assurances that the drainage facilities will be completed.

FINANCIAL CONSIDERATIONS

Lennar Communities has agreed to pay all costs associated with the design and construction of the Basin 8a common drainage facilities covered in this drainage agreement. There is no cost to the City.

ENVIRONMENTAL DETERMINATION

The Planning Division has reviewed the project for compliance with the requirements of the California Environmental Quality Act (CEQA). The project is determined to fall within the scope of the North Natomas Comprehensive Drainage Plan Environmental Impact Report (EIR), adopted in May 1997 and the Negative Declaration (Negative Declaration) for the Westborough Project. The Westborough project has not changed appreciably since the environmental document was approved therefore no further environmental document is required. The Negative Declaration adequately describes the environmental effects of the proposed detention basin construction.

The Negative Declaration identified that the construction and operation of the detention basin will result in potentially significant impacts to wildlife, water quality and cultural resources. Mitigation measures to reduce these impacts to less than significant levels are specified in the Negative Declaration and are incorporated into the attached Mitigation Reporting Program for the construction of the detention basin. This analysis concludes that the proposed drainage agreement and construction of the detention of the basin will not result in new impacts or greater levels of impact than those identified in the Westborough Negative Declaration.

POLICY CONSIDERATIONS

The Drainage Agreement is consistent with the City Council's adoption of the North Natomas Comprehensive Drainage Plan and the goal of North Natomas Community Plan to promote development in North Natomas.

ESBD CONSIDERATIONS

Not applicable since no goods or services are being purchased.

Respectfully submitted,

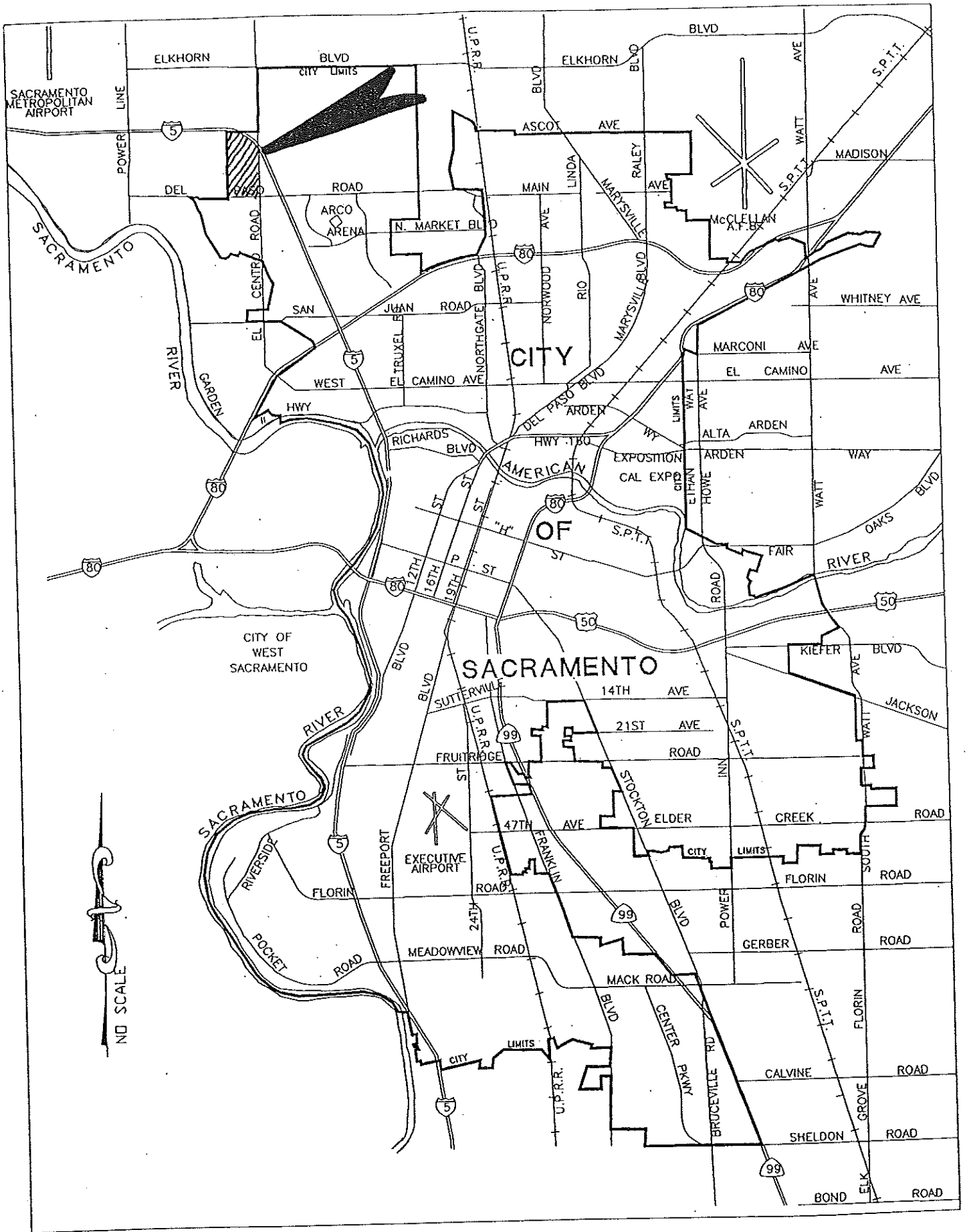
Gary A. Reents
Engineering Services Manager

RECOMMENDATION APPROVED:

Robert P. Thomas
City Manager

APPROVED:

James G. Sequeira
Director of Utilities



VICINITY MAP

Fee Exempt Pursuant to
Government Code § 6103
Recorded for the Benefit of
the City of Sacramento

WHEN RECORDED, RETURN TO:

_____
_____
_____
_____

_____
SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY

AGREEMENT FOR CONSTRUCTION OF DRAINAGE IMPROVEMENTS

THIS AGREEMENT, dated May 16, 2000, for purposes of identification, is made and entered into by and between the **CITY OF SACRAMENTO**, a charter city ("City"), and **WINNCREST NATOMAS LLC**, a Nevada limited liability company ("Landowner").

RECITALS

A. Landowner is the owner of property located in the City of Sacramento and identified as set forth in **Exhibit A**, attached hereto and incorporated herein by this reference (hereafter referred to as the "Landowner Property"). The Landowner Property is located within the area known and commonly referred to as "Drainage Basin 8A".

B. Landowner has received the following land use entitlements with respect to the Landowner Property from the City Planning Commission and/or the City Council ("Entitlements"):

Entitlement Issued	Date Issued	Resolution/Other No.
Tenatative Master parcel map("Tentative Master Parcel Map")	October 26, 1999	99-616
Tentative Subdivision Map ("Tentative Subdivision Map")	October 26, 1999	99-616
General Plan Amendment	October 26, 1999	99-613
Rezoning	October 26, 1999	Ord. 99-055
P.U.D. Designation	October 26, 1999	99-615
Community Plan Amendment	October 26, 1999	99-614
Development Agreement	October 26, 1999	Ord. 99-054

C. The conditions of approval for said entitlements and the project mitigation measures include conditions and requirements relating to drainage of the Landowner Property which must be satisfied prior to issuance of any building permit and/or prior to issuance of a certificate of occupancy or other permit or document allowing occupancy of any structure as to which a building permit was issued. Those conditions and requirements require the preparation and execution of a drainage agreement ensuring satisfaction of such drainage conditions for Landowner's development project. The text of the conditions and mitigation measures relating to drainage are as set forth in **Exhibit B**, attached hereto and incorporated herein by this reference.

D. The conditions and mitigation requirements described in Recital C (collectively the "Drainage Conditions") require the owners of the Landowner Property to design, finance and construct, subject to prior City approval, all facilities required for drainage pursuant to the North Natomas Comprehensive Drainage Plan, Basin 8A.

E. Landowner, or its successors, is wholly responsible for providing interim and long-term permanent drainage facilities serving the Landowner Property.

F. A master drainage plan for Basin 8A (the "Basin 8A Master Drainage Plan") has been submitted to City for approval, and has received technical approval from the City's Department of Utilities. If and to the extent that the Basin 8A Master Drainage Plan must also be approved by the Department of Neighborhood Services due to any planned co-use of the Drainage Facilities or any portion thereof as a City park, such approval has been received.

G. Landowner has submitted to the City the following documents (collectively, the "Drainage Plans") related to the design and construction of the drainage facilities required for the Landowner Property: (i) a drainage master plan entitled North Natomas Drainage Basin 8A Drainage Analysis, dated October, 1998 and prepared by Morton & Pitalo, Inc.; (ii) Phasing Study dated February 18, 2000, prepared by the Spink Corporation (the "Phasing Plan"), which is attached hereto as **Exhibit C** and incorporated herein by this reference; and (iii) improvement plans for Basin 8A, including cost estimates. The City has not yet approved the Drainage Plans; however, City has agreed to allow processing of this Agreement pending such approval with the express understanding and agreement of Landowner that the Drainage Plans must be approved in writing by City prior to commencement of construction of the Drainage Facilities.

H. Landowner has also submitted to the City that certain proposed final master parcel map for the Landowner Property which is entitled "Westborough" and datedFebruary, 2000 1998, prepared by The Spink Company (the "Final Master Parcel Map").

I. Landowner desires to enter into this Agreement in accordance with the Drainage Conditions so it can record the Final Master Parcel Map and proceed with development of the Landowner Property. Landowner is willing to construct the improvements (the "Drainage Facilities") shown on the Drainage Plans, entirely at

Landowner's expense, on the terms and conditions set forth herein. By constructing the Drainage Facilities, Landowner will have satisfied the Drainage Conditions insofar as they affect the Landowner Property. This is the Drainage Agreement required by the Drainage Conditions, and it implements rather than amends the Drainage Conditions.

J. Landowner has requested that City commence and complete proceedings for the establishment of a community facilities district to finance the design and acquistion from Landowner of the Drainage Facilities, and expenses incidental thereto. The terms and conditions upon which the City will form such a district, and upon which such a district will acquire the Drainage Facilities, will be set forth in a separate written agreement between the parties.

NOW, THEREFORE, on the basis of the facts set forth in Recitals A through J above, which the parties agree are accurate and are part of this Agreement, the parties hereby mutually agree as follows:

1. Design and Construction of Permanent Drainage Facilities.

A. Obligation to Construct. Subject to the terms and conditions specified herein and subject to the provisions of this Agreement relating to construction of phased and/or interim facilities, Landowner shall perform or cause to be performed, at Landowner's sole cost, all work necessary to construct the Drainage Facilities shown on the Drainage Plans, including without limitation the pipelines, pump stations, detention basins and other related improvements shown thereon.

(1) When constructed in accordance with the Drainage Plans, the Drainage Facilities will meet the Drainage Conditions, and all of the criteria set forth in the City of Sacramento's standard specifications issued by the Departments of Public Works and Utilities which were in effect at the time of final approval by City of the design of the Drainage Facilities, which standard specifications are specifically incorporated herein in full and made a part of this Agreement ("Standard Specifications").

(2) Where it is contemplated that City may form an acquisition district for the purpose of acquiring the Drainage Facilities, or some portion thereof, that portion of the Drainage Facilities which are to be acquired by said district shall be constructed as if they had been constructed as a city capital improvement project. In that regard, the construction procedures shall meet at least the following criteria, to the extent required by the applicable law governing the district and applicable city policies and procedures:

(a) Landowner shall require all contractors and subcontractors performing work on the Drainage Facilities to be acquired to pay prevailing wages, and Landowner shall employ competitive bidding procedures in accordance with applicable City policies and procedures; and

(b) All construction contracts relating to the Drainage

Facilities to be acquired shall provide that the progress and final payments called for therein shall be made only after the City has inspected the Drainage Facilities to be acquired and has approved the extent to which such improvements have been completed in relationship to the payments(s) being made.

B. Location of Drainage Facilities. The pipelines, pump stations, detention basins and related improvements constituting the Drainage Facilities shall be located as shown on the map attached hereto as **Exhibit D** and fully incorporated hereby by this reference, unless different locations are approved by City.

C. Costs. All design costs, engineering costs, and costs of plans and specifications, together with the entire cost of construction and any and all costs incurred to acquire any property rights necessary to construct the Drainage Facilities, shall be borne one hundred percent (100%) by Landowner.

2. Review and Inspection.

A. Plan Approval. The City has not yet approved the Drainage Plans; however, City has agreed to allow processing of this Agreement pending such approval with the express understanding and agreement of Landowner that the Drainage Plans must be approved in writing by City prior to commencement of construction of the Drainage Facilities.

B. Site Superintendent; City Project Manager. Landowner shall provide a site construction superintendent ("Site Superintendent") who will be on-site whenever work is being performed on the Drainage Facilities. The City shall provide a City project manager ("City Project Manager") who will be Landowner's point of contact with the City with respect to such construction, who will be on-site as necessary, and who will generally be available by telephone or otherwise at all reasonable times.

(1) The Site Superintendent shall have complete authority over the construction contractors and all subcontractors, with authority to order stoppage of work and minor changes to the work in order to comply with the Drainage Plans. The Site Superintendent may also, but need not have authority to order minor design changes to meet unanticipated field conditions, provided that the same are consistent with the Drainage Plans.

(2) The City Project Manager shall have complete authority over the City's construction inspectors, with authority to determine whether or not the work complies with the Drainage Plans. The City Project Manager may also, but need not have authority to approve minor design changes to meet unanticipated field conditions, provided that the same are consistent with the Drainage Plans.

(3) Les Hock is designated by Landowner as the Site Superintendent, until Landowner notifies the City Department of Utilities of his replacement. Bill Busath is designated by City as the City Project Manager, until City notifies Landowner

of his replacement.

C. Construction and Inspection. Landowner shall construct the Drainage Facilities in accordance with the Drainage Plans and any changes or revisions thereto approved by City. City shall be allowed to enter the Landowner Property to perform construction inspection whenever deemed necessary by City, provided that City Project Manager shall notify Landowner's Site Superintendent of any entry to and departure from the construction site by City inspectors when an inspection occurs during the normal working hours.

(1) Should a City inspector (the "Inspector") find any non-conformance or noncompliance with the Drainage Plans, the Inspector shall notify the City Project Manager and the Site Superintendent of such nonconformance or noncompliance, and the City Project Manager and the Site Superintendent shall jointly determine the nature of the corrective action to be taken. Corrective action taken pursuant to the agreement between the City Project Manager and the Site Superintendent shall be deemed to be in accordance with the Drainage Plans.

(2) If the City Project Manager and the Site Superintendent are unable to agree upon the corrective action to be taken, the City Project Manager may order that work on the nonconforming or noncomplying item(s) or area(s) be stopped. If the City Project Manager orders work to stop: (a) Landowner shall comply with all requirements of any stop work order and must obtain City's approval before work can resume on that item(s) or in that area(s); and (b) the City Project Manager, the Site Superintendent and such other representatives of City and Landowner as are necessary or appropriate to evaluate, discuss and resolve the situation, shall promptly meet and confer regarding the measures necessary to correct the nonconforming or noncomplying items(s) or area(s).

(3) Landowner, at its expense, shall make normal construction design review and support services available to City during the course of construction. The City's inspection fees shall include an amount necessary to compensate City for the services provided by the City Project Manager pursuant to this Agreement.

(4) Landowner intends to convey to City fee title to the property covered by the lake which will serve as both a detention basin, and a recreational amenity for Landowner's residential development. Such conveyance is subject to all of the terms and conditions of this Section 3. Additionally, Landowner will reserve to itself an easement for recreational and related uses. City shall have the right to approve the form of the reserved easement. In determining the value of the lake property for purposes of reimbursement (if applicable) through Community Facilities District #00-01, or such other mechanism as is selected in City's sole and exclusive discretion, the said easement shall be taken into account in the deliberations of the independent appraiser commissioned by City to appraise the lake property.

(5) Landowner and City have agreed upon the terms and

conditions of a Lake Management Plan ("Plan") for the lake/detention basin, which Plan *inter alia* specifies the parties' responsibilities and obligations relative to maintenance of the lake/detention basin and all of its facilities. Landowner shall undertake all required procedures to form a homeowners' association which will, in addition to its other duties, be fully responsible for satisfying Landowner's maintenance obligations under the Plan. No person shall be allowed to occupy any residence within the Property unless and until the homeowners' association has been fully formed and is in existence in good standing. The Lake Management Plan is attached hereto, marked **Exhibit H**, and is incorporated herein by this reference.

(6) It is City's intention to form, at Landowner's expense, an additional Community Facilities District or other similar comparable financing mechanism ("District") for the purpose of providing contingency funding for fulfillment of Landowner's and the homeowners' association's maintenance obligations under the Plan, in the event that there is a default in performance of such obligations. The District will provide for a zero tax, which in City's discretion may be escalated to a specified maximum tax in case of such a default. Landowner, for itself and its assigns, agrees to the formation of the District, and to execute all waivers and other documents required by City in connection with formation of the District, and to vote affirmatively on the issues of formation and the establishment of the tax rate and method of apportionment, which will be determined by an independent consultant selected by City, as well as the tax levy. The parties agree that no bonds will be issued in CFD #00-01 for purposes of reimbursement of Landowner's costs in constructing the Drainage Facilities, unless and until the District is formed and all proceedings have been finally approved for levy of the tax. City will diligently proceed with formation of the District.

(7) The parties further agree that a formal acquisition and shortfall agreement relating to CFD #00-01 shall be entered into prior to adopting a Resolution of Formation with respect to the District, in a form approved by the City Attorney, to be executed by Landowner and City.

D. Weekly Meetings. During the construction of the Drainage Facilities, appropriate representatives of each party shall meet on a weekly basis as needed to coordinate activities and keep all parties advised as to the status of the Drainage Facilities project.

3. Conveyance of Drainage Facilities, Dedication of Easements, As-Builts, Warranties.

A. Compliance with Standard Specifications; Warranty of Work. Except as otherwise specified herein, all matters relating to notices of completion, inspections for completion, correction of deficiencies, notices of correction of deficiencies, final inspections, testing, final approvals, conveyance of facilities to City, City acceptance of the Drainage Facilities, as-built construction specifications, drawings, plans and submittals, maintenance and repairs pending final acceptance by City, assignment of third-party warranties to City, and Landowner's warranty of the Drainage Facilities, shall be conducted and determined in accordance with City's Standard Specifications. With respect to warranties of work, the Standard Specifications generally require a one-year warranty dating from the date of acceptance of the work by City.

B. Conveyance of Drainage Facilities. Prior to, and as a condition precedent to acceptance by City of the completed Drainage Facilities, Landowner shall also irrevocably dedicate to City, at no cost to City, legal title to all of the completed Drainage Facilities including without limitation any and all easements on, over, under and across Landowner Property which are necessary for City to own, operate, gain access to, and maintain and repair all or any portion of the Drainage Facilities, except for the detention basin site, which detention basin site shall be irrevocably dedicated to City in fee, at no cost to City. Where the project requires acquisition of interests in real property on land other than the Landowner Property, Landowner shall acquire at Landowner's sole cost and expense all such interests and convey such interests to City in accordance with the provisions of this section. In the event that Landowner is unable to acquire such interests from the owners thereof after using reasonable business efforts in good faith, City agrees, to the extent permitted by law, to employ its legal authority to acquire such interests; provided, however, that Landowner shall be required to pay to City all costs of acquisition, including but not limited to attorney fees (whether for the City Attorney or City-selected outside counsel), court costs, appraisal costs, city staff costs, and other costs related to the acquisition procedures. City shall provide to Landowner an initial estimate of such costs, which Landowner shall pay within ten (10) days of notice by City of the cost estimate. In the event that actual costs exceed the estimate, City shall bill Landowner for the excess thereof on a quarterly basis, and Landowner shall pay any such billing within ten (10) days from receipt thereof. In the event that the costs are less than the estimate, City shall refund to Landowner the excess deposited with City within ten (10) days from the date on which the acquisition is completed. In the process of acquisition, City will use its best efforts to obtain rights to enter and construct the Drainage Facilities so as to expedite the construction schedule.

(1) The easements and detention basin site shall be conveyed to City subject only to "Permitted Encumbrances," as hereinafter defined. Landowner agrees and covenants to take any and all actions necessary to remove any and all encumbrances which do not constitute Permitted Encumbrances, prior to conveying the easements and detention basin to City.

(2) As used in this Agreement, the term "Permitted Encumbrances" means: (a) nondelinquent assessments or taxes for bonds issued by City or its nominee; (b) nondelinquent assessments by RD-1000; (c) nonexclusive easements for public facilities or utilities which do not interfere with or limit the rights to be conveyed to City hereunder, including easements for highways, streets, roads, ditches, canals, levees, sewer facilities, electrical facilities, gas facilities, telephone facilities and drainage facilities; (d) any improvement agreement, development agreement, reimbursement and warranty agreement, indemnification agreement, mitigation agreement, or agreement to participate in North Natomas Financing Plan, between any owner of the Landowner Property and City; and (e) such other encumbrances as the City may approve in writing.

(3) Notwithstanding their "Permitted Encumbrances" status, the City shall not be responsible for the payment of any tax or assessment, or fee or charge levied against the easements and detention basin (collectively, the "Flood Improvement Taxes and Assessments") by virtue of the City's acquisition thereof pursuant hereto, including but not limited to, the following: direct levy assessments of the Sacramento Area Flood Control Agency for the construction of presently existing flood control improvements benefitting the Landowner Property; and, special taxes under the presently existing Community Facilities District formed to fund the construction of additional flood control improvements benefitting the Landowner Property.

(a) Landowner shall pay all then-current installments of the Flood Improvement Taxes and Assessments at the time of conveyance, and Landowner or its successors in interest shall remain responsible for the payment of the future installments of the Flood Improvement Taxes and Assessments levied against the property affected by the City easements described in this Agreement.

(b) The City, upon the direction and express consent of Landowner, which are hereby given, shall use its best efforts to cause the Flood Improvement Taxes and Assessments affecting the detention basin to be reallocated in accordance with applicable law and the provisions of the relevant district. With respect to the components of the Flood Improvement Taxes and Assessments which originate from a district formed by City, City upon complete and proper application made by Landowner (including applicable fees), agrees to cause such reallocation to be completed, to the extent allowable by law and in accordance with the provisions of the relevant district. As to districts not formed by City, or as to City-formed districts where reallocation cannot be completed in accordance with applicable law and/or the provisions of the relevant district, if despite the City's best efforts, Flood Improvement Taxes and Assessments remain against the detention basin, Landowner and the City shall implement a reasonable alternative to assure that the City has no responsibility for the payment of the future installments of such Flood Improvement Taxes and Assessments.

4. Completion of Drainage Facilities; Interim Facilities; Home Construction; Satisfaction of Drainage Conditions.

A. Phasing of Facilities. Landowner may elect to install the Drainage Facilities in the phases described in **Exhibit C** (the "Phasing Plan") and has agreed to post security applicable to such phases in accordance with Section 7 below. The City has approved the Phasing Plan and the security described in Section 7. In the event that Landowner desires to modify the Phasing Plan, then the Drainage Facilities to be included within each modified phase, their location, the area to be served thereby, the timing for completion of such modified phases and the posting of any applicable security in accordance with Section 7 below shall be subject to the review and approval of the Director of the Department of Utilities, in the Director's absolute and sole discretion.

B. Interim Drainage Facilities. Landowner shall have the right, subject to the same City review and approval provisions as are set forth in subsection A above, to provide interim drainage facilities to serve the initial development of the Landowner Property until such time as the Drainage Facilities are completed and conveyed to City as provided herein. Such interim facilities may (by way of example) include temporary pumps to serve the initial development of the Landowner Property until permanent pumps are required hereunder in City's judgment. Provided that, if and when development of the Landowner Property reaches the level where the installation of the Drainage Facilities, or applicable portion thereof, is required, then City may require the completion of such Facilities, or portion thereof, as a condition to any further development of the Landowner Property. Nothing in this Agreement or in any other agreement between the parties, and no action on the part of City, its officers, employees or agents in approving such interim facilities shall be construed to create a waiver of any requirement that the Drainage Facilities be fully and completely installed by Landowner.

C. Building Permits and Certificates of Occupancy. The portions of the Drainage Conditions which limit the availability of building permits and the occupancy of structures may also be satisfied on a phase-by-phase basis, in accordance with this Section 4.C.

(1) Commencement of construction of the Drainage Facilities within a phase, as described in the Phasing Plan, shall entitle Landowner to obtain building permits for the maximum number of residences and other structures permitted within the building area ("Building Area") served by that phase of the Drainage Facilities, as such Building Area is also shown on the Phasing Plan. So long as Landowner is not in default under this Agreement, once the Drainage Facilities within a phase have been commenced, City shall not refuse or delay, on the basis of the Drainage Conditions, to issue building permits within the applicable Building Area or to inspect any residence or other structure for which a building permit has been issued.

(2) Once Landowner has completed construction of the Drainage Facilities in a phase, City shall not, on the basis of the Drainage Conditions, including

without limitation, any failure to construct subsequent phases of the Drainage Facilities, refuse or delay the issuance of a certificate of occupancy for any residence or other structure for which a building permit has been issued or to otherwise allow the occupancy of any such structure, from and after the date Landowner has completed construction of such phase of the Drainage Facilities, as evidenced by the City of Sacramento Department of Utilities' final inspection and approval, or such earlier date as approved by the Department of Utilities, in its discretion. City agrees to act in a timely fashion in providing final inspection and approval. Upon notice from Landowner that the Drainage Facilities are complete, City agrees to provide the final inspections and a punch list of corrections within thirty (30) days of receipt by City of such notice.

(3) In the event the Phasing Plan is modified in accordance with Section 4.A, then the foregoing provisions shall apply with respect to the revised Building Area(s) as shown on the revised Phasing Plan.

D. Satisfaction of Drainage Conditions. When Landowner has completed construction of the Drainage Facilities in accordance with this Agreement and City has accepted the Drainage Facilities, the Drainage Conditions will be deemed satisfied for all purposes with respect to the Landowner Property. For purpose of this Agreement, City acceptance means final completion in accordance with the Drainage Plans of the Drainage Facilities or phase thereof, which has been finally inspected and approved by the City for acceptance into its drainage system.

5. Hazardous Substances.

A. No Review, Examination or Assessment. The parties acknowledge and understand that City has not conducted any review, examination or assessment to assess, identify or detect the presence of any Hazardous Substances, as defined below, on, under or around Landowner Property. As between the City and Landowner, any liability associated with the presence of any Hazardous Substances on, under or around the Landowner Property, including any interests in said property dedicated to City as provided herein, shall be governed by the provisions of Section 6 below, regardless of whether any such review, examination or assessment is conducted.

B. Definitions.

(1) As used herein, the term "Hazardous Substances" means:

(a) Those substances included within the definitions of hazardous substance, hazardous waste, hazardous material, toxic substance, solid waste, or pollutant or contaminant under any Environmental Law, as defined below;

(b) Those substances listed in the United States Department of Transportation Table [49 CFR 172.101], or by the Environmental Protection Agency, or any successor

agency, as hazardous substances [40 CFD Part 302];

(c) Other substances, materials, and wastes that are or become regulated or classified as hazardous or toxic under federal, state or local laws or regulations; and

(d) Any material, waste, or substance that is

i) a petroleum or refined petroleum product,
ii) asbestos,
iii) polychlorinated biphenyl,
iv) designated as a hazardous substance pursuant to 33 USCS §1321 or listed pursuant to 33 USCS §1317,
v) a flammable explosive, or
vi) a radioactive material.

(2) As used herein, the term "Environmental Law" means all federal, state, local or municipal laws, rules, orders, regulations, statutes, ordinances, codes, decrees or requirements of any government authority regulating, relating to, or imposing liability or standards of conduct concerning any Hazardous Substance, or pertaining to environmental conditions on, under, or about the detention basin site or any of the easement areas which Landowner is required to and does convey to City pursuant to this Agreement, as now or may at any later time be in effect, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) [42 USCS §§ 9601 *et seq.*]; the Resource Conservation and Recovery Act of 1976 (RCRA) [42 USCS §§ 6901 *et seq.*]; the Clean Water Act, also known as the Federal Water Pollution Control Act (FWPCA) [33 USCS §§ 1251 *et seq.*]; the Toxic Substances Control Act (TSCA) [15 USCS §§ 2601 *et seq.*]; the Hazardous Materials Transportation Act (HMTA) [49 USCS §§ 1801 *et seq.*]; the Insecticide, Fungicide, Rodenticide Act (7 USCS §§ 136 *et seq.*]; the Superfund Amendments and Reauthorization Act [42 USCS §§ 6901 *et seq.*]; the Clean Air Act [42 USCS §§ 7401 *et seq.*]; the Safe Drinking Water Act [42 USCS §§ 300f *et seq.*]; the Solid Waste Disposal Act [42 USCS §§ 6901 *et seq.*]; the Surface Mining Control and Reclamation Act [30 USCS §§ 1201 *et seq.*]; the Emergency Planning and Community Right to Know Act [42 USCS §§ 11001 *et seq.*]; the Occupational Safety and Health Act [29 USCS §§ 655 and 657]; the California Underground Storage of Hazardous Substances Act [Health and Safety Code §§ 25280 *et seq.*]; the California Hazardous Substances Account Act [Health and Safety Code §§ 25100 *et seq.*]; the California Safe Drinking Water and Toxic Enforcement Act [Health and Safety Code §§ 24249.5 *et seq.*]; the Porter-Cologne Water Quality Act [Water Code §§ 13000 *et seq.*], together with any amendments of or regulations promulgated under the statutes cited above, and any other federal, state or local law, statute, ordinance or regulation now in effect or later enacted that pertains to the regulation or protection of the environment, including ambient air, soil, soil vapor, groundwater, surface water, or land use.

6. Indemnification; Waiver and Release.

A. Indemnification by Landowner. Subject to the provisions of this Section 6, Landowner agrees and covenants to, and shall fully indemnify, defend and hold harmless City and its elective and appointive boards, commissions, officers, employees and agents, from and against any and all liabilities, penalties, losses, damages, costs, expenses (including reasonable attorneys' fees, whether for outside counsel or the City Attorney), causes of action, claims, or judgments (collectively, "Claims") arising by reason of any death, bodily injury, personal injury, property damage or violation of any law or regulation to the extent arising from any actions or omissions in connection with the design, construction, operation, maintenance or repair of the Drainage Facilities by any of the following: Landowner, any of Landowner's engineers, contractors or subcontractors, or any other person or entity employed by or acting on behalf of or as the authorized agent for Landowner, or any of Landowner's engineers, contractors or subcontractors. Provided, however, that Landowner shall not be liable hereunder to indemnify, defend or hold harmless City and its elective and appointive boards, commissions, officers, employees and agents against Claims alleging sole and active negligence of City in its functions of design review, approval or construction inspection in connection with the Drainage Facilities; provided further, that nothing in this Agreement shall be construed as a waiver by City of any immunity or defense it may have relating to any such Claim, including without limitation immunity or defenses relating to design review and/or approval and/or construction inspection.

B. Indemnification Regarding Hazardous Substances. Landowner further agrees and covenants to, and shall fully indemnify, defend and hold harmless City, and its elective and appointive boards, commissions, officers, employees and agents, from and against any and all Claims arising by reason of any death, bodily injury, personal injury, property damage or damage to the environment to the extent arising from any use, storage, treatment, transportation, release or disposal, on, about or around the portion of the Landowner Property on which the detention basin or any of the Drainage Facilities or the easements which are required to be or which are transferred to City shall be located, of any Hazardous Substances, as defined above, by any person or entity (except persons or entities acting on City's behalf or under City's control), occurring on or at any time prior to the date the detention basin site, the Drainage Facilities, and the said easements are conveyed to City as provided in this Agreement. The foregoing indemnification obligation shall not apply to the incorporation of building materials as part of the Drainage Facilities, provided such incorporation is performed in accordance with applicable laws and is not in violation of Environmental Laws in effect at the time of such incorporation.

C. Duration of Indemnification Obligations. The indemnification and hold harmless agreement made by Landowner in Section 6.A above, with respect to the Drainage Facilities, or each part thereof constructed by Landowner, shall expire on a phase-by-phase basis. Such indemnification and hold harmless agreement shall expire with respect to a phase on the date which is one year after the completion of such phase of the Drainage Facilities and acceptance thereof by City (hereafter the "Expiration Date"), provided that Section 6.A above shall not expire and shall remain in effect with respect to

any Claims which are made, initiated, claimed, filed or assessed at any time prior to the Expiration Date, or which relate to (directly or indirectly) any such Claims. The indemnification and hold harmless agreement made by Landowner in Section 6.B above shall survive the termination of this Agreement with respect to a phase until the date which is two years after the completion of such phase and acceptance thereof by City. Section 6.B above shall not expire, however, and shall remain in effect with respect to any Claims which are made, initiated, claimed, filed or assessed at any time prior to such date, or which relate to (directly or indirectly) any such Claims. The provisions of this Section 6.C shall apply only with respect to the indemnification and hold harmless provisions of this Agreement, and shall not affect the liability, if any, which Landowner might have under applicable law to the extent Landowner is a contaminator of the Landowner Property.

D. Additional Provisions Regarding Indemnification Obligations. The parties further agree and understand as follows: (1) City does not, and shall not be deemed to, waive any rights against Landowner which it may have by reason of the aforesaid indemnity and hold harmless agreements because of any insurance coverage provided pursuant to Section 8 below; (2) except as may otherwise be specifically and expressly provided in subsection 6.A. above relating to Claims based upon allegations of sole and active negligence on the part of City, the aforesaid indemnity and hold harmless agreements shall not be limited or waived in any way based upon the fact that City has or shall have prepared, supplied, or approved of plans and/or specifications for the Drainage Facilities, or has or shall have inspected or failed to inspect construction of the Drainage Facilities; (3) the scope of the aforesaid indemnity and hold harmless agreements is to be construed broadly and liberally to provide the maximum coverage for City in accordance with their terms; (4) no specific term or word contained in this section shall be construed as a limitation on the scope of the indemnification and defense rights and obligations of the parties unless specifically so provided; and (5) Landowner shall cause all engineering and construction contracts relating to the Drainage Facilities to require the engineer or contractor to fully and without limitation indemnify, defend and hold harmless City and its elective and appointive boards, commissions, officers, employees and agents, from and against any and all Claims arising by reason of any death, bodily injury, personal injury, property damage or violation of any law or regulation to the extent arising from any actions or omissions of such professional in connection with the design, construction, maintenance, operation or repair of the Drainage Facilities by said engineer or contractor, or any other person or entity employed by or acting as the authorized agent for said engineer or contractor, but only to the extent that such professional or other party has contractual responsibility for a portion or aspect of the Drainage Facilities. For example, a contractor responsible for constructing a portion of the Drainage Facilities would not be held responsible for the design, nor would an engineer who designed a portion of the Drainage Facilities be held responsible for construction not in accordance with the design. So long as the construction contract contains the language contained in **Exhibit E**, attached hereto and incorporated herein by this reference, or other language approved in writing by the City, and if City is satisfied in its judgment with the adequacy of the engineer's or contractor's insurance, Landowner shall be deemed to have satisfied its obligation under subsection 6.D(5) to obtain for the City indemnification and defense

obligations on the part of Landowner's engineers and contractors.

E. Waiver by Landowner. In addition to Landowner's obligations to indemnify, hold harmless and defend City as set forth above, Landowner, its assigns, transferees and successors, hereby waives and releases any and all claims of whatever sort or nature which may arise against City or its officers, employees and agents, in connection with the design or construction of the Drainage Facilities.

F. Unknown Claims. This waiver and release shall include any and all claims arising under Section 1542 of the California Civil Code, which provides that:

> "A general release does not extend to claims which a creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor."

Thus, notwithstanding the provisions of Section 1542, and for the purpose of implementing a full and complete release, the parties hereto expressly acknowledge that this Agreement is intended to release and extinguish, without limitation, all claims as described in this Section 6 which the parties do not know or suspect to exist. The provisions of this Section 6 shall survive termination of this Agreement.

G. Indemnification by City. City further agrees and covenants to, and shall fully indemnify, defend and hold harmless Landowner, and its elective and appointive boards, commissions, officers, employees and agents, from and against any and all Claims arising by reason of any death, bodily injury, personal injury, property damage or damage to the environment (i) to the extent arising from any City use, storage, treatment, transportation, release or disposal, on, about or around the portion of the Landowner Property on which the detention basin or any of the Drainage Facilities or the easements which are required to be or which are transferred to City shall be located, of any Hazardous Substances, as defined above, by any person or entity (except persons or entities acting on Landowner's behalf or under Landowner's control), occurring on or at any time after the date the detention basin site, the Drainage Facilities, and the said easements are conveyed to City as provided in this Agreement; (ii) arising from any act (including but not limited to those covered by subsection (i) immediately above) on the part of City or its agents or employees in the use and operation of the Drainage Facilities; or (iii) occurring on or at any time arising from any entry upon the Landowner Property by City, its agents, employees or contractors, pursuant to the provisions of section 2 of this Agreement.

7. Security.

A. Security for Drainage Facilities. Prior to approval of a final parcel map, or a final subdivision map, for any portion of the Landowner Property, Landowner shall post with City the security required by this Section 7.A in order to secure performance of all of Landowner's obligations hereunder with respect to the Drainage Facilities. In all cases the security shall be in the form of a standby letter of credit, acceptable in form to

the City Attorney. In City's sole and absolute discretion, City may approve an alternate form of security proposed by Landowner.

(1) Landowner shall post with the City the following security (the "Initial Drainage Security") in connection with the City's approval of the final Master Parcel Map, which affects the entire Landowner Property: a standby letter of credit in an amount equal to the total cost of construction of the Drainage Facilities, as shown on the Engineer's Cost Estimate, attached hereto as **Exhibit F**, and incorporated herein by this reference.

(2) The Initial Drainage Security shall be reduced and/or replaced, from time to time, in connection with the commencement of construction of Drainage Facilities shown on improvement plans approved by the City. As and when City approves the improvement plans ("Approved Plans") for all or any portion of the Drainage Facilities and authorizes the commencement of construction of the Drainage Facilities ("Approved Facilities") shown on the Approved Plans, Landowner shall replace the Initial Drainage Security with respect to the Approved Facilities with a Labor and Material Bond and Performance Bond or alternate security as may be approved by the City (the "Construction Security") in the amount customarily required by the City in connection with subdivision improvements, based upon the estimated cost of completing the Approved Facilities. Once Landowner has furnished the City with the Construction Security, the Initial Drainage Security shall be reduced and released by the City with respect to those amounts secured by the Construction Security. If the Drainage Facilities are completed before the entire Initial Drainage Security has been released, the then-remaining Initial Drainage Security shall be released when Landowner furnishes the security required by Section 7.B.

B. Security for Warranty. To secure the terms of the warranties set forth in Section 3.A above, Landowner shall provide warranty security in a form acceptable to City in the amount of ten percent (10%) of the full cost to construct the applicable Drainage Facilities. The warranty security for the Drainage Facilities shall be the warranty security furnished in connection with the subdivision to which such facilities are attributed. Warranty security shall be provided at the time that each portion of the Drainage Facilities are conveyed to City as set forth herein, and shall remain effective throughout any applicable guarantee period. Prior to City making any temporary or permanent repairs or replacements during the warranty period, City shall provide Landowner with detailed information concerning the warranty work that needs to be completed, including the estimated cost of the work and the reasons that the City believes the work is required. City and Landowner shall meet and confer regarding such warranty work and Landowner shall be given a reasonable opportunity to perform such warranty work within a time frame and on conditions which are reasonable under the circumstances. If City makes or causes to be made any temporary or permanent repairs or replacements during such warranty period, Landowner shall be assessed, in addition to actual costs and expenses of such repair or work, fifteen percent (15%) of such costs and expenses for overhead. The assessment of costs, expenses and overhead shall first be drawn from Landowner's warranty security. If the amount exceeds the balance of the warranty security, Landowner will be required to pay for the additional costs incurred within thirty (30) days after City requests payment of the additional amount.

8. **Insurance.** Landowner shall obtain and deliver to City, at no cost to City, certificates of insurance which indicate that City, its elective and appointive boards, commissions, officers, agents and employees are covered as additional insureds under all insurance policies maintained for design and/or construction of the Drainage Facilities (1) by Landowner, or (2) by any engineer, contractor or subcontractor directly or indirectly employed by Landowner to perform any work related to the Drainage Facilities, with respect to any and all liability resulting from or in any way arising out of any actions or omissions by Landowner or any engineer, contractor or subcontractor directly or indirectly employed by Landowner in connection with the design, construction, operation, maintenance or repair of the Drainage Facilities. The aforesaid policies shall also provide that no cancellation, major change in coverage, or expiration may be affected by the insurance company or the insured during the term of this Agreement, without first giving to City thirty (30) days' written notice prior to the effective date of such cancellation or change in coverage. Landowner shall not permit any contractor or subcontractor to commence or continue work on the Drainage Facilities until the aforesaid certificates have been approved by the City's Division of Risk Management.

9. **Binding on Successors.** Subject to the provisions of section 14 of this Agreement, this Agreement shall be binding on and shall inure to the benefit of City and Landowner and their respective principals, heirs, executors, administrators, devisees, legal representatives, successors, assigns, affiliates, parent and subsidiary corporations, and their past, present and future shareholders, directors, officials, employees and agents. The parties agree that Landowner's agreements and covenants contained herein are covenants which run with the Landowner Property, in accordance with Section 1468 of the Civil Code. The burden of said covenants shall be binding upon Landowner's constituents, successors, transferees and assigns, for the benefit of the Landowner Property to be served by the Drainage Facilities.

10. **Landowner's Representations**. Landowner certifies that it owns full legal title to the Landowner Property. Each individual executing this Agreement on behalf of a corporation, joint venture, partnership or other business represents and warrants that he or she has been authorized to do so by the entity on whose behalf he or she executes this Agreement and that said entity will thereby be obligated to perform the terms of this Agreement.

11. **Consultation With Attorneys.** Each party to this Agreement expressly states and represents that he/she/it have consulted with their respective attorneys concerning all portions of this Agreement and have been fully advised by said attorneys with respect to their rights and obligations hereunder. After said consultation and advice, each party voluntarily enters into this Agreement.

12. **Recording.** The parties agree that any party may record this Agreement in the office of the Recorder of Sacramento County. Upon request of Landowner, and if Landowner is not then in default under this Agreement, City agrees to execute such documents as are required to remove this Agreement from the title to a residential lot within the Landowner Property at the time of closing to a residential purchaser. City shall also,

upon request of Landowner, take such action to remove this Agreement from title upon City acceptance of a phase of the Drainage Facilities, as to any of Landowner's land as to which building permits were or could have been issued for said phase.

13. Notices. All notices herein required, unless otherwise specified, shall be in writing, and shall be delivered in person or sent by first class mail, postage prepaid.

To City:

Department of Utilities
City of Sacramento
5770 Freeport Boulevard
Sacramento, CA 95822
Attn: Bill Busath

To Landowner:

Mr. Thomas P. Winn
Winncrest Natomas LLC
2240 Douglas Blvd., Suite 200
Roseville, CA 95661

Any party may change its address by notice in writing to the other parties and thereafter notices shall be addressed and transmitted to the new address.

14. Assignment. This Agreement may not be assigned without the mutual written consent of all parties, and any attempt to assign this Agreement without such consent shall be void.

15. Amendment. This Agreement may only be amended in a writing signed by all parties.

16. Attorneys' Fees and Costs. Any party may bring a suit or proceeding to enforce or require performance of the terms of this Agreement, and the prevailing party in such suit or proceeding shall be entitled to recover from the other parties reasonable costs and expenses, including attorneys' fees, including outside counsel (and, in the case of City, the City Attorney).

17. Term of Agreement. This Agreement shall become effective as of the date first written above, and, subject to the provisions of Section 6 above, shall terminate one (1) year after the completion of all the Drainage Facilities and acceptance thereof by City.

18. No Agency. Neither Landowner nor any of Landowner's agents, engineers, contractors or subcontractors are or shall be considered to be agents of City in connection with the performance of any of Landowner's obligations under this

Agreement.

19. Other Agreements. This Agreement is not intended to, and shall not, cancel, supersede, modify or otherwise affect any other agreements which have been or may be made or any approvals or permits which have been issued between or by any party regarding the subject matter hereof, including but not limited to development agreements, subdivider agreements, and improvement agreements.

20. Habitat Conservation Fees. Landowner shall pay all applicable Habitat Conservation Fees with regard to construction of the Drainage Facilities, subject to Landowner's right to reimbursement of such fees pursuant to the provisions of **Exhibit G**; provided, however, the amount of such paid fees included within the Reimbursement Amount calculated pursuant to **Exhibit G** shall be limited to the fees paid less Landowner's prorata share thereof as calculated by City based upon relative benefit from the Drainage Facilities.

21. Reimbursement Provisions. City has undertaken, pursuant to the North Natomas Financing Plan, a policy of providing reimbursement to landowners who construct drainage facilities which create special benefit in the form of drainage capacity, in whole or in part, to other land in the Financing Plan area. If Landowner, pursuant to this Agreement, constructs Drainage Facilities which benefit lands in the North Natomas Finance Plan area which belong to other landowners who do not contribute their proportional share of the cost thereof at the time of construction, Landowner is entitled to reimbursement pursuant to the provisions of **Exhibit G**, attached hereto and incorporated herein by this reference. If said **Exhibit G** is not attached to this Agreement, Landowner and City have agreed that there is no applicable reimbursement right or entitlement for Landowner with regard to the Drainage Facilities constructed hereunder.

22. City Attorney Costs. Landowner shall pay to City the sum of $1,500.00 for the costs incurred by the City Attorney in negotiation of and preparation of this Agreement.

Landowner:

WINNCREST NATOMAS LLC
a Nevada limited liability company
By: Bramlea California LLC
a California limited liability company, its managing partner
By: Lennar Homes of California, Inc.,
a California corporation, its manager

By:_____
Thomas P. Winn, Vice President

—AND—

CITY:

CITY OF SACRAMENTO, a charter city

By: _____
Name: _____
Title: _____

ATTEST:

_____
City Clerk

APPROVED AS TO FORM:

_____
City Attorney

[NOTARY ACKNOWLEDGMENTS MUST BE ATTACHED]

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of Placer } ss.

On April 25, 2000 (Date), before me, Donna Ross, Notary Public (Name and Title of Officer (e.g., "Jane Doe, Notary Public")),

personally appeared Thomas P. Winn (Name(s) of Signer(s)),

☒ personally known to me
☐ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Donna Ross
Signature of Notary Public

DONNA ROSS
Commission #1259567
Notary Public - California
Placer County
My Comm. Expires Apr 6, 2004

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Agreement for Construction of Drainage Improvements

Document Date: No Date Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

© 1999 National Notary Association • 9350 De Soto Ave., P.O. Box 2402 • Chatsworth, CA 91313-2402 • www.nationalnotary.org Prod. No. 5907 Reorder: Call Toll-Free 1-800-876-6827

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT No. 5907

State of California

County of Sacramento

On May 31, 2000 (DATE) before me, Angelina M. Resurreccion (NAME, TITLE OF OFFICER - E.G., "JANE DOE, NOTARY PUBLIC"),

personally appeared Thomas Lee and Virginia K. Henry (NAME(S) OF SIGNER(S)),

☒ personally known to me - **OR** - ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

ESI1 ANGELINA M. RESURRECCION COMM. #1220420 Notary Public-California SACRAMENTO COUNTY My Comm. Exp. May 21, 2003 ESI1

WITNESS my hand and official seal.

Angelina M. Resurreccion
SIGNATURE OF NOTARY

OPTIONAL

Though the data below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

☐ INDIVIDUAL
☐ CORPORATE OFFICER

_____
TITLE(S)

☐ PARTNER(S) ☐ LIMITED ☐ GENERAL
☐ ATTORNEY-IN-FACT
☐ TRUSTEE(S)
☐ GUARDIAN/CONSERVATOR
☒ OTHER: Deputy City Manager and Assistant City Clerk

SIGNER IS REPRESENTING:
NAME OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

Agreement for Construction of Drainage Improv
TITLE OR TYPE OF DOCUMENT

_____
NUMBER OF PAGES

May 16, 2000
DATE OF DOCUMENT

_____
SIGNER(S) OTHER THAN NAMED ABOVE

©1993 NATIONAL NOTARY ASSOCIATION • 8236 Remmet Ave., P.O. Box 7184 • Canoga Park, CA 91309-7184

List of Exhibits

Exhibit "A" *Landowner Property description*

Exhibit "B" *Drainage Conditions*

Exhibit "C" *Phasing Plan*

Exhibit "D" *Location Map–Drainage Facilities*

Exhibit "E" *Landowner Construction Contract Language*

Exhibit "F" *Engineers Cost Estimate*

Exhibit "G" *Reimbursement Provisions*

Exhibit "H" *Lake Management Plan*

EXHIBIT A

LANDOWNER PROPERTY DESCRIPTION

EXHIBIT 'A'

#wstbro.doc

LAND OWNER LEGAL DESCRIPTION

All of Lots 65 and 69 of Natomas Central Subdivision, according to the official plat thereof, filed in the office of the recorder of Sacramento County, State of California, in Book 16 of Maps, at Page 3, and a portion of Lots 64, 70, 71, 88, and 89, of map said Natomas Central Subdivision, being a portion of Section 4 and 9, Township 9 North, Range 4 East, Mount Diablo Baseline and Meridian, according the Official Township Plats thereof, described as follows:

BEGINNING at a point which is the southeast corner of said Lot 64; thence along the south boundary line of said Lots 64 and 65, South 88° 49′ 42″ West, a distance of 3100.00 feet to the southwest corner of said Lot 65; thence along the west boundary line of said Lot 65, North 00° 33′ 18″ West, a distance of 2009.06 feet to the northwest corner of said Lot 65; thence along the north boundary line of said Lot 65, North 89° 39′ 42″ East, a distance of 139.80 feet to the southwest corner of said Lot 69; thence along the west boundary line of said Lots 69 and 89, North 00° 33′ 18″ West, a distance of 3423.80 feet to a point on the southwesterly right-of-way line of Interstate Highway 5, per Individual Grant Deed to the State of California, recorded as Document No. 821130-832, in said County, also being the beginning of a non-tangent curve concave to the southwest having a radius of 2370.00 feet, and to which a radial line bears North 13° 29′ 34″ East; thence leaving the west boundary line of said Lot 89, and proceeding along said southerly right-of-way line, southeasterly 391.58 feet, along said curve through a central angle of 09° 28′ 00″ to the beginning of a non-tangent line; thence continuing South 66° 55′ 04″ East, a distance of 256.52 feet to the beginning of a tangent curve concave to the northeast having a radius of 1230.00 feet; thence continuing along said southwesterly right-of-way line per Grant Deed to the State of California, recorded as Document No. 870825-679, in said County, southeasterly 125.95 feet, along said curve through a central angle of 05° 52′ 02″ to the beginning of a non-tangent line; thence continuing, South 72° 55′ 56″ East, a distance of 1301.92 feet to the beginning of non-tangent curve concave to the southwest having a radius of 970.00 feet, and to which a radial line bears North 16° 53′ 49″ East; thence southeasterly 384.38 feet, along said curve and said right-of-way line through a central angle of

22° 42′ 16″ to the beginning of a non-tangent curve concave to the southwest having a radius of 3830.00 feet, and to which a radial line bears North 39° 36′ 05″ East; thence southeasterly 240.59 feet, along said curve and right-of-way line through a central angle of 03° 35′ 57″ to the beginning of a non-tangent curve concave to the southwest having a radius of 570.00 feet, and to which a radial line bears North 43° 44′ 13″ East; thence southeasterly 294.44 feet, along said curve and said right-of-way line through a central angle of 29° 35′ 49″ to the beginning of non-tangent line; thence continuing along said southwesterly right-of-way line, South 16° 08′ 43″ East, a distance of 1115.76 feet; thence continuing, North 89° 26′ 42″ East, a distance of 35.01 feet to a point of intersection with the east boundary line of said Lot 71, said east boundary line also being the east line of said Section 4, also being the east boundary line of a Deed to the County of Sacramento, recorded as Book 1986, Page 205, Official Records of said County; thence along the east boundary line of said Lots 71, 70, and 64, South 00° 33′ 18″ East, a distance of 3060.14 feet to the POINT OF BEGINNING.

Containing 14,429,762.76 square feet or 331.2618 acres, more or less.

Basis of Bearings for this description is between found Caltrans monuments 24-241 and 24-236A as shown on the Record of Survey Map recorded in Book 42 of Surveys, at Page 14, in said County. Said line is taken to bear North 28° 19′ 35″ West

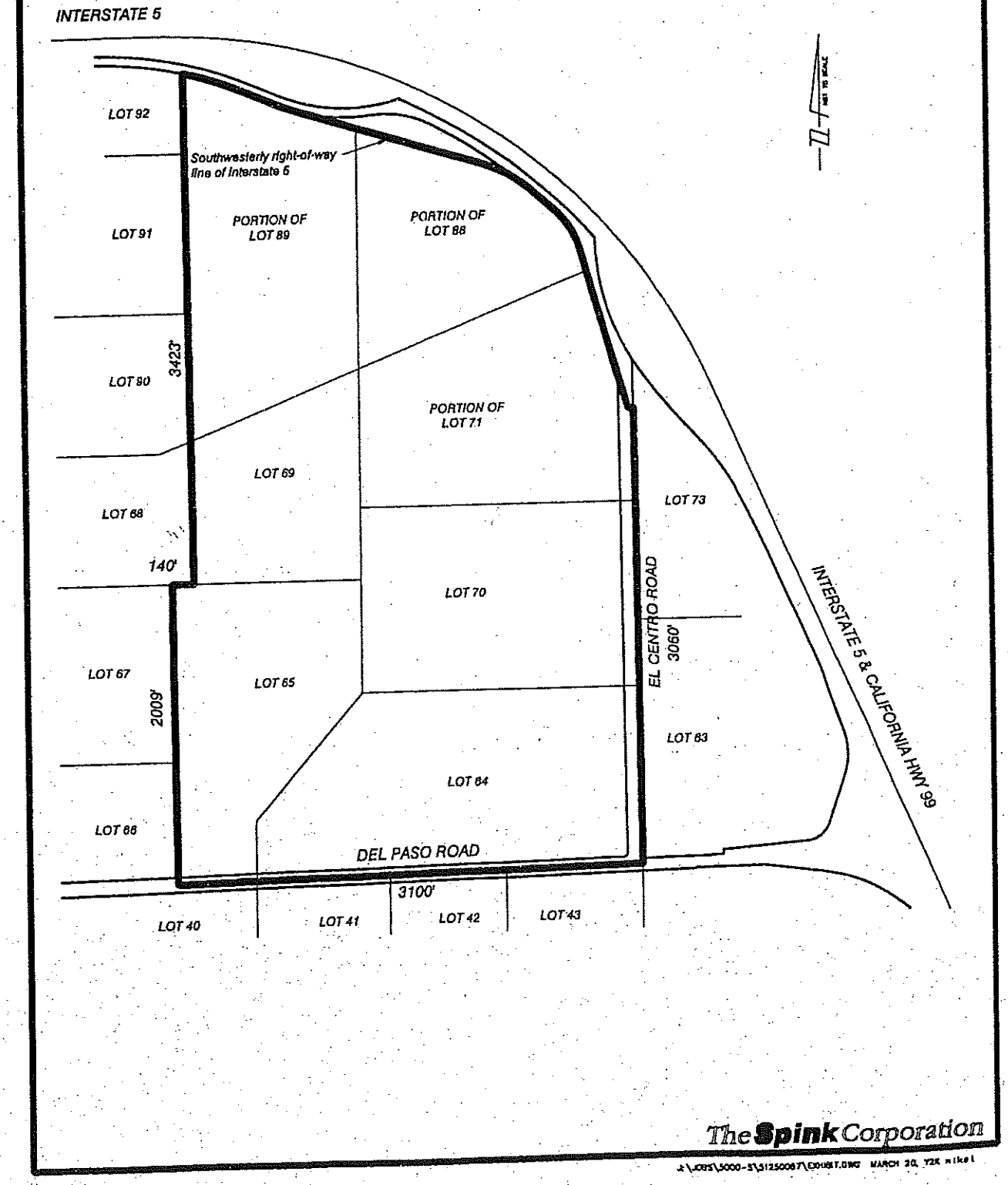
February 22, 2000

END OF DESCRIPTION



EXHIBIT "A"

LAND OWNER AREA



The Spink Corporation

J:\JOBS\5000-5\5125006?\EXHIBIT.DWG MARCH 20, 19?? nikel

EXHIBIT B

DRAINAGE CONDITIONS

EXHIBIT B

DRAINAGE CONDITIONS

Exhibit I-4

PUD CONDITIONS OF APPROVAL

The following conditions apply to the Westborough PUD:

a. Prior to approval of any development request within the Westborough PUD, a Special Permit must be approved by the City Planning Commission or Planning Director - as applicable.

b. The property owners of the PUD shall participate in the North Natomas Landscaping and Lighting District and any other applicable Lighting and Landscaping Districts, once adopted, to fund the maintenance costs of landscaping and lighting needs throughout the project area.

d. Any development within Westborough PUD must comply with the Residential and Non-Residential Development Guidelines in the Comprehensive Floodplain Management Plan.

e. The PUD Development Guidelines shall incorporate all applicable Expanded North Area Design Review District standards related to single and two family residential uses and multi-family residential uses. Any development within the PUD shall comply with these standards.

f. The North Natomas Community Plan requires that high density residential projects in excess of 200 units and 8 acres must create multiple apartment complexes separated by a local street or other linkage. No Special Permit shall be approved for a high density residential project that exceeds the apartment complex size unless a local street or other public linkage has been provided between apartment complexes.

g. Front-on lots on streets with projected volumes greater than 4,000 average daily trips (ADT) should be discouraged. Front-on lots in these locations must incorporate special design features to lessen their impact on street operations. These features include, but are not limited to: additional building setbacks, circular or hammerhead driveways, sidewalks separated from the curb (if allowed), etc. to the satisfaction of Public Works and Planning and Development Departments.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-615

DATE ADOPTED: OCT 26 1999

feet adjacent thereto as a public utility easement for underground facilities and appurtenances;

21. Designate a parcel of land for an electric substation to be acquired by the Sacramento Municipal District having approximately 1 acre of net usable area. The exact size and location of the substation parcel shall be by mutual agreement of SMUD and the property owners prior to the recordation of the Final Map. Contact Marvin Johnson at (916) 732-5338 for size and location.

    Note: SMUD is planning 69 kV overhead routes along Del Paso and El Centro Roads for the future substation site.

22. The owner/developer must disclose to future/potential owners the existing or proposed 69kV electrical facilities.

23. Provide two 20' x 40' exclusive easements for Pacific Bell's Controlled Environmental Vaults (CEV's) to the satisfaction of Pacific Bell.

24. Storm drainage facilities shall be designed in compliance with the City's North Natomas Drainage and Procedures Manual.

25. All sewer facilities shall be constructed in accordance with an approved master sewer study for the project. Prior to any trunk sewer design, a coordination and reimbursement meeting shall be held with CSD-1 staff.

26. A Homeowners' Association shall be formed whose responsibilities include maintenance of the private collector sewer.

27. County of Sacramento Improvement Standards shall apply to all on-site sewer construction.

    CSD-1 Advisories:

    a. A sewer study must be completed and accepted by CSD-1 staff prior to submittal of sewer improvement plans.

    b. Development of this property may require the payment of sewer impact fees. The applicant should contact the Fee Quote Desk at 875-6679 for sewer impact fee information.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-615

DATE ADOPTED: OCT 26 1999

EXHIBIT B (

DRAINAGE CONDITIONS

28. Prior to sign-off of the Final Map, Natomas Central Mutual Water Company shall be notified of map processing. In addition, all assessments due on the property shall be paid. If land use is other than agricultural, severance from the company is required. Pursuant to Company by-laws, severance from the Company requires execution of a stock cancellation agreement with Natomas Central Mutual Water Company, and severance fees must be paid.

City Utilities

29. An assessment district, community facilities district or other financing mechanism approved in writing by the City must be formed for the purpose of constructing all common drainage facilities within detention basin sub-area 8A and any additional drainage capacity or facilities required to accommodate development of the subject area in accordance with the drainage master plan for sub-basin 8A and other applicable drainage plans and criteria for North Natomas. For this purpose, "other financing mechanism" includes but is not limited to a fully executed agreement approved as to form by the City Attorney, which provides for funding and construction of the said facilities, and which provides for posting or depositing with the City unconditional security for performance of the landowner's obligations, which security is adequate in the sole and exclusive discretion of the City, and which is in a form acceptable to the City Attorney.

30. The applicant and/or any successor shall fully participate in any financing mechanism, including but not limited to assessment districts, or community facilities districts formed for the purpose of financing the facilities specified in the previous condition, and any such mechanism formed for the purpose of financing the drainage facilities required under the North Natomas Comprehensive Drainage Plan. For this purpose, "fully participate" requires that the applicant and/or any successor shall, notwithstanding the provisions of Articles XIIIC and/or XIIID of the California Constitution, or any other applicable federal or state law, rule or regulation, waive and relinquish any right to protest or vote against the formation of the mechanism and/or the levy of any assessment or tax pursuant thereto; actively participate in a positive manner in the proceedings for formation of the mechanism and/or the levy of any assessment or tax pursuant thereto; and pay all taxes, assessments and/or fees

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

levied pursuant thereto.

31. A drainage master plan for this site and the entire North Natomas Comprehensive Drainage Plan "Detention Basin 8A" drainage area must be completed and approved by the Department of Utilities. This plan is required to show the sizes of all trunklines in the major right-of-ways (as depicted in the North Natomas Community Land Use Plan). All outfall structures, drainage channels, detention basins and pump stations shall also be shown. Outfall structures must be located where the lake perimeter (bulkhead) is adjacent to the road right-of-way. If an outfall structure is placed between residential lot lines, then a separate lot (typical width 30 feet to 40 feet) must be dedicated in fee title to the City of Sacramento for access and maintenance. A phasing plan for drainage infrastructure, if appropriate, shall be approved by the Department of Utilities and included in the final master drainage plan report.

32. A water master plan for this entire area must be completed and approved by the Department of Utilities prior to recordation of the final master parcel map. This study shall also determine if the existing water distribution infrastructure is adequate to supply fire flow demands resulting from developing this project. All water mains shall be placed within the asphalt section of public street right-of-ways as per the City's Design Procedures Manual, unless otherwise approved by the Department of Utilities. Dedicate in fee title to the City Lot Z (Water Tank site). Lot Z shall be a minimum of approximately 260 feet by 260 feet. Lot Z shall be located so that maintenance vehicles will have street access to the Water Tank site.

33. A sanitary sewer master plan for this entire area must be completed and approved by Sacramento County Sanitation District No. 1 prior to recordation of the final master parcel map. The sewer master plan shall be provided to the Department of Utilities to assure that no conflicts with water or drainage facilities exist within the streets or easements. All sewer lines shall be placed within the asphalt section of public street right-of-ways as per the City's Design Procedures Manual, unless otherwise approved by the Department of Utilities and Sacramento County Sanitation District No. 1.

34. Properly abandon under permit, from the City and County Environmental Health Division, any well or septic system located on

FOR CITY CLERK USE ONLY
RESOLUTION NO.: 99-616
DATE ADOPTED: OCT 26 1999

the property prior to recordation of the final master parcel map.

35. Final design of the detention basins shall be coordinated and approved by the Department of Utilities.

36. All existing easements and all existing right-of-ways shall be shown on the Tentative Master Parcel Map. No water or storm drainage easements shall be abandoned on this map without the written approval of the Department of Utilities.

37. Dedicate all necessary easements, right-of-way, or fee title property on the final map as required to implement the approved drainage, water and sewer studies, per each approving agency requirements.

38. The full width of the private streets shall be dedicated as an easement for the water distribution and drainage system. All water and drainage facilities within the subdivision shall be constructed to City standards and approved by the Department of Utilities prior to acceptance of maintenance responsibilities. The easement shall include language assuring Department of Utility personnel and maintenance vehicles shall have unrestricted access to any private streets and easements at all times. Private streets shall have a minimum paved width (from lip of gutter to lip of gutter) of twenty five feet (25').

39. If the applicant wants the City to maintain and operate the on-site (private) storm drainage facilities, a written request must be filed with the Department of Utilities (per the Policy for Private Streets in Residential Areas).

40. The applicant shall develop a lake management plan subject to approval by the Department of Utilities. This management plan will address the operation and maintenance of flood control, water quality and other items directly related to the drainage system.

41. The applicant shall execute an agreement with the City which delineates the maintenance responsibilities of the Homeowners Association (HOA). This agreement shall include a provision which, in the event of the HOA's failure to adequately perform their maintenance responsibilities, allows the Department of Utilities to perform maintenance and be reimbursed for such maintenance by the HOA.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

DRAINAGE CONDITIONS

42. The applicant shall provide a water supply canal and right-of-entry for Natomas Central Mutual Water Company (NCMWC) to replace the existing water supply canal (canal 13A) and easement (40' ditch easement per 589 O.R. 184 joint use with State per 690313 O.R. 264). The relocation of the existing canal and easement shall be to the satisfaction of NCMWC and the Department of Utilities. Relocation of the existing canal and easement may require the reconfiguration of the proposed lots along the west boundary of the project.

43. Dedicate to the City an easement for the operation and maintenance of the 54-inch storm drain outfall pipe located in the County. The location of the pipe and the width of the easement shall be to the satisfaction of the Department of Utilities.

ADVISORY NOTES:

The following advisory notes are informational in nature and are not requirements of the Tentative Master Parcel Map:

1. Comply with Section 40.08.850 of the City Code regarding Master Parcel Maps, Ordinance No.95-013, Dated March 1995.

2. Prior to the issuance of any building permits, provide the City with a copy of the certificate of payment of school fees for the applicable school district(s).

3. This project is within the SAFCA Operations and Maintenance Assessment District No. 1, the North Area Local Project Capital Assessment District No. 2, and the SAFCA Capital Improvement Fee Equalization (CIEF) area. Therefore, the property owner will be required to pay these special benefit assessments and the CIEF based on the proposed land use and building intensity.

4. Prior to issuance of any building permits within the subject area all sanitary sewer, storm drainage, water, and flood control improvements shall be in place and fully functioning or an interim infrastructure plan and agreement shall be required.

5. Post construction, stormwater quality control measures shall be incorporated into the development to minimize the increase of urban runoff caused by development of the area. Since the project is in an

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

area served by a regional water quality control facility only source control measures are required. Refer to the draft "Manual of Standards for Design of New Development On-Site Stormwater Quality Control Measures" dated January 23, 1995, for appropriate source control measures.

6. Subject property must complete annexation to both the Sacramento Regional County Sanitation District and County Sanitation District No. 1 of Sacramento County or execute sanitary sewer service agreement with Sacramento Regional County Sanitation District and County Sanitation District No. 1 prior to issuance of building permits.

7. This project is 331 ± acres, therefore the project is required to comply with the State "NPDES General Permit for Stormwater Discharges Associated with Construction Activity" (State Permit). To comply with the State Permit, the applicant will need to file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) and prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to construction. A copy of the State Permit and NOI may be obtained from the Department of Utilities by calling 433-6318.

8. The applicant must comply with the City of Sacramento's Grading, Erosion and Sediment Control Ordinance. This ordinance requires the applicant to show erosion and sediment control methods on the subdivision improvement plans. These plans shall also show the methods to control urban runoff pollution from the project site during construction.

9. Depending upon project phasing and the construction pace of surrounding development, developers in North Natomas may be required to construct water transmission mains (pipes greater than 12"). In such cases, reimbursement agreements between the City and developers will be negotiated.

10. Prior to occupancy within the subject area, all sanitary sewer, storm drainage, water and flood control improvements shall be in place, fully functioning, and a notice of completion shall be issued by Public Works.

11. Gas service may be available to this project if desired. The developer should contact PG&E's Service Planning Department as

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

owners prior to the recordation of the Final Map. Contact Marvin Johnson at (916) 732-5338 for size and location.

Note: SMUD is planning 69 kV overhead routes along Del Paso and El Centro Roads for the future substation site.

47. The owner/developer must disclose to future/potential owners the existing or proposed 69kV electrical facilities.

48. Provide two 20' x 40' exclusive easements for Pacific Bell's Controlled Environmental Vaults (CEV's) to the satisfaction of Pacific Bell.

49. Storm drainage facilities shall be designed in compliance with the City's North Natomas Drainage and Procedures Manual.

50. All sewer facilities shall be constructed in accordance with an approved master sewer study for the project. Prior to any trunk sewer design, a coordination and reimbursement meeting shall be held with CSD-1 staff.

51. A Homeowners' Association shall be formed whose responsibilities include maintenance of the private collector sewer.

52. County of Sacramento Improvement Standards shall apply to all on-site sewer construction.

CSD-1 Advisories:

A sewer study must be completed and accepted by CSD-1 staff prior to submittal of sewer improvement plans. Development of this property may require the payment of sewer impact fees. The applicant should contact the Fee Quote Desk at 875-6679 for sewer impact fee information.

53. Prior to sign-off of the Final Map, Natomas Central Mutual Water Company shall be notified of map processing. In addition, all assessments due on the property shall be paid. If land use is other than agricultural, severance from the company is required. Pursuant to Company by-laws, severance from the Company requires execution of a stock cancellation agreement with Natomas Central Mutual Water Company, and severance fees must be paid.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

City Utilities

54. Prior to or concurrent with the submittal of improvement plans, a project specific drainage study as described in section 11.7 of the City Design and Procedures Manual shall be approved by the Department of Utilities. The 10-year and 100-year HGL's developed using the Sacramento City/County Drainage Manual Volume 2 Hydrology Standards, dated December 1996, or amendments thereto shall be shown on the improvement plans. Drain inlets shall be a minimum of 6 inches above the 10-year HGL. Building pad elevations shall be a minimum of 1.00 foot above the 100-year HGL and approved by the Department of Utilities. All drainage lines shall be placed within the asphalt section of public-right-of-ways as per the City's Design and Procedures Manual, unless otherwise approved by the Department of Utilities.

55. Prior to or concurrent with the submittal of improvement plans, a project specific water study shall be approved by the Department of Utilities.

56. The water distribution system shall be designed to satisfy the more critical of the two following conditions:

a. At maximum day peak hour demand, the operating or "residual" pressure at all water service connections shall be at least 30 pounds per square inch.

b. At average maximum day demand plus fire flow, the operating or "residual" pressure in the area of the fire shall not be less than 20 pounds per square inch.

Two points of service for the water distribution system for this subdivision or any phase of this subdivision are also required. All water lines shall be placed within the asphalt section of public-right-of-ways as per the City's Design and Procedures Manual, unless otherwise approved by the Department of Utilities.

57. Meet all County Sanitation District requirements.

FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

DRAINAGE CONDITIONS

58. The proposed development is located within the Reclamation District 1000 (RD 1000). Obtain approval from RD 1000 and pay necessary fees.

59. Per Sacramento City Code, section 40.07.710, "no final map shall be certified [by the Director of Public Works] until the required improvements have been installed or agreed to be installed in accordance with Chapter 40.12 (Subdivision Improvements)."

60. Paragraphs (a), (b), (c), (d), (f), (n) and (q) of Section 40.12.1211 of the City Code shall be required for this development. Off-site water and drainage main extensions may be required.

61. Properly abandon under permit, from the City and County Environmental Health Division, any well or septic system located on the property prior to recordation of the final map.

62. A grading plan showing existing and proposed elevations is required. Adjacent off-site topography shall also be shown to the extent necessary to determine impacts to existing surface drainage paths. No grading shall occur until the grading plan has been reviewed and approved by the Department of Utilities.

63. This project is 331 +/- acres, therefore the project is required to comply with the State "NPDES General Permit for Stormwater Discharges Associated with Construction Activity" (State Permit). To comply with the State Permit, the applicant will need to file a Notice of Intent (NOI) with the State Water Resources Control Board (SWRCB) and prepare a Stormwater Pollution Prevention Plan (SWPPP) prior to construction. A copy of the State Permit and NOI may be obtained from the Department of Utilities by calling 264-1400.

64. The applicant must comply with the City of Sacramento's Grading, Erosion and Sediment Control Ordinance. This ordinance requires the applicant to show erosion and sediment control methods on the subdivision improvement plans. These plans shall also show the methods to control urban runoff pollution from the project site during construction.

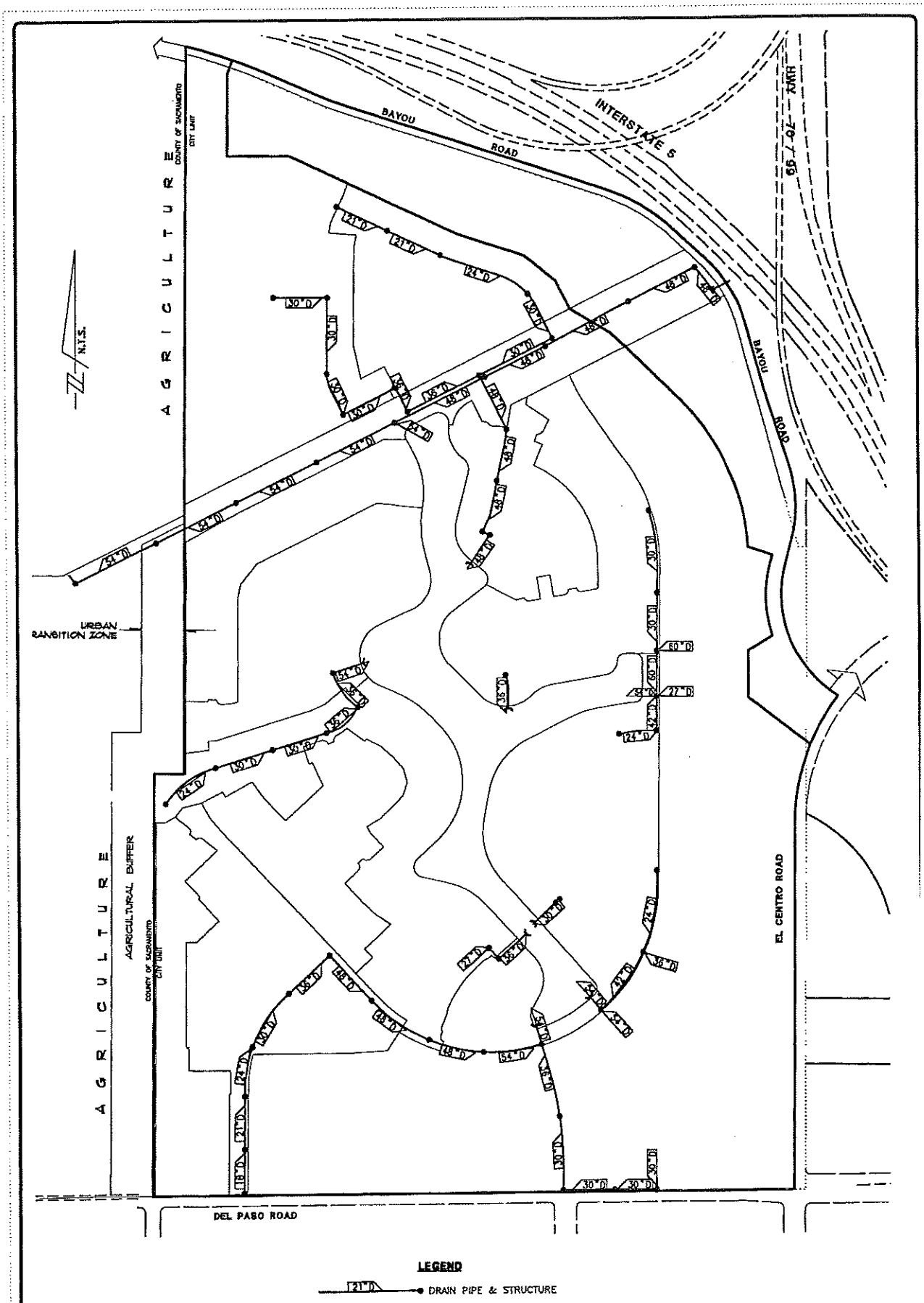
FOR CITY CLERK USE ONLY

RESOLUTION NO.: 99-616

DATE ADOPTED: OCT 26 1999

EXHIBIT C

PHASING PLAN

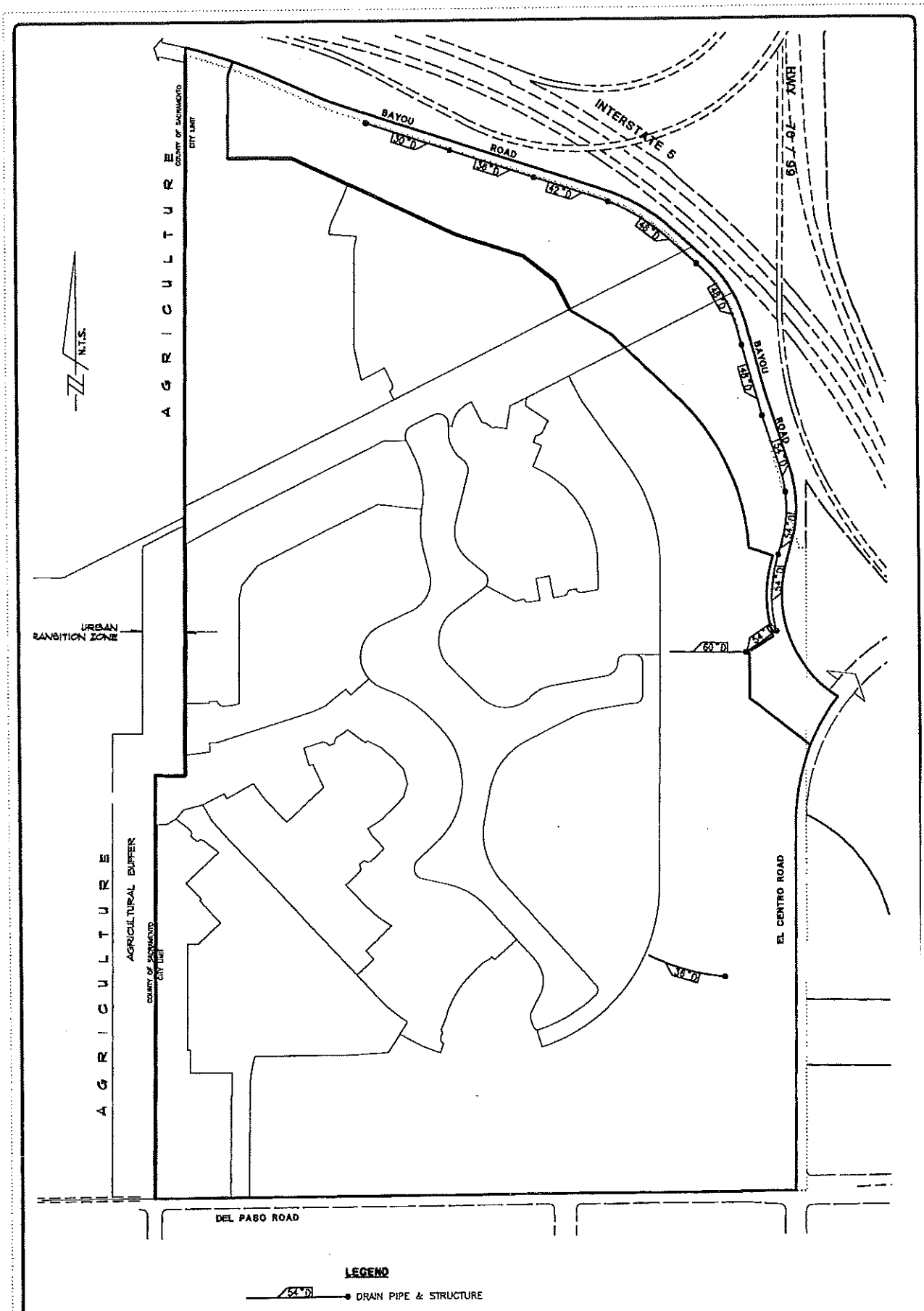


DETENTION BASIN SUB-AREA 8A
PHASE 1
COMMON FACILITIES

The Spink Corporation
2580 VENTURE OAKS WAY
SACRAMENTO, CA 95833-3288
(916) 925-3550 OFC
(916) 921-9274 FAX

FIGURE NO
C1

J:\JOBS\5000-S\51250075\CIVIL\C-CFD-EXHIBIT-C1.DWG 04/24/00 10:17



DETENTION BASIN SUB-AREA 8A
PHASE 2
COMMON FACILITIES

The Spink Corporation
2590 VENTURE OAKS WAY
SACRAMENTO, CA 95833-3288
(916) 925-3550 OFC
(916) 921-9274 FAX

FIGURE NO
C2

J:\JOBS\5000-S\51250075\CIVIL\C-CFD-EXHIBIT-C2.DWG 04/24/00 10:46

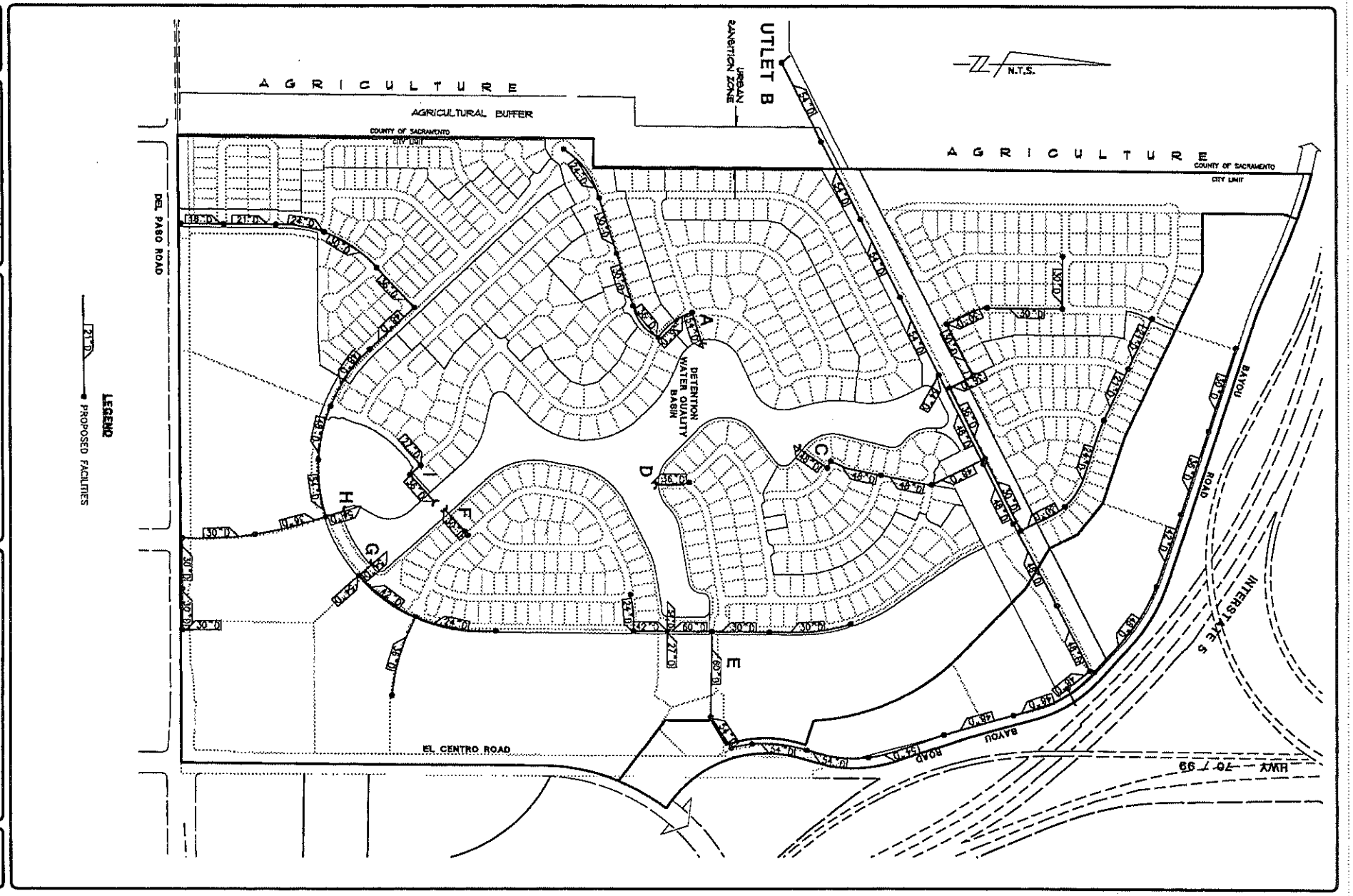
EXHIBIT D

LOCATION MAP--DRAINAGE FACILITIES

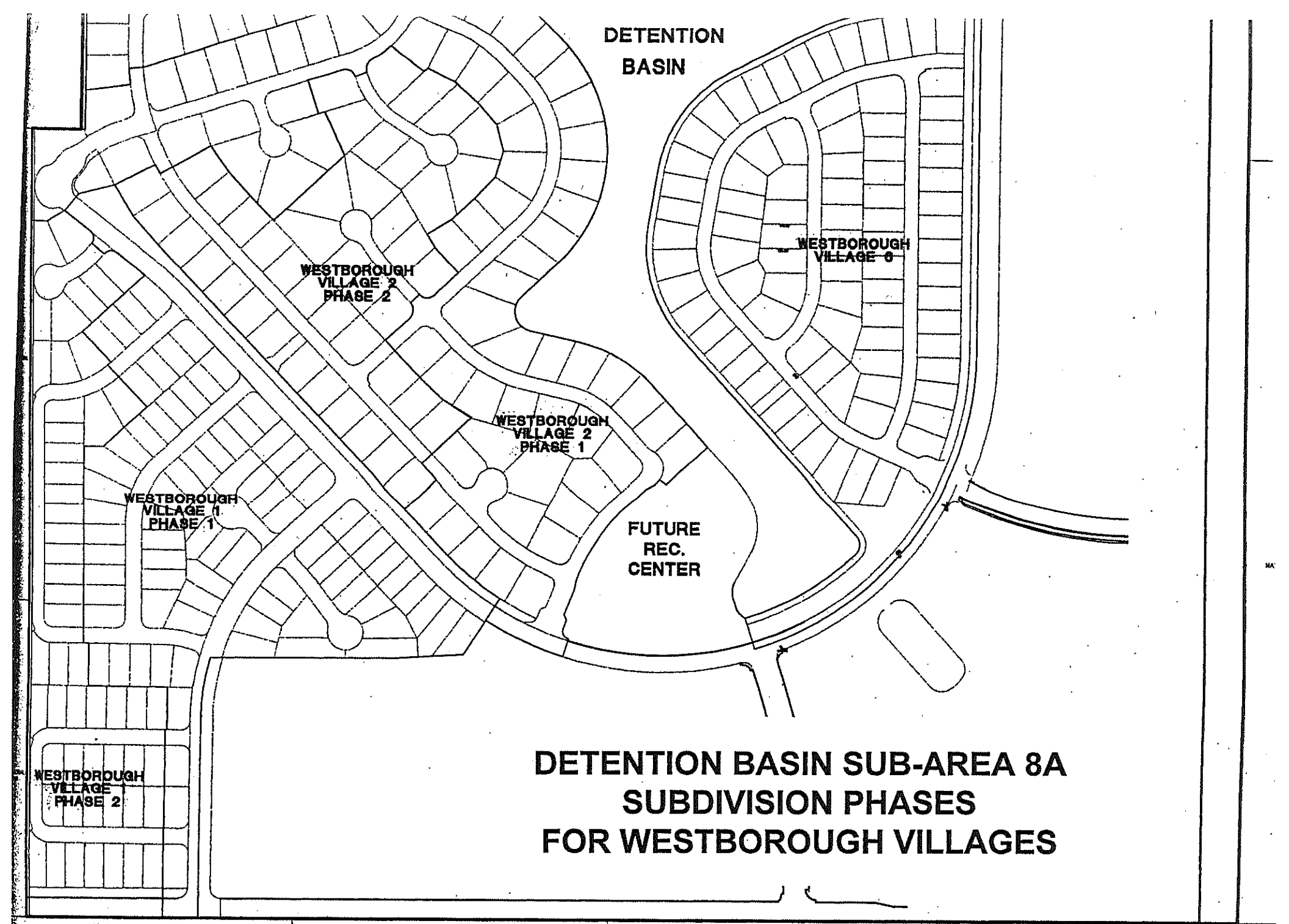
The following notes are expressly agreed to be part of this Agreement for all purposes:

1. This Exhibit describes the common facilities as now constituted. Exact pipe sizes and locations could change, and Landowner bears all risks associated with any such changes.

2. No final subdivision map for "Phase II" for Westborough Villages 1, 2, 3, 4 & 5, or any of them, may be submitted for approval or approved before approval of the final subdivision map or maps for all of the Phase I Subdivision Map area for Westborough Village, except with the express prior written approval of the City of Sacramento Department of Public Utilities. See attached map of subdivision phase.



J:\JOBS\5000-S\5125007S\CIVIL\C-CFD-EXHIBIT-D.DWG 04/24/00 10:51



DETENTION BASIN SUB-AREA 8A
SUBDIVISION PHASES
FOR WESTBOROUGH VILLAGES

EXHIBIT E

LANDOWNER'S CONSTRUCTION CONTRACT LANGUAGE

Contractor agrees and covenants to, and shall fully indemnify, defend and hold harmless City and its elective and appointive boards, commissions, officers, employees and agents, from and against any and all liabilities, penalties, losses, damages, costs, expenses (including reasonable attorneys' fees, whether for outside counsel or the City Attorney), causes of action, claims, or judgments (collectively, "Claims") arising by reason of any death, bodily injury, personal injury, property damage or violation of any law or regulation to the extent arising from any actions or omissions in connection with the design, construction, operation, maintenance or repair of that portion of the Drainage Facilities designed or constructed by Contractor, by any of the following: Contractor, any of Contractor's engineers, subcontractors, or any other person or entity employed by or acting on behalf of or as the authorized agent for Contractor, or any of Contractor's engineers or subcontractors.

EXHIBIT F

ENGINEER'S COST ESTIMATE

EXHIBIT F
ENGINEER'S COST ESTIMATE
NORTH NATOMAS BASIN 8A

DATE: 2/23/00
BY: TRC

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
I	DETENTION/WQ BASIN				
A	PHASE I DETNENTION GRADING				
1	Clearing and Grubbing	19	AC	50.00	950.00
2	Basin Excavation	442,900	CY	2.00	885,800.00
3	Clay Liner Excavation	17,900	CY	2.00	35,800.00
4	Clay Liner Stockpile	31,300	CY	2.20	68,860.00
	TOTAL PHASE 1 DETENTION GRADING				**$ 991,410.00**
B	PHASE II DETENTION GRADING				
1	Basin Excavation	21,000	CY	3.50	73,500.00
2	Clay Liner Placement	31,300	CY	4.00	125,200.00
3	Dewatering	1	JOB	125,000.00	125,000.00
4	Basin Headwall	9,400	LF	50.00	470,000.00
5	Boat Ramp	1	JOB	20,000.00	20,000.00
6	Erosion Control	188,000	SF	0.05	9,400.00
7	Basin Well	1	JOB	100,000.00	100,000.00
8	Detention Basin Planting/Fish	1	JOB	30,000.00	30,000.00
9	Rock Blanket at Headwall	65,800	SF	2.00	131,600.00
	TOTAL PHASE II DETENTION GRADING				**$ 1,084,700.00**
	SUBTOTTAL DETENTION/WQ BASIN				**$ 2,076,110.00**
	Contingencies @ 20%				**$ 415,222.00**
	Engineering, Constr. Mgmt., Inspection, Testing, Constr. Staking @ 25%				**$ 519,027.50**
	Habitat Conservation Plan	19	AC	2,656.00	**$ 50,464.00**
	Land Cost	19	AC	75,000.00	**$ 1,425,000.00**
	TOTAL DETENTION/WQ BASIN				**$ 4,485,823.50**

EXHIBIT F
ENGINEER'S COST ESTIMATE
NORTH NATOMAS BASIN 8A

DATE: 2/23/00
BY: TRC

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
II	**COMMON DRAINAGE OUTFALLS PHASE 1**				
A	**OUTFALL A**				
1	Drain Pipe 24"	286	LF	104.00	29,744.00
2	Drain Pipe 30"	556	LF	130.00	72,280.00
3	Drain Pipe 36"	408	LF	156.00	63,648.00
4	Drain Pipe 54" HDPE	180	LF	270.00	48,600.00
5	MH No. 3	3	EA	4,000.00	12,000.00
6	Saddle MH	2	EA	5,000.00	10,000.00
7	Junction Box w/ Canal Gate	1	EA	30,000.00	30,000.00
8	Cutoff Walls	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL A				**275,272.00**
B	**DETENTION BASIN OUTLET B**				
1	Clearing & Grubbing	1	JOB	5,000.00	5,000.00
2	Outlet Weir Structure	1	JOB	50,000.00	50,000.00
3	4'x4' RCP	150	LF	300.00	45,000.00
4	Drain Pipe 54"	1,700	LF	234.00	397,800.00
5	Saddle MH	6	EA	5,000.00	30,000.00
6	Junction Box	1	EA	15,000.00	15,000.00
7	Outlet Headwall NMWC	1	EA	15,000.00	15,000.00
8	Rock Slope Protection	1	JOB	5,000.00	5,000.00
9	54" Flap Gate	1	EA	8,000.00	8,000.00
10	Excavation	6,500	CY	3.50	22,750.00
11	NMWC Siphon	1	JOB	15,000.00	15,000.00
12	Dewatering	1	JOB	15,000.00	15,000.00
13	Erosion Control	4,000	SF	0.50	2,000.00
	SUBTOTAL DETENTION BASIN OUTLET B				**$ 625,550.00**
B	**OFFSITE AGRICULTURE AREA OUTFALL B**				
1	Clearing & Grubbing	1	JOB	5,000.00	5,000.00
2	Drain Pipe 48"	1,800	LF	208.00	374,400.00
3	Saddle MH	6	EA	5,000.00	30,000.00
4	Siphon	3	EA	15,000.00	45,000.00
	OFFSITE AGRICULTURE AREA OUTFALL B				**$ 454,400.00**

EXHIBIT F
ENGINEER'S COST ESTIMATE
NORTH NATOMAS BASIN 8A

DATE: 2/23/00
BY: TRC

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
	SUBTOTAL OUTFALL B				**$ 1,079,950.00**
C	**OUTFALL C**				
1	MH No. 3	6	EA	4,000.00	24,000.00
2	Saddle MH	8	EA	5,000.00	40,000.00
3	Junction Box w/ Canal Gate	1	EA	30,000.00	30,000.00
4	Cutoff Walls	2	EA	4,500.00	9,000.00
5	Drain Pipe 48" HDPE	180	LF	240.00	43,200.00
6	Drain Pipe 48"	829	LF	208.00	172,432.00
7	Drain Pipe 42"	517	LF	182.00	94,094.00
8	Drain Pipe 36"	855	LF	156.00	133,380.00
9	Drain Pipe 30"	837	LF	130.00	108,810.00
10	Drain Pipe 21"	725	LF	91.00	65,975.00
11	Drain Pipe 15"	277	LF	65.00	18,005.00
	SUBTOTAL OUTFALL C				**738,896.00**
D	**OUTFALL D**				
1	Drain Pipe 36" HDPE	180	LF	180.00	32,400.00
2	Junction Box w/ Canal Gate	1	EA	22,000.00	22,000.00
3	Cutoff Walls	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL D				**63,400.00**
E	**OUTFALL E**				
	PHASE 1				
1	Drain Pipe 66" HDPE	110	LF	330.00	36,300.00
2	Drain Pipe 54"	50		234.00	11,700.00
3	Drain Pipe 42"	175	LF	182.00	31,850.00
4	Drain Pipe 36"	202	LF	156.00	31,512.00
5	Drain Pipe 30"	720	LF	130.00	93,600.00
6	Drain Pipe 24"	161	LF	104.00	16,744.00
7	Junction Box w/Slide Gate	1	EA	30,000.00	30,000.00
8	Saddle MH	2	EA	5,000.00	10,000.00
9	MH	3	EA	4,000.00	12,000.00
10	Cut Off Wall	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL E PHASE 1				**282,706.00**
F	**OUTFALL F**				

EXHIBIT F
ENGINEER'S COST ESTIMATE
NORTH NATOMAS BASIN 8A

DATE: 2/23/00
BY: TRC

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1	Drain Pipe 30" HDPE	170	LF	150.00	25,500.00
2	Junction Box w/ Canal Gate	1	EA	23,000.00	23,000.00
3	Cutoff Walls	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL F				**57,500.00**
G	**OUTFALL G**				
1	Drain Pipe 60" HDPE	110	LF	310.00	34,100.00
2	Drain Pipe 54"	306		234.00	71,604.00
3	Drain Pipe 42"	334	LF	182.00	60,788.00
4	Drain Pipe 36"	400	LF	156.00	62,400.00
5	Drain Pipe 24"	399	LF	104.00	41,496.00
6	Junction Box w/Slide Gate	1	EA	30,000.00	30,000.00
7	Saddle MH	3	EA	5,000.00	15,000.00
8	MH	2	EA	4,000.00	8,000.00
9	Cut Off Wall	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL G				**332,388.00**
	OUTFALL H				
	Drain Pipe 48" HDPE	130	LF	240.00	31,200.00
	Drain Pipe 48"	1237	LF	208.00	257,296.00
	Drain Pipe 36"	266	LF	156.00	41,496.00
	Drain Pipe 30"	1003	LF	130.00	130,390.00
	Drain Pipe 24"	235	LF	104.00	24,440.00
	Drain Pipe 21"	251	LF	91.00	22,841.00
	Drain Pipe 18"	201	LF	78.00	15,678.00
	Junction Box w/Slide Gate	2	EA	30,000.00	60,000.00
	Saddle MH	5	EA	5,000.00	25,000.00
17	MH	6	EA	4,000.00	24,000.00
18	Cut Off Wall	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL H				**641,341.00**
	OUTFALL I				
1	Drain Pipe 36" HDPE	150	LF	180.00	27,000.00
2	Drain Pipe 30"	60	LF	130.00	7,800.00
3	Junction Box w/ Canal Gate	1	EA	22,000.00	22,000.00
4	Cutoff Walls	2	EA	4,500.00	9,000.00
	SUBTOTAL OUTFALL I				**65,800.00**

EXHIBIT F
ENGINEER'S COST ESTIMATE
NORTH NATOMAS BASIN 8A

DATE: 2/23/00
BY: TRC

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
	SUBTOTAL COMMON DRAINAGE OUTFALLS PHASE 1				**3,537,253.00**
	Contingencies @ 20%				**$ 707,450.60**
	Engineering, Constr. Mgmt., Inspection, Testing, Constr. Staking @ 25%				**$ 884,313.25**
	TOTAL COMMON DRAINAGE OUTFALLS PHASE 1				**$ 5,129,016.85**
II	**COMMON DRAINAGE OUTFALLS PHASE 2**				
A	**OUTFALL E PHASE 2**				
	Drain Pipe 30"	400	LF	130.00	52,000.00
	Drain Pipe 36"	398	LF	156.00	62,088.00
	Drain Pipe 42"	407	LF	182.00	74,074.00
	Drain Pipe 48"	1344	LF	208.00	279,552.00
	Drain Pipe 54"	1878	LF	234.00	439,452.00
5	MH No. 3	1	EA	4,000.00	4,000.00
6	Saddle MH	13	EA	5,000.00	65,000.00
	SUBTOTAL OUTFALL E PHASE 2				**976,166.00**
	Contingencies @ 20%				**$ 195,233.20**
	Engineering, Constr. Mgmt., Inspection, Testing, Constr. Staking @ 25%				**$ 244,041.50**
	TOTAL COMMON DRAINAGE OUTFALLS PHASE 2				**$ 1,415,440.70**
	TOTAL BASIN 8A				**$11,030,281.05**

EXHIBIT G

REIMBURSEMENT PROVISIONS

1. **Reimbursement Amount.** Upon full completion of the Drainage Facilities, and upon City acceptance of the Drainage Facilities, Landowner shall be entitled to reimbursement for a portion of the actual Drainage Facilities costs incurred by Landowner for construction of the Drainage Facilities (the "Reimbursement Amount"). An estimate of the Drainage Facilities costs is set forth in the Phasing Plan (Exhibit C). The Reimbursement Amount shall be determined upon City review and approval of the actual Drainage Facilities costs incurred by Landowner. Landowner shall provide copies of all contracts, change orders and invoices for the costs of the work and such other documentation as may be requested by City to verify the total Drainage Facilities Costs incurred by Landowner. In making its determinations regarding the Reimbursable Amount, City shall take into consideration any and all actual costs incurred by Landowner pursuant to this Agreement relating to designing, engineering and the construction of the Drainage Facilities, which costs include, but are not limited to, all engineering, architectural, other professional fees, cost of construction and supervision, obtaining of materials and labor, a four percent (4.00%) construction management fee, city and other public fees and costs associated with the acquisition of easements and/or real property (including, without limitation, Landowner-paid back taxes, assessments, and property related fees or charges) necessary with regard to the completion of the matters set forth in this Agreement, and any funds advanced or otherwise paid by Landowner pursuant to Section 3.B. of this Agreement.

In accordance with Section 84.02.210 of the Sacramento City Code, the Reimbursement Amount, as reduced from time to time by reimbursements paid, shall be subject to adjustments for inflation calculated consistent with the provisions of Section 84.02.211 of the Sacramento City Code, but shall not otherwise accrue interest. The portion of the total Drainage Facilities Costs as to which Landowner shall be entitled to reimbursement shall be as specified in the Phasing Plan (Exhibit C), which specifies the proportionate cost shares of the various landowners within the basin.

2. **Sources for Reimbursement.** Nothing in this Agreement shall be construed to create an obligation of, or be attributable to, City's general or special funds, or any other funds in the hands of City or its accounts now and in the future, except as otherwise expressly provided herein. City's obligation hereunder to provide reimbursement is limited to the following alternative sources of funds, to the extent funds are available therefrom and not otherwise committed for reimbursement by the City to others:

a. Drainage Fees that are paid to the City by other landowners within Basin 8A pursuant to the Fee Ordinances for North Natomas, shall be maintained by the City in a separate account (the "Drainage Fee Account") and shall not be commingled with any other development or impact fees collected with respect to North Natomas, including without limitation, any transit fees. City shall impose a Drainage Fee upon any landowner within the basin who is obligated to provide reimbursement in accordance with the provisions of the Phasing Plan, which fee shall be payable upon such landowner's first recordation of a master parcel map, parcel map

or subdivision map, or issuance to such landowner of a special permit, whichever first occurs.

Landowner acknowledges that a portion of such Fees, up to, but not in excess of **Three Percent (3%)** of the Fee, will be retained by the City to defer the City's cost of administration of this Agreement.

b. Funds generated through public financing mechanisms consistent with the North Natomas Finance Plan and created and implemented by City in its sole and exclusive discretion, which includes funds for the acquisition of the Drainage Facilities and/or the payment of reimbursement to Landowner for financing some or all of the Drainage Facilities costs pursuant to this Agreement. Nothing in this subsection shall affect the status of Landowner's right, if any, to protest or otherwise challenge such public financing mechanisms, in whole or in part, or any previous waiver of such rights.

Nothing in this Agreement shall be construed in such a manner as to allow Landowner to be reimbursed from more than one source; for example, should Landowner be reimbursed by virtue of fee credits and/or reimbursements from Fees generated through the North Natomas Finance Plan, Landowner shall not be entitled to reimbursement from funds generated through a Mello-Roos District or other similar mechanism.

3. **Timing of Reimbursement.** Upon full completion of the Drainage Facilities and acceptance thereof by the City, the City will pay Landowner the amount then available in the Drainage Fee Account for reimbursement up to, but not in excess of, the approved and properly proportioned Reimbursement Amount for the Drainage Facilities. Thereafter, on a quarterly basis, commencing on the first of the calendar month following completion of the Drainage Facilities and continuing on the first of each month thereafter until the Reimbursement Amount is reduced to zero, the City will pay Landowner the amount then available for reimbursement in the Facilities Account, up to the then outstanding Reimbursement Amount.

4. **Agreements with Other Landowners.** To protect such reimbursement to Landowner, City agrees that any and all other credit/reimbursement agreements involving reimbursements from the Drainage Fee will include the following terms:

(i) The reimbursement amount under the other agreements shall be based on the actual costs incurred for the improvements, as reviewed and approved by the City, and the contracts for such work shall be awarded based on a competitive bid as required for comparable City Drainage Facilities.

5. **Allocation of Reimbursements.** If and to the extent Landowner assigns its right to reimbursements under this Agreement, City's reimbursement to Landowner shall nevertheless be made directly to Landowner unless and until City is notified in writing by Landowner and an assignee that payment should be made otherwise.

6. **Special provisions.** Because each North Natomas drainage basin area is unique, it is necessary to include certain special provisions. If no special provisions are needed, none will be added to this section.

EXHIBIT H

WESTBOROUGH LAKE MANAGEMENT PLAN

PERRY LAKE MANAGEMENT

APPLIED ECOLOGY

WESTBOROUGH
LAKE MANAGEMENT PLAN

Prepared for:
Lennar Communities
2240 Douglas Boulevard, Suite 200
Roseville, CA 95661

Prepared By:
Stuart Perry
Perry Lake Management
PO Box 4122
Stockton, CA 95204

and

Mark D. Sytsma, Ph.D.
Applied Ecology
POB 2421
Tualatin, OR 97062

February 2000

v.2.05

WESTBOROUGH
LAKE MANAGEMENT PLAN

Prepared for:
Lennar Communities
2240 Douglas Boulevard, Suite 200
Roseville, CA 95661

Prepared By:
Stuart Perry
Perry Lake Management
PO Box 4122
Stockton, CA 95204

and

Mark D. Sytsma, Ph.D.
Applied Ecology
POB 2421
Tualatin, OR 97062

February 2000

v.2.05

SUMMARY

The centerpiece of the Westborough development is an approximately 19-acre lake that will provide aesthetic and limited recreational uses for residents. The lake will also serve as a drainage detention basin for flood control and water quality enhancement for the Westborough development and land to the North of the development within the same drainage. The lake will be part of a comprehensive set of best management practices developed to manage stormwater runoff from the development. The lake will be operated as a vegetated wet pond. Rooted aquatic plants will sequester pollutants in runoff and enhance the function of the lake as a sedimentation basin. Water level during the summer will be maintained by input of well water.

If high nutrient concentrations are present the well water, excessive algae growth may occur, particularly before aquatic vegetation is well established. Excessive algae growth may create nuisance conditions in the summer that require management to meet use and water quality objectives. Excessive algae can be managed using appropriate dose and formulation of algaecides following City approval. Aquatic plant harvesting will be conducted regularly to remove sequestered pollutants.

Monitoring will be an integral part of the management plan for the lake. Regular monitoring will document the efficacy of the management plan and allow for informed decisions about future management options. Monitoring will include quarterly measurement of lake level, water transparency, temperature and dissolved oxygen, pH, nutrients, chlorophyll, water column metals, and coliform bacteria. Metals in plants will be measured prior to each harvest. Metals in sediments will be measured once per year. Quarterly and annual reports on the monitoring results will be produced.

A public education program is recommended to provide information to residents on best management practices, to prevent aquatic weed infestation and development of a resident waterfowl

community, and to explain the management objectives and operation of the wet pond for stormwater treatment.

TABLE OF CONTENTS

Summary i
Table of Contents iii
List of Figures iv
List of Tables iv
Introduction 1
The Westborough Project 3
Design 4
Expected Lake Water Quality and Biology 8
Lake Uses and Management Goals 9
Lake Uses 10
Management Goals 10
Management Plan 12
Best Management Practices (BMPs) 12
Management of Algae and Rooted Aquatic Vegetation 18
Management of trash and litter 19
Management of Water Quality 19
Monitoring 20
Management Cost Estimate 22
Roles and Responsibilities 24
References 26

LIST OF FIGURES

Figure 1. Vicinity map for Westborough lake.....4
Figure 2. Map of Westborough development. 5
Figure 3. Detail of lake perimeter wall elevations (from Spinks Corp. drawing).....6
Figure 4. Approximate location of Westborough lake sampling stations. (M=macrophyte metals, P=profile, B=bacteria, S=sediment metals).....25

LIST OF TABLES

Table 1. Qualitative characteristics of oligotrophic and eutrophic lakes (adapted from Welch 1980). 2
Table 2. Management objectives for water quality in the lake at Westborough. 11
Table 3. Criterion concentrations for metals in water. (hardness expressed as mg $CaCO_3$/L).....12
Table 4. BMPs for protection of Westborough Lake.....13
Table 5. Potential response to selected examples of unacceptable water quality.....21
Table 6. Frequency, sample type, and number of stations for monitoring water quality in Westborough Lake.....23
Table 7. Estimated cost of Management Plan during first year. 26

Westborough Lake Management Plan

This report provides a description of the expected condition and required management activities for the lake at the Westborough development. Management objectives for the lake and a management strategy for meeting those objectives are provided. The Plan will be implemented by a qualified lake management firm under contract with the homeowners association.

INTRODUCTION

Lakes are valuable amenities that provide recreational, aesthetic, and wildlife habitat benefits to residential communities. Lakes contain their own biological communities, however, that change in response to seasons and physical and chemical characteristics of the water. The chemical and physical characteristics of the water are, in turn, determined by the soils, activities, and land use in the watershed of the lake. Runoff from residential watersheds can enter lakes through storm drains. Urban runoff contains numerous constituents that can influence the biological communities in lakes that receive the runoff.

Productivity, or the amount of biological activity in lakes, is determined by a combination of hydrologic, chemical, and biological factors. Often, lake productivity is determined by the amount of nutrients entering the lake. The importance of nutrient loading of lakes in determining lake status is reflected in the way lakes are typically classified – by trophic state. Trophic state refers to the level of primary production (plant growth) in a lake. Lakes with abundant of algae and aquatic plants are termed eutrophic (well-fed), lakes with little plant growth are termed oligotrophic (poorly-fed), lakes somewhere in between are termed mesotrophic (medium-fed). Urban runoff can contribute nutrients to lakes that stimulate productivity. The increase in lake productivity caused by human activity in the watershed is termed cultural eutrophication. Cultural eutrophication can lead to nuisance conditions, including excessive algae and aquatic plant growth.

Trophic state can be determined by examining several lake characteristics that are correlated with productivity (Table 1). Trophic state indices based transparency, total phosphorus concentration, and chlorophyll *a* concentration (Carlson 1977) are also commonly used to classify lake trophic state. According to Carlson's indices, a TSI less than 40 indicates an oligotrophic state, a TSI between 45 and 50 indicates mesotrophy, and a TSI greater than 53 indicates eutrophy.

Table 1. Qualitative characteristics of oligotrophic and eutrophic lakes (adapted from Welch 1980).

Characteristic	Trophic State	
	Oligotrophic	*Eutrophic*
Depth	Deep	Shallow
Hypolimnion:epilimnion	>1	<1
Primary production	Low	High
Rooted macrophytes	Few	Abundant
Phytoplankton density	Low	High
Number of phytoplankton species	Few	Many
Frequency of phytoplankton blooms	Rare	Common
Hypolimnion dissolved oxygen depletion	No	Yes
Nutrient supply	Low	High
Fish species	Cold water,slow growth,restricted to hypolimnion	Warm water, fast growth, tolerate low oxygen in hyplolimnion and high temperatures in epilimnion

Cultural eutrophication is a major determinant of lake trophic state, but it is not the sole determinant. Other factors, such as hydrology and interactions among the biota in a lake, also play a role. Hydrology influences trophic state by a flushing action. If the rate that water moves through a lake is high enough, algae are washed out of the lake faster than they can reproduce, which leads to low algae densities and oligotrophic, clear-water conditions.

The structure of the food web in a lake can also influence the amount of algae present and the trophic state of a lake. Algae are eaten by zooplankton (tiny, nearly microscopic animals). An abundance of zooplankton can keep algae densities low and the water clear. Small fish eat zooplankton, however, and when small fish are abundant zooplankton densities are low, algae densities high, and the water turbid – a eutrophic condition. Another link in the food chain can be added – large fish that eat small fish – which results in few small fish, abundant zooplankton, few algae and clear water.

Clear-water conditions can also occur in lakes with high nutrient loading if abundant macrophytes are present. Macrophytes compete with algae for light and nutrients in the water column, and there is evidence that shallow, high-nutrient lakes can exist in two states: a turbid, algae dominated state; and a clear-water, macrophyte dominated state. Altering the structure of the food web or changing the relative abundance of macrophytes and algae, a technique termed biomanipulation, can therefore cause changes in the water quality of a lake and has been used successfully to reduce algae densities and enhance water quality in eutrophic lakes.

THE WESTBOROUGH PROJECT

The Westborough Project is a 331-acre mixed-use development located in the North Natomas area of Sacramento, California. The Project will include 1255 residential lots, neighborhood commercial, and light industrial development. An elementary school, community park, and private recreational center are also planned. Westborough will be located to the northwest of the intersection of El Centro and Del Paso Roads and to the southwest of the I-5/Highway 99 intersection (Figure 1). The topography of the area is essentially flat and is currently undeveloped agricultural land. A north/south trending drainage canal bisects the central portion of the lake area. A northeast/southwest trending drainage canal is located north of the site and is identified as a "drainage corridor" for the development. This drainage system receives surface water from an

approximately 417-acre area north of the site to Elkhorn Boulevard (Wallace Kuhl and Assoc, 1999).

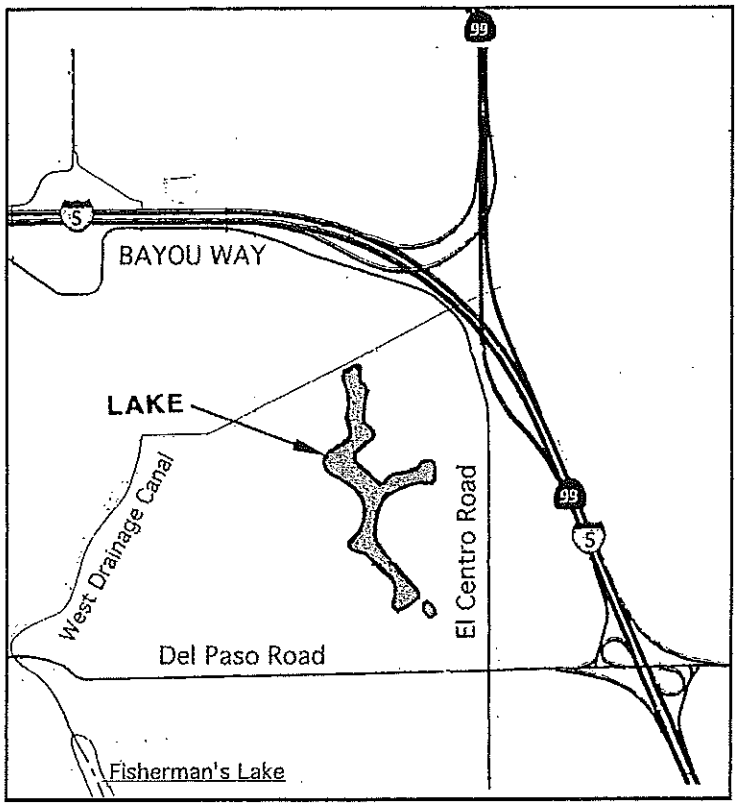


Figure 1. Vicinity map for Westborough lake.

Design

The lake at Westborough is designed as an amenity for the residents and to provide flood control and water quality enhancement of surface water runoff from the development and surrounding areas (Figure 2). The lake is designed as a wet basin, and will contain water year-round. The approximately 19-acre lake basin will be surrounded by a perimeter headwall that is 26 inches above the expected winter water surface elevation and 17 inches above the expected summer water elevation. For public safety, typical grading will include a perimeter shelf approximately four feet wide and one to two feet deep, depending upon the season. The lakebed will slope from the perimeter shelf to a maximum depth of 14 feet at a 4:1 or flatter slope (Wallace Kuhl and Assoc. 1999). The lake bottom will be sealed with a 12-inch thick clay layer.

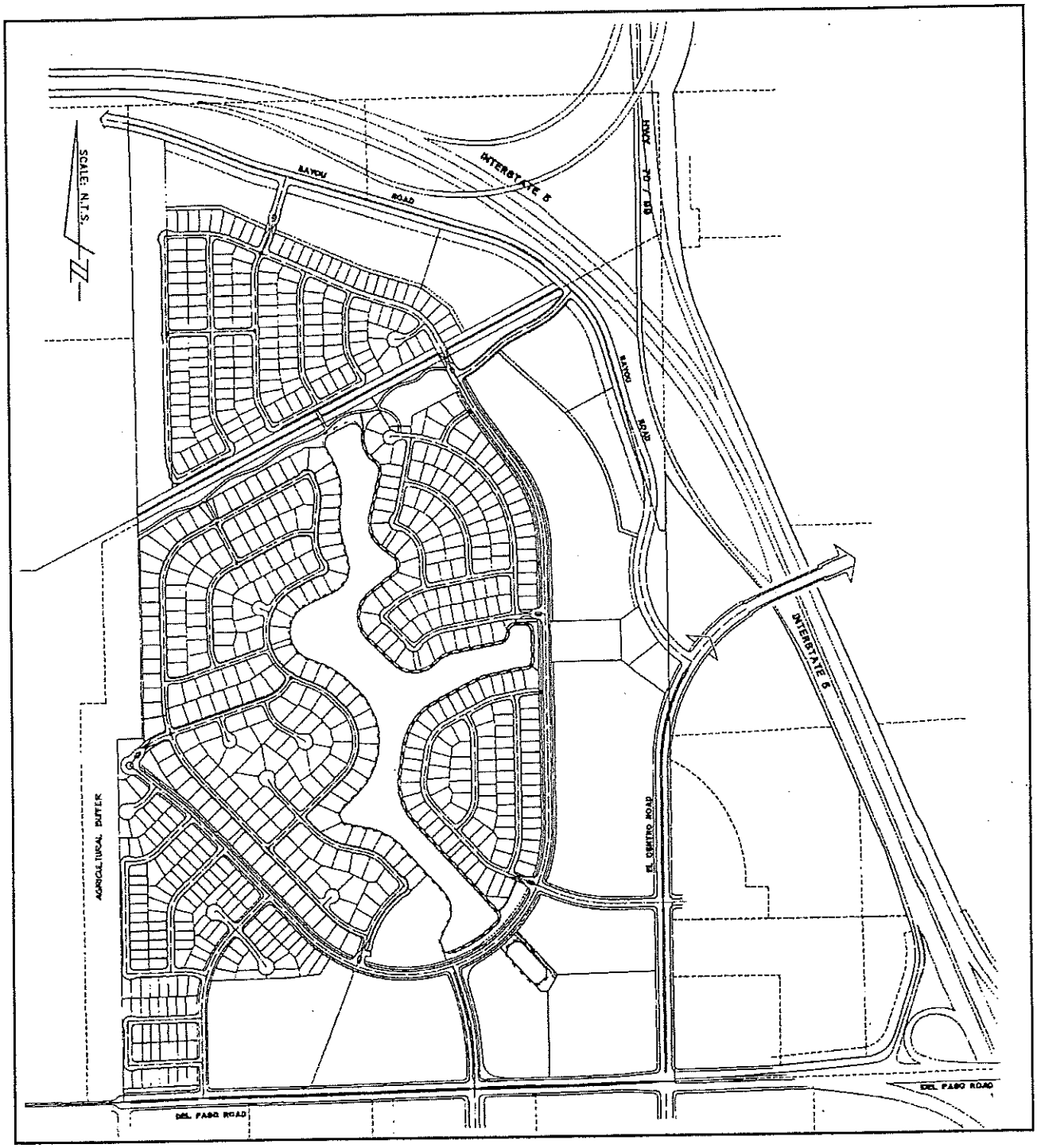


Figure 2. Map of Westborough development.

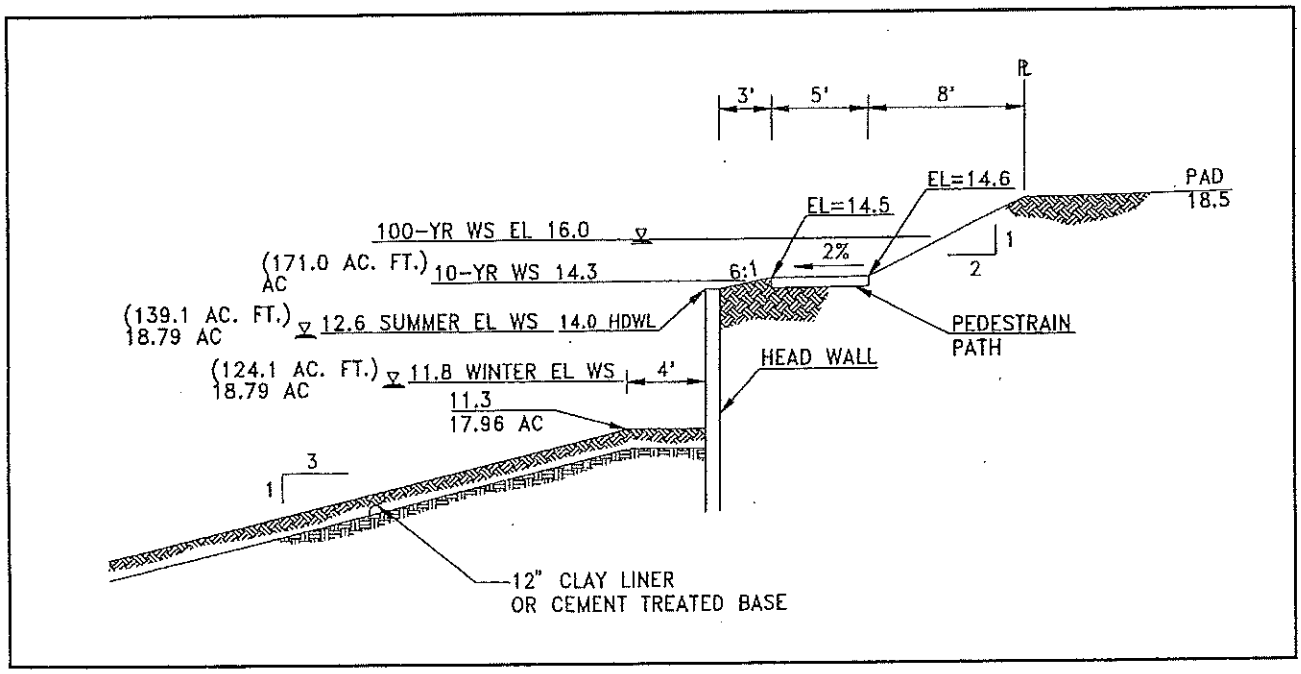


Figure 3. Detail of lake perimeter wall elevations (from Spinks Corp. drawing).

Lake water level will fluctuate with the seasons to permit damping of the winter runoff hydrograph and extend the detention time of water in winter. The summer surface water elevation will be 12.6 feet, and the winter elevation 11.8 feet, above mean sea level. Under typical conditions, the lake depth will vary from 11.8 (winter, no-flow condition) to 12.6 feet (summer). The lake volume in the summer and winter will be approximately 139 and 124 acre-feet, respectively. At maximum storage capacity, 16.0 feet above mean sea level (100-year), the accumulated lake volume will be approximately 175 acre-feet. Thus, the accumulated volume of the lake between the winter operating pool and the maximum pool is approximately 51 acre-feet. The lake will be filled, and summer water level (12.6 feet above MSL) maintained, with water drawn from a well located at the south end of the lake.

The surface water drainage system for the Westborough development will direct runoff into the lake at up to eight major inlets. The inlets will be located in the arms of the lake, between lots, and adjacent to the road, which will assist in circulation during the runoff period. The distance

between the nearest stormwater inlet and the outlet of the lake is greater than 700 feet, which will limit "short-circuiting" of flow between the inlets and outlet and maximize pollutant removal efficiency. Outflow from the lake will discharge to the West Drainage Canal at a point west of the Plant 3 pumpstation. The West Drainage Canal flows into Fisherman Lake and then into the Sacramento River just upstream of its confluence with the American River via the RD 1000 pumpstations 3, 1A and 1B.

Functioning of the lake for pollutant removal requires provision of adequate water detention time and proper design. During winter, the lake will provide stormwater management and pollutant removal. Hydrologic flow estimates indicate that the maximum estimated storage volume of is sufficient to retain a 10-year, 12-hour storm event. A more typical event would result in an estimated runoff volume near the winter storage volume.

The lake will be one component in a package of best management practices (BMPs) for water quality at the Westborough development. The lake will be managed as a vegetated, wet-pond system for treatment of urban runoff. Vegetated wet ponds are an effective water quality BMP. If properly maintained, vegetated wet ponds can achieve high removal rates for sediment, biological oxygen demand (BOD), organic nutrients, and trace metals. Biological processes within the pond also remove soluble nutrients, such as nitrates, ammonia, and orthophosphorus, which contribute to nutrient enrichment and eutrophication. Wet ponds are most cost-effective in large, intensively developed sites (Schuler 1987) like the Westborough development. Other BMPs that will contribute to water quality enhancement at Westborough include use of landscape plants and maintenance that minimize water and fertilizer use; a public education program to raise awareness of how actions by individuals can contribute to water quality improvement or degradation; and applicable implementation of the City's comprehensive stormwater management plan.

Wet ponds can remove pollutants effectively over long periods with appropriate maintenance. The primary mechanisms for pollutant removal are sedimentation and biological uptake. Sedimentation efficacy is primarily a function of detention time. Biological uptake is the

primary removal pathway for soluble nutrients that have minimal settling rates. For wet ponds with a basin volume:mean storm runoff volume ratio greater than 4.0, as expected under typical operating conditions at Westborough, estimated pollutant removal rates are greater than 80 to 90 percent for sediment, 60 to 65 percent for total phosphorus, 45 to 50 percent for total nitrogen, 40 to 45 percent for BOD, and 65 to 70 percent for many metals (U.S. EPA 1986, Sugnet and Associates 1997).

Biological uptake of soluble nutrients and sedimentation in the lake will be enhanced by establishing rooted aquatic plants, or macrophytes, in the lake. Established stands of rooted aquatic plants in lakes can efficiently "scrub" nutrients and other pollutants from inflowing water. Numerous studies have documented that shallow lakes with aquatic plants have clearer water, with lower algae abundance than shallow, unvegetated lakes. Experience with other urban lakes in the Sacramento area has shown that vegetated lakes are more efficient in removing sediments from stormwater than unvegetated lakes.

Vegetated wet ponds require periodic harvesting to maintain beneficial uses and optimal function. Excessive aquatic plant biomass often leads to diurnal fluctuations in dissolved oxygen concentration during summer when plant biomass and photosynthetic rate is highest. Plants raise dissolved oxygen concentrations during the day through photosynthesis, but consume dissolved oxygen during the night when they respire. Dissolved oxygen concentration during the early morning hours, after a night of respiration, can be quite low and lead to fish kills. In addition, surface mats of aquatic vegetation detract from the aesthetic appeal of lakes and often require management. Furthermore, as plant biomass accumulates, growth and pollutant sequestering slows because of self-shading.

Expected Lake Water Quality and Biology

The lake at Westborough is shallow and thermal stratification is not anticipated. If groundwater is undersaturated with dissolved oxygen, however, aeration may be required to meet the management objectives for the lake. Other groundwater-fed lakes in residential developments in

the Sacramento area do not require aeration prior to discharge. If the lake is highly productive some transient dissolved oxygen depletion may occur and pH may be high during summer months.

Although no well-water chemistry is available, the typically high nutrient concentrations found in Central Valley groundwater can be expected to support abundant algae populations in the lake during the summer months. Experience with other vegetated wet ponds in the Sacramento area suggests that aquatic plants should grow well in the lake, however, establishment of populations capable of reducing nutrient concentrations low enough to limit algae growth may take two to four years. It is likely that some control of algae in the water will be required to meet management objectives (see below) during the period of macrophyte establishment.

Macrophytes must be harvested periodically from vegetated wet ponds to remove nutrients sequestered in the plants and to stimulate growth and additional nutrient uptake. Some species of macrophytes, such as Eurasian watermilfoil, Brazilian elodea, and Parrotsfeather, can establish high density stands that form surface mats and interfere with recreational and aesthetic uses of lakes. If these species become established, additional management will be required to maintain the lake.

Problems associated with runoff from residential lawns and streets (e.g., bacteria, grease and oils, pesticides, and sediment) will be minimized by use of the BMPs noted above.

Lake Uses and Management Goals

Development of a lake management plan for a manmade lake, such as the lake at Westborough, is a four-step process. The initial step is to identify the uses of the lake and the water quality characteristics desired. In most cases, clear water, free of surface algae mats and aquatic macrophytes (rooted aquatic plants) are primary management goals. The second step is to identify existing or potential factors that could contribute to failure to meet the management goals. The third step is to develop a plan for minimizing water quality problems by reducing or eliminating

its causes. The fourth step is to develop a strategy for dealing with the nuisance organisms that proliferate when nutrient concentrations permit.

Lake Uses

The lake at Westborough is intended to provide aesthetic, stormwater detention, water quality enhancement, and limited recreational benefits. Recreational use of the lake will be limited to non-motorized boating. No swimming or other water contact recreation will be permitted.

Management Goals

Management goals for a lake are based on the intended uses. Lake users and residents of the Westborough development will ultimately determine the desired condition and uses of the lake. All uses, however, must be consistent with, and subordinate to, the City's use of the lake as a flood control and water quality enhancement facility. If the uses identified above are adopted by the community, the following management goals will be adopted as narrative water quality standards:

- The lake should be free of surface mats of algae and macrophytes.
- Cyanobacteria blooms that could harm pets should be avoided.
- The lake should ~~not produce nuisance odors.~~
- The lake will not contain concentrations of coliform bacteria associated with human wastes that exceed established water quality standards.
- The lake shall not contain floating material such as oil and grease, trash, scums, etc. that interfere with uses.
- Toxic materials that harm aquatic life or human health will not accumulate in the lake or be discharged from the lake.

- Outflow from the lake will not harm aquatic life in aquatic systems downstream from the discharge.

- The lake will be managed to reduce urban runoff and stormwater runoff pollutants discharged from the outfall structure to the maximum extent practicable as determined by the City in accordance to its NPDES stormwater permit and stormwater management program.

Specific numeric lake management criteria are recommended as target values (Table 2). There is considerable uncertainty about the condition of the lake and development of the biological community after filling. It must be noted that the Westborough lake will take a number of years to reach a stable state. Processes such as final buildout, formation and consolidation of sediments, and introduction and establishment of biological communities will alter the condition of the lake and interact to influence future water quality. Monitoring will be required to assess the practicality of some of the management criteria.

Table 2. Management objectives for water quality in the lake at Westborough.

Constituent	Management Objective
Dissolved Oxygen	5 mg/L - mean monthly concentration 4 mg/L - single value
Clarity	0.5 m Secchi depth - mean monthly value
pH	6.5-9
Total Coliform Bacteria	500/1100 MPN/100 mL[1]
Dissolved Inorganic Nitrogen[2]	0.15 mg/L
Un-ionized ammonia	0.02 mg/L - single value
Total Phosphorus	0.05 mg/L - mean monthly concentration
Carlson's Trophic State Index	< 60
Chlorophyll	0.015 mg/L - mean monthly concentration 0.04 mg/L - single value

[1] Median value/90th percentile value
[2] Nitrate + Ammonia-nitrogen

Metals monitoring of water, plants, and sediment should be conducted to assess performance of the lake as a stormwater treatment facility. Priority pollutant metals to be assayed include cadmium, chromium, copper, lead, nickel, and zinc. Criterion metals concentrations in water are shown in Table 3. Metals concentration in sediments and plants should not exceed hazardous threshold limits from Title 26.

Table 3. Criterion concentrations for metals in water. (hardness expressed as mg $CaCO_3$/L)

	Continuous Concentration Criterion (µg/L)	Maximum Concentration Criterion (µg/L)
Cadmium[a,b]	[e(0.7852[ln(hardness)]-3.490)x0.85]	[e(1.128[ln(hardness)]-3.828)x0.85]
Chromium (III)[a,b]	[e(0.8190[ln(hardness)]-1.465)x0.85]	[e(0.8190[ln(hardness)]-3.688)x0.85]
Copper[a,b]	[e(0.8545[ln(hardness)]-1.465)x0.85]	[e(0.9422[ln(hardness)]-1.464)x0.85]
Lead[a,b]	[e(1.273[ln(hardness)]-4.705)x0.25]	[e(1.273[ln(hardness)]-1.460)x0.50]
Nickel[a,b]	[e(0.8460[ln(hardness)]-1.164)x0.85]	[e(0.8460[ln(hardness)]-3.361)x0.85]
Zinc[a,b]	[e(0.8473[ln(hardness)]-0.761)x0.85]	[e(0.8473[ln(hardness)]-0.860)x0.85]

[a] Values for aquatic life criteria are based on Quality Criteria for Water 1986 (USEPA 1987) as updated in US EPA (December 22, 1992). Criteria concentrations are expressed in terms of allowable dissolved metal following the US EPA Guidance Document on Dissolved Criteria-Expression of Aquatic Life Criteria-October 1993.

[b] Assumes a Water Effects Ratio (WER) of 1.0 until site specific data is obtained. Criterion Concentration = value in table x WER.

MANAGEMENT PLAN

Best Management Practices (BMPs)

Best Management Practices for water quality for the project should focus on prevention of water quality problems. BMPs that focus on water conservation, infiltration, nutrient loading, sediment management, and individual behaviors are listed in Table 4. Because of the aesthetic and nuisance concerns associated with the lake, the BMPs discussed in this Management Plan may be in addition to BMPs required by the City as part of the City's Stormwater Management Program.

Public education is critical to effective BMPs. Therefore, an informational program is recommended to provide residents of the development information on the management objectives, operation of the wet pond, and individual actions that can be taken to protect water quality in the lake.

Table 4. BMPs for protection of Westborough Lake.

- Water conservation measures – reduce surface water runoff
  - Check outside faucets for leaks.
  - Mulch shrubs and other plants to retain soil moisture longer.
  - Use trickle or drip irrigation whenever possible.
  - Maintain lawn sprinklers to avoid "street watering".
  - Water lawns less frequently but more deeply.
  - Group plants with similar water requirements together.
  - Use native plants that require less water.
- Infiltration measures – allow water to enter the soil rather than runoff the surface
  - Install porous pavement.
  - Direct downspouts onto lawns rather than to the street.
- Nutrient management measures - less fertilizer used on lawns means less nutrients in the lake
  - Apply fertilizers sparingly, never exceed label rates.
  - Never dump lawn clippings and other materials into the water.
  - Do not feed waterfowl, prevent a resident population from establishing.
  - Clean up pet waste immediately.
- Sediment management measures
  - Sweep streets to prevent "washoff" into the lake.
  - Maintain vegetated waterways to avoid erosion.
  - Install silt screens around lake during construction.
  - Incorporate sediment traps and oil and grease separators into storm drains.
  - Use erosion control measures (silt screens, soil covers, etc.) during construction
- Responsible chemical use
  - Avoid using pesticides and fertilizers prior to predicted rainfall.
  - Avoid overwtering after applying fertilizers and pesticides.
- Public Education
  - Develop a public education program to inform residents and lake users about activities they can do to protect lake water quality.

Waterfowl, Fish, and Plant Stocking

Many BMPs implemented by residents and businesses in the development for little or know cost can be very effective in preventing serious water quality problems. Adoption of a prohibition on feeding of waterfowl, for example, can prevent serious water quality problems. Use of the lake by migratory waterfowl will add to the biological diversity and enhance the quality of the aesthetic experience of residents and visitors to the development. A large resident waterfowl population, however, can create management problems. A single duck can excrete 2.1 pounds of nitrogen and 1.3 pounds of soluble phosphorus each year. A population of several hundred resident ducks, which could easily develop on the lake, could be responsible for a significant portion of the nutrient loading to the lake. Resident waterfowl will destroy lakeside vegetation and contribute to erosion of lake banks. The most effective waterfowl management technique is to prevent development of large, resident populations. Residents should not stock domestic waterfowl, and should refrain from feeding wild, transient waterfowl. Uneaten feed will decompose in the water, which will add nutrients and create conditions conducive to the spread of avian botulism and fowl cholera. A restriction against feeding and stocking waterfowl will be incorporated into covenants.

Unauthorized introductions of all organisms should be policed by the Homeowners Association. Some fish species can also contribute to water quality problems through their feeding activities. Fish such as carp and goldfish should not be introduced by residents. Similarly, some aquatic plants can create a nuisance when introduced to a lake. A prohibition against fish and plant stocking will also be incorporated into covenants. Some stocking guidelines are:

- Residents will not release, or allow to be released, any fish, invertebrate, or plant into the lake
- All fish stocking, including original and any subsequent stocking, may be performed only with a permit from the California Department of Fish and

Game. No fish species that require food supplements beyond existing sources in the lake will be permitted.

- Arrangements will be made as soon as possible after the lake is filled for the local mosquito abatement district to establish a population of mosquito fish (*Gambusia affinus*) for mosquito control. The lake will be restocked as necessary to maintain a population sufficient for vector control.

Landscape Practices

Landscape maintenance may also contribute to water quality problems in the lake. Over fertilization can led to high nutrient concentrations in surface runoff that can stimulate phytoplankton growth. Landscape maintenance personnel often use a calcium-based, slow release fertilizer to reduce the labor of application. These fertilizers are spread liberally, and then the lawns are watered heavily to prevent burning. Under this application scenario, nutrient-rich runoff can enter stormdrains and the lake causing algae to "bloom".

Landscape maintenance guidelines will be incorporated into covenants for the development as follows:

- Soil tests should be conducted to determine fertilizer requirements. Fertilizer applications should be designed to alleviate deficiencies detected in soil tests. Commercial landscape companies should keep detailed records of test results, application dates and rates, and irrigation schedule.

- Nitrogen fertilizers should not be applied at rates greater than 0.5 pounds per 1,000 square feet and at frequencies greater than every 12 weeks.

- Phosphorus fertilizers should not be applied unless a need is clearly demonstrated, such as the first growing season for newly established turf areas. In no case should the rate exceed 0.05 pounds per 1,000 square feet.

- Fertilizers should not be applied prior to predicted rain events.

- Fertilizer application methods should not allow fertilizer to enter lake water directly.

- There should be no application of fertilizer to drainage ditches, seasonal dry waterways, impervious surfaces, or within 10 feet of the water.

- Irrigation schedules should be designed to prevent runoff from freshly fertilized landscape.

- Landscape contractors should be required to provide at least five days written notice to the Homeowners Association for fertilizer and significant herbicide and insecticide application. The notice should include justification for the action (e.g., copy of soil test report) and a description of rates, application methods and time including precautions to prevent pollution of surface waters, the materials to be applied.

- Disposal of leaves and other organic debris into the lake and/or other waterways (even seasonally dry waterways) should be avoided. Disposal of organic debris in water has several detrimental results. They can cause oxygen depletion when they decompose and they contribute nutrients to the lake water that can stimulate algae growth. Curbside stockpiling of leaves and other "green" waste should be done on the street side of the gutter flow line.

- Landscape planting should avoid use of deciduous trees or shrubs greater than four feet in height when mature within 15 feet of the shoreline to avoid leaf fall into the lake.

Sediment Control

Whenever vegetation is removed from an area, e.g., for construction, preparation for new landscaping, after a fire, etc., the potential for soil erosion and sediment deposition in the lake exists. Sediment deposition in the lake has several undesirable effects. It can reduce light penetration through the water causing beneficial aquatic plants to die. Sediment also carries substantial amounts of nutrients with it, which can contribute to algae growth when the water clears. Lastly, over the long-term sediment deposition causes the lake to become more shallow, warmer, and more productive, i.e., with more algae and nuisance aquatic plant problems. To minimize erosion and sediment deposition in the lake all excavation within the watershed should be done in accordance with the City of Sacramento's Grading and Erosion Control ordinance and National Pollutant Discharge Elimination System (NPDES) permit.

Whatever the method of implementation, through covenants or by voluntary adoption, residents of the Westborough development should be aware of the impacts of their activities on the lake. An aware and informed community is a prerequisite to effective lake management. Signs or an information program that describes the organisms and functioning of the lake and encourages voluntary adoption of BMPs to protect the lake is recommended. Potential subjects for information program include:

- Description and explanation of landscape maintenance guidelines.
- Proper disposal of automotive fluids, cleaning detergents and other wastes.
- Problems caused by resident waterfowl and prohibition against feeding.
- Problems caused by exotic fish and prohibition against stocking.
- Explanation of lake functions as a stormwater treatment facility and overall goals of the lake management plan.

Management of Algae and Rooted Aquatic Vegetation

Even with well-implemented BMPs, nutrients in the groundwater used to maintain lake level in the summer are expected to support abundant algae in the lake. Some form of treatment is likely to be required to meet management objectives. As noted above, the most effective way to prevent algae growth in the lake is to limit the amount of nutrients entering the lake. Management strategies to reduce nutrient loading when the water supply is from groundwater, however, are limited. Nutrient concentration in the inflow could be reduced by treatment of the water prior to discharge into the lake, or treatment of the entire lake, with aluminum sulfate (alum). This management strategy is expensive and when water is treated prior to discharge into the lake a sludge must be disposed. Nutrient precipitation prior to discharge into the lake is not recommended at this time.

Some form of in-lake algae treatment will likely be required to meet the management objectives of the lake during the summer months. The amount of algae in the lake can be reduced by a number of hydrologic, physical, and chemical techniques. Whole lake treatment with alum can provide temporary improvement of water quality, and if algae problems are persistent and difficult to manage with other techniques (see below) a whole lake treatment should be considered. The flushing rate of the lake should be maximized to reduce algae abundance in the lake.

Excessive algae can also be treated with a number of effective algaecides. Various forms of copper have no restrictions on water-use following application, however, the City and State may have use resrictions that differ from those on the label. Copper should be used to control excessive algae in the lake if surface algae scums develop or use is degraded. Copper may injure rooted aquatic plants, however, selection of the correct formulation and dose by a licensed aquatic applicator should permit control of algae with minimal to no effect on rooted plants.

The City must preapprove all chemical applications. The City's water quality requirements have priority over algae control in the lake, and these requirements may limit the use of copper for algae control. If copper applications result in copper concentrations at the discharge point that are

greater than at other wet pond discharges in North Natomas, alternative (*e.g.*, alum treatment) or no algae control must be considered.

Rooted aquatic plants will require periodic harvesting to remove sequestered nutrients and other pollutants. A minimum of two macrophyte harvests are recommended. The first harvest, in July would be conducted to remove accumulated pollutants and to stimulate additional growth and pollutant uptake. A second harvest should occur in fall to remove accumulated pollutants before the plants senesce and they are released back into the water. If nuisance, invasive plants are introduced to the lake additional harvesting may be necessary to meet management objectives. Prior to harvest, plants samples should be collected for metals analyses.

Rooted aquatic plant problems may be avoided if introduction of the problem plants can be prevented. As noted above, some exotic plants, like Eurasian watermilfoil, are particularly troublesome. Every effort should be made to prevent the introduction of these nuisance aquatic plants into the lake. All boats launched in the lake, which have been used in other lakes during the previous two weeks should be inspected for plant fragments that could cause weed problems. This could be a voluntary inspection stimulated by a sign posted at the boat ramp. The sign should also warn residents of the danger of introducing aquarium fish and plants to the lake.

Management of trash and litter

Trash and litter problems can be limited by assuring that adequate numbers of trash receptacles are available and that they are emptied regularly. Trash and litter on the lake may be collected by hand by residents or the service may be purchased from a lake management company.

Management of Water Quality

The water quality criteria are intended as a guide for maintenance of water quality that will meet the management goals for the lake. These criteria are intended to serve as warning signs for

significant water quality problems. Consequently, a single exceedence of any water quality parameter will not necessitate an immediate change in the management plan. If water quality fails to meet the criteria regularly the City, the Homeowners Association, and water quality and lake management experts should evaluate the consequences and impacts of continued exceedence. If it is determined that serious harm to aquatic life in and downstream from the lake will occur, or if regulatory thresholds are exceeded, an in-depth evaluation of the lake and management plan will be necessary. Some possible responses to exceedence of specific water quality criteria are shown in Table 5.

Monitoring

All lake management plans must be adaptive; changes may be required as lake biology and water chemistry evolve. Regular monitoring of lake water quality permits ongoing assessment of the efficacy of the management plan and allows adaptation to changes in the lake.

Monitoring should be an integral part of the management plan. A monitoring program should provide data needed to understand the biological and chemical characteristics of the lake. Some of the monitoring effort may be conducted by interested, well-trained lake shore residents or the service may be purchased from a lake management company. However the data is obtained, it must be incorporated into the management effort to ensure that the management plan is adaptive and effective. Monitoring should include measurement of lake level, water transparency, temperature and dissolved oxygen profiles, pH, nutrients, chlorophyll, suspended solids, and coliform bacteria.

Recommended monitoring parameters are shown in Table 6. Sampling locations are shown in Figure 4. A minimum of quarterly sampling is recommended.

Table 5. Potential response to selected examples of unacceptable water quality.

Parameter	Management Response
pH	• Identify cause as short-term or persistent • Calculate rate of loss of available carbonates • Take action to eliminate source or compensate for carbonate loss
Dissolved Oxygen	• Identify cause of dissolved oxygen depletion and eliminate • Consider installation of recirculation/aeration system
Nitrate-nitrogen	• Examine landscape maintenance practices • Evaluate other potential sources • Eliminate sources
Ammonia-nitrogen	• Examine landscape practices • Evaluate in-lake sources (ammonification of organic materials) • Consider aeration to increase nitrification
Phosphorus	• Examine landscape practices • Evaluate other sources • Eliminate sources • Anticipate phytoplankton blooms and prepare for treatment
Chlorophyll *a*	• Evaluate nutrient concentrations • Take action to reduce nutrient concentration
Oil and grease	• Locate source; prevent remaining reservoir from entering lake • Identify reason source was created and prevent recurrence • If concentrations are high enough to endanger aquatic life contact RWQCB and CDFG for assistance
Coliform bacteria	• Post notices • Identify source and eliminate

MANAGEMENT COST ESTIMATE

Prediction of the condition of the lake prior to filling provides only a limited picture of the potential management problems that may be encountered. Estimated lake management costs are based upon expected conditions in the lake and are based upon the need to maintain the lake as an aesthetic amenity in a condition that will not impede flood control or cause water quality impairments or violations downstream of the discharge point. Certain activities are sure to be required including monitoring, algae control, plant harvesting, and trash cleanup. Preventive actions for waterfowl and aquatic weed problems, such as signs and fliers that discourage feeding of waterfowl and introduction of fish and aquatic plants as discussed above, will be incorporated into CC&Rs.

Monitoring of water quality will be conducted. Summer sampling will provide information required for more informed management decisions. The monitoring program should include regular examination of the watershed of the lake to identify activities that could contribute to water quality degradation, such as improper landscape maintenance. Regular monitoring of the lake will facilitate early identification of problems and permit rapid correction of potential detrimental activities.

Management actions depend upon the conditions that develop in the lake and the management objectives determined by the homeowners. Some form of control, however, is likely to be necessary to meet the objectives for the lake. The extent and duration of summer algae problems are unknown at this time and the need for aquatic plant harvesting is a function of the plant growth rate and efficacy of the weed introduction prevention program discussed above. If algae are a problem, they may be controlled with proper copper application, chemical precipitation of nutrients in well-water, more efficient mixing, and/or alteration of system hydrology. Chemical control with an appropriate copper application is recommended and budgeted, however, any chemical application for algae control must first be approved by the City.

Table 6. Frequency, sample type, and number of stations for monitoring water quality in Westborough Lake.

Parameter	Frequency	Sample type	Stations
Water level	weekly in winter biweekly in summer	staff gauge	overflow weir
Temperature	quarterly	profile	3
Dissolved oxygen	quarterly	profile	3
pH	quarterly	profile	3
Specific conductance	quarterly	profile	3
Alkalinity	quarterly	depth integrated composite	1
Hardness	quarterly	depth integrated composite	1
Chlorophyll *a*	quarterly	depth integrated composite	1
Phytoplankton	quarterly	depth integrated composite	1
Zooplankton	quarterly	depth integrated composite	1
Bacteria	quarterly	grab	3
Nutrients	quarterly	depth integrated composite	1
Suspended Solids	quarterly	depth integrated composite	1
Sediment Metals	annual	grab	2*
Plant Metals	prior to harvests	composite	6**

* separate composite samples will be collected from arm and main lake stations to assess localization of pollutants near inflows

** plant samples for metal analyses will be collected from three main lake basin stations and three additional near-shore stations. Samples will be composited for analysis.

Trash cleanup by a professional lake management firm twice per month is budgeted to control litter.

Estimated management costs are shown in Table 7. Actual management costs will depend upon severity and frequency of algae and aquatic plant problems, which are a function of the efficacy of the prevention program for aquatic weeds and waterfowl. A 20 percent contingency is included in the budget for the first year to accommodate any changes in the Plan mandated by the City of Sacramento for flood control and/or water quality purposes. Such changes shall be at the discretion of the Department of Utilities. An Annual Report will be produced that summarizes

management activities and limnological characteristics of the lake. Limnological characteristics and management problems in the lake will likely change as the lake ages. The Annual Report will also include recommendations on changes to the Management Plan so that the management of the lake will adapt to changing conditions. Any changes to the Plan must be approved by the City.

ROLES AND RESPONSIBILITIES

It is the responsibility of the homeowners association to fund and implement the activities outlined in this Plan, and to maintain the lake in a condition that permits functioning as a flood control and water quality enhancement facility. It will not be the responsibility of the City of Sacramento to maintain the aesthetic appearance of the lake or manage nuisance conditions that may develop in the lake. The homeowner's association and the City will, however, work cooperatively on public education and enforcement of best management practices to maintain water quality and the aesthetic value of the lake. The City of Sacramento will do the following:

- maintain inlets to the lake and the outlet structure as needed to provide drainage and flood control;
- regulate the operations and maintenance of the lake to assure compliance with Federal, State, and local water quality requirements;
- determine if the homeowners association is maintaining the lake in a manner consistent with the City's flood control and/or water quality standards and take actions necessary to remedy any deficiencies if City standards are not met. The City may charge the homeowner's association for costs of remedial actions.

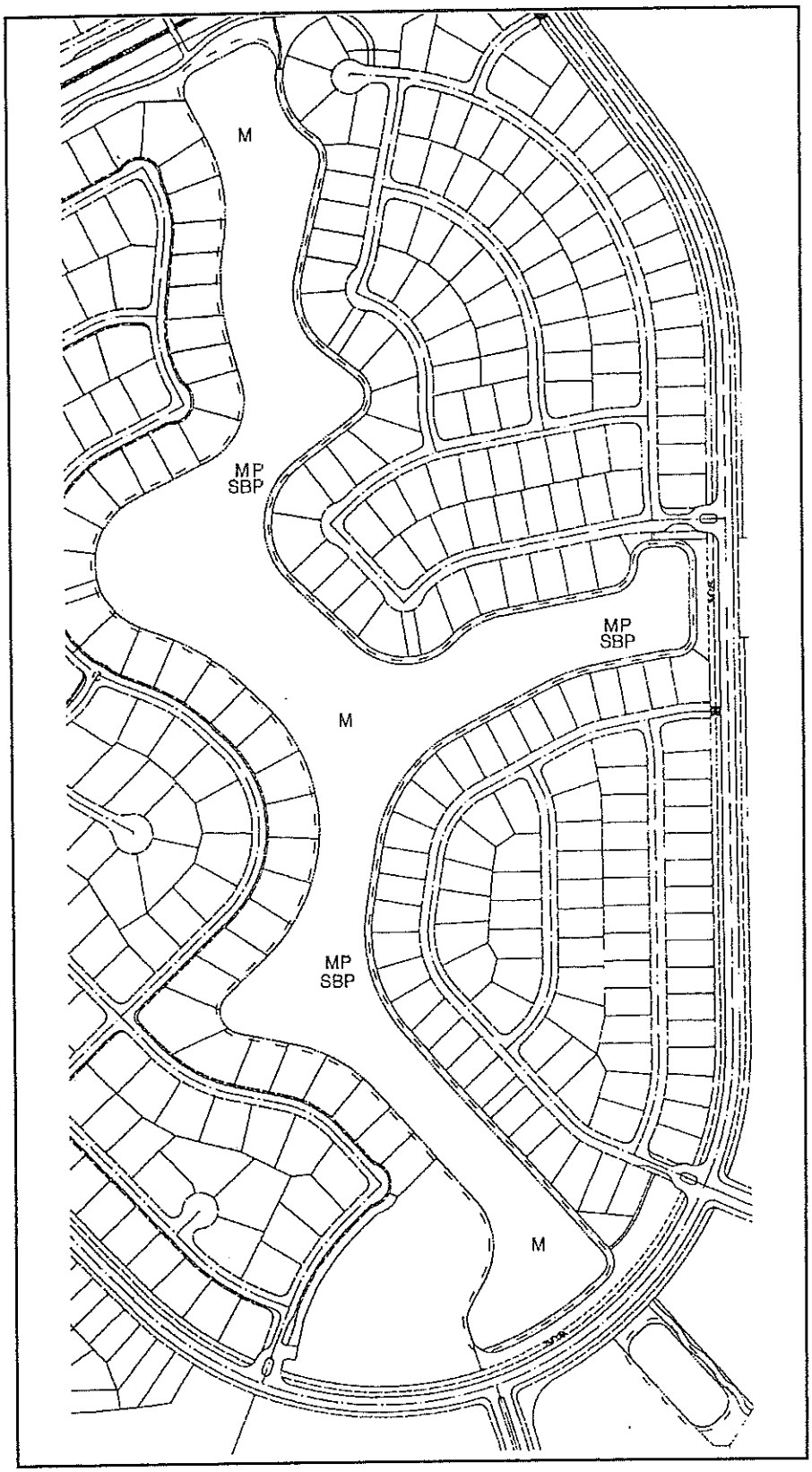


Figure 4. Approximate location of Westborough lake sampling stations.
(M=macrophyte metals, P=profile, B=bacteria, S=sediment metals)

Table 7. Estimated cost of Management Plan during first year.

Task 1. Monitoring	
Sampling	$4,000
Laboratory analyses	$12,000
	$16,000
Task 2. Public Education Program	$500
Task 3. Twice/month Trash Clean up	$2,500
Task 4. Establish Vegetation	$7,500
Task 5. Algae Control	$3,600
Task 7. Quarterly and Annual Reports	$8,000
	$38,100
Contingency	$7,620
Total Cost	$45,720

REFERENCES

Carlson, R.E. 1977. A trophic state index for lakes. Limnology and Oceanography 22: 361-368.

Harper, D. 1992. Eutrophication of Freshwaters. Chapman and Hall, New York. 321 pg.

Schueler, T.R. 1987. Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban BMPs. Metropolitan Washington Council of Governments, Washington DC.

Sugnet and Associates. 1997. Technical Basis for Water Quality Treatment Criteria. Prepared for City of Sacramento.

US EPA. 1986. Methodology for Analysis of Detention Basins and Control of Urban Runoff quality. Nonpoint Source Branch, Office of Water. EPA-440-5-87-001. 51 pp.

Wallace, Kuhl and Associates. 1999. Westborough Lake Geotechnical Engineering Report. WKA No. 3687.02.

Welch, E.B. 1980. Ecological Effects of Wastewater. Cambridge University Press. Oxford. 337 pg.

Westlake
Monitoring Report:
July 31, 2008

Prepared for:
Vierra Moore
PO Box 348600
Sacramento, CA 95834

Prepared By:
Stuart D. Perry, M.S., PCA
American Civil Constructors
6301 Angelo Court, Unit 1
Loomis, CA 95650

and

Mark D. Sytsma, Ph.D.
Applied Ecology Consulting, LLC
POB 2421
Tualatin, OR 97062

November 2008

TABLE OF CONTENTS

List of Figures ii
List of Tables ii
Summary 3
Introduction 3
Lake Management Activities 8
Lake Monitoring 8
Methods 8
Results and Discussion 9
Temperature 10
pH and Alkalinity 10
Conductivity 10
Dissolved Oxygen 11
Nitrogen 11
Phosphorus 14
Hardness 14
Suspended Solids 15
Chlorophyll-a 15
Secchi Transparency 16
Phytoplankton 16
Bacteria 17
References 17
Appendix: Laboratory Report 19

List of Figures

Figure 1. Vicinity map for Westlake.....4
Figure 2. Map of Westlake development. 5

List of Tables

Table 1. Management objectives for water quality in Westlake. 8
Table 2. Westlake water quality data from July 31, 2008 and historical data.....13
Table 3. Historical abundance and dominant species, and phytoplankton community composition in Westlake on July 31, 2008.....17

Westlake Monitoring Report: July 31, 2008

Summary

Water quality in Westlake on July 31, 2008 was good and most management objectives were met. The pH was slightly greater than the management objective. The water termperature of Westlake was lower in 2008 than in previous years, and consequently the phytoplankton abundance and community composition differed from previous years. Green algae dominated the phytoplankton and cell densities and chlorophyll-a concentration were low. Water transparency was greater than in recent years in the summer.

Introduction

This report includes monitoring data collected on April 24, 2008. The monitoring program follows the lake management plan developed by Perry and Sytsma (2000).

Westlake is located in a 331-acre mixed-use development in the North Natomas area of Sacramento, California northwest of the intersection of El Centro and Del Paso Roads and to the southwest of the I-5/Highway 99 intersection (Figure 1). The development includes 1255 residential lots, neighborhood commercial, and light industrial development. An elementary school, community park, and private recreational center are also planned.

The topography of the area is essentially flat. A northeast/southwest trending canal located north of the site provides drainage for the development and an area located north of the site near Highway 99 and Elkhorn Boulevard (Wallace Kuhl and Assoc, 1999).

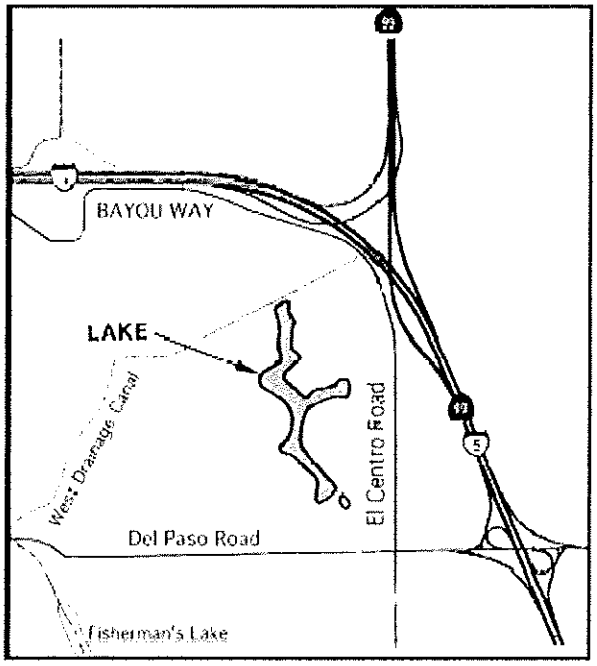


Figure 1. Vicinity map for Westlake.

Design

Westlake was designed as an amenity for the residents and to provide flood control and water quality enhancement of surface water runoff from the development and surrounding areas (Figure 2). The lake is designed as a wet basin and contains water year-round. The approximately 19-acre lake basin is surrounded by a perimeter headwall that is 26 inches above the expected winter water surface elevation and 17 inches above the expected summer water elevation. For public safety, a shelf approximately four feet wide and one to two feet deep was constructed at the perimeter of the basin. The lakebed slopes from the perimeter shelf to a maximum depth of 14 feet at a 4:1 or flatter slope (Wallace Kuhl and Assoc. 1999). The lake bottom was sealed with a 12-inch thick clay layer.

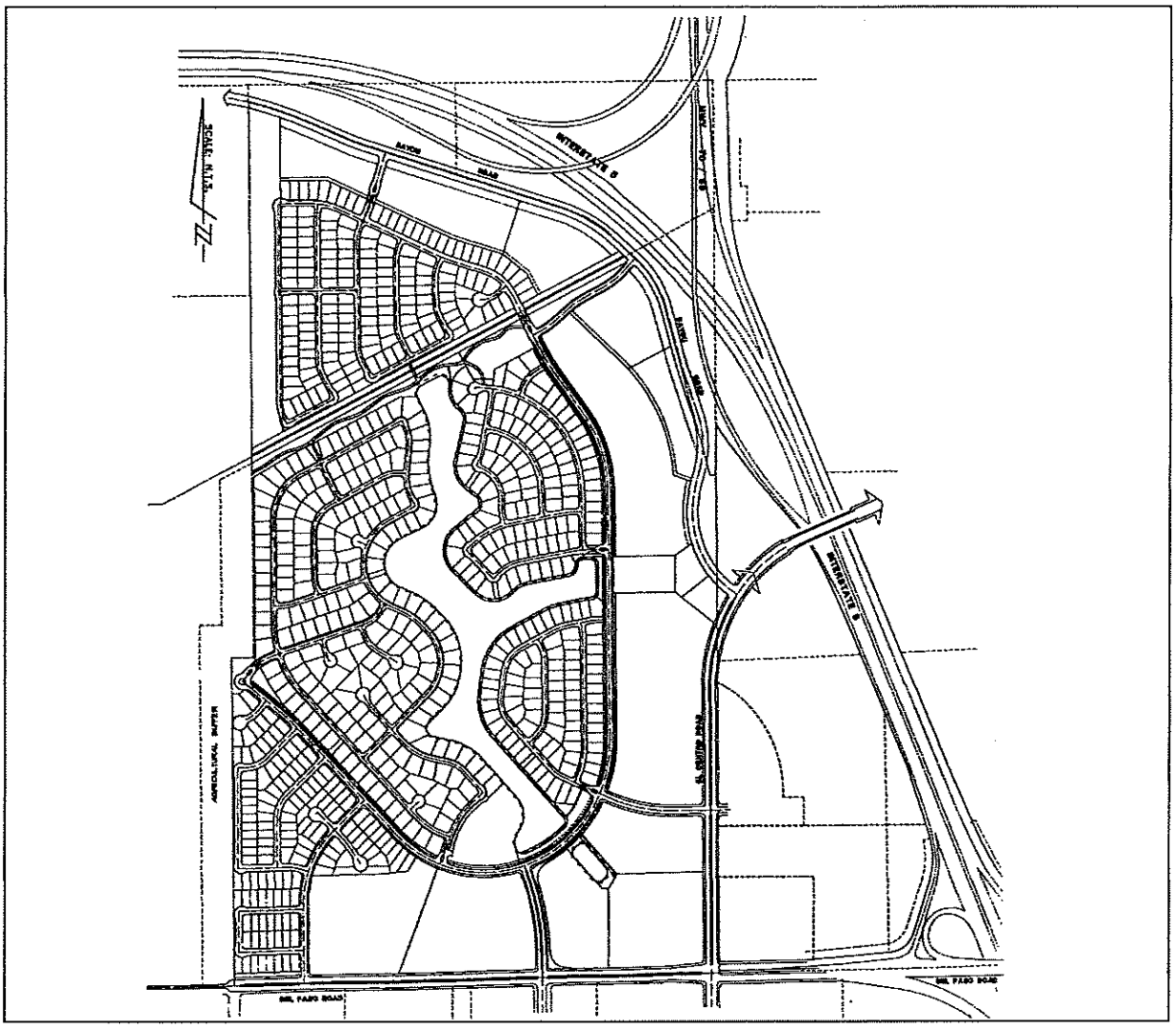


Figure 2. Map of Westlake development.

Lake water level fluctuates with the seasons to permit damping of the winter runoff hydrograph and extend the detention time of water in winter. The summer surface water elevation is 12.6 feet, and the winter elevation 11.8 feet above mean sea level. Under typical conditions, the lake depth varies from 11.8 (winter, no-flow condition) to 12.6 feet (summer). The lake volume in the summer and winter is approximately 139 and 124 acre-feet, respectively. At maximum storage capacity, 16.0 feet above mean sea level (100-year), the accumulated lake volume is approximately 200 acre-feet. Thus, the accumulated volume of the lake between the

winter operating pool (11.8 feet msl) and the 100-year pool (16.0 feet msl) is approximately 76 acre-feet. The lake was filled, and summer water level (12.6 feet above MSL) maintained, with water drawn from a well located at the south end of the lake.

The surface water drainage system for the development directs runoff into the lake. Outflow from the lake is discharged to the West Drainage Canal at a point west of the Plant 13 pump station. The West Drainage Canal flows into Fisherman Lake and then into the Sacramento River just upstream of its confluence with the American River via the RD 1000 pumpstations 3, 1A and 1B.

The lake is one component in a package of best management practices (BMPs) for water quality at the development. The lake is managed as a vegetated, wet-pond system for treatment of urban runoff. If properly maintained, vegetated wet ponds can achieve high removal rates for sediment, biological oxygen demand (BOD), organic nutrients, and trace metals in urban runoff. Biological processes within the pond also remove soluble nutrients, such as nitrates, ammonia, and orthophosphorus, which contribute to nutrient enrichment and eutrophication. Rooted aquatic plants, or macrophytes, in the lake enhance biological uptake of soluble nutrients in the lake and increase sedimentation.

Lake Uses

Westlake is intended to provide aesthetic, storm water detention, water quality enhancement, and limited recreational benefits. Recreational use of the lake is limited to non-motorized boating. No swimming or other water contact recreation is permitted.

Management Goals

Management goals for a lake are based on the intended uses. The following management goals were recommended in the lake management plan (Perry and Sytsma 2000):

- The lake should be free of surface mats of algae and macrophytes.
- Cyanobacteria blooms that could harm pets should be avoided.
- The lake should not produce nuisance odors.
- The lake will not contain concentrations of coliform bacteria associated with human wastes that exceed established water quality standards.
- The lake shall not contain floating material such as oil and grease, trash, scums, etc. that interfere with uses.
- Toxic materials that harm aquatic life or human health will not accumulate in the lake or be discharged from the lake.
- Outflow from the lake will not harm aquatic life in aquatic systems downstream from the discharge.
- The lake will be managed to reduce urban runoff and storm water runoff pollutants discharged from the outfall structure to the maximum extent practicable as determined by the City in accordance to its NPDES storm water permit and storm water management program.

Specific numeric lake management criteria were recommended as target values (Table 1). Westlake will take a number of years to reach a stable state. Processes such as final buildout, formation and consolidation of sediments, and introduction and establishment of biological communities will alter the condition of the lake and interact to influence future water quality.

Table 1. Management objectives for water quality in Westlake.

Constituent	Management Objective
Dissolved Oxygen*	5 mg/L - mean monthly concentration 4 mg/L - single value
Clarity	0.5 m Secchi depth - mean monthly value
pH**	6.5-9
Total Coliform Bacteria	500/1100 MPN/100 mL[1]
Dissolved Inorganic Nitrogen[2]	0.15 mg/L
Un-ionized ammonia	0.02 mg/L - single value
Total Phosphorus	0.05 mg/L - mean monthly concentration
Carlson's Trophic State Index***	< 60
Chlorophyll	15 mg/m^3 - mean monthly concentration 40 mg/ m^3 - single value

[1] Median value/90th percentile value
[2] Nitrate + Ammonia-nitrogen
* Measured in the morning
** Measured in the afternoon
*** TSI_{Secchi} = 60-14.41 x ln Secchi transparency (m)
TSI_{Chl} = 9.81 x ln Chlorophyll *a* (mg/m^3) + 30.6
TSI_P = 14.42 x ln Total Phosphorus (mg/m^3) + 4.15

Lake Management Activities

The lake was treated with algaecides and herbicides, as needed, during the quarter.

Lake Monitoring

Methods

Westlake was sampled on April 24, 2008. Profiles of temperature, dissolved oxygen, pH, and conductivity were measured at three locations the lake with a Hydrolab Quanta multiprobe instrument calibrated according to the manufacture's specifications. A depth-composited sample (surface, 1 and 2 m) was collected for laboratory analysis of chlorophyll-a, alkalinity, hardness, total suspended solids, total and soluble reactive phosphorus, total Kjeldahl nitrogen, nitrate-nitrogen, and ammonia-nitrogen at the mid-lake station. Surface samples for E. coli bacteria

analysis were collected at each station. Total coliform bacteria were measured until April 2008. Water transparency was measured with a Secchi disk at all three stations. Phytoplankton samples (250 mL) were collected by surface grab at station 2.

Laboratory analyses of samples were conducted by Caltest Analytical Laboratory using standard methods. Methods are detailed in the laboratory report included in an appendix to this report. All laboratory results met quality control requirements. Laboratory reporting limits are higher than the method detection limits for some of the analyses. American Civil Constructors requested that the laboratory report data below the laboratory's reporting limit but above the method detection limit. Values less than the reporting limit may be less reliable than values above the reporting limit, however, for lake management purposes the lower method detection limit may provide acceptable data.

Phytoplankton samples were preserved with lugol's solution in the field. Samples were concentrated into a five-mL volume by allowing them to settle for five days and aspirating the supernatent. Phytoplankton in the concentrated sample were counted in a Nannoplankton® counting chamber (Phycotech, Inc.). At least 350 cells were counted with a Nikon Eclipse 600 microscope (100x and 400x). Organisms were identified at the species level whenever possible using Weber (1971) and Prescott (1982). Phytoplankton analyses were done by Miguel Estrada.

Results and Discussion

Results of the July 31, 2008 sampling of Westlake are discussed below. The data are summarized in Table 2.

Temperature

Water temperature is an important determinant of the biological and chemical characteristics of lakes. Shallow lakes are typically isothermal, i.e., water temperature does not change significantly with depth, but Westlake does exhibit thermal stratification on some occasions in the summer. Weak thermal stratification was evident in Westlake on July 31. Lake mean water temperature was about 2 C degrees lower than in July 2007. Water temperatures in Spring 2008 were also lower than in Spring 2007.

pH and Alkalinity

The pH of lakes is a function of the geology of the watershed and biological activity in the lake. In most freshwater systems, pH is determined by the carbonate ($CO_2 - HCO_3^- - CO_3^{2-}$) system. The carbonate system buffers pH changes in lakes. Changes in pH occur when concentrations of CO_2 and HCO_3^- in the system change. During photosynthesis and respiration, carbon dioxide (CO_2) is consumed or produced. Thus, pH can be an indicator of the productivity of a system.

The pH of Westlake averaged 9.2, which was slightly above the management objective but within the range measured in the lake previously. Total alkalinity was 180 mg $CaCO_3$/L, which was the same as in July 2007.

Conductivity

Water is a solvent for salts. Specific conductance is a measure of the amount of salts dissolved in water. The more dissolved salts the higher the specific conductance and salinity. Specific conductance in Westlake averaged 530 µS/cm , which was similar to that measured

previously in Summer. There is no management objective for specific conductance but changes could reflect changes in the chemistry of the well water used to maintain lake level.

Dissolved Oxygen

Dissolved oxygen is critical for survival of many aquatic organisms. Most desirable fish species require dissolved oxygen concentrations greater than 5 mg/L. Water temperature determines the amount of oxygen that can dissolve in water (100 % saturation). The concentration of oxygen at saturation decreases with increasing water temperature. The dissolved oxygen management objective is a mean monthly value of 5 mg/L or a single measurement of 4 mg/L.

There was dissolved oxygen depletion in the bottom water of Westlake due to the weak thermal stratifcation present on July 31. Concentration averaged 6.9 mg/L in the lake with a minimum concentration of 5.6 mg/L. The dissolved oxygen concentration met the management objective for the lake.

Nitrogen

Ammonia and Nitrate+Nitrite-Nitrogen

Inorganic nitrogen is an important nutrient for rooted plants and phytoplankton. Inorganic nitrogen can occur in reduced (ammonium) and oxidized forms (nitrate+nitrite). The ammonium and nitrate concentrations were below the method detection limit. The ammonium and nitrate concentrations are commonly nondetectable in the Westlake. Total inorganic nitrogen concentration met the management objective for the lake.

Ammonia gas forms ammonium hydroxide in water, which can in turn dissociate into ammonium and hydroxyl ions. The unionized form of ammonia is toxic to fish. The ratio of unionized to total ammonia changes with pH and temperature (Emerson *et al.* 1975). Temperature and pH are quite variable in aquatic systems due to diurnal variation in light and photosynthesis, which can lead to fluctuating unionized ammonia concentrations. EPA (1999) issued total ammonia criteria concentrations to protect fish. The criterion concentration for chronic exposure at the temperature and pH of Westlake was 0.26 mg ammonia-N/L. Therefore, the concentration in the lake was well below the concentration of concern for fish health.

Total Nitrogen

The total Kjeldahl nitrogen (TKN) concentration in the water includes nitrogen associated with planktonic organisms in addition to the dissolved, inorganic ammonia-nitrogen present in the water. TKN concentration in Westlake was 1.8 mg/L. TKN concentration is typically detectable in the lake with concentrations ranging from undetectable to 4.6 mg/L. Nitrate concentration was nondetectable so the total nitrogen (TKN+nitrate) was ~1.8 mg/L. No total nitrogen management objective was set for the lake.

Table 2. Westlake water quality data from July 31, 2008 and historical data.

Station	Depth (m)	Water Temp. (C)	pH	Dissolved oxygen (mg/L)	Dissolved oxygen (% Sat.)	Spec. Conduct. (uS/cm)	Secchi (m)	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)
1	0	25.1	9.2	7.7	83	530	0.8	-	ND
1	1	24.5	9.2	7.5	82	529			
1	2	21.6	9.1	6.0	64	531			
2	0	25.0	9.2	7.2	80	530	0.8	-	1
2	1	23.4	9.2	7.7	83	528			
2	2	21.8	9.1	5.6	63	533			
3	0	25.2	9.2	7.1	80	532	0.8	-	1
3	1	23.6	9.2	7.2	80	527			
3	2	22.6	-	5.7	63	528			
Mean	0	25.1	9.2	7.3	81	531		-	
Mean	1	23.8	9.2	7.5	82	528		-	
Mean	2	22.0	9.1	5.8	63	531			
Lake Mean		23.6	9.2	6.9	75	530	0.8	-	1
Historic Lake Mean									
June 2003		26.0	9.3	11.7	144	533	1.7	<5	
September 2003		21.9	8.3	8.6	102	683	0.6	89	
December 2003		8.1	8.2	10.0	84	444	0.4	≥1600	
March 2004		18.8	8.0	6.9	74	429	1.5	17	
June 2004		25.1	8.4	5.6	68	696	1.1	9	
September 2004		20.1	8.3	3.9	43	770	1.0	28	
December 2004		10.0	8.5	7.1	90	663	1.1	≥1600	
March 2005		18.4	8.4	5.5	67	710	0.9	52	
June 2005		24.8	9.1	13.8	169	528	0.4	14	
September 2005		22.2	9.3	7.4	86	725	1.1	730	
December 2005		12.3	9.3	8.4	80	402	0.5	≥1600	
March 2006		14.3	8.1	9.9	97	333	0.5	135	
June 2006		26.3	8.9	11.1	139	497	0.5	4	
September 2006		21.0	9.0	7.4	83	561	1.5	85	
December 2006		8.9	8.2	7.9	68	592	1.3	163	
April 2007		19.8	8.5	6.7	73.7	602	2.3	2	
July 2007		25.7	9.1	6.0	73.6	610	0.6	15	
October 2007		17.1	8.7	7.4	90.9	613	1.0	16	
January 2008		8.5	8.2	10.4	107.1	264	0.7	1000	
April 2008		16.8	8.9	9.2	114.6	626	2.4	19	

Station	Depth (m)	NH4 N (mg/L)	NO3+NO2 N (mg/L)	Ortho-P (mg/L)	Total P (mg/L)	Kjeldahl N (mg/L)	Hardness (mg/L)	Suspended Solids (mg/L)	Total Alk. (mg CaCO3/L)	Chlor-a (mg/m3)
2	comp	ND	ND	ND	0.18	1.80	90	5.0	180	29
Historic Measurements										
June 2003		ND	ND	ND	0.06	0.40	90	ND	180	9
September 2003		0.10	ND	0.02	0.20	1.40	140	20.0	230	64
December 2003		ND	ND	ND	0.10	0.80	110	30.0	150	6
March 2004		ND	ND	0.10	0.20	0.40	110	ND	150	ND
June 2004		ND	ND	0.30	0.10**	0.30	180	ND	250	ND
September 2004		0.30	ND	0.20	0.20	0.80	190	3.0	260	5
December 2004		0.18	0.15	0.17	0.18	0.45	180	ND	240	ND
March 2005		-	ND	0.12	0.15	ND	190	5.0	240	ND
June 2005		0.20	ND	ND	0.33	4.60	78	48.0	160	250
September 2005		0.29	0.11	ND	0.14	0.68	160	ND	230	18
December 2005		0.31	0.43	0.16	0.18	0.55	100	24.0	140	5
March 2006		ND	ND	0.13	0.16	0.55	76	6.0	120	6
June 2006		ND	1.70	ND	0.11	2.40	150	24.0	170	140
September 2006		ND	ND	ND	ND	0.59	100	ND	190	ND
December 2006		ND	ND	0.16	0.16	0.59	150	6.0	200	ND
April 2007		ND	ND	0.21	0.21	ND	150	4.0	210	ND
July 2007		ND	0.26	ND	0.19	2.90	130	6.0	180	93
October 2007		ND	ND	0.11	0.15	0.59	140	3.0	200	19
January 2008		0.16	0.74	0.13	.056*	0.36	74	11.0	120	2.1*
April 2008		ND	0.56	0.14	0.17	0.36	180	4.0	220	ND

ND = Not Detectable
* estimated concentration above the Method Detection Limit and below the Reporting Limit/Minimum (equivalent to the DNQ Estimated Concentration flag)
** laboratory error – orthophosporus is included in total P measurementand total P cannot be less than ortho-P
+ concentration >67:671600, 1600 used for statistical calculations

Phosphorus

Orthophosphorus

Orthophosphate-phosphorus is a measure of phosphorus available for plant uptake. Since phosphorus often limits algae growth in lakes, orthophosphate-phosphorus is often used as an indicator of the algae production potential of a lake. Orthophosphorus concentrations are typically very low in lakes (< 0.01 mg/L). Orthophosphorus concentration was below the detection limit, which is typical of Westlake in Summer.

Total Phosphorus

Total phosphorus is a measure of the phosphorus dissolved in the water (ortho-phosphate) plus phosphorus associated with organic complexes, planktonic organisms, and some suspended sediment in the water column. Total phosphorus concentration was 0.18 mg/L. Summertime total phosphorus ranged from <0.1 to 0.33 mg/L from 2004 through 2007.

Hardness

Water hardness is determined primarily by the concentrations of calcium and magnesium in water. Iron and manganese may also contribute to hardness. Hardness is expressed as calcium carbonate equivalents. Because the cations that contribute to water hardness compete with metal ions in some biochemical processes, hardness can be used to predict the toxicity of some metals to fish. Metal toxicity is greater in "soft" water (< 20 mg $CaCO_3$/L). Consideration of hardness of Westlake is important when algae are managed with copper-containing algaecides. In general, extreme care must be used when treating "soft" water with copper-based algaecides.

Hardness of Westlake was 90 mg $CaCO_3$/L, which was within the range measured in the lake in the summer previously (78-180 mg/L). Hardness in Westlake has been generally similar to, although more variable than, other Central Valley lakes and within the "hard water" range. Even though hardness is adequate, caution should be exercised when using copper herbicides in Westlake to avoid toxicity to sensitive fish species.

Suspended Solids

Suspended solids are a measure of particulate material in the water column. Particulate matter may include algae and suspended sediments. When compared to other measurements, chlorophyll-a or total phosphorus for example, suspended solids information can provide an indication of the type of material suspended in the water column. Suspended solids concentration was 5.0 mg/L, which was within the range measured previously in the lake in the summer (undetectable to 24 mg/L).

Chlorophyll-a

Algae contain a number of pigments that function in photosynthesis. Measurement of the amount of the green, chlorophyll-a pigment extracted from algae in a water sample provides and indirect indication of the abundance of algae in the water. Summer chlorophyll-a concentrations greater than about 5 to 10 mg/m^3 are considered an indication of eutrophic conditions. Chlorophyll-a concentration was 29 mg/m^3 on July 31. Summer chlorphyll-a concentrations are typically much higher (93-250 mg/m^3) in Westlake, particularly in recent years. The low concentrations in 2008 may relate to the low water temperatures noted previously.

Secchi Transparency

A Secchi disk is a 20-cm, black and white disk that is commonly used for measuring water clarity in lakes. Secchi transparency is a measure the amount of suspended material, *e.g.*, algae cells and sediment, in the water column. A Secchi transparency of 0.5 m has been established as the management objective for Westlake.

The mean Secchi disk transparency was 0.8 m, which was greater than summer transparency in recent years. The high transparency was a result of the low chlorophyll-a concentrations in the lake. The management objective was met.

Phytoplankton

The phytoplankton community was dominated by green algae (Chlorophytaceae), primarily *Sphaerocystus schroeteri.* The cyanobacteria, *Anabaena wisconsinense*, was the subdominant species present. Cell densities were low in comparison to previous years, possibly due to the low Spring and Summer temperatures in the lake.

Table 3. Historical abundance and dominant species, and phytoplankton community composition in Westlake on July 31, 2008.

Group	Species	Colonies/L	Cells/L	% Total
Bacillariophyceae	Nitzschia acicularis (Kuetzing) W. Smith		40,103	0.2
Chlorophyceae	Kirchneriella lunaris (Kirchner) Moebius		80,207	0.5
	Oocystis lacustris Chodat		120,310	0.7
	Scenedesmus acutiformis Schroeder	200,517	1,203,103	7.0
	Scenedesmus quadricauda var. maximus West & West	280,724	1,122,897	6.6
	Sphaerocystis Shroeteri Chodat	962,483	6,897,793	40.3
	Tetraëdron minimum (A. Braun) Hansgirg		40,103	0.2
			9,464,413	55.4
Cryptophyceae	Cryptomonas erosa Ehrenberg	200,517	2,486,414	14.5
Cyanophyceae	Anabaena wisconsinense Prescott	200,517	5,093,138	29.8
Dinophyceae	Ceratium hirundinella (O.F. Muller) Dujardin		503	0.003
Euglenophyceae	Euglena sanguinea Ehrenberg	503	16,614	0.1
		1,845,261	17,101,185	

Historical Summer Dominants and Abundance		
2007	cyanophytes	75,913,657
2006	cyanophytes	187,411,034
2005	cyanophytes	66,676,580
2004	chlorophytes	3,856,246
2003	chlorophytes	11,243,101

Bacteria

Total coliform bacteria include bacteria that are found in the soil, in water that has been influenced by surface water, and in human or animal waste. *Escherichia coli* is the major species in the fecal coliform group. Of the five general groups of bacteria that comprise the total coliforms, only *E. coli* is generally not found growing and reproducing in the environment. Consequently, measurement of *E. coli* concentration provides the best indictor of potential contamination with human and animal wastes. The national and state standard for recreational water contact in the Central Valley is 126 cfu/100mL. While 1:1 conversion of MPN and cfu concentrations are not exact (Gronewold and Wolpert 2008), MPN of *E. coli* were well below this standard.

References

Carlson, R.E. 1977. *A trophic state index for lakes*. Limnology and Oceanography 22: 361-368.

EPA. 1999. 1999 Update of Ambient Water Quality Criteria for Ammonia. Office of Water. EPA-822-R-99-014. 147 pp.

Gronewold, A.D. amd R.L Wolpert. In press. Modeling the relationship between Most Probably Number (MPN) and Colony Forming Unit (CFU) estimates of fecal coliform concentration. *Water Research* 42: 3327-3334.

Hutchinson, G.E. 1967. *A Treatise on Limnology. Volume 2. Introduction to Lake Biology and the Limnoplankton*. Wiley. New York. 1115 pg

Perry, S. and M. Sytsma. 2000. *Westborough Lake Management Plan*. Prepared for Lennar Communities. 28 pg.

Prescott, G.W., 1962. *Algae of the Western Great Lakes Area*. Cranbrook Institute of Science, Bulletin No. 31., Reprint 1982 by Otto Koeltz Science Publishers. Koenigstein. W. Germany.

US EPA. 1986. *Methodology for Analysis of Detention Basins and Control of Urban Runoff quality*. Nonpoint Source Branch, Office of Water. EPA-440-5-87-001. 51 pp.

Wallace, Kuhl and Associates. 1999. *Westborough Lake Geotechnical Engineering Report*. WKA No. 3687.02.

Weber, C. I., 1971. *A Guide to the Common Diatoms at Water Pollution Surveillance System Stations*. U.S. Environmental Protection Agency, Cincinnati, Ohio.

Welch, E.B. 1980. *Ecological Effects of Wastewater*. Cambridge University Press. Oxford. 337 pg.

Appendix: Laboratory Report

Tuesday, August 26, 2008

Stuart Perry
American Civil Constructors
6301 Angelo Ct
Suite 1
Loomis, CA 95650

RE: Lab Order: I071098
Project ID: WESTLAKE

Collected By: Stuart Perry
PO/Contract #:

Dear Stuart Perry:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, July 31, 2008. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Enclosures

Project Manager: Sonya Babcock

Lab Director: Christine Horn

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

SAMPLE SUMMARY

Lab Order: I071098

Project ID: WESTLAKE

Lab ID	Sample ID	Matrix	Date Collected	Date Received
I071098001	WESTLAKE SITE 2	Water	7/31/2008 11:16	7/31/2008 13:45
I071098002	WESTLAKE SITE 1	Water	7/31/2008 11:10	7/31/2008 13:45
I071098003	WESTLAKE SITE 3	Water	7/31/2008 11:22	7/31/2008 13:45

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

NARRATIVE

Lab Order: I071098

Project ID: WESTLAKE

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods (SM) 18th Ed. except where noted.

Caltest collects samples in compliance with 40 CFR, EPA Methods, Cal. Title 22, and Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Laboratory filtration for dissolved metals (excluding mercury) and/or pH analysis was not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

nelac

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

ANALYTICAL RESULTS

Lab Order: I071098
Project ID WESTLAKE

Lab ID: I071098001 Date Collected: 7/31/2008 11:16 Matrix: Water
Sample ID: WESTLAKE SITE 2 Date Received: 7/31/2008 13:45

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
Total Suspended Solids Analysis	**Analytical Method:**		EPA 160.2 / SM2540D				**Analyzed by:** AMS		
Total Suspended Solids	5.0	mg/L	3	1			08/06/08 14:15	BIO 5828	
Chlorophyll A Analysis	**Prep Method:**		SM20-10200 H		**Prep by:** LHK				
	Analytical Method:		SM20-10200 H				**Analyzed by:** LHK		
Chlorophyll-A	29	mg/m^3	5.0	1	08/01/08 00:00	BML 3555	08/11/08 00:00	BML 3556	
Total Coliform & E. Coli Analysis	**Prep Method:**		SM20-9223		**Prep by:** CM				
	Analytical Method:		SM20-9223				**Analyzed by:** BCP		
E. Coli	1.0	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	
Total Coliform	>2400	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	
Nitrogen, Nitrate-Nitrite Analysis	**Analytical Method:**		EPA 353.2				**Analyzed by:** AL		
Nitrogen, Nitrate-Nitrite	ND	mg/L	0.1	1			08/13/08 00:00	WCO 4270	
Phosphate Analysis	**Analytical Method:**		EPA 365.2 / SM4500E				**Analyzed by:** JDC		
Ortho Phosphate as P	ND	mg/L	0.1	1			08/01/08 10:15	WCO 4250	
Total Phosphorus as P	0.18	mg/L	0.1	1			08/12/08 00:00	WCO 4267	
Nitrogen,Total Kjeldahl Analysis	**Analytical Method:**		EPA 351.3 / SM4500C				**Analyzed by:** JDC		
Total Kjeldahl Nitrogen	1.8	mg/L	0.1	1			08/13/08 18:06	WET 4530	
Nitrogen, Ammonia (as N)	**Analytical Method:**		EPA 350.2 / SM4500C				**Analyzed by:** NP		
Ammonia (as N)	ND	mg/L	0.1	1			08/08/08 00:00	WET 4512	
Hardness, as CACO3 by Titrimetric	**Analytical Method:**		EPA 130.2 / SM2340B				**Analyzed by:** NP		
Hardness (as CACO3)	90	mg/L	5	1			08/25/08 00:00	WTI 1605	
Alkalinity, Total Analysis	**Analytical Method:**		EPA 310.1 / SM2320B				**Analyzed by:** JDC		
Alkalinity, Total (as CACO3)	180	mg/L	10	1			08/12/08 12:00	WTI 1599	
Bicarbonate (as CACO3)	110	mg/L	10	1			08/12/08 12:00	WTI 1599	
Carbonate (as CACO3)	64	mg/L	10	1			08/12/08 12:00	WTI 1599	
Hydroxide (as CACO3)	ND	mg/L	10	1			08/12/08 12:00	WTI 1599	

Lab ID: I071098002 Date Collected: 7/31/2008 11:10 Matrix: Water
Sample ID: WESTLAKE SITE 1 Date Received: 7/31/2008 13:45

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
Total Coliform & E. Coli Analysis	**Prep Method:**		SM20-9223		**Prep by:** CM				
	Analytical Method:		SM20-9223				**Analyzed by:** BCP		

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

ANALYTICAL RESULTS

Lab Order: I071098
Project ID WESTLAKE

Lab ID: **I071098002** Date Collected: 7/31/2008 11:10 Matrix: Water
Sample ID: **WESTLAKE SITE 1** Date Received: 7/31/2008 13:45

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
E. Coli	ND	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	
Total Coliform	1100	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	

Lab ID: **I071098003** Date Collected: 7/31/2008 11:22 Matrix: Water
Sample ID: **WESTLAKE SITE 3** Date Received: 7/31/2008 13:45

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
Total Coliform & E. Coli Analysis	**Prep Method:**	SM20-9223			**Prep by:** CM				
	Analytical Method:	SM20-9223					**Analyzed by:** BCP		
E. Coli	1.0	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	
Total Coliform	>2400	MPN/100 mL	1.0	1	07/31/08 14:17	BML 3561	08/01/08 14:23	BML 3562	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: I071098

Project ID: WESTLAKE

Analysis Description:	Total Suspended Solids Analysis	**QC Batch:**	BIO/5828
Analysis Method:	EPA 160.2 / SM2540D	**QC Batch Method:**	EPA 160.2 / SM2540D

METHOD BLANK: 227863

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Total Suspended Solids	ND	3	mg/L	

LABORATORY CONTROL SAMPLE: 227864

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	500	490	98	80-120	

SAMPLE DUPLICATE: 228148

Parameter	Units	I080222001 Result	DUP Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	44	24	59	20	1

Analysis Description:	Chlorophyll A & Phaeophytin Analysis	**QC Batch:**	BML/3555
Analysis Method:	SM20-10200 H	**QC Batch Method:**	SM20-10200 H

METHOD BLANK: 227087

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Chlorophyll-A	ND	5.0	mg/m^3	

Analysis Description:	Total Coliform & E. Coli Analysis	**QC Batch:**	BML/3561
Analysis Method:	SM20-9223	**QC Batch Method:**	SM20-9223

METHOD BLANK: 227252

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
E. Coli	ND	1.0	MPN/100	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: I071098

Project ID: WESTLAKE

Analysis Description:	Total Coliform & E. Coli Analysis	**QC Batch:**	BML/3561
Analysis Method:	SM20-9223	**QC Batch Method:**	SM20-9223

Analysis Description:	Phosphate Analysis	**QC Batch:**	WCO/4250
Analysis Method:	EPA 365.2 / SM4500E	**QC Batch Method:**	EPA 365.2 / SM4500E

METHOD BLANK: 227236

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Ortho Phosphate as P	ND	0.1	mg/L	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 227240 227241

Parameter	Units	I071096001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Ortho Phosphate as P	mg/L	0.01	0.2	0.21	.21	99	98	90-110	0.5	20	

Analysis Description:	Phosphate Analysis	**QC Batch:**	WCO/4267
Analysis Method:	EPA 365.2 / SM4500E	**QC Batch Method:**	EPA 365.2 / SM4500E

METHOD BLANK: 228950

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Total Phosphorus as P	ND	0.1	mg/L	

LABORATORY CONTROL SAMPLE: 228951

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Phosphorus as P	mg/L	1	1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 228952 228953

Parameter	Units	I071014008 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Total Phosphorus as P	mg/L	0.18	1	1.2	1.2	102	101	90-110	0.6	20	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: I071098

Project ID: WESTLAKE

Analysis Description:	Nitrogen, Nitrate-Nitrite Analysis	**QC Batch:**	WCO/4270
Analysis Method:	EPA 353.2	**QC Batch Method:**	EPA 353.2

METHOD BLANK: 229203

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Nitrogen, Nitrate-Nitrite	ND	0.1	mg/L	

LABORATORY CONTROL SAMPLE: 229204

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate-Nitrite	mg/L	1	1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 229205 229206

Parameter	Units	I070986015 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Nitrogen, Nitrate-Nitrite	mg/L	0.091	2	2.1	2.1	100	102	90-110	1.8	20	

Analysis Description:	Nitrogen, Ammonia (as N)	**QC Batch:**	WET/4512
Analysis Method:	EPA 350.2 / SM4500C	**QC Batch Method:**	EPA 350.2 / SM4500C

METHOD BLANK: 228453

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Ammonia (as N)	ND	0.1	mg/L	

LABORATORY CONTROL SAMPLE: 228454

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ammonia (as N)	mg/L	5	4.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 228455 228456

Parameter	Units	I071097001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Ammonia (as N)	mg/L	0	5	4.9	4.9	97	98	90-110	0.9	20	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: I071098

Project ID: WESTLAKE

Analysis Description:	Nitrogen,Total Kjeldahl Analysis	**QC Batch:**	WET/4530
Analysis Method:	EPA 351.3 / SM4500C	**QC Batch Method:**	EPA 351.3 / SM4500C

METHOD BLANK: 229288

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Total Kjeldahl Nitrogen	ND	0.1	mg/L	

LABORATORY CONTROL SAMPLE: 229289

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Kjeldahl Nitrogen	mg/L	5	5.1	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 229290 229291

Parameter	Units	I071098001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Total Kjeldahl Nitrogen	mg/L	1.8	5	6.9	6.9	102	101	90-110	0.3	20	

Analysis Description:	Alkalinity, Total Analysis	**QC Batch:**	WTI/1599
Analysis Method:	EPA 310.1 / SM2320B	**QC Batch Method:**	EPA 310.1 / SM2320B

METHOD BLANK: 229060

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Alkalinity, Total (as CACO3)	ND	10	mg/L	
Bicarbonate (as CACO3)	ND	10	mg/L	
Carbonate (as CACO3)	ND	10	mg/L	
Hydroxide (as CACO3)	ND	10	mg/L	

LABORATORY CONTROL SAMPLE: 229061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Alkalinity, Total (as CACO3)	mg/L	100	94	94	80-120	
Bicarbonate (as CACO3)	mg/L	100	94	94	80-120	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA

Lab Order: I071098

Project ID: WESTLAKE

Analysis Description:	Alkalinity, Total Analysis	**QC Batch:**	WTI/1599
Analysis Method:	EPA 310.1 / SM2320B	**QC Batch Method:**	EPA 310.1 / SM2320B

SAMPLE DUPLICATE: 229062

Parameter	Units	I071038001 Result	DUP Result	RPD	Max RPD	Qualifiers
Alkalinity, Total (as CACO3)	mg/L	111	110	1.8	20	
Bicarbonate (as CACO3)	mg/L	111	110	1.8	20	
Carbonate (as CACO3)	mg/L	0	0	0	20	
Hydroxide (as CACO3)	mg/L	0	0	0	20	

Analysis Description:	Hardness, as CACO3 by Titrimetric	**QC Batch:**	WTI/1605
Analysis Method:	EPA 130.2 / SM2340B	**QC Batch Method:**	EPA 130.2 / SM2340B

METHOD BLANK: 231505

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Hardness (as CACO3)	ND	5	mg/L	

LABORATORY CONTROL SAMPLE: 231506

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Hardness (as CACO3)	mg/L	1000	1000	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 231507 231508

Parameter	Units	I080053001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Hardness (as CACO3)	mg/L	110	100	200	200	98	96	80-120	1	20	

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA QUALIFIERS

Lab Order: I071098

Project ID: WESTLAKE

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

NC - means not able to be calculated for RPD or Spike Recoveries.

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1	The RPD was high because the sample was not homogenous.

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: I071098

Project ID: WESTLAKE

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
I071098001	WESTLAKE SITE 2	EPA 160.2 / SM2540D	BIO/5828		
I071098001	WESTLAKE SITE 2	SM20-10200 H	BML/3555	SM20-10200 H	BML/3556
I071098001	WESTLAKE SITE 2	SM20-9223	BML/3561	SM20-9223	BML/3562
I071098002	WESTLAKE SITE 1	SM20-9223	BML/3561	SM20-9223	BML/3562
I071098003	WESTLAKE SITE 3	SM20-9223	BML/3561	SM20-9223	BML/3562
I071098001	WESTLAKE SITE 2	EPA 365.2 / SM4500E	WCO/4250		
I071098001	WESTLAKE SITE 2	EPA 365.2 / SM4500E	WCO/4267		
I071098001	WESTLAKE SITE 2	EPA 353.2	WCO/4270		
I071098001	WESTLAKE SITE 2	EPA 350.2 / SM4500C	WET/4512		
I071098001	WESTLAKE SITE 2	EPA 351.3 / SM4500C	WET/4530		
I071098001	WESTLAKE SITE 2	EPA 310.1 / SM2320B	WTI/1599		
I071098001	WESTLAKE SITE 2	EPA 130.2 / SM2340B	WTI/1605		

This report shall not be reproduced, except in full,
without the written consent of CALTEST ANALYTICAL LABORATORY.

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax: (707) 226-1001 • e-mail: info@caltestlabs.com

Caltest ANALYTICAL LABORATORY

1885 N. KELLY ROAD NAPA, CA 94558 (707) 258-4000 FAX (707) 226-1001 www.caltestlab.com

PAGE 1 OF 1

SAMPLE CHAIN OF CUSTODY

PROJECT NAME / PROJECT NUMBER: Westlake

P.O. #:

LAB ORDER #: 07/098

CLIENT: American Civil Constructors

REPORT TO: Stuart Perry

MAILING ADDRESS: 6301 Angelo Court Unit #1 | Loomis | STATE: CA | ZIP: 95650

BILLING ADDRESS: Same as Above

ATTN:

PHONE #: (916) 652-9991 | FAX PHONE: (916) 652-9122 | SAMPLER (PRINT & SIGN NAME): Stuart Perry

TURN-AROUND TIME: [X] STANDARD [ ] RUSH

DUE DATE:

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	CHLOROPHYLL A	ALK, TSS, ORTHO PHOS	HARDNESS	TOTAL PHOS, TKN, NH3	NO3+NO2N	TOTAL COLIFORM AND ECOLI by Quantitra	REMARKS
-1	7/31/08	1116	AQ	APL	NONE	Westlake, Site 2			X						
			AQ	QT	NONE	" "				X					
			AQ	HPT	HNO3	" "					X				
			AQ	QT	H2SO4	" "						X	X		
-2	7/31/08	1110	AQ	B4	THIO	Westlake, Site 1								X	
-1		1115	AQ	B4	THIO	" Site 2								X	
-3		1122	AQ	B4	THIO	" Site 3								X	

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
	7/31/08 1345	7/31/08 1348		/	
	/			/	

FOR LAB USE ONLY

Samples: WC X MICRO ___ BIO X AA ___ SV ___ VOA ___ pH? Y/N TEMP: N/A SEALED Y/N INTACT: Y/N

BD: BIO X WC X AA ___

CC: AA ___ SV ___ VOA ___

SIL: HP ___ PT ___ QT ___ VOA ___

W/HNO_3 ___ H_2SO_4 ___ NaOH ___

PIL: HNO_3 ___ H_2SO_4 ___ NaOH ___ HCL ___

COMMENTS:

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ___ PR ___ M ___ F ___

06/06/08

meyers | nave riback silver & wilson
professional law corporation

Ruthann G. Ziegler
Attorney at Law
916.556.1531

April 29, 2009

Central Valley Regional Water Quality Control Board
11020 Sun Center Drive, No. 200
Rancho Cordova, CA 95670-6114

Re: Legal Authority to Comply with Federal NPDES Storm Water Regulations and Water Discharge Requirements Order No. R5-2008-0142

This letter shall serve as the statement verifying the authority of the City of Citrus Heights ("City") to implement and enforce certain Federal NPDES Storm Water Regulations and the requirements of Water Discharge Requirements Order No. R5-2008-0142 ("Order") which implements NPDES Permit CAS082597 ("Permit"). The City submits this statement along with its Stormwater Quality Improvement Plan ("SQIP") as required by the Order.

Section D.6 of the Order requires the preparation of a statement "certified by its Chief Legal Counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section D.6 specifies six items that must be included in the statement:

> "6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s), shall include the following:
>
> a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
>
> b. Progressive enforcement policy and how it will be effectively implemented;
>
> c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' urban runoff related ordinances, which incorporate the conditions of this Order;
>
> d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed;

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions; and

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

As required by the Order, a complete discussion of each issue follows.

a. Citation of urban runoff related ordinances adopted by the Permittees and the reasons the ordinances are enforceable.

On September 22, 2004, the City adopted Ordinance No. 2004-08, the Citrus Heights Storm Water Ordinance ("City Storm Water Ordinance.") The City's Storm Water Ordinance is the principal ordinance governing discharges to the municipal separate storm sewer system (MS4) of which the City's storm sewer system is a designated part. The City's Storm Water Ordinance further refined the County's Storm Water Ordinance and adopted revisions necessary to expressly authorize the County to enforce the storm water discharge standards in order to ensure compliance with the terms of the Permit. The purpose of the City Storm Water Ordinance is to "protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the County stormwater conveyance system." The provisions of the City Storm Water Ordinance authorize implementation or enforcement of each mandate of the Order or storm water regulation.

Additionally, the City's Land Grading and Erosion Control Ordinance ("Grading Ordinance"), Chapter 16A.52 of the City of Citrus Heights Municipal Code, regulates grading projects and sets conditions for approval of such projects. The City enacted this ordinance specifically to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution.

The Grading Ordinance and the City's Storm Water Ordinance were properly published, introduced and adopted by the City Council and constitute enforceable enactments pursuant to the City's police power.

The City's authority under the Grading Ordinance and the City Storm Water Ordinance is very wide-ranging and is sufficient to address the majority of the mandates contained in the Order. The

Order requires the Permittees to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4." The City Storm Water Ordinance authorizes inspections and monitoring by the City and requires regular reports from dischargers. Additionally, the Order requires the City to have the legal authority to require "that treatment control BMPs be properly operated and maintained." City Storm Water Ordinance sections 98-210 through 98-226 require any person engaged in activities which may result in pollutants entering the stormwater conveyance system to implement and maintain BMPs.

The Order and federal storm water regulations require the City to "control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Permittees." While not specifically covered in any existing interagency agreements, the current Memorandum of Understanding (MOU) between the City and the other permittees implicitly addresses this requirement.

b. Progressive enforcement policy and how it will be effectively implemented.

The City's Storm Water Ordinance provides various levels of enforcement, which are discussed further below. The City may issue a notice of violation to any person found in violation of the City's Storm Water Ordinance. If an issue is not resolved voluntarily after the notice of violation, the City has administrative enforcement options, including the ability for the administrator to issue an administrative compliance order which, among other things, sets forth the specific steps and time schedules for compliance and the measures necessary to implement the BMPs in accordance with the City's Storm Water Ordinance. Additionally, if a violation constitutes an immediate threat to public health or safety, including for example, significant harm to human or aquatic life, the City may issue a cease and desist order requiring the immediate end to the activities causing the threat. The City also has the ability to impose administrative civil penalties up to $5,000 for each violation of the storm water ordinance.

c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order.

The City Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in the ordinance. As discussed further below, these options include issuing notices of non-compliance, administrative enforcement orders and cease and desist orders. In addition to administrative enforcement options, the City may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 22-226 of the City Storm Water Ordinance allows the City General Services Director to promulgate regulations for the implementation of the City's Storm Water Ordinance. This section gives the City the ability to further refine its administrative compliance options.

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.

The City will implement the City Storm Water Ordinance through the stormwater program detailed in the SQIP.

The City Storm Water Ordinance sets forth a detailed process for appealing enforcement action brought pursuant to it. Section 98-240 provides that any person receiving a notice of non-compliance, an administrative compliance order or otherwise suffers an adverse determination under the ordinance may request an administrative hearing before an administrative hearing officer designated by the City Council. The Ordinance requires the appellant to file with the Director, within 30 days of receipt of notice of an adverse determination, a written request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the Council. The City then holds a hearing on the matter before a hearing officer within 45 days of the filing of the written request unless, in the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted. The hearing office must issue his or her final decision within ten days of the hearing.

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

As stated above, the City Storm Water Ordinance includes an extensive section on enforcement actions (giving the City a wide variety of administrative options in case of violations). The administrative enforcement options include issuing a notice of non-compliance, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the Director to direct the owner or occupant of any premises, or any other person responsible for any violation of the proposed ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the City stormwater conveyance system; (2) Immediately discontinue any other violation of the ordinance; and (3) Clean up the area affected by the violation. The Director may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

The City has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

The City's General Services Department ("GSD") oversees the responsibility for compliance with the Storm Water Quality Improvement Plan and the Order. The Planning Division of the Community Development Department participates in the implementation and enforcement of the Order by enforcing and reviewing environmental documents and conditioning projects to comply with the Order

and Permit requirements. GSD works closely with the members of the City's Code Enforcement department for the enforcement aspect of the Order, as the Code Enforcement division has an appeals process and the ability to lien properties for unpaid fines.

Based on the foregoing discussion, the City Attorney respectfully submits this certification. Please do not hesitate to contact me if you need further information.

Sincerely,

Ruthann G. Ziegler
City Attorney

1220430.2

City of Elk Grove

Statement of Legal Authority

To be submitted separately

CHAPTER 15.12

STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Article 1 General Provisions

15.12.010 Findings.
15.12.020 Purpose and Intent.
15.12.030 Definitions.
15.12.035 Construction.
15.12.040 Applicability.
15.12.050 Regulatory Consistency.
15.12.060 Compliance Disclaimer.
15.12.070 Severability.
15.12.080 Administration.
15.12.090 Disclaimer of Liability.

Article 2 Prohibited Discharges

15.12.100 Prohibited Discharge.
15.12.110 Exceptions to Discharge Prohibition.
15.12.120 Exception to Otherwise Applicable Exemptions.
15.12.130 General Discharge Prohibition.
15.12.140 Threatened Prohibited Discharge.
15.12.150 Illicit Connections Prohibited.
15.12.160 Negligence or Intent Not Required.

Article 3 Reduction of Pollutants in Stormwater

15.12.200 General Requirements.
15.12.210 Containment and Notification of Spills.
15.12.220 Best Management Practices.
15.12.230 Administrative Rules and Regulations.

Article 4 Inspection and Monitoring

15.12.300 Scope of Inspections.
15.12.350 Fees.

Article 5 Enforcement

15.12.400 Notice of Non-Compliance.
15.12.410 Administrative Compliance Orders.
15.12.420 Cease and Desist Orders.
15.12.430 Delivery of Notice.
15.12.440 Administrative Appeals.
15.12.450 Nuisance and Abatement.
15.12.460 Civil Penalties.
15.12.470 Criminal Penalties.
15.12.480 Miscellaneous Enforcement Provisions.

Article 6 Recovery of Cost of Abatement

15.12.500 Costs of Abatement – Confirmation.
15.12.510 Costs – Assessments.
15.12.520 Treble Costs.
15.12.530 Hearing of Protests.

15.12.540 Assessment for Summary Abatement.
15.12.550 Time for Contest of Assessment.
15.12.560 Filing Copy of Report with County Auditor.

Article 7 Commercial and Industrial Facilities

15.12.600 Findings.
15.12.610 Purpose and Intent.
15.12.620 Delegation of Authority to County EMD
15.12.630 Expiration of this Article

Article 1
General Provisions

15.12.010 FINDINGS. a. The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System requirements to stormwater and urban runoff discharge into the City stormwater conveyance system.

b. Stormwater flows from individual properties to the City stormwater conveyance system and then ultimately to the waters of the United States.

c. The City is a co-permittee under the Waste Discharge Requirements for County of Sacramento, cities of Sacramento, Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Galt Area-Wide Storm Water Discharges From Municipal Separate Storm Sewer Systems, which also serves as a NPDES Permit under the Federal Clean Water Act (NPDES No. CA0082597). As a co-permittee, the City is required to possess the necessary legal authority, and to implement appropriate procedures, to regulate the entry of pollutants and non-stormwater discharges into the City stormwater conveyance system.

d. The Municipal Storm Water Permit requires the City too effectively prohibit non-stormwater discharges into the City stormwater conveyance system except as otherwise permitted by Federal law.

e. The City Council finds in this regard that the provisions of this Chapter are necessary to provide the City with the legal authority necessary to implement and otherwise comply with the requirements of its Municipal Storm Water Permit.

15.12.020 PURPOSE AND INTENT. a. This Chapter is adopted pursuant to Article XI, Section 7 of the California Constitution which authorizes the City to exercise its police power to protect and promote the public health, safety and general welfare. While stormwater runoff is one step in the natural cycle of water, human activities, including, but not limited to, agriculture, construction, manufacturing and the operation of an urban infrastructure, may result in undesirable discharges of pollutants and certain sediments. Such discharges may accumulate in local drainage channels and waterways and eventually may be deposited in the waters of the United States. The purpose of this Chapter is to protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the

Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit #CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the City stormwater conveyance system.

b. It is the intent of the City Council in adopting this Chapter to provide the City with the legal authority to accomplish the following goals:

1. To reduce the discharge of pollutants in stormwater to the maximum extent practicable;

2. To effectively prohibit non-stormwater discharges into the City stormwater conveyance system;

3. To comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES Municipal Storm Water Discharge Permit #CA0082597 as they apply to the discharge of pollutants into and from the City stormwater conveyance system;

4. To fully implement the Comprehensive Stormwater Management Program as approved by the Regional Board;

5. To protect the physical integrity and function of the City stormwater conveyance system from the effects of pollutants and materials other than stormwater;

6. To prevent the contamination of groundwater as a result of pollution migration from the City stormwater conveyance system;

7. To promote cost effective management and beneficial use of sediments in the City stormwater conveyance system;

8. To protect the health and safety of maintenance personnel and the public who may be exposed to pollutants in the City stormwater conveyance system;

9. To provide for the recovery of regulatory costs incurred by the City in the implementation of its stormwater drainage program, including, but not limited to, enforcement activities, inspections, investigations, sampling and monitoring; and

10. To establish appropriate enforcement procedures and penalties for violations of the provisions of this Chapter.

15.12.030 DEFINITIONS.

Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the United States Environmental Protection Agency, as amended, and which are not specifically defined in this Chapter shall, when used in this Chapter, have the same meaning as set forth in said Act or regulation. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

As used in this Chapter, the following words and phrases shall have the meanings set forth below unless the context clearly indicates otherwise.

a. "Administrator" means the Administrator of the City's Department of Public Works and his or her designees.

b. "Best Management Practices (BMP)" means schedules of activities, prohibition of practices, general good housekeeping practices, pollution prevention and educational

practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants directly or indirectly to waters of the United States. BMPs shall also be defined to include structural controls, treatment controls, training requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.

c. "City" means the City of Elk Grove.

d. "City Council" means the City Council of the City of Elk Grove.

e. "County" means the County of Sacramento.

f. "City Stormwater Conveyance System" means those public and natural facilities within the City which are owned, operated, maintained or controlled by the City by which stormwater may be conveyed to waters of the United States, including, but not limited to, any roads with drainage systems, municipal streets, catch basins, water quality basins, detention basins, constructed wetlands, natural and artificial channels, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, sumps, pumping stations, and storm drains. The City stormwater conveyance system includes natural creeks and small streams which are also defined as receiving waters by the Municipal Storm Water Permit, but does not include the Sacramento River, American River, Cosumnes River, Mokelumne River, or navigable waterways of the Delta.

g "Discharge" mean the release or placement of any material into the City stormwater conveyance system, including, but not limited to, stormwater, wastewater, solid materials, liquids, hazardous waste, raw materials, debris, litter or any other substance.

h. "Illicit connection" means any physical connection to the City stormwater conveyance system which is not expressly authorized by the City.

i. "Implementing Agency" means the agency or department designated by the Administrator to enforce the provisions of this Chapter with respect to a particular site, facility or industry category.

j. "Industry or industrial activity" means any service, business, enterprise, or any other activity conducted by any person for the purpose of monetary or other compensation.

k. "Material" means any substance, including, but not limited to, raw materials, finished products, garbage and debris, lawn clippings, leaves and other vegetation, biological and fecal waste, sediment and sludge, oil and grease, gasoline, paints, solvents, cleaners and any fluid or solid containing chemicals.

l. "Municipal Storm Water Permit" means NPDES Permit # CA0082597, including any amendments thereto or successor permit, issued by the Regional Board to the County and the cities of Folsom, Galt, Sacramento, Citrus Heights, Elk Grove and Rancho Cordova.

m. "National Pollution Discharge Elimination System Permit or NPDES Permit" means a permit issued by either the Regional Board or the State Water Resources Control Board pursuant to Chapter 5.5 (commencing with Section 13370) of Division 7

of the Water Code to control discharges from point sources to waters of the United States.

n. "Non-stormwater discharge" means any discharge to the City stormwater conveyance system or directly to the Sacramento River, the Cosumnes River, the Mokelumne River, the navigable waters of the Delta, or the American River which is not composed exclusively of stormwater.

o. "Person" means any natural person as well as any corporation, partnership, public agency, trust, estate, cooperative association, joint venture, business entity or other similar entity, or the agent, employee or representative of any of the above.

p. "Pollutant" means any contaminant or other substance which, as determined by the Administrator, is discharged or has a reasonable potential to be discharged in sufficient quantities or concentrations to cause exceedance of receiving water limitations defined in Section C. 1. of the Municipal Storm Water Permit, or any successor section, or otherwise cause a violation of the Municipal Storm Water Permit. Pollutant may include, but is not limited to, solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive material, dredged soil, rock, sand, industrial waste, feces, fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon, surfactants, oil and grease, petroleum hydrocarbon, organic solvents, metals, phenols, pesticides, nutrients, suspended or settlable solids, materials causing an increase in biochemical or chemical oxygen or total organic carbon, substances which alter pH, and those pollutants defined in Section 1362(6) of the Federal Clean Water Act.

q. "Potential user" means any person who by nature of the enterprise, activity or industry in which such person is engaged, or by the use, possession or ownership of specified types of equipment, is determined by the Administrator to generate or have the capacity to generate wastes or wastewater which have significant potential to be discharged to the City stormwater conveyance system.

r. "Premises" means any building, lot, parcel or land, or portion thereof, whether improved or unimproved.

s. "Prohibited discharge" means any non-stormwater discharge to the City stormwater conveyance system or directly to the Sacramento River, the Cosumnes River, the Mokelumne River, navigable waters of the Delta, or the American River, which is not otherwise specifically authorized by this Chapter, the Regional Board, State or Federal law, or an NPDES permit.

t. "Receiving water limitations" means those restrictions defined and listed in Section C.1. of the Municipal Storm Water Permit or any successor section.

u. "Receiving waters" means surface bodies of water, as defined by the Municipal Storm Water Permit, including, but not limited to, creeks and rivers, which serve as discharge points for the City stormwater conveyance system.

v. "Regional Board" means the California Regional Water Quality Control Board, Central Valley Region.

w. State General Construction Activity Permit shall mean the State Water Resources Control Board's Water Quality Order No. 99-08-DWQ, National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000002 Waste Discharge Requirements (WDRS) for Discharges of Storm Water Runoff Associated With Construction Activity, and any successor documents.

x. State General Industrial Activity Permit shall mean the State Water Resources Control Board's Water Quality Order No. 97-03-DWQ, National Pollution Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities, and any successor document.

y. "Stormwater" means surface runoff and drainage resulting from storm events and snow melt.

z. "Subject Activity" means any industrial activity which is determined by the Administrator to discharge or have the potential to discharge pollutants into stormwater or non-stormwater in quantities or concentrations which may cause exceedance of receiving water limitations, or for which a requirement has been imposed by the state or federal government on the City to conduct stormwater regulatory activities focused on the activity.

aa. "Threatened prohibited discharge" means any condition or activity which does not currently result in a prohibited discharge but is nevertheless determined by the Administrator to be a condition which results in a substantial likelihood of a future prohibited discharge.

bb. "User" means any person who discharges, or causes to discharge, either directly or indirectly, stormwater or any other material into the City stormwater conveyance system.

cc. "Waters of the United States" has the same meaning as set forth in Part 122.2 of Title 40 of the Code of Federal Regulations or any successor provision. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

15.12.035 CONSTRUCTION. The provisions of this Chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and any acts amendatory thereof or supplementary thereto, applicable implementing regulations, and NPDES Permit # CA 0082597 and any amendment, revision or reissuance thereof. In the event of a conflict between this Chapter and any federal or state law, regulation, order or permit, the requirement, which establishes the higher standard for public health and safety, shall govern.

15.12.040 APPLICABILITY. The provisions of this Chapter shall be applicable to all users and potential users located within the City and all users that discharge either directly or indirectly into the City stormwater conveyance system. This Chapter shall not be applicable to persons located outside the boundaries of the City if their stormwater or non-stormwater discharge enters a stormwater conveyance facility owned or operated by another public agency which is subject to a valid NPDES Permit for discharges from a municipal separate storm sewer system prior to entering the City

stormwater conveyance system. This Chapter shall not apply to facilities subject to and in compliance with the State General Construction Activity Stormwater Permit and/or the City of Elk Grove Erosion and Sediment Control Ordinance. Non-stormwater discharges at construction sites between one and five acres in size, and which the Administrator determines are in accordance with the non-stormwater discharge standards of the State General Permit for Construction Activity, are considered to be in compliance with this Chapter. This Chapter shall not apply to facilities operated by the State of California or by agencies of the Federal Government.

15.12.050 REGULATORY CONSISTENCY. The provisions of this Chapter shall take precedence over and are controlling with respect to any conflicting or inconsistent provisions in this Code.

15.12.060 COMPLIANCE DISCLAIMER. Compliance by any person with the provisions of this Chapter shall not preclude the need to comply with other local, state or federal statutory or regulatory requirements relating to the control of pollutant discharges or protection of stormwater quality, or both.

15.12.070 SEVERABILITY. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Chapter. The City Council hereby declares that it would have adopted this Chapter and each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof without regard to whether any other section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter would subsequently be declared to be invalid or unconstitutional.

15.12.080 ADMINISTRATION. Except as otherwise provided herein, the Administrator shall be responsible for the administration, implementation and enforcement of the provisions of this Chapter. Any powers granted to or duties imposed upon the Administrator may be delegated by the Administrator to other City employees or, upon the approval of the City Council, to employees of other public agencies.

15.12.090 DISCLAIMER OF LIABILITY. The degree of protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific, engineering and other relevant technical considerations. The standards set forth herein are minimum standards and this Chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the United States. This Chapter shall not create liability on the part of the City or any officer or employee thereof for any damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

CHAPTER 15.12

Article 2
Prohibited Discharges

15.12.100 PROHIBITED DISCHARGE. Except as provided in Section 15.12.110, it shall be unlawful for any person to make or cause to be made any non-stormwater discharge into the City stormwater conveyance system or directly to the Sacramento River, American River, Cosumnes River, Mokelumne River, or navigable waters of the Delta.

15.12.110 EXCEPTIONS TO DISCHARGE PROHIBITION. The following discharges to the City stormwater conveyance system are exempt from the otherwise applicable discharge prohibition set forth in Section 15.12.100:

a. Any discharge regulated under a NPDES permit issued to the discharger, and administered by the State pursuant to Chapter 5.5 of Division 7 of the Water Code, provided that any such discharge is in compliance with all requirements of the NPDES permit and all other applicable laws and regulations.

b. Any discharge from any of the following activities provided that any such discharge does not cause or contribute to the violation of any Receiving Water Limitation as determined by the Administrator:

1. Water line flushing;
2. Landscape irrigation;
3. Diverted stream flows;
4. Rising ground waters;
5. Uncontaminated ground water infiltration [as defined in 40 CFR 35.2005(20)] to separate storm sewers;
6. Uncontaminated pumped ground water;
7. Discharges from potable water sources;
8. Foundation drains;
9. Air conditioning condensate;
10. Irrigation water;
11. Springs;
12. Water from crawl space pumps;
13. Footing drains;
14. Lawn watering;
15. Individual residential car washing;
16. Flows from riparian habitats and wetlands;
17. Dechlorinated swimming pool discharges; or

18. Discharges or flows from emergency fire fighting activities.

c. Any discharges which the Administrator or the Regional Board determines in writing are necessary for the protection of public health or safety.

d. Additional categories of non-stormwater discharges, which do not cause or contribute to the violation of any Receiving Water Limitation may be excepted from the otherwise applicable prohibition by the Administrator upon approval of the Executive Officer of the Regional Board, as provided in Sections A.3. and D.4.a.1.d. of the Municipal Storm Water Permit, or any successor sections.

15.12.120 EXCEPTION TO OTHERWISE APPLICABLE EXEMPTIONS. Notwithstanding the exemptions provided for in Section 15.12.110 above, if the Regional Board or the Administrator determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any Receiving Water Limitation or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the Administrator may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue following expiration of the thirty (30) day period commencing upon delivery of the notice. Upon expiration of such thirty (30) day period, any such discharge shall be unlawful. Upon finding that any continuance of the discharge poses an immediate significant threat to the environment or to public health and safety, the Administrator may waive the thirty day waiting period and require immediate cessation of the discharge. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

15.12.130 GENERAL DISCHARGE PROHIBITION. It shall be unlawful for any person to discharge, or cause to be discharged, any material to the City stormwater conveyance system which results in, or contributes to, a violation of the Municipal Storm Water Permit.

15.12.140 THREATENED PROHIBITED DISCHARGE. It shall be unlawful for any person to maintain, or cause to be maintained, a threatened prohibited discharge after having received notice of the Administrator's determination as to the existence of a threatened prohibited discharge.

15.12.150 ILLICIT CONNECTIONS PROHIBITED. a. It shall be unlawful for any person to establish, use or maintain, or cause to establish, use or maintain, any illicit connection. Illicit connections shall be subject to removal and abatement by the City pursuant to Chapter 16.02 of this Code.

b. The prohibition set forth in subsection (a) above shall apply to illicit connections in existence at the time that this Chapter becomes effective. Upon the effective date of this Chapter, any person who maintains an illicit connection shall have thirty (30) days from the effective date of this Chapter to disconnect and discontinue use of such connection. Notwithstanding the provisions of this section, any person who maintains an

illicit connection, as defined in Section 15.12.030(g), may apply to the City for a permit to continue the connection subject to applicable City standards.

15.12.160 NEGLIGENCE OR INTENT NOT REQUIRED. A violation of the provisions of this Article shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge.

Article 3
Reduction of Pollutants in Stormwater

15.12.200 GENERAL REQUIREMENTS. a. The Administrator may designate as Subject Activities any activities, including industrial activities, which are identified as potential sources of discharges of pollutants to the City Stormwater Conveyance System, or for which a requirement has been imposed by the state or federal government for the City to conduct stormwater regulatory activities focused on the Subject Activity in question.

b. Any person who the Administrator determines is conducting any Subject Activity shall prevent or reduce the discharge of pollutants from those activities, to the maximum extent practicable, through the implementation of BMPs in accordance with Section 15.12.220.

c. The Administrator shall conduct a notification and comment process for designations or determinations made pursuant to section (a) of this section.

d. Any determination made by the Administrator pursuant to subsection (b) of this section shall be subject to the provisions for the adoption of regulations set forth in Section 15.12.230. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

15.12.210 CONTAINMENT AND NOTIFICATION OF SPILLS. a. Any person owning or occupying premises, or conducting any activity that has knowledge of any non-stormwater discharge or threatened prohibited discharge, from the premises or activity to the City storm water conveyance system shall immediately take all reasonable action to contain and otherwise minimize any such discharge.

b. The Administrator may designate types of activities where the owner or operator of the activity shall be required to notify the Administrator or the Implementing Agency within twenty-four (24) hours of the discovery of an actual discharge into the City stormwater conveyance system.

c. For any discharge subject to the reporting requirements of the State of California Water Code sections 13271 and 13272, notification in compliance therewith shall constitute sufficient notification for the purposes of this Section.

15.12.220 BEST MANAGEMENT PRACTICES. a. The Administrator may adopt regulations for specified Subject Activities. Such regulations shall describe Best

Management Practices ("BMPs") which, if implemented by persons conducting such Specified Activities, shall satisfy the requirements of Section 15.12.200.

b. Persons conducting Subject Activities may implement BMPs not contained in the adopted regulations to satisfy the requirement of Section 15.12.200(b) through either of the following mechanisms:

i. By submitting and receiving prior written approval for the alternative BMPs from the Administrator if he or she determines that the proposed alternative BMPs provide a level of protection from stormwater discharges equivalent to the BMPs contained in the regulations adopted pursuant to (a) above; or

ii. By implementing alternative BMPs which provide a level of protection from storm water discharges equivalent to the BMPs contained in the regulations adopted pursuant to (a) above.

c. Any alternative BMPs implemented pursuant to subsection (b)(ii) above shall be subject to review and approval by the Administrator as part of the inspection procedures set forth in Article 4 of this Chapter. If a person conducting Subject Activities implements alternative BMPs without the prior written approval of the Administrator and subsequently receives written notice from the Administrator that the alternative BMPs do not provide the required equivalent level of protection from storm water discharges, the continued implementation of such alternative BMPs shall be deemed to be a violation of the requirements of 15.12.200(b) as of the date of delivery of such notice unless it is ultimately determined pursuant to an administrative appeal pursuant to Section 15.12.400 that the alternative BMPs provide the required equivalent level of protection from stormwater discharges.

d. Any facility that is in compliance with its State or Federal NPDES permit for stormwater discharges for that facility shall be deemed to have met the requirements of Section 15.12.200(b).

e. The Administrator shall develop regulations for determining when BMPs have been successfully implemented.

15.12.230 ADMINISTRATIVE RULES AND REGULATIONS. a. The Administrator shall have the authority to promulgate regulations for the implementation of this Chapter. Prior to the Administrator's initiation of any proposed regulations, the Administrator shall submit a public input plan to the City Council for its approval. The public input plan approved by the City Council shall be generally applicable to the promulgation of regulations by the Administrator.

b. All regulations promulgated by the Administrator shall be consistent with the provisions of this Chapter. Any such regulations, or amendments thereof, shall be filed with the City Clerk of the City Council. The City Clerk shall cause announcement of said rules or regulations to be published in a newspaper of general circulation within ten calendar days. Such announcements shall provide a reasonable summary of the content of the rule. In addition, the Administrator shall make a reasonable effort to identify, notify, and provide copies to any activities which are specifically designated by the Administrator as subject to a rule or regulation. However, neither the failure of the

Administrator to provide such notice nor the failure to receive individual notice shall exempt an activity from that rule or regulation. No regulations promulgated by the Administrator, or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which notification of the regulations are published.

c. Any person who asserts that he or she is aggrieved by the terms or application of a regulation issued pursuant to this section may appeal the issuance of such regulation by filing a written notice of appeal with the City Clerk of the City Council. The notice of appeal shall specifically identify the regulation or regulations from which the appeal is taken and the reasons for the appeal. Upon receipt of such notice, the City Clerk of the City Council shall schedule the appeal for a public hearing by the City Council. At the conclusion of the public hearing the City Council shall be vested with jurisdiction to deny the appeal or to rescind or modify the regulation. The City Council's determination in this regard shall be final.

d. Any regulation from which an appeal is filed prior to its effective date shall not become effective until the date of a determination by the City Council of the appeal. Any regulation from which an appeal is filed on or subsequent to the effective date thereof shall remain in full force and effect during the pendency of the appeal, and any decision which rescinds or modifies the regulation shall apply prospectively.

15.12.235 BMP Maintenance Requirements. The Administrator may require a property owner to establish, document, and conduct a maintenance program, subject to approval, for any BMP. This requirement may apply to BMPs required by the City or BMPs that were voluntarily installed pursuant to Section 15.12.220. Such a maintenance program may be required when the Administrator determines that proper maintenance is necessary to protect public safety, health, infrastructure, or the environment, or to otherwise meet the purposes of this Chapter. Maintenance requirements established pursuant to this subsection must be appropriate for the site conditions and design of BMPs. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

Article 4

Inspection and Monitoring

15.12.300 SCOPE OF INSPECTIONS. a. Prior to commencing any inspection authorized pursuant to this section, the Administrator shall obtain the consent of the owner or occupant of the premises, an administrative inspection warrant or a criminal search warrant. Routine or area inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Chapter including, but not limited to, random sampling, sampling in areas with evidence of stormwater contamination, illicit connections, discharge of non-stormwater to the City stormwater conveyance system or similar factors.

b. The Administrator may enter upon private property to investigate the source of any discharge to any public street, inlet, gutter, storm drain or the City storm water conveyance system.

c. The Administrator may enter upon private property for the purpose of verifying compliance with the provisions of this Chapter, including, but not limited to, the following:

1. Identifying products produced, processes conducted, chemicals used and materials stored on or contained within the property;

2. Identifying point(s) of discharge of all wastewater, process water system, pollutants and other discharges from the property;

3. Investigating the natural slope of the premises, including drainage patterns and artificial conveyance systems;

4. Establishing the location of all points of discharge from the property, whether by surface runoff or through a storm drain system;

5. Locating any illicit connection or the source of any prohibited discharge; and

6. Evaluating implementation of BMPs.

d. For purposes of verifying compliance with the provisions of this Chapter, the Administrator may inspect any vehicle, truck, trailer, tank truck or other mobile equipment, or any stationary equipment, which may reasonably be believed to be used by the business for business-related activities and to be associated with industrial sources of pollutants or with non-stormwater discharges.

e. The Administrator may inspect all records of the owner or occupant of any premises relating to chemicals or processes presently or previously occurring on-site, including materials and/or chemical inventories, facilities maps or schematics or diagrams, material safety data sheets, hazardous waste manifests, business plans, pollution prevention plans, State general permits, monitoring program plans or any other records relating to illicit connections, prohibited discharges or the potential discharge of pollutants to the City stormwater conveyance system. In addition, the Administrator may require the owner or occupant to furnish, within a reasonable time period, copies of all such records. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

f. The Administrator may conduct any necessary surveillance, inspect, sample and test any area runoff, soils area (including any groundwater testing), process discharge, materials within any waste storage area (including any container contents), and/or treatment system discharge for the purpose of determining the potential for the contribution of pollutants to the City stormwater conveyance system. The Administrator may conduct surveillance and investigate the integrity and layout of all storm drain and sanitary sewer system or other pipelines on the premises using appropriate tests, including, but not limited to, smoke and dye tests or video surveys. The Administrator may conduct any necessary surveillance, take photographs or video tape, make measurements or drawings, and create any other record reasonably necessary to document conditions on the premises.

g. The Administrator may require regular reports from industrial facilities and construction sites discharging into the City stormwater conveyance system.

h. The Administrator may erect and maintain monitoring and sampling devices for the purpose of measuring any discharge or potential source of discharge to the City stormwater conveyance system.

15.12.330 Reporting Requirements. a. The Administrator may require any person to report information for purposes related to the goals of this Chapter. Required information may include but is not limited to the following: characterization of industrial activities; compliance with this Chapter, compliance with State General Permit requirements; compliance with Administrative Enforcement Orders or other enforcement actions; discharge monitoring; training; and BMP implementation, effectiveness, and maintenance.

b. The Administrator may require information to be submitted on an as needed basis.

c. The Administrator may require submitted information to be compiled, summarized, analyzed or organized in a reasonable manner that facilitates its interpretation or other use. As necessary to facilitate the use of information, the Administrator may also specify the medium and format of required submittals.

d. Failure to provide information in a timely manner as required by the Administrator, or knowingly or negligently providing false information shall be a violation of this Chapter. ***(COEG Ord. No. 26-2004, eff. 8-19-04)***

15.12.350 FEES. The Administrator shall collect such fees as may be authorized by the City Council to provide for the recovery of regulatory costs, including routine inspections and other regulatory functions associated with this Chapter. There shall be no fee assessed to appeal the determination that a person conducts any Subject Activity. Any such fees shall be established by resolution of the City Council.

Article 5
Enforcement

15.12.400 NOTICE OF NON-COMPLIANCE.

a. The Administrator may deliver to the owner or occupant of any premises, or to any person responsible for an illicit connection, prohibited discharge, maintenance of a threatened prohibited discharge, failure to implement BMPs in accordance with Section 15.12.200(b), or any other violation of this Chapter a Notice of Non-Compliance. The Notice of Non-Compliance shall be delivered in accordance with Section 15.12.430 hereof.

b. The Notice of Non-Compliance shall identify the provision of this Chapter which has been violated. The Notice of Non-Compliance shall state that continued non-

compliance may result in additional enforcement actions, including the recovery of any costs incurred by the City.

c. The Notice of Non-Compliance shall identify a compliance date that must be met; provided, however, that the compliance date may not exceed ninety (90) days unless the Administrator extends the compliance deadline an additional period not exceeding ninety (90) days when good cause exists for the extension.

15.12.410 ADMINISTRATIVE COMPLIANCE ORDERS.

a. The Administrator may issue an Administrative Compliance Order. The Administrative Compliance Order shall be delivered in accordance with Section 15.12.430 hereof. The Administrative Compliance Order may be issued to any of the following:

1. The owner or occupant of any premises requiring abatement of conditions on the premises that cause or may cause a prohibited discharge in violation of this Chapter.

2. A person who fails to implement BMPs in accordance with Section 15.12.200(b).

3. Any person responsible for a prohibited discharge or maintenance of a threatened prohibited discharge.

b. The Administrative Compliance Order may include the following terms and conditions:

1. Specific steps and time schedules for compliance as reasonably necessary to prevent threatened or future unauthorized discharges, including, but not limited to, the threat of any prohibited discharge from any pond, pit, well, surface impoundment, holding or storage area.

2. Specific requirements for containment, cleanup, removal, storage, or proper disposal of any material having the potential to contribute pollutants to stormwater runoff.

3. Specific requirements for the installation of overhead covering.

4. Any terms or conditions reasonably calculated to prevent continued or threatened violations of this Chapter.

5. Any other measures necessary or appropriate to fully implement BMPs in accordance with Section 15.12.200(b).

15.12.420 CEASE AND DESIST ORDERS.

a. The Administrator may issue a Cease and Desist Order. A Cease and Desist Order shall be delivered in accordance with Section 15.12.430 hereof. A Cease and Desist Order may direct the owner or occupant of any premises, or any other person responsible for any violation of this Chapter, to take any of the following action:

1. Immediately discontinue any prohibited discharge to the City stormwater conveyance system.

2. Immediately discontinue any other violation of this Chapter.

3. Clean up the area affected by the violation.

b. The Administrator may direct by a Cease and Desist Order that any person immediately cease any activity which may lead to a violation of Receiving Water Limitations.

15.12.430 DELIVERY OF NOTICE.

Any notice of non-compliance, administrative compliance order, cease or desist order or other enforcement order pursuant to the requirements of this Chapter shall be subject to the following requirements:

a. The notice shall state that the recipient has a right to appeal the matter as set forth in Section 15.12.440 of this Chapter.

b. The notice shall state that the recipient or the property owner, or both, may be liable for all enforcement costs incurred by the City in correcting the violation.

c. Delivery shall be deemed complete upon either personal delivery to the recipient or deposit in the U.S. mail postage pre-paid for first class delivery.

d. Where the recipient of the notice is the owner of the property, the address for notice shall be the address from the most recently issued equalized assessment roll for the property.

e. Where the owner or occupant of any premises cannot be located after reasonable efforts of the Administrator, the notice shall be deemed delivered after posting on the premises for a period of ten (10) business days.

15.12.440 ADMINISTRATIVE APPEALS.

a. Except as set forth in subsection (b) below, any person receiving a notice of non-compliance, a designation as a person who conducts Subject Activities, an administrative compliance order, or an Administrative Citation pursuant to Chapter 1.12, or who is otherwise subject to an adverse determination pursuant to this Chapter may appeal the matter by requesting an administrative appeals hearing before an Appeals Hearing Officer pursuant to Chapter 1.11 of this Code.
(COEG Ord. 19-2005, eff. 06-10-05)

b. An administrative appeals hearing on the issuance of a cease and desist order or following an emergency abatement action shall be held within seven (7) working days following the issuance of the order or the action of abatement, unless the hearing or the time requirement for the hearing is waived in writing by the party subject to the cease and desist order or the emergency abatement. A request for an administrative appeals hearing shall not be required from the person subject to the cease and desist order or the emergency abatement.
(COEG Ord. 19-2005, eff. 06-10-05)

c. At any administrative appeals hearing, the administrative appeals officer shall permit any interested party, including, but not limited to the Administrator and/or the appealing party to present evidence and argument in support of or against the imposition of the notice of non-compliance, order, designation, determination, administrative citation or abatement action.
(COEG Ord. 19-2005, eff. 06-10-05)

15.12.450 NUISANCE AND ABATEMENT.

a. Any condition in violation of the provisions of this Chapter, including, but not limited to, the maintenance or use of any illicit connection or the occurrence of any prohibited discharge, shall constitute a threat to the public health, safety and welfare and is declared and deemed to be a public nuisance.

b. At the request of the Administrator, the City may seek a court order to enjoin or abate the nuisance, or both. Prior to seeking any court order to enjoin or abate a nuisance or threatened nuisance, the Administrator shall provide notice of the proposed injunction or abatement to the owner and occupant, if any, of the premises where the nuisance or threatened nuisance is occurring.

c. At the request of the Administrator, the City may seek an abatement warrant or other appropriate judicial authorization to enter the premises where any nuisance or threatened nuisance is occurring and to abate the condition and restore the area.

d. In the event the nuisance constitutes an imminent danger to public safety or the environment, the Administrator may enter the premises from which the nuisance emanates, abate the nuisance and restore any property affected by the nuisance without prior notice to or consent from the owner or occupant thereof and without judicial warrant.

1. An imminent danger shall include, but is not limited to, exigent circumstances created by the dispersal of pollutants, where such pollutants presents a significant and immediate threat to the public safety or the environment.

2. Notwithstanding the authority of the City to conduct an emergency abatement action, an administrative hearing pursuant to Section 15.12.440 shall follow the emergency abatement action.

15.12.460 CIVIL PENALTIES.

a. In addition to any other remedies provided by this Chapter or any other law, the Administrator is authorized to impose Administrative Civil Penalties in an amount established by resolution of the City Council, pursuant to Chapter 1.12 of the City Code, upon any person for each violation of this Chapter. Each day, or a portion thereof, that a violation continues constitutes a new violation. Administrative Civil Penalties are subject to the appeal procedures in Chapter 1.11 of this Code.
(COEG Ord. 19-2005, eff. 06-10-05)

b. In addition to any other remedies provided by this Chapter or any other law, the Administrator may also seek and recover reimbursement from any person whose conduct or activity results in any fine, penalty or other charges being imposed upon the City by any authorized Federal, State, or Local Government agency, including, but not limited to, the Central Valley Regional Water Quality Control Board, for violations of the terms of the City's National Pollution Discharge Elimination System ("NPDES") Permit or otherwise, up to the actual amount of the fine, penalty, or charge imposed upon the City. Claims for reimbursement by the City shall be made by written request on forms approved by the Administrator. Claims for reimbursement shall be due and payable as directed by the Administrator in the written request for reimbursement, but in no event shall a claim for reimbursement be due and payable any later than thirty (30) days after presentation of the claim for reimbursement to the responsible person, unless the Administrator finds good cause to allow later payment. Claims for reimbursements by the City are subject to the appeal procedures in Chapter 1.11 of this Code.
(COEG Ord. 19-2005, eff. 06-10-05)

c. In reaching a decision concerning an Administrative Civil Penalty or a claim of reimbursement in any appeal proceeding under this Chapter, the Appeals Hearing Officer, shall be guided by factors including, but not limited to the following: the danger to public health, safety and welfare represented by the violation, recidivism, any economic benefit associated with non-compliance, and any economic impact to the City or the public as a result of the violation.
(COEG Ord. 19-2005, eff. 06-10-05)

15.12.470 CRIMINAL PENALTIES.

a. Any person who negligently or knowingly violates any provision of this Chapter, undertakes to conceal any violation of this Chapter, continues any violation of this Chapter after notice thereof, or fails to implement BMPs in accordance with Section 15.12.200(b) shall be guilty of a misdemeanor and upon conviction thereof be fined not more than $1,000 or imprisoned for not more than six (6) months in the County Jail, or both.

b. Each day in which a violation occurs and each separate failure to comply with either a separate provision of this Chapter, an administrative compliance order, a cease and desist order, or failure to implement BMPs in accordance with Section 15.12.200(b) shall constitute a separate violation of this Chapter punishable by fines or sentences in accordance herewith.

c. The Administrator may authorize specifically designated City employees to issue citations for misdemeanor violations of this Chapter pursuant to Penal Code section 836.5.

15.12.480 MISCELLANEOUS ENFORCEMENT PROVISIONS.

a. Each and every remedy available for the enforcement of this Chapter shall be non-exclusive and it is within the discretion of the Administrator to seek cumulative remedies.

b. The Administrator may request the City to file a civil action in a court of competent jurisdiction seeking an injunction against any threatened or continuing non-compliance with the provisions of this Chapter. Any temporary, preliminary or permanent injunction issued pursuant to this subsection may include an order for reimbursement to the City of all costs incurred in enforcing this Chapter, including, but not limited to, costs of inspection, investigation and monitoring, the costs of abatement undertaken at the expense of the City, costs relating to the restoration of the environment and any other costs or expenses authorized by law.

c. The Administrator may request the City to file an action for civil damages in a court of competent jurisdiction seeking recovery of any of the following:

1. All costs incurred in the enforcement of this Chapter, including, but not limited to, costs relating to investigation, sampling, monitoring, inspection, administrative expenses, all other expenses authorized by law and consequential damages.

2. All costs incurred in mitigating harm to the environment or reducing the threat to human health.

3. Damages for irreparable harm to the environment.

d. The City is authorized to file actions for civil damages resulting from any trespass or nuisance occurring on public property or to the City stormwater conveyance system from any violation of this Chapter where such violation has caused damage, contamination or harm to the environment, public property or the City stormwater conveyance system.

e. The remedies available to the City pursuant to the provisions of this Chapter shall not limit the right of the City or any law enforcement agency to seek any other legal or equitable remedy that may be available to it.

f. Each day in which a violation occurs and each separate failure to implement BMPs in accordance with Section 15.12.200(b) or to comply with either a separate provision of this Chapter, an administrative compliance order, or a cease and desist order shall constitute a separate violation of this Chapter punishable by administrative penalties in accordance with this Chapter.

Article 6
Recovery of Cost of Abatement

15.12.500 COSTS OF ABATEMENT – CONFIRMATION.

a. When proceedings under this Chapter result in the correction of a violation of this Chapter or in a final determination that a violation exists subsequent to the date specified in any notice issued pursuant to the provisions of this Chapter, the costs of such proceedings incurred by the City may be assessed against the property. Such costs may include, but are not limited to, those incurred in inspecting property, publication, mailing and posting of notices, conducting hearings, processing appeals and pursuing any judicial action. It is the purpose of this section to allow the assessment against property of costs of proceedings if a violation is corrected in any manner.

b. The Administrator shall keep an account of the administrative and other costs of abatement, and shall submit to the City Council for confirmation an itemized written report showing such costs and their proposed assessment to the respective properties. The report shall be filed with the City Clerk of the City Council not later than fifteen (15) calendar days in advance of the confirmation hearing required below.

c. Upon receipt of the report, the City Clerk of the City Council shall schedule a public hearing to receive protests and confirm the report. A statement of the proposed assessment and notice of the time, date and place of the hearing, together with reference to the report on file with the City Clerk, shall be mailed to the owner or owners of each parcel of property proposed to be assessed shown on the last equalized assessment roll available on the date of mailing of the notice or any other address or addresses ascertained to be more accurate. Such notice shall be mailed not later than fifteen (15) calendar days in advance of the hearing. Notice of the time, date and place of the public hearing by the City Council shall be published once in a newspaper of general circulation published with the City. With respect to each property proposed to be assessed for which the name or the owner or owners is not shown on the last equalized assessment roll or no address for an owner is shown on the last equalized assessment roll, the notice shall show the name or names of the owner or owners, if such name or names are shown on the last equalized assessment roll, the assessor's parcel number, the street address of the property, if the property has an address and the address is known to the Administrator, the name of the street or road upon which such property abuts, if the property abuts upon a street or road, the amount of the proposed assessment and reference to the report on file with the City Clerk. Such publication shall be made not later than fifteen (15) calendar days in advance of the hearing.

d. At the time fixed for receiving and considering the report, the City Council shall conduct a public hearing and shall receive and consider any objections from members of the general public or property owners liable to be assessed for the abatement. Written protests or objections shall specify the date, hour and description of the subject property under hearing. The City Council may continue the hearing and delegate to the City Manager or his designee the responsibility of hearing individual protests and submitting a recommendation with respect thereto; provided that the City Council provides an opportunity for individual consideration of each project upon receipt of the recommendation by the City Manager or his designee. The City Council may modify the report if it is deemed necessary. The City Council shall then confirm the report by motion or resolution.

15.12.510 COSTS – ASSESSMENTS.

a. If the costs as confirmed are not paid within thirty (30) days of the date of mailing of the notice or date of publication pursuant to Section 15.12.500 above, such costs shall be assessed against the parcel of land pursuant to Section 25845 of the Government Code, and shall be transmitted to the Tax Collector for collection and shall be subject to the same penalties and the same procedures and sale in case of delinquency as provided for ad valorem taxes.

b. If subsequent to the mailing of the notice of non-compliance and prior to transmittal of the notice of unpaid costs to the Tax Collector for collection as set forth in subsection (a) of this section, the property subject to the notice of non-compliance is sold, or title otherwise transferred to a bona fide purchaser, said costs shall be the responsibility of the owner of record as of the date said notice of non-compliance was placed in the United States postal system or posted on the property.

c. In addition to assessing the unpaid costs as provided in subsection (a) herein, the Tax Collector or his designated representative may pursue any remedy provided by law for collection of the unpaid costs.

15.12.520 TREBLE COSTS.

Pursuant to Government Code section 25845.5, upon entry of a second or subsequent civil or criminal judgment within a two (2) year period finding that an owner is responsible for a condition in violation of this Chapter that may be abated pursuant to Government Code section 25845, a court may order the owner to pay treble the costs of abatement.

15.12.530 HEARING OF PROTESTS.

Upon the day and hour fixed for the hearing, the City Council shall hear and pass upon the report of the Administrator together with any such protests or objections. The City Council may make such revision, correction or modification of the report or the charge as it may deem just; and in the event the City Council is satisfied with correctness of the charge, the report of the Administrator (as submitted or as revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the City Council on the report and the charge and on all objections or protests shall be final and conclusive.

15.12.540 Assessment for Summary Abatement.

Where the charge to be made is the result of summary abatement pursuant to Section 15.12.460(c), the City Council may determine whether or not the action to abate was proper, and may confirm the charge or not as it may deem proper.

15.12.550 Time for Contest of Assessment.

The validity of any assessment made under the provisions of this Chapter shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is ordered to be placed upon the assessment roll as provided herein.

15.12.560 Filing Copy of Report with County Auditor.

A certified copy of the assessment shall be filed with the County Auditor on or before August 1. The descriptions of the parcels reported shall be those used for the same parcels on the map books of the County Assessor for the current year.

CHAPTER 15.12

Article 7
Commercial and Industrial Facilities

15.12.600 Findings.

a. One of the requirements of the municipal stormwater permit (NPDES No. CAS0082597) to which the City is a co-permittee, is to track, inspect, and ensure compliance with stormwater ordinances at certain commercial and industrial facilities.

b. The Sacramento County Environmental Management Department (EMD), as both the State-designated Certified Unified Program Agency (CUPA) and the Environmental Health Agency for Sacramento County, is currently tracking and inspecting the majority of commercial and industrial facilities subject to the provisions of the municipal stormwater permit.

c. Utilizing EMD to fulfill the commercial and industrial inspection program requirements under the municipal stormwater permit will result in greater program efficiency, reduced program costs, reduced impacts to the regulated business community, and is in the best interest of the City.

d. On March 17, 2004, the City Council authorized the City Manager to enter into an agreement with EMD for fulfilling the NPDES permit inspection requirements with respect to commercial and industrial facilities.

e. Under the Agreement, the City is required to amend the stormwater ordinance as necessary to authorize the County EMD to implement the stormwater compliance program for commercial and industrial facilities. The City must make any necessary amendments to the stormwater ordinance to the extent necessary to authorize EMD to:

1. Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated City area;

2. Take any necessary enforcement actions as authorized by the Municipal Code and consistent with a City-approved enforcement plan;

3. Investigate and follow-up referred complaints at eligible facilities;

4. Establish and collect fees necessary to recover program implementation costs.

f. The term of the Agreement is July 1, 2004 through June 30, 2010, unless sooner terminated, or extended by the City and County. ***(COEG 26-2004, Eff. 8-16-04)***

15.12.610 Purpose and Intent.

a. The purpose of this Article is to fulfill the requirements of the Agreement between the City and Sacramento County, authorized by the City Council on March 17, 2004, whereby the County shall assume responsibility for providing tracking, inspection, and enforcement of the City's stormwater ordinance with respect to commercial and industrial facilities within the incorporated City area as required by the municipal stormwater permit.

b. It is the intent of the City Council in adopting this Article to provide the necessary amendments in order to authorize the County to accomplish the following goals:

1. Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated City area;

2. Take any necessary enforcement actions as authorized by the Municipal Code and consistent with a City-approved enforcement plan;

3. Investigate and follow-up referred complaints at eligible facilities;

4. Establish and collect fees necessary to recover program implementation costs. ***(COEG 26-2004, Eff. 8-16-04)***

15.12.620 Delegation of Authority to County EMD

a. Pursuant to the Agreement authorized by the City Council on March 17, 2004, whereby the County shall assume responsibility for tracking, inspecting, and enforcing the City's stormwater ordinance at certain commercial and industrial facilities specified in the municipal stormwater permit, the term "Administrator," as used in this Chapter shall also mean the Director of the Sacramento County Environmental Management Department and his or her designees.

b. Any administrative or civil enforcement by the Director of the Sacramento County EMD or his or her designees of any provision of this Chapter under this Article shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County Code.

c. Sacramento County may establish and collect from commercial and industrial facilities located within the City such fees as may be necessary to cover the actual costs incurred by Sacramento County to include these facilities in its commercial and industrial compliance program, provided that the fees are established and collected in accordance with the provisions of the Agreement and all applicable legal requirements.

d. The delegation of authority to Sacramento County under this Article is limited to only that required by the March 17, 2004 Agreement, as may be necessary to allow the Director of the County EMD to track, inspect, and ensure compliance with the City's stormwater ordinance at commercial and industrial facilities as required under the municipal stormwater permit. ***(COEG 26-2004, Eff. 8-16-04)***

15.12.630 Expiration of This Article.

The provisions of this Article 7 shall remain in effect only to the extent that the March 17, 2004 Agreement between the City and County EMD, or any successor agreement, remains in effect. Upon expiration of the Agreement, or any successor agreement, the provisions of this Article shall expire. ***(COEG 26-2004, Eff. 8-16-04)***

CHAPTER 16.44

LAND GRADING AND EROSION CONTROL

Sections:

16.44.010 Purpose
16.44.020 Definitions
16.44.030 Delegation
16.44.040 Administration
16.44.050 Permits Required
16.44.060 Permits not Required
16.44.065 Exemptions
16.44.070 Improvement Plans
16.44.080 Application Contents
16.44.090 Plans
16.44.100 Specifications
16.44.110 Security
16.44.120 Right of Entry
16.44.130 Permit Fees
16.44.140 Environmental Review
16.44.150 Application Review
16.44.160 Contents of Permit
16.44.170 Conditions
16.44.180 Procedure for Imposition
16.44.190 Term
16.44.200 Transferability
16.44.210 Denial of Permit
16.44.220 Amendment of Permit
16.44.230 Request for Inspection
16.44.240 Reports
16.44.250 Cessation of Work
16.44.260 Completion of Work
16.44.270 Inspection
16.44.2180 Grounds for Suspension and Revocation
16.44.290 Method of Suspension or Revocation
16.44.300 Appeals
16.44.310 Appeal Fee
16.44.320 Appeal Hearings
16.44.330 Actions on Appeals
16.44.340 Notices
16.44.350 Action Against and Release of Security
16.44.360 Violations

16.44.370 Laws not Enforced

16.44.010 PURPOSE. It is the intent of the Board of Supervisors in enacting this Chapter to minimize damage to surrounding properties and public rights-of-way, the degradation of the water quality of watercourses, and the disruption of natural or County authorized drainage flows caused by the activities of clearing and grubbing, grading, filling and excavating of land, and sediment and pollutant runoff from other construction related activities, and to comply with the provisions of the County's National Pollutant Discharge Elimination System (NPDES) Permit Number, CA0082597, issued by the California Regional Water Quality Control Board (Regional Board).

These goals will be achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other pollutant runoff, including construction debris and hazardous substances used on construction sites, and the disruption of existing drainage and related environmental damage caused by the aforementioned activities.

16.44.020 DEFINITIONS. As used in this Chapter, the following words and phrases shall have the meanings given in this section:

(1) "Administrator" means the Administrator of the Public Works Agency of Sacramento County or his or her designated representative(s).

(2) "Applicant" means any person who submits an application for a permit pursuant to this Chapter.

(3) "Civil engineer" means a professional engineer in the branch of civil engineering holding a valid certificate of registration issued by the State of California.

(4) "Clearing and grubbing" means moving or removing by manual or mechanical means trees, vegetation and/or the top four (4) inches or greater of soil.

(5) "Compaction" means the act of compacting or consolidating soil and rock material to a specified density, and the resulting compacted state of the material.

(6) "Construction site" means any land area on which the activity of clearing and grubbing, grading, excavating, or filling is occurring.

(7) "County" is the County of Sacramento.

(8) "County Specifications" means the County Improvement Standards, County Standard Construction Specifications and other standards included in applicable County ordinances, regulations and manuals, as amended from time to time.

(9) "Engineering geology" means the application of geologic knowledge and principles in the investigation and evaluation of naturally occurring rock and soil for use in the design of civil works.

(10) "Environmental Coordinator" is the County official designated by the County Executive to prepare and process environmental documents.

(11) "Erosion" means the transport of the ground surface or soil as a result of the movement of wind or water.

(12) "Erosion control measures" means seeding, mulching, vegetative buffer strips, sod, plastic covering, burlap covering, watering and other measures which control the movement of the ground surface or soil.

(13) "Grade" is the elevation of the ground surface as measured from a known vertical control.

(14) "Grading" includes the act or result of digging, excavating, transporting, spreading, depositing, filling, compacting, settling, or shaping of land surfaces and slopes, and other operations performed by or controlled by human activity involving the physical movement of rock or soil.

(15) "Hazardous Substances" means those materials listed in Title 40 of the Code of Federal Regulations (40 CFR) Part 117 and/or 40 CFR Part 302.

(16) "National Pollutant Discharge Elimination System (NPDES)" means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Clean Water Act.

(17) "Permittee" means the applicant in whose name a valid permit is issued pursuant to this Chapter and the applicant's agents, employees and designated representative(s).

(18) "Person" means any individual, corporation, partnership, association of any type, public agency or any other legal entity.

(19) "Pollutants" is as defined in Title 40 CFR Part 122.

(20) "Runoff" is surface runoff and drainage related to storm events, snow melt, street washwaters related to street cleaning or maintenance and other waters associated with the construction activity which are or may be introduced into the municipal separate storm sewer system.

(21) "Sediment" means soil or earth material deposited by water.

(22) "Sediment control measures" means dikes, sediment detention traps, sediment detention basins, filters, fences, barriers, swales, berms, drains, check dams, and other measures which control the deposit of soil or earth material.

(23) "Site" means a parcel or parcels of real property owned by one or more than one person on which activity regulated by this Chapter is occurring or is proposed to occur.

(24) "Slope" is an inclined ground surface the inclination of which is expressed as a percent.

(25) "Structure" means anything constructed or erected which requires location on the ground or attached to something having location on the ground.

(26) "Watercourse" means a river, stream, creek, basin, lake, pond, waterway, or channel, natural or man-made, having a defined bed and banks. Whenever a watercourse consists of an ordinary channel, and in addition thereto, an overflow channel, the watercourse shall be deemed to include all property lying between the banks of the overflow channel.

(27) "Wetlands" means those areas that are inundated or saturated by surface or

ground water at a frequency sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, bogs and marshes.

16.44.030 DELEGATION. Whenever in this Chapter an authority or power is vested in or a duty is imposed upon an officer or official, an employee subordinate to the officer or official to whom an appropriate delegation has been made shall be entitled to exercise the power or authority and perform the duty.

16.44.040 ADMINISTRATION. Except as otherwise provided, the Administrator is responsible for administering this Chapter and Grading and Erosion Control Permits, and is authorized from time to time to promulgate and enforce rules or regulations consistent with and necessary to implement the purposes, intent and express terms of this Chapter.

Any rules or regulations promulgated by the Administrator, or amendments thereof, shall be filed with the Clerk of the Board of Supervisors. The Clerk shall cause said rules or regulations to be published in a newspaper of general circulation within ten calendar days. No rules or regulations promulgated by the Administrator, or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which the rules or regulations are published. Any person shall have fifteen (15) days after the date of publication in which to file an appeal in accordance with the provisions of Section 16.44.300.

16.44.050 PERMITS REQUIRED. Except as provided by Sections 16.44.060, 16.44.065 or 16.44.070, a Grading and Erosion Control Permit shall be required to (1) grade, fill, excavate, store or dispose of 350 cubic yards or more of soil or earthly material or (2) clear and grub 1 acre or greater of land within the unincorporated area of the county. A separate permit is required for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. Any determination by the Administrator as to whether a permit is required may be appealed pursuant to the provisions of Section 16.44.300.

16.44.060 PERMITS NOT REQUIRED. (A) A Grading and Erosion Control Permit shall not be required to (1) grade, fill, excavate, store or dispose of less than 350 cubic yards of soil or earthly material or (2) clear and grub less than 1 acre of land within the unincorporated area of the county or (3) for the grading, filling, excavating, storing, disposing, or clearing and grubbing for:

(a) Swimming pools, basements, or footings of structures if authorized by a valid building permit;

(b) Underground utilities;

(c) Mining or quarry operations, if a use permit has been granted by the County.

(d) Refuse disposal sites operated by a governmental agency;

(e) The production of planted agricultural crops;

(B) Notwithstanding the provisions of subsection (A) hereof exempting specified activities from the otherwise applicable permit requirements, the activities described in subsection (A) shall be subject to the standards and requirements of this Chapter. Any building permit issued in connection with the activities described in subsection (A) or in connection with any building permit issued for a single family residence on an individual lot may be conditioned on compliance with the standards and requirements of this Chapter. Any inspections required pursuant to this Chapter or any other Chapter of Title 16 of the Sacramento County Code shall include a determination of compliance with the purpose of this Chapter.

16.44.065 EXEMPTIONS. A Grading and Erosion Control Permit shall not be required for, and the provisions of this Chapter shall not apply to, grading, filling, excavating, storing, disposing, or clearing and grubbing for situations where, in the determination of the Administrator, there is a clear and imminent danger to life or property, or threat of loss of services for which there is an overriding public concern. The Administrator may, at the time of granting such exemption, impose conditions in accordance with Section 16.44.170, including but not limited to, the requirement for the posting of security. Such exemption must be requested from the Administrator and approved in writing prior to the commencement of any activity regulated by this Chapter.

16.44.070 IMPROVEMENT PLANS. Where an improvement plan is being processed in conjunction with either an approved tentative, parcel, or final map; or a development plan is being processed in accordance with the provisions of Title 12 of this code, such plan shall also be considered as a request to undertake those activities regulated by this Chapter. Such plans shall be reviewed and approved, conditionally approved or denied in accordance with the standards and requirements set forth in this chapter and other applicable county specifications. For an approved tentative, parcel, or final map, or development plan; any submitted improvement plans shall include provisions to require compliance with the standards and requirements of this Chapter. If an improvement plan is approved, then a Grading and Erosion Control Permit shall not be required.

16.44.080 APPLICATION CONTENTS. The application for a Grading and Erosion Control Permit shall be filed in the Office of the Administrator, and on a form and submitted with such information as is prescribed by the Administrator, including the following:

(A) The name, address and telephone number of the applicant and the applicant's engineer;

(B) The address and parcel number of the location for which the permit is sought;

(C) A copy of all entitlements granted for the property by the County, including conditions of approval and the environmental documentation;

(D) A copy of all required state and federal permits;

(E) Plans conforming with the requirements of Section 16.44.090;

(F) Specifications conforming with the requirements of Section 16.44.100, if the Administrator expressly requires this information;

(G) Security conforming with the requirements of Section 16.44.110;

(H) Right of Entry conforming with the requirements of Section 16.44.120;

(I) Fees conforming with the requirements of Section 16.44.130;

(J) Other information as may be required by the Administrator.

16.44.090 PLANS. Plans shall be prepared by a civil engineer in conformance with County Specifications and shall include the following:

(A) A vicinity map indicating the site location and significant geographic features;

(B) A site delineation map indicating boundary lines of the property and each lot or parcel into which the site is proposed to be divided;

(C) The location of on-site and surrounding watercourses and wetlands, existing and proposed drainage systems, and drainage area boundaries and acreages. Additional hydrologic analysis shall be provided as required by the Administrator;

(D) The location of existing and proposed roads and structures on the site, and on adjacent property;

(E) Accurate contours at two foot intervals for slopes up to ten percent and five foot intervals for slopes over ten percent showing topography of existing ground and locations of existing vegetation, including all oak trees, all other trees over six inches in diameter measured at four and one-half feet above the ground, groves of trees, and natural features such as rock outcroppings. Spot elevations will be required where relatively flat conditions exist. The spot elevations or contour lines shall be extended off-site for a minimum distance of fifty (50) feet, or one hundred (100) feet in flat terrain;

(F) Elevations, location, extent and slope of all proposed grading shown by contours, cross-sections or other means, and location of any disposal areas, fills or other special features to be included in the work;

(G) A statement of the quantity of material to be excavated, the quantity of material to be filled, whether such excavation or fill is permanent or temporary, and the amount of such material to be imported to or exported from the site;

(H) A delineation of the area to be cleared and grubbed;

(I) A statement of the estimated starting date, grading completion date, and when site improvements will be completed;

(J) The location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed prior to, during or after the proposed activity;

(K) A description of measures designed to control dust and stabilize the construction site road and entrance;

(L) A description of the location and methods of storage and disposal of construction materials;

(M) Any additional plans required by the Administrator.

16.44.100 SPECIFICATIONS. When required by the Administrator, the following information shall be prepared and signed by a civil engineer, and submitted with the application for a Grading and Erosion Control Permit:

(A) Preparation of natural ground to occur prior to placement of fill, including provisions for removal of organic or deleterious materials;

(B) Quality control of native or imported fill material;

(C) Degree of compaction;

(D) Gradient of cut and fill slopes;

(E) Geotechnical engineering or engineering geology reports used in the development of the above information.

16.44.110 SECURITY. (A) Prior to issuance of the permit, the applicant shall provide security in an amount estimated by the Administrator to be the cost for stabilizing the activity site if the site is abandoned or work is stopped during the performance of the activity described in the permit. The security shall be one of the following, subject to the approval of the Administrator;

(1) Bond or bonds by one or more duly authorized corporate sureties.

(2) A deposit, either with the County or a responsible escrow agent or trust company, at the option of the County, of money or negotiable bonds of the kind approved for securing deposits of public moneys.

(3) An instrument of credit from an agency of the state, federal or local government when an agency of the state, federal, or local government provides at least 20 percent of the financing for the project, or from one or more financial institutions subject to regulation by the state or federal government and pledging that the funds necessary are on deposit and guaranteed for payment, or a letter of credit by such financial institution.

(B) The security shall be released to the permittee upon either:

(1) Issuance of a certificate of completion, provided no administrative or legal action against such security has been commenced prior to that date and the permittee has complied with the provisions of Section 16.44.260; or

(2) Voluntary relinquishment of the permit by the holder thereof to the County, provided no administrative or legal action against such security has been commenced prior to that date and the permittee has complied with the provisions of Section 16.44.250.

16.44.120 RIGHT OF ENTRY. Whenever any portion of the work requires entry onto adjacent property for any reason, the applicant shall obtain the written consent of the adjacent property owner or his authorized representative, and shall file a copy of said consent with the Administrator before a permit for such work may be issued.

16.44.130 PERMIT FEES. A fee shall be paid by the applicant to the County for plan checking and review, materials testing, site inspections, processing, issuance and other services performed by the Administrator in connection with the investigation of an

application for, and administration of, a Grading and Erosion Control Permit. The fees for these services shall be in the amount of the actual costs incurred by the County based on the hourly rate of the personnel performing the services, including all overhead costs, and as determined by the Accounting and Fiscal Services Section of the Public Works Agency.

A minimum deposit of seven hundred and fifty dollars ($750) shall be paid by the applicant at the time of and with the filing of the application with the Administrator. In the event the accrued costs exceed the initial deposit, the County shall submit a monthly bill to the applicant for the amount owing as of the date on the bill. Interest of one and one-half percent (1-1/2%) per billing period (28 day cycle) compounded each billing period shall be added to the unpaid balance due to any amount which has not been paid in full within twenty-eight (28) days from the date on the bill.

The Administrator shall not perform any services for an applicant if an amount owing is not paid within twenty-eight (28) days, until such time that all amounts owing and interest thereon is paid in full. The balance of fees owing shall be paid in full prior to final inspection. In the event the actual costs do not exceed the minimum deposit amount, the County shall reimburse the applicant the difference between the deposit amount and the actual total charges.

16.44.140 ENVIRONMENTAL REVIEW. Grading and erosion control permits, and amendments thereto, are subject to the requirements of the California Environmental Quality Act (CEQA). The applicant shall furnish a copy of the application to the Environmental Coordinator for preparation and processing of the appropriate environmental documents. The Administrator is authorized to hold public hearings on Negative Declarations, Draft Environmental Impact Reports and Final Environmental Impact Reports prepared on applications for Grading and Erosion Control Permits, for the purposes of receiving comments from the public. The Administrator shall not approve a Grading and Erosion Control Permit prior to considering the applicable environmental document and complying with the requirements of CEQA and the County Procedures for Preparation and Processing of Environmental Documents.

16.44.150 APPLICATION REVIEW. The Administrator shall review and approve, conditionally approve or deny Grading and Erosion Control Permit applications and improvement plans in accordance with the provisions of this Chapter. Grading and Erosion Control Permit applications and improvement plans shall be issued or approved unless the Administrator finds in writing that:

(A) The applicant has failed to provide sufficient or adequate plans, information or other data necessary to allow determinations respecting compliance with the provisions of this Chapter or County Specifications;

(B) The environmental review has not been completed, other provisions of this code or of state law pertaining to environmental review have not been satisfied, or the activity will have significant adverse environmental impacts which cannot be substantially mitigated. Where the activity will have significant adverse impacts, the Administrator may approve the

permit in accordance with the provisions of this Chapter, Title 20, and the California Environmental Quality Act of 1970;

(C) The proposed activity will violate provisions of this Chapter, County Specifications, or state or federal laws, and such violation cannot be resolved by the imposition of conditions pursuant to Section 16.44.170.

(D) The proposed activity will adversely affect surrounding properties and public rights-of-way, the water quality of watercourses, and existing drainage.

16.44.160 CONTENTS OF PERMIT. The Grading and Erosion Control Permit shall include but not be limited to a complete description of the activity for which it is issued, the property for which it is issued, the date of issuance and the date of expiration, and a description of any and all conditions upon which the permit has been issued. The permit shall be kept at the site during the activity for which the permit was issued. A Grading and Erosion Control Permit authorizes the permittee to undertake only that activity described in the permit and only on the property for which the permit is issued.

16.44.170 CONDITIONS. The Administrator may at the time of issuance of the Grading and Erosion Control Permit impose such conditions as are necessary to ensure compliance with this Chapter, County Specifications, or state or federal laws. Such conditions shall be reasonably related to the public needs created by the proposed activity. Conditions to mitigate environmental impacts of the activity may also be imposed by the Administrator.

16.44.180 PROCEDURE FOR IMPOSITION. Any condition imposed pursuant to the provisions of Section 16.44.170 shall be embodied, together with the reasons therefor, in the permit and served upon the applicant or permittee.

16.44.190 TERM. A Grading and Erosion Control Permit shall be effective on the date of issuance, and shall remain in force for one year, unless suspended or revoked by the Administrator, or voluntarily relinquished by the permittee. Before the expiration of a permit, a permittee may apply for an extension of time in which to complete the activity. One extension of not more than one year may be granted by the Administrator.

16.44.200 TRANSFERABILITY. A Grading and Erosion Control Permit shall not be transferable or assignable from one person to another, unless approved by the Administrator and the person to whom the permit is to be transferred agrees to comply with the requirements of the original permit and to any conditions imposed therein.

16.44.210 DENIAL OF PERMIT. The Administrator shall deny an application for a Grading and Erosion Control Permit if any of the findings in Section 16.44.150 are made. Notice shall be served on the applicant, in writing with the reasons stated therefor, pursuant to the provisions of Section 16.44.340.

16.44.220 AMENDMENT OF PERMIT. Any proposed changes in the activity authorized by the permit shall be submitted to the Administrator for review. The permittee shall not undertake or allow activity to occur which does not conform with the plans or conditions of the original permit, unless approved by the Administrator. The Administrator shall review any proposed changes in the same manner and pursuant to the same standards as the original application.

16.44.230 REQUEST FOR INSPECTION. Requests for inspection of any site subject to the provisions of this Chapter shall be made to the Administrator at the following phases of activity. Such a request shall be made at least two full business days in advance of the desired day of inspection.

(A) When the site has been cleared of vegetation and unapproved fill, and scarified, benched, or otherwise prepared and before any fill is placed; and the erosion control and sediment control measures to be implemented in this phase have been placed;

(B) When approximate final elevations have been established; drainage terraces, swales and other drainage devices have been graded and are ready for paving; berms have been installed at the top of slopes; and the erosion control and sediment control measures to be implemented in this phase have been placed;

(C) When work has been completed; slope planting established and irrigation systems installed, if required; and the erosion control and sediment control measures to be implemented in this phase have been placed.

The Administrator, upon inspection of the site, shall notify the person or permittee (1) that the phase of work inspected is approved, or (2) what deficiencies, corrections or other work needs to be completed before approval of that phase.

16.44.240 REPORTS. Notification to the Administrator shall be required within twenty-four (24) hours following the failure of authorized measures to prevent erosion or sediment from leaving the construction site; the deposit of debris or material on adjoining property or public rights-of-way, or; the interference with any existing watercourses or drainage facilities.

16.44.250 CESSATION OF WORK. If activity is ceased on site for any reason for a period in excess of fifteen (15) calendar days, and before the activity being conducted under the permit is completed, all necessary steps shall be taken to prevent damage through erosion or sedimentation to adjoining properties or to the public rights-of-way or to any natural or artificial drainage facilities or watercourses. The premises shall also be graded to blend into the adjacent terrain. The Administrator shall be notified as soon as possible, but no later than fifteen (15) calendar days, after the cessation of work.

16.44.260 COMPLETION OF WORK. After completion of work in accordance with and conforming with an approved permit and delivery to the County of record plans and a

grading plan as finally implemented, and payment of all fees, the Administrator shall issue a certificate of completion.

16.44.270 INSPECTION. The Administrator may enter and inspect property for which a Grading and Erosion Control Permit has been applied to determine applicability or compliance with this Chapter and County Specifications. The Administrator may also inspect any and all property on which grading, filling, clearing and grubbing or excavating activities are occurring.

16.44.280 GROUNDS FOR SUSPENSION AND REVOCATION. A Grading and Erosion Control Permit may be suspended if:

(A) The physical state of the property differs from the descriptions, plans or information furnished to the Administrator in the permit application;

(B) The activity does not conform to the approved plans, grades, conditions or terms of the permit;

(C) The activity is in violation of this Chapter, County Specifications, or state or federal laws;

(D) Any reports required to be submitted to the Administrator have not been submitted; or,

(E) Any of the information contained in reports submitted to the Administrator is in error.

16.44.290 METHOD OF SUSPENSION OR REVOCATION. The Administrator may suspend or revoke a Grading and Erosion Control Permit by issuing a notice of suspension or revocation, stating the reasons therefor, and serving same, upon the permittee. Upon suspension or revocation of a permit, in accordance with the provisions of this Section, the permittee shall immediately cause all grading, filling, excavating, storing, disposing or clearing and grubbing to cease until written authorization is received from the Administrator to proceed with the activity.

The permittee shall have fifteen (15) calendar days after the date of service of the suspension or revocation in which to file an appeal in accordance with the provisions of Section 16.44.300. If such an appeal is filed, the suspension or revocation shall remain in force and be effective until a final decision on the appeal is issued by the Board of Supervisors.

If the Administrator suspends a permit, such permit may either be reinstated or revoked by the Administrator, depending upon whether the permittee corrects the grounds stated for the suspension in the notice issued by the Administrator. If the permittee fails to remedy
the grounds for suspension within a time period specified by the Administrator, but in no event later than sixty (60) calendar days, the Administrator shall revoke the permit.

16.44.300 APPEALS. If the applicant for a Grading and Erosion Control Permit, the

permittee, or other persons whose property rights may be affected is dissatisfied with any determination made by the Administrator, such person may appeal to the Board of Supervisors. Any such appeal shall be in writing, shall state the specific reasons therefor and grounds asserted for relief, and shall be filed with the Clerk of the Board of Supervisors not later than fifteen (15) calendar days after the date of the action being appealed. If an appeal is not filed within the time or in the manner prescribed above, the right to review of the action against which the complaint is made shall be deemed to have been waived.

16.44.310 APPEAL FEE. The Board of Supervisors shall by resolution adopt and, from time to time, amend a fee for the filing of appeals. Such fee shall be for the sole purpose of defraying costs incurred for the administration of appeals. The fee for an appeal shall be paid at the time of and with the filing of an appeal. No appeal shall be deemed valid unless the prescribed fee has been paid.

16.44.320 APPEAL HEARINGS. After the filing of an appeal within the time and in the manner prescribed by Section 16.44.300, the Board of Supervisors shall conduct a hearing for the purpose of determining whether the appeal should be granted. Written notice of the time, date and place of the hearing shall be served upon the Administrator and the appellant not later than ten days preceding the date of the hearing.

16.44.330 ACTIONS ON APPEALS. The Board of Supervisors shall review the entire proceeding or proceedings relating to the act or decision being appealed, de novo, and may make any order it deems just and equitable, including the granting of a Grading and Erosion Control Permit. Any hearing may be continued from time to time.

At the conclusion of the hearing, the Board of Supervisors shall prepare a written decision which either grants or denies the appeal, and contains findings of fact and conclusions. The written decision, including a copy thereof, shall be filed with the Clerk of the Board of Supervisors. The Clerk shall serve such decision on the applicant or permittee and the Administrator. The decision of the Board of Supervisors shall become final upon the date of filing and service with respect to any appeal.

16.44.340 NOTICES. Any notice authorized or required by this Chapter shall be deemed to have been filed, served and effective for all purposes on the date when it is personally delivered in writing to the party to whom it is directed or deposited in the United States mail, first class postage prepaid, and addressed to the party to whom it is directed.

Whenever a provision in this Chapter requires a public hearing to be conducted, notice of the time, date, place and purpose of the hearing shall be published at least once not later than ten (10) calendar days in advance of the date of commencement of the hearing in a newspaper of general circulation which is published within the County. The same type of notice shall also be served on each permittee whose permit may be affected by the action taken at the conclusion of the hearing.

16.44.350 ACTION AGAINST AND RELEASE OF SECURITY. The Administrator may commence action against the security provided by a permittee if:

(A) The permittee ceases activities on site prior to completion of work without complying with the provisions of Section 16.44.250;

(B) The permittee fails to comply with the terms of the permit;

(C) The activity has caused or is threatening to cause damage or injury to persons, property or the environment.

The monies so obtained shall be used solely to finance remedial work undertaken by the County or a private contractor under contract to the County, and to reimburse the County for any administrative costs and expenses incurred in remedying the situation, including attorneys fees and legal costs incurred in any necessary action to obtain the security.

16.44.360 VIOLATIONS. Except as otherwise specifically provided, pursuant to the provisions of Government Code Section 25132, violation of any of the provisions contained in this Chapter shall constitute an infraction subject to a fine of one hundred (100) dollars for each day or any portion thereof a violation continues.

Violation of any of the provisions of this Chapter following notice to the permittee by the Administrator advising of the violation and ordering a cessation thereof, shall pursuant to the provisions of Section 1.01.190 contained in Title 1 of this Code, constitute a misdemeanor.

Violation of any of the provisions of this Chapter may be remedied by injunction or other civil proceeding commenced in the name of the County pursuant to direction by the Board of Supervisors.

16.44.370 LAWS NOT ENFORCED. There are many ordinances and other laws applicable to activities permitted under this Chapter which are not sought to be enforced under this permitting process. Such laws include, but are not limited to, building, floodplain management, and land development measures. The issuance of a Grading and Erosion Control Permit shall not be deemed to constitute a representation that the activity so permitted or the property upon which such activity is occurring complies with such other ordinances or other laws. Nor shall the existence of such an unrevoked permit be deemed to preclude any criminal or civil remedy for violation of such other ordinances or laws. The possession of a Grading and Erosion Control Permit shall not be deemed to relieve the holder of the requirement to apply for or obtain any other license or permit required by ordinance or statute.

Conservation and Air Quality Element

This Element of the General Plan addresses several important topics:

- **Conservation** of the City's natural resources, and
- The preservation and enhancement of local and regional **Air Quality** through reductions in the emission of pollutants and energy use.
- The preservation and enhancement of **Water Quality** in streams and rivers and in the underground aquifer.

CONSERVATION

Conservation is an important issue not only for Elk Grove but for every jurisdiction in the Sacramento region and in California. Many of the resources on which the city relies are available in limited and/or finite amounts (energy, for example); resources such as natural riparian habitat, watershed, and other types of open land uses would also be threatened by unplanned development.

Resources in Elk Grove which require the implementation of conservation-oriented policies include:

- **Energy**
- **Water supplies**
- **Land for future development**
- **Agricultural lands and soils**
- **Lands within the Primary Zone of the Sacramento River Delta**
- **Natural habitats**
- **Trees**
- **Air quality**
- **Surface and Groundwater Quality and Supply**

Other "resources" which are addressed in other elements of the General Plan are also important. These include:

- The rural character of the eastern portion of Elk Grove
- The capacity of drainage systems to provide flood protection for developed areas of the city
- Open space for a variety of uses

Please refer to the Land Use and Public Facilities and Finance elements for discussion of and policies related to rural areas, and to the Safety Element of this General Plan for additional discussion of and policies related to flooding.

ENERGY

Energy supplies (electricity and natural gas) are supplied to the city by the Sacramento Municipal Utility District (SMUD); details regarding energy supplies are provided in the *General Plan Background Report*. An additional major source of energy supplies in the Planning Area is Suburban Propane, which maintains a distribution facility in Elk Grove on Grant Line Road near State Route 99.



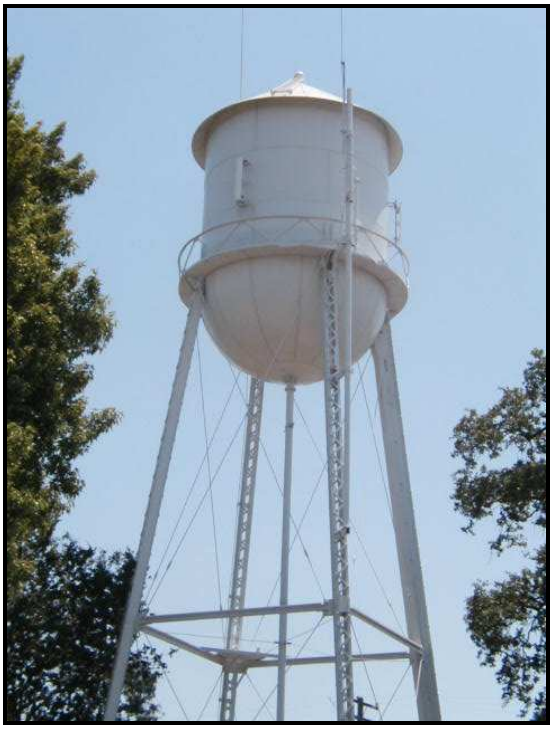
Electrical distribution facilities in Elk Grove

This General Plan addresses conservation of energy through policies and programs aimed at making the city's homes and businesses as energy-efficient as possible. Policies and programs in the Circulation Element of this General Plan also seek to reduce energy consumption by encouraging the use of transport modes other than single-occupant vehicles and by making the flow of vehicles on the city's roadways as smooth as possible.

WATER SUPPLIES

Domestic water supplies in Elk Grove are provided by two major providers: the County of Sacramento

Water Agency and the Elk Grove Water Service. Details on the areas in which these suppliers provide service can be found in the *General Plan Background Report*.



The historic water tower in Old Town remains part of the city's water supply system

In addition to these providers, homes and businesses in a large area of Elk Grove (primarily east of Bradshaw Road) rely on private wells, which tap the underground aquifer beneath the city.

This Element of the General Plan contains policies and programs intended to make more efficient use of water supplies.

LAND FOR FUTURE DEVELOPMENT

As discussed in the Land Use Element, Elk Grove is expected to continue developing for the foreseeable future, adding new homes and businesses primarily on lands now either vacant or in agricultural use. Policies and programs intended to ensure an adequate supply of land for future development are contained in the Land Use, Housing, and Public Facilities and Finance elements of this General Plan.

AGRICULTURAL LANDS AND SOILS

Agriculture has historically been an important part of Elk Grove's land use and economy. Soils within Elk Grove are capable of supporting a number of crops, many of which are still grown (*please see the General Plan Background Report for further information on soils within Elk Grove and the Planning Area*).



Farming remains a part of Elk Grove, but has been in decline and is not expected to be as dominant in the future.

However, Elk Grove's recent history has seen the development of large areas of the city (and, to a lesser extent, the Planning Area) that had previously been farmed. A number of factors, including the growth of the Sacramento region in general, increasing prices related to the production of agricultural crops (energy, water, fertilizers, etc.), stable or declining prices for many crops, and increasing values for land which can be developed with urban uses, have led many property owners to either stop farming altogether or to shift their operations to other parts of Sacramento County or elsewhere.

This General Plan provides for a pattern of land uses (*see the Land Use Element for further information*) which will result in the loss of agricultural use of soils over a large portion of the city (generally, the area south of Elk Grove Boulevard and west of Hwy 99) which has historically been used for large-scale farming. Although this General Plan designates a large area of the city (generally east of Bradshaw Road) for

rural uses, the small parcel sizes in this area will most likely limit agricultural uses to "hobby" farming, the raising of animals either for personal enjoyment or on a small commercial scale, or the growing of specialty crops such as nursery plants.

In the Planning Area outside the current (2004) city limits, this General Plan envisions the potential for converting some additional lands from agriculture to urban uses in the "Urban Study Areas" east of Grant Line Road and south of Kammerer Road. Although the conversion of these lands to urban uses by the City of Elk Grove would require annexation and the completion of detailed planning for these areas, the loss of agricultural production in these areas is a potential that this General Plan considers.

Within Elk Grove, the City considers agriculture (outside of the rural areas designated on the *Land Use Policy Map*) to be an interim use. This Element of the General Plan provides policies and programs that support the use of these for farming while property owners wish to continue this use. The City does not seek to reverse the conversion of agricultural lands to urban uses in the developing areas of Elk Grove, or to curtail the use of non-agricultural lands in order to preserve farming uses on adjacent or nearby properties.

SACRAMENTO RIVER DELTA

Although not within the current incorporated boundaries of Elk Grove, a portion of the Sacramento River Delta is inside the larger Planning Area of the General Plan (*please see the Introduction for a description and map of the Planning Area)*. Therefore, the City's long-term land use policies will require coordination with the Delta Protection Commission (a state agency) once these lands are included within the corporate boundary of Elk Grove.



The Sacramento River Delta

The Delta Protection Commission in 2000 adopted the following Mission Statement and Vision for the Delta:

MISSION STATEMENT:

The mission of the Commission is to guide the protection of the Delta's unique natural quality, cultural viability, economic vitality, and recreational opportunity through:

- *Protection, maintenance, and enhancement and restoration of the overall quality of the Delta environment including agriculture, wildlife habitat, and recreational activities;*
- *Assurance of orderly, balanced conservation and development of Delta land resources; and*
- *Improvement of flood protection to ensure an increased level of public health and safety.*

VISION STATEMENT:

The vision of the Delta Protection Commission is a region in which the essential land uses and unique natural qualities flourish in self-sustaining harmony.

NATURAL HABITAT

As discussed earlier in this Element, although substantial new development is currently (2003) occurring in several areas of Elk Grove, large areas of the city remain in agricultural or "rural" uses. These open lands, combined with the city's location near the Cosumnes and Sacramento rivers and within the range of many native plant and animal species, results in the use of many areas of Elk Grove as habitat for native plants and animals. (*Please see the General Plan Background Report for detailed information on existing habitat*

and plant and animal species in Elk Grove.)



Elk Grove's creeks provide important habitat for many native plants and animals, as well as serving as a community and aesthetic resource

This Element provides policies and programs intended to reduce impacts to plants and animals which will result from the loss of habitat to development (*see the discussion of Agricultural Lands above*). This General Plan, as discussed earlier, envisions the development of many areas currently used as habitat by native plants and animals; the loss of this habitat is viewed as an unavoidable result of urbanization, and while impacts to native species can be reduced or mitigated, this Plan does not seek to entirely eliminate these impacts.

TREES

Mature trees—both native oaks and other native and non-native species—form an important part of Elk Grove's aesthetic, open space, and historical heritage. Because they provide relief from the primarily flat terrain of the city, as well as shade, shelter for animals and other plants, and ties to the area's historical past, mature trees are viewed as an important resource to be protected and conserved. Trees also provide other benefits, including improvements in water quality, shade for buildings, and reduction in pollution, which also justify their protection as a resource.



Oaks and other trees form a shaded canopy over a portion of Sheldon Road in the rural area of Elk Grove.

This Element provides policies and programs aimed at preserving and protecting large mature trees of all types.

AIR QUALITY

Air quality in the Sacramento region is, unfortunately, among the worst in the United States. A combination of poor air circulation, high summertime temperatures, and numerous sources of pollution both locally and at distant locations combine to create air pollution which frequently exceeds state and federal standards. (*For more information on current air quality, please see the General Plan Background Report.*)



Regional air quality frequently does not meet state and federal standards, but the City of Elk Grove seeks to help achieve improvements in air quality

The City recognizes that Elk Grove can play a role in the improvement of local and regional air quality. To that end, this Element contains policies and programs that seek to reduce the consumption of fossil fuels, whose burning in engines and at generating plants is a major source of air pollutants.

This General Plan also contains policies and programs in the Circulation Element, which are intended to reduce the use of private motor vehicles in favor of walking, cycling, and public transit, and to reduce roadway congestion.

WATER QUALITY

The quality of Elk Grove's surface and subsurface (groundwater) supplies is important not only to its residents—all of the city's drinking water supplies are derived from a combination of surface water and groundwater—but for the plants and animals who rely on water to survive. This Element addresses the issue of protecting and preserving water quality through reduction in pollutants discharged to the ground, or to surface waters via urban runoff. This Element also addresses protection and enhancement of water quality in local creeks through efforts to preserve natural creek buffers and natural creek alignments and control/reduce runoff discharge volume, rate, velocity, and/or temperature.

The establishment and implementation of conservation-oriented policies can have numerous benefits, including the establishment of more efficient and cost-effective land uses which minimize the unnecessary use of limited resources. The Conservation and Air Quality policies of the General Plan implement these Guiding and Focused Goals:

Guiding Goal 1: A High Quality of Life for All Residents

Focused Goal 1-3: A balanced and efficient transportation system

Focused Goal 1-5: Excellence in the design of new development

Focused Goal 1-9: A pattern of land use which enhances the community character of Elk Grove, provides employment and shopping opportunities to serve residents and the region, which provides for use of transit, and which protects Elk Grove's unique historical and natural features

Guiding Goal 2: Diversified Economic Base

Focused Goal 2-2: A balance between the numbers and types of workers residing in Elk Grove and opportunities for employment in the city

Guiding Goal 3: Protection of the Natural Environment

Focused Goal 3-1: Development which recognizes environmental constraints and is designed and operated to minimize impacts on the environment

Focused Goal 3-2: Open space lands in proximity to Elk Grove that provide for agricultural use and habitat for native species

Focused Goal 3-3: Natural resources managed and protected for the use and enjoyment of current and future generations

Focused Goal 3-4: Preservation and enhancement of Elk Grove's natural areas, in particular the areas within the floodplain of the Cosumnes River

Guiding Goal 4: Preservation and Enhancement of Elk Grove's Unique Historic and Natural Features

Focused Goal 4-1: Preservation and enhancement of Elk Grove's historic structures and districts

Focused Goal 4-2: Preservation of the large oak and other tree species which are an important part of the City's historic and aesthetic character

Guiding Goal 5: Preservation of the Rural Character of Elk Grove

Focused Goal 5-1: Retention of those areas identified for 2-acre and larger lots on the Land Use Map as a rural area through land use and infrastructure controls

Focused Goal 5-2: Maintenance of those features that provide the character of Elk Grove's rural areas, including: large oak and other trees, small local roadways, animal keeping and raising, equestrians, agriculture, and limited commercial opportunities

The following policies and action items implement these goals:

CONSERVATION POLICIES: CONSERVATION OF ENERGY

Policies related to Energy Conservation are found in the Air Quality section of this Element.

CONSERVATION POLICIES: CONSERVATION OF WATER

CAQ-1 Reduce the amount of water used by residential and non-residential uses by encouraging water conservation.

CAQ-1-Action 1 Implement the City's Water Conservation Ordinance.

CAQ-1-Action 2 Actively encourage water conservation by both agricultural and urban water users.

CAQ-1-Action 3 Work with urban and agricultural water purveyors to establish long range conservation plans which set specific conservation objectives and utilize, to the extent possible, a common

planning horizon, plan framework and estimating/ forecasting procedures.

CAQ-1-Action 4 Promote the use of drought-tolerant vegetation to minimize water consumption by providing information to developers and designers.

CONSERVATION POLICIES: CONSERVATION OF LAND FOR FUTURE DEVELOPMENT

Policies related to future use of land for development are found in the Land Use Element of this General Plan.

CONSERVATION POLICIES: CONSERVATION OF AGRICULTURAL USES

CAQ-2 The loss of agricultural productivity on lands designated for urban uses within the city limits as of January 2004 is accepted as a consequence of the development of Elk Grove. As discussed in the Land Use Element, the City's land use concept for the Planning Area outside the 2004 city limits anticipates the retention of significant areas of agricultural production outside the current city limits.

(Please see the Land Use Concept Map in the Land Use Element for further information.)

CAQ-3 The City of Elk Grove considers the only mitigation for the loss of agricultural land to consist of the creation of *new* agricultural land in the Sacramento region equal in area, productivity, and other characteristics to the area that would be lost due to development. The protection of *existing* agricultural land through the purchase of fee title or easements is not considered by the City to provide mitigation, since programs of this type result in a net loss of farmland.

Please see the Open Space Policies section of the Parks, Trails, and Open Space Element of this General Plan for further discussion of the City's policies regarding agricultural lands.

CAQ-4 While agricultural uses are anticipated to be phased out within the city limits, the City recognizes the right of these uses to continue as long as individual owners/farmers desire. The City shall not require buffers between farmland and urban uses, relying instead on the following actions to address the impacts of farming on urban uses:

CAQ-4-Action 1 Implement the City's "Right to Farm" ordinance.

CAQ-4-Action 2 Prospective buyers of property adjacent to agricultural land shall be notified through the title report that they could be subject to inconvenience or discomfort resulting from accepted farming activities as per provisions of the City's right-to-farm ordinance.

CONSERVATION POLICIES: CONSERVATION OF SOILS

CAQ-5 Roads and structures shall be designed, built and landscaped so as to minimize erosion during and after construction.

CONSERVATION POLICIES: LANDS WITHIN THE PRIMARY ZONE OF THE SACRAMENTO RIVER DELTA

Note to reader: No portion of the Primary Zone of the Sacramento River Delta is currently within the 2002 city limits, although a portion of the Primary Zone is within the larger Planning Area for this General Plan (see the Introduction for a description of the Planning Area).

CAQ-6 Within the Primary Zone of the Legal Delta (as defined by the State of California in the State Water Code, Section 12220), the City's land use and other policies shall conform with the "Land Use and Resource Management Plan for the Primary Zone of the Delta" developed by the Delta Protection Commission.

CAQ-6-Action 1 Coordinate with the Delta Protection Commission by providing updates on the status of any requests by the City to include any lands in the

Primary Zone in the City's sphere of influence or incorporated boundaries.

CAQ-6-Action 2 Prior to the annexation of any land in the Primary Zone of the Legal Delta, ensure that this General Plan is consistent with the Delta Protection Commission's Act and Plan as it affects the area within the Primary Zone.

CONSERVATION POLICIES: CONSERVATION OF NATIVE AND NON-NATIVE HABITATS, PLANTS, AND ANIMALS

CAQ-7 Encourage development clustering where clustering would facilitate on-site protection of woodlands, grasslands, wetlands, stream corridors, scenic areas, or other appropriate natural features as open space, provided that:

1. Urban infrastructure capacity is available for urban use.
2. On-site resource protection is appropriate and consistent with other General Plan Policies.
3. The architecture and scale of development is appropriate for the area.
4. Development rights for the open space area are permanently dedicated and appropriate long-term management is provided for by either a public agency, homeowners association, or other appropriate entity.

This policy shall not apply in the Rural Residential area east of State Route 99, where clustering of development is not permitted.

CAQ-8 Large trees (both native and non-native) are an important aesthetic (and, in some cases, biological) resource. Trees which function as an important part of the City's or a neighborhood's aesthetic character or as natural habitat should be retained to the extent possible during the development of new structures, roadways (public and private, including roadway widening), parks, drainage channels, and other uses and structures.

If trees cannot be preserved onsite, offsite mitigation or payment of an in-lieu fee may be required by the City. Where possible, trees planted for mitigation should be located in the same watershed as the trees, which were removed.

Trees that cannot be protected shall be replaced either on-site or off-site as required by the City.

CAQ-8-Action 1 When reviewing native or non-native trees for preservation, considering the following criteria:

- Aesthetic value
- Biological value
- Shade
- Water quality benefits
- Runoff reduction
- Air quality (pollutant reduction)
- Health of the tree(s)
- Suitability for preservation in place
- Safety hazards posed by the tree(s)

CAQ-8-Action 2 Develop a list of trees which shall be considered generally exempt from preservation. These may include trees, which pose a threat to public safety, to native trees, or to natural habitat.

CAQ-8-Action 3 Develop a list of trees which may be used when providing replacement trees for the loss of native and non-native trees.

CAQ-8-Action 4 Implement the City's Tree Preservation Ordinance.

CAQ-8-Action 5 Amend the City's Tree Preservation Ordinance to conform with the policies of this General Plan and to expand protection to non-native trees.

CAQ-8-Action 6 Develop a list of trees that should not be planted due to their invasive nature (that is, their ability to escape cultivation or to dominate natural areas) and provide this information to the public and the development community.

CAQ-8-Action 7 Retain the services of a qualified arborist(s) under contract to the City to provide information to decision-makers and staff on the suitability of trees for preservation.

CAQ-8-Action 8 Consider the use of revised standard roadway cross-sections which do not require the removal of trees in order to provide additional roadway capacity.

CAQ-8-Action 9 Provide funds for education, programs, and materials emphasizing the value and importance of trees. Support private foundations with local funds for their tree planting efforts. Encourage the harvesting of native seeds and plants prior to the clearing of project sites.

CAQ-9 Wetlands, vernal pools, marshland and riparian (streamside) areas are considered to be important resources. Impacts to these resources shall be avoided unless shown to be technically infeasible. The City shall seek to ensure that no net loss of wetland areas occurs, which may be accomplished by avoidance, re-vegetation and restoration onsite or creation of riparian habitat corridors.

CAQ-9-Action 1 As part of the development review process, ensure that all potentially affected wetland areas are identified, and provide mitigation to ensure that no net loss occurs. Mitigation should occur within the same watershed as the impact, where feasible.

CAQ-9-Action 2 Coordinate with the California Department of Fish and Game and the U.S. Fish and Wildlife Service in the review of development projects.

CAQ-10 Consider the adoption of habitat conservation plans for rare, threatened, or endangered species.

CAQ-10-Action 1 As appropriate, work with the County of Sacramento and other agencies on a Habitat Conservation Plan or other mechanism to implement this policy.

CAQ 11 The City shall seek to preserve areas, where feasible, where special-status plant and animal species and critical habitat areas are known to be present or potentially occurring based on City biological resource mapping and data provided in the General Plan EIR or other technical material that may be adversely affected by public or private development projects. Where preservation is not possible, appropriate mitigation shall be included in the public or private project. "Special-status" species are generally defined as species considered to be rare, threatened, endangered, or otherwise protected under local, state, and/or federal policies, regulations or laws.

CAQ-11 Action 1 The City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain special-status plant and animal species based on City biological resource mapping and data provided in the General Plan EIR or other technical material. The biological resources evaluation shall determine the presence/absence of these special-status plant and animal species on the site. The surveys associated with the evaluation shall be conducted during the appropriate seasons for proper identification of the species. Such evaluation will consider the potential for significant impact on special-status plant and animal species, and will identify feasible mitigation measures to mitigate such impacts to the satisfaction of the City and appropriate governmental agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Game and U.S. Army Corps of Engineers) where necessary (e.g., species listed under the State and/or Federal Endangered Species Act). Mitigation measures may include, but are not limited to, the following:

- For special-status plant species: On- or off-site preservation of existing populations from direct and indirect impacts, seed and soil collection or plant transplant that ensures that the plant population is maintained.
- For special-status animal species: avoidance of the species and its habitat as well as the potential provision of habitat buffers, avoidance of the species during nesting or breeding seasons, replacement or restoration of habitat on- or off-site, relocation of the species to another suitable habitat area, payment of mitigation credit fees.
- Participation in a habitat conservation plan.

CONSERVATION POLICIES: PROTECTION OF WATER QUALITY AND SUPPLY

CAQ-12 The City shall seek to ensure that the quality of groundwater and surface water is protected to the extent possible.

CAQ-12-Action 1 Continue to cooperate with the County, other cities, and the Regional Water Quality Control Board regarding compliance with the NPDES permit system, and support other water quality improvement projects in order to maintain compliance with the Basin Plan.

CAQ-12-Action 2 Implement the City's NPDES permit on all public and private development projects and activities.

CAQ-12-Action 3 Collect information on design, construction, and operation techniques which help prevent water pollution, and provide this information to the public and the development community.

CAQ-13 Implement the City's NPDES permit through the review and approval of development projects and other activities regulated by the permit.

CAQ-14 The city shall seek to minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and use on-site infiltration of runoff in areas with appropriate soils where the infiltration of storm water would not pose a potential threat to groundwater quality.

CAQ-15 The City shall encourage water supply service providers and County Sanitation District 1 to design water supply and recycled water supply facilities in a manner that avoids and/or minimizes significant environmental effects. The City shall specifically encourage the Sacramento County Water Agency to design well facilities and operation to minimize surface flow effects to the Cosumnes River.

CAQ-16 Future land uses that are anticipated to utilize hazardous materials or waste shall be required to provide adequate containment facilities to ensure that surface water and groundwater resources are protected from accidental releases. This shall include double-containment, levees to contain spills, and monitoring wells for underground storage tanks, as required by local, state and federal standards.

CONSERVATION POLICIES: FLOODING AND DRAINAGE

CAQ-17 The City recognizes the value of naturally vegetated stream corridors, commensurate with flood control and public acceptance, to assist in removal of pollutants, provide native and endangered species habitat and provide community amenities.

CAQ-18 Post-development peak storm water run-off discharge rates and velocities shall be designed to prevent or reduce down-stream erosion, and to protect stream habitat.

CAQ-19 Encourage the retention of natural stream corridors, and the creation of natural stream channels where improvements to drainage capacity are required.

CAQ-19-Action 1 Re-vegetation using native plant species shall be encouraged; use of non-native species shall be discouraged. Use of invasive species shall be prohibited.

CAQ-19-Action 2 The City shall permit stream channel realignment only:

- When necessary to eliminate flood hazards, after alternatives to provide flood capacity while protecting the natural alignment have been shown to be infeasible; or
- To protect and preserve natural features and vegetation which would otherwise be removed; or
- If the existing channel has been significantly disrupted by agricultural improvements or other man-made changes.

CAQ-19-Action 3 The City shall require, to the maximum extent practical, retention of topographic diversity and variation when channels are realigned or modified, including:

- "Self-sustaining" meander characteristics,
- Berms,
- Naturalized side slope, and
- Varied channel bottom elevation,

consistent with the characteristics of the watershed, public safety, and other site-specific considerations.

CAQ-19-Action 4 Where existing streams support riparian vegetation, evaluate options for constructing secondary flood control channels or other facilities for flood control and water quality purposes.

CAQ-19-Action 5 Channel lowering of existing natural streams shall occur only after consideration of alternatives (including surface drainage systems which do not require channel lowering) and only when it is necessary to accommodate the gravity drainage of storm runoff and/or accommodate floodflows under existing bridge structures.

CAQ-19-Action 6 All storm drainage improvements on natural streams shall be designed where feasible to maintain water flows necessary to protect and enhance existing fish habitat, native riparian vegetation, water quality, and/or ground water recharge.

CAQ-19-Action 7 Improvements in water-courses shall be designed for low maintenance, and to accommodate peak flows with vegetation (including mitigation plantings) in the channel. Channel modifications shall retain marsh and riparian vegetation whenever possible.

CO-19-Action 8 Development design shall maximize the total floodplain frontage that is open to public view. Development adjacent to stream corridors shall be encouraged to provide a public street paralleling at least one side of the corridor with vertical curbs, gutters, foot path, street lighting, and post and cable barriers to prevent vehicular entry.

CAQ-19-Action 9 Trails along stream corridors shall be located to minimize wildlife impacts and shall be restricted to non-motorized traffic.

CAQ-19-Action 10 Except where approved by the City as part of the development of a public or private development project, no grading, clearing, tree cutting, debris disposal or any other similar action shall be allowed

in stream corridors except for normal channel maintenance.

CAQ-20 Fill may not be placed in any 100-year floodplain as delineated by currently effective FEMA Flood Insurance Rate Maps or subsequent comprehensive drainage plans unless specifically approved by the City.

No fill shall be permitted in wetland areas unless approved by the City and appropriate state and federal agencies.

CAQ-21 Development adjacent to a natural stream(s) shall provide a "stream buffer zone" along the stream.

"Natural streams" shall be generally considered to consist of the following, subject to site-specific review by the City:

- Deer Creek
- Elk Grove Creek
- Laguna Creek and its tributaries
- Morrison Creek
- Strawberry Creek
- White House Creek

The following are examples of desired features for this transition zone; the specific design for each transition zone shall be approved on a case-by-case basis by the City.

Stream buffer zones should generally measure at least 50 (fifty) feet from the stream centerline (total width of 100) feet or more, depending on the characteristics of the stream, and shall include:

1. Sufficient width for a mowed fire-break (where necessary), access for channel maintenance and flood control, and for planned passive recreation uses.
2. Sufficient width to provide for:
   a. Quality and quantity of existing and created habitat,
   b. Presence of species as well as species sensitivity to human disturbance,
   c. Areas for regeneration of vegetation,
   d. Vegetative filtration for water quality,
   e. Corridor for wildlife habitat linkage,
   f. Protection from runoff and other impacts of urban uses adjacent to the corridor
   g. Trails and greenbelts.
3. The stream buffer zone should not include above ground water quality treatment structures designed to meet pollutant discharge requirements.

CAQ-22 Stream crossings shall be minimized and be aesthetically compatible with the natural appearance of the stream channel. The use of bridges and other stream crossings with natural (unpaved) bottoms shall be encouraged to minimize impacts to natural habitat.

CAQ-23 Uses in the stream corridors shall be limited to recreation and agricultural uses compatible with resource protection and flood control measures. Roads, parking, and associated fill slopes shall be located outside of the stream corridor, except at stream crossings.

CAQ-24 Open space lands within a stream corridor shall be required to be retained as open space as a condition of development approval for projects that include a stream corridor. Unencumbered maintenance access to the stream shall be provided.

CONSERVATION POLICIES: CONSERVATION OF OTHER NATURAL RESOURCES/RECYCLING AND RE-USE OF MATERIALS

CAQ-25 The City shall encourage:

- Recycling,
- Reduction in the amount of waste, and
- Re-use of materials to reduce the amount of solid waste generated in Elk Grove.

CAQ-25-Action 1 The City shall comply with the requirements of AB939 with regard to meeting state-mandated targets for reductions in the amount of solid waste generated in Elk Grove.

CAQ-25-Action 2 The City shall provide information to businesses and residents on available options to implement the City's waste reduction targets.

CAQ-25-Action 3 Encourage the use of recycled concrete in all base material utilized in City and private road construction.

CAQ-25-Action 4 Include a requirement for the use of recycled base material in all requests for bids for City roadway construction projects.

CAQ-25-Action 5 Establish procurement policies and procedures, which facilitate purchase of recycled, recyclable or reusable products and materials where feasible.

CAQ-25-Action 6 Outside contractors bidding to provide products or services to the City, including printing services, shall be required to demonstrate that they will comply with City recycled materials policies.

CAQ-25-Action 7 The City shall actively promote a comprehensive, consistent and effective recycled materials procurement effort among other governmental agencies and local businesses.

CONSERVATION POLICIES: AIR QUALITY

CAQ-26 It is the policy of the City of Elk Grove to minimize air pollutant emissions from all City facilities and operations to the extent feasible and consistent with the City's need to provide a high level of public service.

CAQ-26-Action 1 The City shall encourage all its employees to use transportation alternatives such as public transit, bicycling, walking, and carpooling for commute and other work-related trips. The City shall provide information on these and other applicable programs to all employees.

CAQ-26-Action 2 All City facilities shall incorporate energy-conserving design and construction techniques.

CAQ-26-Action 3 The City shall encourage City contractors and vendors to reduce emissions from their operations (such as by using low emission vehicles), and shall consider including a preference for low emission contractors and vendors in City requests for proposals where appropriate.

CAQ-27 The City shall promote energy conservation measures in new development to reduce on-site emissions and power plant emissions. The City shall seek to reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.

CAQ-27-Action 1 Provide information to the public and builders on available energy conservation techniques and products.

CAQ-27-Action 2 Encourage the use of trees planted in locations that will maximize energy conservation and air quality benefits. Encourage the use of landscaping materials which produce lower levels of hydrocarbon emissions.

CAQ-27-Action 3 During project review, City staff shall consider energy conservation and, where appropriate, suggest additional energy conservation techniques.

CAQ-27-Action 4 During project review, ensure that "Best Available Control Technology" is properly used and implemented.

CAQ-27-Action 5 Encourage new commercial uses to limit delivery hours to non-peak hours.

CAQ-28 The City shall emphasize "demand management" strategies which seek to reduce single-occupant vehicle use in order to achieve state and federal air quality plan objectives.

CAQ-28-Action 1 Implement the requirements for designated carpool and vanpool parking for all new office developments.

CAQ-28-Action 2 All City facilities shall include designated carpool and vanpool spaces, and all City staff shall be encouraged to take part in ridesharing.

CAQ-29 The City shall seek to ensure that public transit is a viable and attractive alternative to the use of private motor vehicles.

CAQ-29-Action 1 Consider implementation of a development impact fee to provide funding for the development of new public transit facilities in Elk Grove.

CAQ-29-Action 2 The City shall review all options for providing public transit to the residents and businesses of Elk Grove and seek to implement the option which provides the most effective and cost-efficient service.

CAQ-30 All new development projects which have the potential to result in substantial air quality impacts shall incorporate design, construction, and/or operational features to result in a reduction in emissions equal to 15 percent compared to an "unmitigated baseline" project. An "unmitigated baseline project" is a development project which is built and/or operated without the implementation of trip-reduction, energy conservation, or similar features, including any such features which may be required by the Zoning Code or other applicable codes.

CAQ-30-Action 1 The City shall develop and implement "Emission Reduction Measures" to achieve the reduction required by this policy. These Emission Reduction Measures should consider the following:

- Cost-effectiveness
- A maximum cost for measures, and consideration of a waiver from full compliance if this maximum cost would be exceeded.
- Credits for emission reductions already in place (e.g., for buildings in the latter phases of a multi-phased project which included emission reduction measures in its design) or which are required to mitigate other impacts.

CAQ-31 The City shall support intergovernmental efforts directed at stringent tailpipe emission standards and inspection and maintenance programs for all feasible vehicle classes and revisions to the Air Quality Attainment Plan to accelerate and strengthen market-based strategies consistent with the General Plan.

CAQ-31-Action 1 The City shall ensure that all City vehicles conform with applicable emission standards and the time of purchase and continuing throughout their use by the City. The City shall consider pollutant emissions as one criterion for vehicle purchasing decisions, seeking to purchase lower-emitting vehicles.

CAQ-31-Action 2 The City shall participate in intergovernmental groups seeking to improve local and regional air quality.

CAQ-31-Action 3 In conjunction with Sacramento Metropolitan Air Quality Management District, support and participate in a public education and outreach program dealing with air quality issues, with a goal of attaining a solid foundation of public support for needed air quality measures.

CAQ-31-Action 4 The City shall consider

the adoption of an ordinance to discourage excessive idling of diesel-powered and other heavy vehicles to reduce air pollutant emissions.

CAQ-32 As part of the environmental review of projects, the City shall identify the air quality impacts of development proposals to avoid significant adverse impacts and require appropriate mitigation measures, potentially including—in the case of projects which may conflict with applicable air quality plans—emission reductions in addition to those required by Policy CAQ-30.

CAQ-32-Action 1 Coordinate with the Sacramento Metropolitan Air Quality Management District on the review of proposed development projects, specifically including projects that could conflict with any applicable air quality plans and/or the State Implementation Plan.

CAQ-33 The City shall require that public and private development projects use low emission vehicles and equipment as part of project construction and operation, unless determined to be infeasible.

This page intentionally left blank.

Parks, Trails, and Open Space Element

Parks, Recreation, and Open Space are important components of the quality of life desired by the residents of Elk Grove. This Element of the General Plan addresses the City's goals, policies, and actions to ensure that the City's desires and/or needs for parks, recreation, and open space are recognized and addressed as the development of the city continues.

PUBLIC PARKS AND RECREATION



One of the city's many ballfields

Elk Grove is home to numerous public parks, some of which are owned and operated by the Elk Grove Community Services District (CSD), an independent agency which operates in Elk Grove and surrounding areas (*see the Background Report for additional information on the Elk Grove CSD*). The Elk Grove CSD has an adopted Master Plan of Parks, which identifies standards for public parks, desired locations for new facilities, and standards for the development of new parks.

This General Plan envisions that the City will take a more active role in defining the locations, sizes, and facilities provided at public parks, as well as in expanding the number of trails in Elk Grove. At the same time, the City will continue to work with the Elk Grove CSD.

TRAILS AND OPEN SPACE



Multi-use trails provide opportunities for cycling, pedestrian, and equestrian uses

An important component of the community's vision for the future of Elk Grove is the retention of significant amounts of open space in the Planning Area (*please see the Introduction to this General Plan for a description of the Planning Area*), and the creation of a trails system to link the developed portions of Elk Grove with these areas. Although the area within the current city limits is envisioned to be for the most part developed with urban uses (*please see the Land Use Element for a map and discussion of proposed land uses*), the City recognizes that there are many important open space resources in the Planning Area, including the Cosumnes River, the Delta, and agricultural areas.



Open spaces are an important part of the City's vision for the future

This General Plan therefore provides policies and programs to ensure that trails and open space are addressed as development proceeds within the city, and to ensure that the City's vision for trails and open space as well as other habitat and conservation needs in the Planning Area is considered by the County of Sacramento, the Local Agency Formation Commission, and other agencies in the area outside the city limits.



Major power line corridors are proposed to serve as part of a community-wide open space network.

The Parks, Recreation, and Open Space Element implements the following Goals of the City of Elk Grove:

Guiding Goal 1: A High Quality of Life for All Residents

Focused Goal 1-2: Outdoor recreation opportunities for all residents

Focused Goal 1-7: Active and passive park facilities and recreation programs that satisfy the leisure time and recreation needs of all residents

Focused Goal 1-8: Creation and maintenance of a strong, positive community image for Elk Grove

Guiding Goal 2: Diversified Economic Base

Focused Goal 2-3: Creation of Elk Grove as a desired place to locate major employment-generating uses

Guiding Goal 3: Protection of the Natural Environment

Focused Goal 3-2: Open space lands in proximity to Elk Grove which provide for agricultural use and habitat for native species

Focused Goal 3-3: Natural resources managed and protected for the use and enjoyment of current and future generations

Focused Goal 3-4: Preservation and enhancement of Elk Grove's natural areas, in particular the areas within the floodplain of the Cosumnes River

Guiding Goal 4: Preservation and Enhancement of Elk Grove's Unique Historic and Natural Features

Focused Goal 4-2: Preservation of the large oak and other tree species which are an important part of the City's historic and aesthetic character

Guiding Goal 5: Preservation of the Rural Character of Elk Grove

Focused Goal 5-2: Maintenance of those features that provide the character of Elk Grove's rural areas, including: large oak and other trees, small local roadways, animal keeping and raising, equestrians, agriculture, and limited commercial opportunities

PARKS, TRAILS, AND OPEN SPACE POLICIES: PARKS AND TRAILS

PTO-1 The City of Elk Grove supports the development, maintenance, and enhancement of parks and trails serving a variety of needs at the neighborhood, area, and citywide level. The City may seek to accomplish the provision of parks and trails in cooperation with the Elk Grove Community Services District.

PTO-1-Action 1 As part of the review of development projects, ensure that public parks and trails are provided which meet the City's criteria and which implement the City's Parks and Trails Master Plan.

PTO-2 The City specifically supports the provision of parkland at a rate which exceeds the levels historically (prior to adoption of this General Plan) provided in Elk Grove. Parks shall be provided which meet community needs and desires.

PTO-2-Action 1 The City shall conduct a "nexus study" to determine the demand for parkland in the city and the reasonable relationship between the demand and the type of development project to support the imposition of parkland dedication and/or fees.

PTO-2-Action 2 To the extent consistent with applicable state law, the City shall develop criteria defining the types of parks and trails to be developed, including criteria defining desired:

- Park types and sizes

- Park facilities by type
- Locational criteria
- Spacing
- Trails and related facilities by type and function

PTO-2-Action 3 The City shall adopt a comprehensive Parks and Trails Master Plan which provides information on parks criteria, planned parks, and off-street recreational, walking, equestrian, and multi-use trails. Prior to the adoption of the parks standards and the Parks and Trails Master Plan, the City shall require the provision of parks as part of development projects to implement the City's parkland standards. The size, location, and facilities provided in these parks may be determined on a case-by-case basis.

PTO-3 Funding for maintenance of parks and/or trails shall be assured to the City's satisfaction prior to the approval of any Final Subdivision Map which contains or contributes to the need for a public parks and facilities.

PTO-3-Action 1 The City shall pursue the implementation of funding mechanisms to provide for the long-term maintenance of parks and/or trails in those instances where funding is not available from other sources. Such mechanisms may include local or regional assessment districts, homeowners associations, or other methods as determined appropriate by the City.

PTO-4 New residential developments may be required to, at a minimum, provide parks consistent with the Quimby Act (CA Govt. Code Section 66477), through land dedication, fees in lieu, or on-site improvements at a standard of five (5) acres of land for parks per 1,000 residents. Land dedication and/or payment of in-lieu fees shall be required consistent with state law. Land dedication and/or fees may be required pursuant to other policies in this Element with or without the use of the authority provided in the Quimby Act, or in combination with the Quimby Act and other legal authority.

PTO-4-Action 1 The City shall adopt standards designating which types of lands shall be considered "parks" for the purpose of implementing Quimby Act requirements.

PTO-5 The City encourages the Elk Grove Community Services District to develop self-supporting recreation programs for those activities that go beyond providing for basic recreation needs. Examples include outdoor and indoor sports complexes, aquatic centers, and community centers. The City may also develop and operate such programs independently.

PTO-6 The City encourages park development adjacent to school sites and the formation of joint use agreements between school and park districts.

PTO-6-Action 1 During the review of proposed development projects, comment to the Elk Grove Community Services District and the Elk Grove Unified School District to encourage location of schools adjacent to parks.

Please see the Public Facilities/Finance Element for additional policies related to the locations of public schools.

PTO-7 The trails system in Elk Grove should provide for connectivity, so that all trails are linked to the extent possible for greater use as recreational and travel routes. The following features should be included in the trails system in Elk Grove:

- Trails should link residential areas with parks, commercial and office areas, and other destinations.
- Trails along major roadways should avoid meanders or other design features which make bicycle use less convenient or safe.
- Trails should be located off-street to the extent possible.

- Easements such as access roads should be placed in joint use as trails.

PTO-8 The City's desired trails system is shown in Figure PTO-2. Flexibility shall be considered when making decisions on specific trail locations within projects, so long as the trails shown in figure PTO-2 are implemented and other policies (such as connectivity) are incorporated in the trails system.

PTO-8-Action 1 As part of the review of development projects, ensure that trails are provided which meet the City's criteria and which implement the City's desired trails plan.

PTO-9 Funding for maintenance of City trails shall be assured prior to the approval of any project which contains a City-owned trail.

PTO-10 Trailheads should be provided at appropriate locations to provide safe starting points on the trails system for equestrians, cyclists, and pedestrians.

PTO-10-Action 1 Develop standards for and locations of potential trailhead locations, including sufficient space for the off-street parking of equestrian trailers and vehicles.

PTO-10-Action 2 To the extent possible, coordinate with the Elk Grove CSD in the review of projects containing trails.

PTO-11 Trails which parallel streams should be primarily located beyond the riparian corridor and wetlands to minimize wildlife impacts and shall be restricted to non-motorized traffic.

PTO-12 Trails should be designed with the safety of users and adjacent property owners in mind. To the extent possible, the bicycle trails system should provide safe, off-street options suitable for use by children and less-experienced riders.

PTO-12-Action 1 Involve the Elk Grove Police Department in the review of proposed trail locations and designs.

PTO-13 Recreational trails should not be placed adjacent to or on farmland if feasible alternative routes exist elsewhere in the vicinity. However, if no other feasible routes exist, trail facilities should be designed in cooperation with adjacent property owners to minimize adverse impacts on farming practices.

PTO-14 The City supports the use of volunteers and community groups to provide maintenance and safety patrols on trails.

PARKS, TRAILS, AND OPEN SPACE POLICIES: OPEN SPACE

PTO-15 The City views open space lands of all types as important resource which should be preserved in the region, and supports the establishment of multi-purpose open space areas to address a variety of needs, including, but not limited to:

- Maintenance of agricultural uses;
- Wildlife habitat
- Recreational open space
- Aesthetic benefits
- Flood control

To the extent possible, lands protected in accordance with this policy should be in proximity to Elk Grove, to facilitate use of these areas by Elk Grove residents, assist in mitigation of habitat loss within the city, and provide an open space resource close to the urbanized areas of Elk Grove.

PTO-15-Action 1 Consider the establishment of a citywide fee and/or assessment system which would provide funding for the purchase of open space land or easements and the maintenance of these areas.

PTO-15-Action 2 Work with the County of Sacramento and other resource

agencies to develop a regional open space plan which provides for multiple uses of open space (e.g., agriculture and wildlife foraging)

PTO-15-Action 3 Consider using funds collected under existing (2003) fee programs (e.g., Swainson's Hawk mitigation and East Franklin Specific Plan agricultural mitigation) to fund this expanded open space program.

PTO-16 Stream corridors, floodways, electrical transmission corridors, and similar features shall be considered for inclusion in the citywide trails and open space system.

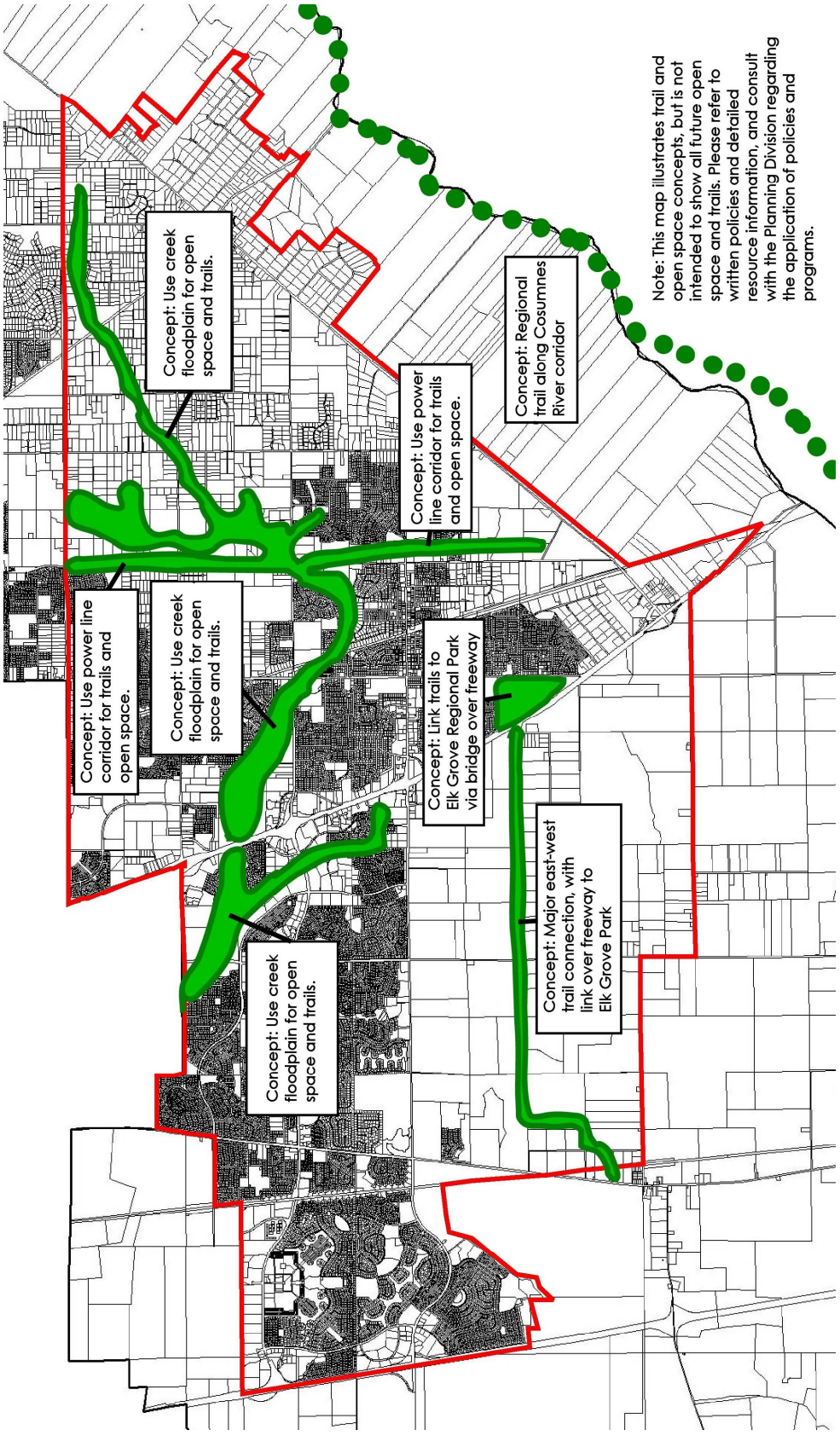
PTO-16-Action 1 Involve the Elk Grove CSD in the identification of appropriate open space and trails corridors which could be identified in this General Plan and the Elk Grove CSD's Master Plan.

PTO-17 The City encourages the creation of a regional trail/open space system which links the Cosumnes River with the Sacramento River and provides for trail connections between Elk Grove and these open space areas. The City's vision for regional open space and trails is shown in Figure PTO-1 and in the "Planning Area Land Use Concept" in the Land Use Element of this General Plan.

PTO-17-Action 1 Within the Cosumnes River floodplain, the City will encourage the dedication or acquisition of easement or fee title for trails as part of an overall trail system linking the Cosumnes and Sacramento rivers. *Note: This policy affects lands within the planning area but outside of the 2002 city limits only.*

PTO-18 To the extent possible, retain natural drainage courses in all cases where preservation of natural drainage is physically feasible and consistent with the need to provide flood protection.

Figure PTO-1: Open Space Policy Map



This page intentionally left blank.

Public Facilities and Finance Element

This Element of the General Plan addresses the following public facilities issues:

- **Water Service**, including both potable (drinkable) and non-potable water delivery.
- **Sewer Service**, and
- **Financing and construction** of public facilities

This Element also addresses the following public services:

- **Public Libraries** and
- **Public Schools**

*Note: The City's policies related to **solid waste**, another public facility, are contained in the Conservation and Air Quality Element. Policies related to **police and fire protection** are in the Safety Element. Policies related to **parks** are located in the Parks, Trails, and Open Space Element.*

WATER SERVICE

Domestic water service in Elk Grove is provided by two public water service providers—the Sacramento County Water Agency and the Elk Grove Water Service—and, in the eastern portion of the city, by private wells tapping the underground aquifer.



Drinking water in Elk Grove comes from both surface water (such as rivers) and wells.

Water supply is important both from the standpoint of health and convenience, but also the need for water to help suppress fires and support the efforts of the Elk Grove Community Services District's fire personnel.

For detailed information on water service in Elk Grove, please see the Background Report.

SEWER SERVICE

Sewer service in the Planning Area is provided by County Sanitation District 1 (CSD-1), which maintains an extensive system of sewer lines and treatment facilities.

For detailed information on CSD-1, please see the Background Report, which accompanies this General Plan.

FINANCE OF PUBLIC FACILITIES

Because they involve projects that will ultimately be owned and/or operated by public agencies, and because they involve substantial costs, public facilities projects (roads, water lines, etc.) are often financed either totally or in part with public funds.



So-called "zipper streets" that combine narrow and wide sections are the result of deferred roadway construction policies in place prior to the incorporation of Elk Grove

Although many variations of public funding are available, most types involve the collection of money from either new development or existing development, or both. Funds can be collected in the form of:

- Property assessments
- Connection or "hookup" fees (such as for connection to a public water system)
- Impact fees

The funds collected are then used to fund the construction of facilities in one of several basic ways:

- Construction is funded directly when sufficient money is available (commonly known as "pay-as-you-go" financing)
- The public agency uses its ability to borrow funds (often through the issuance of bonds) to provide "up-front" financing, repaying the loans through fees or assessments charged on future development.

In Elk Grove, much of the infrastructure development which occurred prior to the incorporation of the City used a "pay-as-you-go" approach (although bond financing was used for some facilities). The policies of the County of Sacramento also allowed the incremental construction of roadways—for instance, a planned 6-lane roadway would first be built with 2 or 4 lanes, with the final lanes added at a later date.

Based on a review of past practices, the County also apparently attempted to avoid building facilities (primarily roadways) on land that was not being developed at the time.

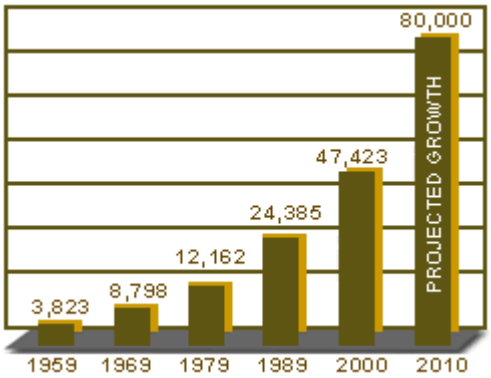
The most visible result of these policies in Elk Grove is the so-called "zipper street," which goes from a fully improved section to a narrow, two-lane section and then back again to a four-lane roadway (as shown in the photo on the previous page). Other, less visible examples of infrastructure built in increments have included sewer, drainage, and water systems.

This Element expresses the City's policy to construct infrastructure facilities through the use of "up front" financing so that roadways, drainage facilities, etc., can be completed with the initial phase of construction, avoiding the use of interim facilities and the creation of traffic congestion and other problems resulting from insufficient capacity.

PUBLIC SCHOOLS

Public schools in Elk Grove and the Planning Area are provided by the Elk Grove Unified School District (EGUSD), an independent agency which provides elementary, middle school, and high schools, as well as special education facilities and services.

The Elk Grove Unified School District is known for the high quality of its schools, which consistently perform well in standardized tests. Growth in the District's service area in recent years has resulted in the need to add substantial new capacity, both at new schools and at existing schools. Projected student enrollment in EGUSD schools as of 2002 is shown below:



Source: EGUSD web site, 11/2002

Under state law, the Elk Grove Unified School District can in most cases act independently of the City in the location, construction, and operation of public schools. In practice, the City and the EGUSD have enjoyed a cooperative working relationship; however, this General Plan recognizes that the District is not bound by the City's policies or regulations, and that the City is limited by state law in its ability to coordinate development of new homes and other uses with the availability of public schools.

This Element of the General Plan, therefore, stresses cooperation with the District to the extent permitted by law, and expresses the City's desires with regard to public schools.

Additional information on the Elk Grove Unified School District is included in the General Plan Background Report.

The following Goals of the City of Elk Grove are implemented in this Public Facilities and Finance Element:

Guiding Goal 1: A High Quality of Life for All Residents
Focused Goal 1-4: High quality public facilities and services
Focused Goal 1-5: Excellence in the design of new development
Focused Goal 1-8: Creation and maintenance of a strong, positive community image for Elk Grove
Guiding Goal 2: Diversified Economic Base
Goal 2-4: Creation of Elk Grove as a desirable place to establish a business, particularly major employment-generating uses
Guiding Goal 5: Preservation of the Rural Character of Elk Grove
Focused Goal 5-1: Retention of those areas identified for 2-acre and larger lots on the Land Use Map as a rural area through land use and infrastructure controls

PUBLIC FACILITIES AND FINANCE POLICIES: GENERAL POLICIES

PF-1 Except when prohibited by state law, the City shall require that sufficient capacity in all public services and facilities will be available on time to maintain desired service levels and avoid capacity shortages, traffic congestion, or other negative effects on safety and quality of life.

PF-1-Action 1 Consider participating in efforts to develop regional water solutions, such as the Water Forum.

PF-2 The City shall coordinate with outside service agencies—including water and sewer providers, the Elk Grove Community Services District, and the Elk Grove Unified School District--during the review of plans and development projects.

PUBLIC FACILITIES AND FINANCE POLICIES: WATER SERVICE

PF-3 Water supply and delivery systems shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.

PF-3-Action 1 The following shall be required for all development projects, excluding subdivisions:

- An assured water supply and delivery system shall be available at the time of project approval. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.
- All required water infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction. Water infrastructure may be phased to coincide with the phased development of large-scale projects.

PF-3-Action 2 The following shall be required for all subdivisions to the extent permitted by state law:

- Proposed water supply and delivery systems shall be identified at the time of tentative map approval to the satisfaction of the City. The water agency providing service to the project may provide several alternative methods of supply and/or delivery, provided that each is capable individually of providing water to the project.
- The agency providing water service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects in the same service area, and other projects

that have received commitments for water service.
- Offsite and onsite water infrastructure sufficient to provide adequate water to the subdivision shall be in place prior to the approval of the Final Map or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
- Offsite and onsite water distribution systems required to serve the subdivision shall be in place and contain water at sufficient quantity and pressure prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.

PF-4 The City shall require new utility infrastructure for electrical, natural gas and other infrastructure services avoid sensitive resources, be located so as to not be visually obtrusive, and, if possible, be located within roadway rights-of-ways or existing utility easements.

PF-5 The City supports the use of reclaimed water for irrigation wherever feasible.

PF-6 The City shall seek to protect the quality and quantity of groundwater resources, including those which serve households and businesses which rely on private wells.

PF-7 The City shall require that water flow and pressure be provided at sufficient levels to meet domestic, commercial, industrial, and firefighting needs.

PUBLIC FACILITIES AND FINANCE POLICIES: SEWER SERVICE

PF-8 Sewage conveyance and treatment capacity shall be available in time to meet the demand created by new development, or shall be assured through the use of bonds or other sureties to the City's satisfaction.

PF-8-Action 1 The following shall be required for all development projects, excluding subdivisions:

- Sewer/wastewater treatment capacity shall be available at the time of project approval.
- All required sewer/wastewater infrastructure for the project shall be in place at the time of project approval, or shall be assured through the use of bonds or other sureties to the City's satisfaction.

PF-8-Action 2 The following shall be required for all subdivisions to the extent permitted by state law:

- Sewage/wastewater treatment capacity shall be available at the time of tentative map approval.
- The agency providing sewer service to the subdivision shall demonstrate prior to the approval of the Final Map by the City that sufficient capacity shall be available to accommodate the subdivision plus existing development, and other approved projects using the same conveyance lines, and projects which have received sewage treatment capacity commitment.
- Onsite and offsite sewage conveyance systems required to serve the subdivision shall be in place prior to the approval of the Final Map, or their financing shall be assured to the satisfaction of the City, consistent with the requirements of the Subdivision Map Act.
- Sewage conveyance systems within the subdivision shall be in place and connected to the sewage disposal system prior to the issuance of any building permits. Model homes may be exempted from this policy as determined appropriate by the City, and subject to approval by the City.

PF-9 Development along corridors identified by sewer providers in their Master Plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.

PF-10 The City shall strongly discourage the extension of sewer service into any area designated for Rural Residential land uses. Sewers shall not be used to accommodate lot sizes smaller than 2 (two) gross acres in the Rural Residential area, and lot sizes shall be large enough to accommodate septic systems. This policy shall not be construed to limit the ability of any sewer agency to construct "interceptor" lines through or adjacent to the Rural Residential area, provided that no "trunk" or service lines are provided within the Rural Residential area.

PF-11 The installation of "dry sewers" shall not be required as a condition of approval of development in the Rural Residential land use category.

PF-12 To reduce the potential for health problems and groundwater contamination resulting from the use of septic systems, the City shall take the following actions:

PF-12-Action 1 The City shall prepare and implement a public information campaign aimed at homeowners in areas with septic systems on the proper design, use, and care of septic systems.

PF-12-Action 2 The City shall consider adopting Plumbing Code revisions to allow the use of updated technologies which offer an alternative to septic systems for the treatment of sewage on individual sites.

PF-13 Residential development on lots smaller than two (2) gross acres shall be required to connect to public sewer service. This policy shall not apply to lots smaller than 2 gross acres in the Rural Residential land use category which existed as legal lots as of the date of adoption of this General Plan; these lots shall not be required to connect to public sewer service as a condition of development.

PF-14 Independent community sewer systems may not be established for new development.

PUBLIC FACILITIES AND FINANCE POLICIES: PUBLIC LIBRARIES

PF-15 The City shall cooperate with the County of Sacramento in the planning and implementation of future library facilities and facility expansions in Elk Grove.

PUBLIC FACILITIES AND FINANCE POLICIES: PUBLIC SCHOOLS

PF-16 Specific plans shall identify all existing and planned school sites and should include guidelines and conceptual examples for incorporating new schools into overall neighborhood design.

PF-17 While recognizing that school siting and development are not within the jurisdiction of the City to control, the City strongly encourages the School District to consider the following criteria:

- Traffic impacts on nearby roadways are addressed and mitigated to meet City standards for level of service.
- Schools should serve as a focal point of neighborhood activity and be interrelated with churches, parks, greenways and off-street paths whenever possible.
- Almost all residences will be within walking distance of a school (one mile or less) and all residences are within two miles of a school whenever possible.
- New schools are adjacent to neighborhood and community parks whenever possible and designed to promote joint use of appropriate facilities.
- New schools should link with trails, bikeways, and pedestrian paths wherever possible.

PF-18 The City supports state legislative efforts to secure additional state funding for school construction and ensure maintenance of local district priorities for funds in the state school bond program.

PUBLIC FACILITIES AND FINANCE POLICIES: FINANCING AND PHASING OF PUBLIC FACILITIES

PF-19 Public facilities should be phased in a logical manner which avoids "leapfrog" development and encourages the orderly development of roadways, water and sewer, and other public facilities. The City shall not provide public financing or assistance for projects that do not comply with the planned phasing of public facilities. Interim facilities may be used only if specifically approved by the City Council.

PF-20 The City shall require secure financing for all components of the transportation system through the use of special taxes, assessment districts, developer dedications, or other appropriate mechanisms in order to provide for the completion of required major public facilities at their full planned widths or capacities in one phase. For the purposes of this policy, "major" facilities shall include the following:

- Any roadway of a collector size or above, including any roadway shown on the Circulation Plan in this General Plan.
- All wells, water transmission lines, treatment facilities, and storage tanks needed to serve the project.
- All sewer trunk and interceptor lines and treatment plants or treatment plant capacity.

The City shall use its financial capacity to facilitate implementation of this policy if necessary, including, but not limited to:

- Issuing bonds,
- Using City funds directly, with repayment from future development fees
- Fee programs
- Developer financing

PF-21 New development shall fund its fair share portion of its impacts to all public facilities and infrastructure as provided for in state law.

PF-22 Infrastructure financing plans which specify the extent, timing and estimated cost of all necessary infrastructure shall be required for the approval of urban uses in the Laguna Ridge and Southeast Policy Areas, as defined in this General Plan. The resulting financing mechanisms shall be implemented prior to the development of urban uses.

PF-23 The City will coordinate with independent public service providers, including schools, parks and recreation, reclamation, water, transit, electric and other service districts, in developing financial and service planning strategies.

PF-24 Fee programs and/or other finance mechanisms for roadway and related infrastructure shall include sufficient funding for all of the following items:

- Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.
- Right of way acquisition, design, engineering, environmental compliance, and construction costs sufficient to ensure that "zipper streets" are not created by non-participating owners. *(Please see the introduction to the Circulation Element for a discussion of the "zipper street" phenomenon.)*
- Drainage and other facilities related to new roadway construction.
- Installation of landscaped medians and streetscaping where appropriate.
- Installation of sidewalks or other facilities where needed to provide safe passage for pedestrians.

PF-25 Fee programs and/or other finance mechanisms for roadway and related infrastructure shall include sufficient funding for all of the following items:

- Design, engineering, environmental compliance, and construction of roadway lanes, traffic signals, and bridges.

- Right of way acquisition and design/engineering/environmental compliance/construction costs sufficient to ensure that "zipper streets" are not created by non-participating owners. *(Please see the introduction to the Circulation Element for a discussion of the "zipper street" phenomenon.)*
- Drainage and other facilities related to new roadway construction.
- Installation of landscaped medians and streetscaping where appropriate.

Fee programs and/or other finance mechanisms shall be reviewed regularly to ensure that sufficient funding will be available to construct all required facilities.

PF-26 To minimize damage to roadways and to reduce inconvenience to residents and businesses, the City shall seek to ensure that all utilities located in roadways are installed in a single operation. Multiple installations in which separate utilities are installed at different times and/or in different trenches, are specifically discouraged.

PF-26-Action 1 Work with utility providers to coordinate the installlation or upgrading of utilities and eliminate multiple trenching of city streets.

PUBLIC FACILITIES AND FINANCE POLICIES: OPEN SPACE ACQUISITION

Please see the Conservation Element and the Parks, Trails, and Open Space Element for policies related to the public financing of open space acquisition.

This page intentionally left blank.

ORDINANCE NO. 26-2004

AN URGENCY ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ELK GROVE AMENDING CHAPTER 15.12 OF THE ELK GROVE MUNICIPAL CODE RELATING TO STORM WATER DRAINAGE SERVICES

The City Council of the City of Elk Grove does ordain as follows:

SECTION 1. PURPOSE.

The purpose of this ordinance is to amend Chapter 15.12 of the City of Elk Grove Municipal Code in order to comply with federal stormwater regulations and NPDES Municipal Stormwater Permit No. CAS082597, and to provide the County of Sacramento, Environmental Management Division with the necessary authority to conduct inspections and enforcement activities pursuant to the Agreement between the City and the County dated March 17, 2004.

SECTION 2. FINDINGS.

1. One of the requirements of the Municipal Stormwater Permit (NPDES No. CAS0082597) to which the City is a co-permittee is to track, inspect, and ensure compliance with the Stormwater Ordinances at certain commercial and industrial facilities.

2. The Sacramento County Environmental Management Department ("EMD"), as both the state-designated Certified Unified Program Agency ("CUPA") and the environmental health agency for Sacramento County, is currently tracking and inspecting the majority of commercial and industrial facilities subject to the provisions of the Municipal Stormwater Permit.

3. On March 17, 2004, the City Council authorized the City Manager to enter into an Agreement with EMD for fulfilling the NPDES Permit inspection requirements with respect to certain commercial and industrial facilities.

4. Under the Agreement, the City is required to amend the Stormwater Ordinance as necessary to authorize the County EMD to implement the stormwater compliance program for commercial and industrial facilities. The City must make any necessary amendments to the Stormwater Ordinance to the extent necessary to authorize EMD to:
   a. Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated City area;

b. Take any necessary enforcement actions as authorized by the Municipal Code and consistent with a City-approved enforcement plan;

c. Investigate and follow-up referred complaints at eligible facilities;

d. Establish and collect fees necessary to recover program implementation costs.

5. The term of the Agreement is July 1, 2004 through June 30, 2010, unless sooner terminated, or extended by the City and County.

6. The purpose of this ordinance is to fulfill the requirements of the Agreement between the City and Sacramento County, authorized by the City Council on March 17, 2004, whereby the County shall assume responsibility for providing tracking, inspection, and enforcement of the City's Stormwater Ordinance with respect to commercial and industrial facilities within the incorporated City area as required by the Municipal Stormwater Permit.

7. Although the NPDES Permit and the Agreement between the City and County do not require inspections to commence on July 1, 2004, County EMD has threatened to forego inspections on certain industrial facilities within the City's jurisdiction, if those facilities had been scheduled to be inspected after July 1, 2004, and until such time as the City adopts these revisions to the Stormwater Ordinance. Although the County is required to conduct such inspections at least once prior to June 30, 2007, the County has steadfastly maintained that it will be unable to reschedule any such inspections missed, unless the City adopts this urgency ordinance.

8. On June 28, 2004, the Central Valley Regional Water Quality Control Board issued a Notice of Violation to the City of Elk Grove. In the Notice, the Regional Board alleged that the City had failed to effectively implement its stormwater management program, and ordered the City to take several steps to bring the program into compliance with the NPDES Permit. The Notice of Violation alleged that the City's Stormwater Ordinance does not provide the proper authority necessary under the NPDES Permit, and ordered the City to undertake a review of the Ordinance with respect to the NPDES Permit, and make any revisions necessary. Although the Regional Board has since acknowledged that the City's Stormwater Ordinance enforcement provisions are sufficient under the NPDES Permit, City staff has reviewed the Ordinance, and identified certain revisions to other portions of the Stormwater Ordinance which are necessary under the NPDES Permit. In particular, the necessary revisions include a requirement that covered individuals and entities maintain best management practices, and conduct various reporting activities.

9. The provisions of the Elk Grove Municipal Code relating to reduction of pollutants in stormwater and inspection and monitoring must be revised in order for the City to comply with the terms of the Municipal Stormwater Permit, with federal stormwater regulations, and to allow the County EMD to conduct inspections and enforcement activities against certain commercial and industrial facilities within the City's jurisdiction pursuant to the March 17, 2004 Agreement between the City and County.

SECTION 3. AMENDMENT. Chapter 15.12 "Stormwater Management and Discharge Control," of the Elk Grove Municipal Code, is amended to read as follows:

Chapter 15.12

STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Article 1 General Provisions
15.12.010 Findings.
15.12.020 Purpose and Intent.
15.12.030 Definitions.
15.12.035 Construction.
15.12.040 Applicability.
15.12.050 Regulatory Consistency.
15.12.060 Compliance Disclaimer.
15.12.070 Severability.
15.12.080 Administration.
15.12.090 Disclaimer of Liability.

Article 2 Prohibited Discharges
15.12.100 Prohibited Discharge.
15.12.110 Exceptions to Discharge Prohibition.
15.12.120 Exception to Otherwise Applicable Exemptions.
15.12.130 General Discharge Prohibition.
15.12.140 Threatened Prohibited Discharge.
15.12.150 Illicit Connections Prohibited.
15.12.160 Negligence or Intent Not Required.

Article 3 Reduction of Pollutants in Stormwater
15.12.200 General Requirements.
15.12.210 Containment and Notification of Spills.
15.12.220 Best Management Practices.
15.12.230 Administrative Rules and Regulations.
15.12.235 BMP Maintenance Requirements.

Article 4 Inspection, Monitoring and Reporting
15.12.300 Scope of Inspections.
15.12.330 Reporting Requirements

15.12.350 Fees.

Article 5 Enforcement
15.12.400 Notice of Non-Compliance.
15.12.410 Administrative Compliance Orders.
15.12.420 Cease and Desist Orders.
15.12.430 Delivery of Notice.
15.12.440 Administrative Appeals.
15.12.450 Nuisance and Abatement.
15.12.460 Civil Penalties.
15.12.470 Criminal Penalties.
15.12.480 Miscellaneous Enforcement Provisions.

Article 6 Recovery of Cost of Abatement
15.12.500 Costs of Abatement – Confirmation.
15.12.510 Costs – Assessments.
15.12.520 Treble Costs.
15.12.530 Hearing of Protests.
15.12.540 Assessment for Summary Abatement.
15.12.550 Time for Contest of Assessment.
15.12.560 Filing Copy of Report with County Auditor.

Article 7 Commercial and Industrial Facilities
15.12.600 Findings.
15.12.610 Purpose and Intent.
15.12.620 Delegation of Authority to County EMD
15.12.630 Expiration of this Article

Article 1
General Provisions

15.12.010 Findings.

a. The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System requirements to stormwater and urban runoff discharge into the City stormwater conveyance system.

b. Stormwater flows from individual properties to the City stormwater conveyance system and then ultimately to the waters of the United States.

c. The City is a co-permittee under the Waste Discharge Requirements for County of Sacramento, cities of Sacramento, Folsom, Citrus Heights, Elk Grove, Rancho Cordova, and Galt Area-Wide Storm Water Discharges From Municipal Separate Storm Sewer Systems, which also serves as a National Pollutant Discharge Elimination System Permit under the Federal Clean Water Act (NPDES No. CA0082597). As a co-permittee, the City is required to possess the necessary legal

authority, and to implement appropriate procedures, to regulate the entry of pollutants and non-stormwater discharges into the City stormwater conveyance system.

d. The Municipal Storm Water Permit requires the City effectively to prohibit non-stormwater discharges into the City stormwater conveyance system except as otherwise permitted by Federal law.

e. The City Council finds in this regard that the provisions of this Chapter are necessary to provide the City with the legal authority necessary to implement and otherwise comply with the requirements of its Municipal Storm Water Permit.

15.12.020 Purpose and Intent.

a. This Chapter is adopted pursuant to Article XI, Section 7 of the California Constitution which authorizes the City to exercise its police power to protect and promote the public health, safety and general welfare. While stormwater runoff is one step in the natural cycle of water, human activities, including, but not limited to, agriculture, construction, manufacturing and the operation of an urban infrastructure, may result in undesirable discharges of pollutants and certain sediments. Such discharges may accumulate in local drainage channels and waterways and eventually may be deposited in the waters of the United States. The purpose of this Chapter is to protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit #CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the City stormwater conveyance system.

b. It is the intent of the City Council in adopting this Chapter to provide the City with the legal authority to accomplish the following goals:

1. To reduce the discharge of pollutants in stormwater to the maximum extent practicable;

2. To effectively prohibit non-stormwater discharges into the City stormwater conveyance system;

3. To comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES Municipal Storm Water Discharge Permit #CA0082597 as they apply to the discharge of pollutants into and from the City stormwater conveyance system;

4. To fully implement the Comprehensive Stormwater Management Program as approved by the Regional Board;

5. To protect the physical integrity and function of the City stormwater conveyance system from the effects of pollutants and materials other than stormwater;

6. To prevent the contamination of groundwater as a result of pollution migration from the City stormwater conveyance system;

7. To promote cost effective management and beneficial use of sediments in the City stormwater conveyance system;

8. To protect the health and safety of maintenance personnel and the public who may be exposed to pollutants in the City stormwater conveyance system;

9. To provide for the recovery of regulatory costs incurred by the City in the implementation of its stormwater drainage program, including, but not limited to, enforcement activities, inspections, investigations, sampling and monitoring; and

10. To establish appropriate enforcement procedures and penalties for violations of the provisions of this Chapter.

15.12.030 Definitions.

Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the United States Environmental Protection Agency, as amended, and which are not specifically defined in this Chapter shall, when used in this Chapter, have the same meaning as set forth in said Act or regulation.

As used in this Chapter, the following words and phrases shall have the meanings set forth below unless the context clearly indicates otherwise.

a. "Administrator" means the Administrator of the City's Department of Public Works and his or her designees.

b. "Best Management Practices (BMP)" means schedules of activities, prohibition of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable the discharge of pollutants directly or indirectly to waters of the United States. BMPs shall also be defined to include structural controls, treatment controls, training requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage.

c. "City" means the City of Elk Grove.

d. "City Council" means the City Council of the City of Elk Grove.

e. "County" means the County of Sacramento.

f. "City Stormwater Conveyance System" means those public and natural facilities within the City which are owned, operated, maintained or controlled by the City by which stormwater may be conveyed to waters of the United States, including, but not

limited to, any roads with drainage systems, municipal streets, catch basins, water quality basins, detention basins, constructed wetlands, natural and artificial channels, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, sumps, pumping stations, and storm drains. The City stormwater conveyance system includes natural creeks and small streams which are also defined as receiving waters by the Municipal Storm Water Permit, but does not include the Sacramento River, American River, Cosumnes River, Mokelumne River, or navigable waterways of the Delta.

g "Discharge" mean the release or placement of any material into the City stormwater conveyance system, including, but not limited to, stormwater, wastewater, solid materials, liquids, hazardous waste, raw materials, debris, litter or any other substance.

h. "Illicit connection" means any physical connection to the City stormwater conveyance system which is not expressly authorized by the City.

i. "Implementing Agency" means the agency or department designated by the Administrator to enforce the provisions of this Chapter with respect to a particular site, facility or industry category.

j. "Industry or industrial activity" means any service, business, enterprise, or any other activity conducted by any person for the purpose of monetary or other compensation.

k. "Material" means any substance, including, but not limited to, raw materials, finished products, garbage and debris, lawn clippings, leaves and other vegetation, biological and fecal waste, sediment and sludge, oil and grease, gasoline, paints, solvents, cleaners and any fluid or solid containing chemicals.

l. "Municipal Storm Water Permit" means NPDES Permit # CA0082597, including any amendments thereto or successor permit, issued by the Regional Board to the County and the cities of Folsom, Galt, Sacramento, Citrus Heights, Elk Grove and Rancho Cordova.

m. "National Pollution Discharge Elimination System Permit or NPDES Permit" means a permit issued by either the Regional Board or the State Water Resources Control Board pursuant to Chapter 5.5 (commencing with Section 13370) of Division 7 of the Water Code to control discharges from point sources to waters of the United States.

n. "Non-stormwater discharge" means any discharge to the City stormwater conveyance system or directly to the Sacramento River, the Cosumnes River, the Mokelumne River, the navigable waters of the Delta, or the American River which is not composed exclusively of stormwater.

o. "Person" means any natural person as well as any corporation, partnership, public agency, trust, estate, cooperative association, joint venture, business

entity or other similar entity, or the agent, employee or representative of any of the above.

p. "Pollutant" means any contaminant or other substance which, as determined by the Administrator, is discharged or has a reasonable potential to be discharged in sufficient quantities or concentrations to cause exceedance of receiving water limitations defined in Section C. 1. of the Municipal Storm Water Permit, or any successor section, or otherwise cause a violation of the Municipal Storm Water Permit. Pollutant may include, but is not limited to, solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive material, dredged soil, rock, sand, industrial waste, feces, fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon, surfactants, oil and grease, petroleum hydrocarbon, organic solvents, metals, phenols, pesticides, nutrients, suspended or settlable solids, materials causing an increase in biochemical or chemical oxygen or total organic carbon, substances which alter pH, and those pollutants defined in Section 1362(6) of the Federal Clean Water Act.

q. "Potential user" means any person who by nature of the enterprise, activity or industry in which such person is engaged, or by the use, possession or ownership of specified types of equipment, is determined by the Administrator to generate or have the capacity to generate wastes or wastewater which have significant potential to be discharged to the City stormwater conveyance system.

r. "Premises" means any building, lot, parcel or land, or portion thereof, whether improved or unimproved.

s. "Prohibited discharge" means any non-stormwater discharge to the City stormwater conveyance system or directly to the Sacramento River, the Cosumnes River, the Mokelumne River, navigable waters of the Delta, or the American River, which is not otherwise specifically authorized by this Chapter, the Regional Board, State or Federal law, or an NPDES permit.

t. "Receiving water limitations" means those restrictions defined and listed in Section C.1. of the Municipal Storm Water Permit or any successor section.

u. "Receiving waters" means surface bodies of water, as defined by the Municipal Storm Water Permit, including, but not limited to, creeks and rivers, which serve as discharge points for the City stormwater conveyance system.

v. "Regional board" means the California Regional Water Quality Control Board, Central Valley Region.

w. State General Construction Activity Permit shall mean the State Water Resources Control Board's Water Quality Order No. 99-08-DWQ, National Pollution Discharge Elimination System (NPDES) General Permit No. CAS000002 Waste Discharge Requirements (WDRS) for Discharges of Storm Water Runoff Associated With Construction Activity, and any successor documents.

x. State General Industrial Activity Permit shall mean the State Water Resources Control Board's Water Quality Order No. 97-03-DWQ, National Pollution Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities, and any successor document.

y. "Stormwater" means surface runoff and drainage resulting from storm events and snow melt.

z. "Subject Activity" means any industrial activity which is determined by the Administrator to discharge or have the potential to discharge pollutants into stormwater or non-stormwater in quantities or concentrations which may cause exceedance of receiving water limitations, or for which a requirement has been imposed by the state or federal government on the City to conduct stormwater regulatory activities focused on the activity.

aa. "Threatened prohibited discharge" means any condition or activity which does not currently result in a prohibited discharge but is nevertheless determined by the Administrator to be a condition which results in a substantial likelihood of a future prohibited discharge.

bb. "User" means any person who discharges, or causes to discharge, either directly or indirectly, stormwater or any other material into the City stormwater conveyance system.

cc. "Waters of the United States" has the same meaning as set forth in Part 122.2 of Title 40 of the Code of Federal Regulations or any successor provision.

15.12.035 Construction.

The provisions of this Chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and any acts amendatory thereof or supplementary thereto, applicable implementing regulations, and NPDES Permit # CA 0082597 and any amendment, revision or reissuance thereof. In the event of a conflict between this Chapter and any Federal or State law, regulation, order or permit, the requirement which establishes the higher standard for public health and safety shall govern.

15.12.040 Applicability.

The provisions of this Chapter shall be applicable to all users and potential users located within the City and all users that discharge either directly or indirectly into the City stormwater conveyance system. This Chapter shall not be applicable to persons located outside the boundaries of the City if their stormwater or non-stormwater discharge enters a stormwater conveyance facility owned or operated by another public agency which is subject to a valid NPDES Permit for discharges from a municipal separate storm sewer system prior to entering the City stormwater conveyance system.

This Chapter shall not apply to facilities subject to and in compliance with the State General Construction Activity Stormwater Permit and/or the City of Elk Grove Erosion and Sediment Control Ordinance. Non-stormwater discharges at construction sites between one and five acres in size, and which the Administrator determines are in accordance with the non-stormwater discharge standards of the State General Permit for Construction Activity, are considered to be in compliance with this Chapter. This Chapter shall not apply to facilities operated by the State of California or by agencies of the Federal Government.

15.12.050 Regulatory Consistency.

The provisions of this Chapter shall take precedence over and are controlling with respect to any conflicting or inconsistent provisions in this Code.

15.12.060 Compliance Disclaimer.

Compliance by any person with the provisions of this Chapter shall not preclude the need to comply with other local, state or federal statutory or regulatory requirements relating to the control of pollutant discharges or protection of stormwater quality, or both.

15.12.070 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Chapter. The City Council hereby declares that it would have adopted this Chapter and each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof without regard to whether any other section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter would subsequently be declared to be invalid or unconstitutional.

15.12.080 Administration.

Except as otherwise provided herein, the Administrator shall be responsible for the administration, implementation and enforcement of the provisions of this Chapter. Any powers granted to or duties imposed upon the Administrator may be delegated by the Administrator to other City employees or, upon the approval of the City Council, to employees of other public agencies.

15.12.090 Disclaimer of Liability.

The degree of protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific, engineering and other relevant technical considerations. The standards set forth herein are minimum standards and this Chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the United States. This Chapter shall not create liability

on the part of the City or any officer or employee thereof for any damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

Article 2
Prohibited Discharges

15.12.100 Prohibited Discharge.

Except as provided in Section 15.12.110, it shall be unlawful for any person to make or cause to be made any non-stormwater discharge into the City stormwater conveyance system or directly to the Sacramento River, American River, Cosumnes River, Mokelumne River, or navigable waters of the Delta.

15.12.110 Exceptions to Discharge Prohibition.

The following discharges to the City stormwater conveyance system are exempt from the otherwise applicable discharge prohibition set forth in Section 15.12.100:

a. Any discharge regulated under a NPDES permit issued to the discharger, and administered by the State pursuant to Chapter 5.5 of Division 7 of the Water Code, provided that any such discharge is in compliance with all requirements of the NPDES permit and all other applicable laws and regulations.

b. Any discharge from any of the following activities provided that any such discharge does not cause or contribute to the violation of any Receiving Water Limitation as determined by the Administrator:

1. Water line flushing;

2. Landscape irrigation;

3. Diverted stream flows;

4. Rising ground waters;

5. Uncontaminated ground water infiltration [as defined in 40 CFR 35.2005(20)] to separate storm sewers;

6. Uncontaminated pumped ground water;

7. Discharges from potable water sources;

8. Foundation drains;

9. Air conditioning condensate;

10. Irrigation water;

11. Springs;

12. Water from crawl space pumps;

13. Footing drains;

14. Lawn watering;

15. Individual residential car washing;

16. Flows from riparian habitats and wetlands;

17. Dechlorinated swimming pool discharges; or

18. Discharges or flows from emergency fire fighting activities.

c. Any discharges which the Administrator or the Regional Board determines in writing are necessary for the protection of public health or safety.

d. Additional categories of non-stormwater discharges which do not cause or contribute to the violation of any Receiving Water Limitation may be accepted from the otherwise applicable prohibition by the Administrator upon approval of the Executive Officer of the Regional Board, as provided in Sections A.3. and D.4.a.1.d. of the Municipal Storm Water Permit, or any successor sections.

15.12.120 Exception to Otherwise Applicable Exemptions.

Notwithstanding the exemptions provided for in Section 15.12.110 above, if the Regional Board or the Administrator determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any Receiving Water Limitation or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the Administrator may give written notice to the owner or operator of the facility that the discharge exception shall not apply to the discharge at issue following expiration of the thirty (30) day period commencing upon delivery of the notice. Upon expiration of such thirty (30) day period, any such discharge shall be unlawful. Upon finding that any continuance of the discharge poses an immediate significant threat to the environment or to public health and safety, the Administrator may waive the thirty day waiting period and require immediate cessation of the discharge.

15.12.130 General Discharge Prohibition.

It shall be unlawful for any person to discharge, or cause to be discharged, any material to the City stormwater conveyance system which results in, or contributes to, a violation of the Municipal Storm Water Permit.

15.12.140 Threatened Prohibited Discharge.

It shall be unlawful for any person to maintain, or cause to be maintained, a threatened prohibited discharge after having received notice of the Administrator's determination as to the existence of a threatened prohibited discharge.

15.12.150 Illicit Connections Prohibited.

a. It shall be unlawful for any person to establish, use or maintain, or cause to establish, use or maintain, any illicit connection. Illicit connections shall be subject to removal and abatement by the City pursuant to Chapter 16.02 of this Code.

b. The prohibition set forth in subsection (a) above shall apply to illicit connections in existence at the time that this Chapter becomes effective. Upon the effective date of this Chapter, any person who maintains an illicit connection shall have thirty (30) days from the effective date of this Chapter to disconnect and discontinue use of such connection. Notwithstanding the provisions of this section, any person who maintains an illicit connection, as defined in Section 15.12.030(g), may apply to the City for a permit to continue the connection subject to applicable City standards.

15.12.160 Negligence or Intent Not Required.

A violation of the provisions of this Article shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge.

Article 3
Reduction of Pollutants in Stormwater

15.12.200 General Requirements.

a. The Administrator may designate as Subject Activities any activities, including industrial activities, which are identified as potential sources of discharges of pollutants to the City Stormwater Conveyance System, or for which a requirement has been imposed by the state or federal government for the City to conduct stormwater regulatory activities focused on the Subject Activity in question.

b. Any person who the Administrator determines is conducting any Subject Activity shall prevent or reduce the discharge of pollutants from those activities, to the maximum extent practicable, through the implementation of BMPs in accordance with Section 15.12.220.

c. The Administrator shall conduct a notification and comment process for designations or determinations made pursuant to section (a) of this section.

d. Any determination made by the Administrator pursuant to subsection (b) of this section shall be subject to the provisions for the adoption of regulations set forth in Section 15.12.230.

15.12.210 Containment and Notification of Spills.

a. Any person owning or occupying premises, or conducting any activity, that has knowledge of any non-stormwater discharge or threatened prohibited discharge, from the premises or activity to the City stormwater conveyance system shall immediately take all reasonable action to contain and otherwise minimize any such discharge.

b. The Administrator may designate types of activities where the owner or operator of the activity shall be required to notify the Administrator or the Implementing Agency within twenty-four (24) hours of the discovery of an actual discharge into the City stormwater conveyance system.

c. For any discharge subject to the reporting requirements of the State of California Water Code Sections 13271 and 13272, notification in compliance therewith shall constitute sufficient notification for the purposes of this Section.

15.12.220 Best Management Practices.

a. The Administrator may adopt regulations for specified Subject Activities. Such regulations shall describe Best Management Practices ("BMPs") which, if implemented by persons conducting such Specified Activities, shall satisfy the requirements of Section 15.12.200.

b. Persons conducting Subject Activities may implement BMPs not contained in the adopted regulations to satisfy the requirement of Section 15.12.200(b) through either of the following mechanisms:

i. By submitting and receiving prior written approval for the alternative BMPs from the Administrator if he or she determines that the proposed alternative BMPs provide a level of protection from stormwater discharges equivalent to the BMPs contained in the regulations adopted pursuant to (a) above; or

ii. By implementing alternative BMPs which provide a level of protection from stormwater discharges equivalent to the BMPs contained in the regulations adopted pursuant to (a) above.

c. Any alternative BMPs implemented pursuant to subsection (b)(ii) above shall be subject to review and approval by the Administrator as part of the inspection procedures set forth in Article 4 of this Chapter. If a person conducting Subject Activities implements alternative BMPs without the prior written approval of the Administrator and subsequently receives written notice from the Administrator that the alternative BMPs do not provide the required equivalent level of protection from stormwater discharges, the continued implementation of such alternative BMPs shall be deemed to be a violation of the requirements of 15.12.200(b) as of the date of delivery of such notice unless it is ultimately determined pursuant to an administrative appeal

pursuant to Section 15.12.400 that the alternative BMPs provide the required equivalent level of protection from stormwater discharges.

d. Any facility that is in compliance with its State or Federal NPDES permit for stormwater discharges for that facility shall be deemed to have met the requirements of Section 15.12.200(b).

e. The Administrator shall develop regulations for determining when BMPs have been successfully implemented.

15.12.230 Administrative Rules and Regulations.

a. The Administrator shall have the authority to promulgate regulations for the implementation of this Chapter. Prior to the Administrator's initiation of any proposed regulations, the Administrator shall submit a public input plan to the City Council for its approval. The public input plan approved by the City Council shall be generally applicable to the promulgation of regulations by the Administrator.

b. All regulations promulgated by the Administrator shall be consistent with the provisions of this Chapter. Any such regulations, or amendments thereof, shall be filed with the Clerk of the City Council. The Clerk shall cause announcement of said rules or regulations to be published in a newspaper of general circulation within ten calendar days. Such announcements shall provide a reasonable summary of the content of the rule. In addition, the Administrator shall make a reasonable effort to identify, notify, and provide copies to any activities which are specifically designated by the Administrator as subject to a rule or regulation. However, neither the failure of the Administrator to provide such notice nor the failure to receive individual notice shall exempt an activity from that rule or regulation. No regulations promulgated by the Administrator, or amendments thereof, shall be enforced or become effective until thirty (30) calendar days following the date on which notification of the regulations are published.

c. Any person who asserts that he or she is aggrieved by the terms or application of a regulation issued pursuant to this section may appeal the issuance of such regulation by filing a written notice of appeal with the Clerk of the City Council. The notice of appeal shall specifically identify the regulation or regulations from which the appeal is taken and the reasons for the appeal. Upon receipt of such notice, the Clerk of the City Council shall schedule the appeal for a public hearing by the City Council. At the conclusion of the public hearing the City Council shall be vested with jurisdiction to deny the appeal or to rescind or modify the regulation. The City Council's determination in this regard shall be final.

d. Any regulation from which an appeal is filed prior to its effective date shall not become effective until the date of a determination by the City Council of the appeal. Any regulation from which an appeal is filed on or subsequent to the effective date thereof shall remain in full force and effect during the pendency of the appeal, and any decision which rescinds or modifies the regulation shall apply prospectively.

15.12.235 BMP Maintenance Requirements.

The Administrator may require a property owner to establish, document, and conduct a maintenance program, subject to approval, for any BMP. This requirement may apply to BMPs required by the City or BMPs that were voluntarily installed pursuant to Section 15.12.220. Such a maintenance program may be required when the Administrator determines that proper maintenance is necessary to protect public safety, health, infrastructure, or the environment, or to otherwise meet the purposes of this Chapter. Maintenance requirements established pursuant to this subsection must be appropriate for the site conditions and design of BMPs.

Article 4
Inspection, Monitoring and Reporting

15.12.300 Scope of Inspections.

a. Prior to commencing any inspection authorized pursuant to this section, the Administrator shall obtain the consent of the owner or occupant of the premises, an administrative inspection warrant or a criminal search warrant. Routine or area inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Chapter including, but not limited to, random sampling, sampling in areas with evidence of stormwater contamination, illicit connections, discharge of non-stormwater to the City stormwater conveyance system or similar factors.

b. The Administrator may enter upon private property to investigate the source of any discharge to any public street, inlet, gutter, storm drain or the City storm-water conveyance system.

c. The Administrator may enter upon private property for the purpose of verifying compliance with the provisions of this Chapter, including, but not limited to, the following:

1. Identifying products produced, processes conducted, chemicals used and materials stored on or contained within the property;

2. Identifying point(s) of discharge of all wastewater, process water system, pollutants and other discharges from the property;

3. Investigating the natural slope of the premises, including drainage patterns and artificial conveyance systems;

4. Establishing the location of all points of discharge from the property, whether by surface run-off or through a storm drain system;

5. Locating any illicit connection or the source of any prohibited discharge; and

6. Evaluating implementation of BMPs.

d. For purposes of verifying compliance with the provisions of this Chapter, the Administrator may inspect any vehicle, truck, trailer, tank truck or other mobile equipment, or any stationary equipment, which may reasonably be believed to be used by the business for business-related activities and to be associated with industrial sources of pollutants or with non-stormwater discharges.

e. The Administrator may inspect all records of the owner or occupant of any premises relating to chemicals or processes presently or previously occurring on-site, including materials and/or chemical inventories, facilities maps or schematics or diagrams, material safety data sheets, hazardous waste manifests, business plans, pollution prevention plans, State general permits, monitoring program plans or any other records relating to illicit connections, prohibited discharges or the potential discharge of pollutants to the City stormwater conveyance system. In addition, the Administrator may require the owner or occupant to furnish, within a reasonable time period, copies of all such records.

f. The Administrator may conduct any necessary surveillance, inspect, sample and test any area runoff, soils area (including any groundwater testing), process discharge, materials within any waste storage area (including any container contents), and/or treatment system discharge for the purpose of determining the potential for the contribution of pollutants to the City stormwater conveyance system. The Administrator may conduct surveillance and investigate the integrity and layout of all storm drain and sanitary sewer system or other pipelines on the premises using appropriate tests, including, but not limited to, smoke and dye tests or video surveys. The Administrator may conduct any necessary surveillance, take photographs or video tape, make measurements or drawings, and create any other record reasonably necessary to document conditions on the premises.

g. The Administrator may require regular reports from industrial facilities and construction sites discharging into the City stormwater conveyance system.

h. The Administrator may erect and maintain monitoring and sampling devices for the purpose of measuring any discharge or potential source of discharge to the City stormwater conveyance system.

15.12.330 Reporting Requirements.

a. The Administrator may require any person to report information for purposes related to the goals of this Chapter. Required information may include but is not limited to the following: characterization of industrial activities; compliance with this Chapter, compliance with State General Permit requirements; compliance with Administrative Enforcement Orders or other enforcement actions; discharge monitoring; training; and BMP implementation, effectiveness, and maintenance.

b. The Administrator may require information to be submitted on an as needed basis.

c. The Administrator may require submitted information to be compiled, summarized, analyzed or organized in a reasonable manner that facilitates its interpretation or other use. As necessary to facilitate the use of information, the Administrator may also specify the medium and format of required submittals.

d. Failure to provide information in a timely manner as required by the Administrator, or knowingly or negligently providing false information shall be a violation of this Chapter.

15.12.350 Fees.

The Administrator shall collect such fees as may be authorized by the City Council to provide for the recovery of regulatory costs, including routine inspections and other regulatory functions associated with this Chapter. There shall be no fee assessed to appeal the determination that a person conducts any Subject Activity. Any such fees shall be established by resolution of the City Council.

Article 5
Enforcement

15.12.400 Notice of Non-Compliance.

a. The Administrator may deliver to the owner or occupant of any premises, or to any person responsible for an illicit connection, prohibited discharge, maintenance of a threatened prohibited discharge, failure to implement BMPs in accordance with Section 15.12.200(b), or any other violation of this Chapter a Notice of Non-Compliance. The Notice of Non-Compliance shall be delivered in accordance with Section 15.12.430 hereof.

b. The Notice of Non-Compliance shall identify the provision of this Chapter which has been violated. The Notice of Non-Compliance shall state that continued noncompliance may result in additional enforcement actions, including the recovery of any costs incurred by the City.

c. The Notice of Non-Compliance shall identify a compliance date that must be met; provided, however, that the compliance date may not exceed ninety (90) days unless the Administrator extends the compliance deadline an additional period not exceeding ninety (90) days when good cause exists for the extension.

15.12.410 Administrative Compliance Orders.

a. The Administrator may issue an Administrative Compliance Order. The Administrative Compliance Order shall be delivered in accordance with Section

15.12.430 hereof. The Administrative Compliance Order may be issued to any of the following:

1. The owner or occupant of any premises requiring abatement of conditions on the premises that cause or may cause a prohibited discharge in violation of this Chapter.

2. A person who fails to implement BMPs in accordance with Section 15.12.200(b).

3. Any person responsible for a prohibited discharge or maintenance of a threatened prohibited discharge.

b. The Administrative Compliance Order may include the following terms and conditions:

1. Specific steps and time schedules for compliance as reasonably necessary to prevent threatened or future unauthorized discharges, including, but not limited to, the threat of any prohibited discharge from any pond, pit, well, surface impoundment, holding or storage area.

2. Specific requirements for containment, cleanup, removal, storage, or proper disposal of any material having the potential to contribute pollutants to stormwater runoff.

3. Specific requirements for the installation of overhead covering.

4. Any terms or conditions reasonably calculated to prevent continued or threatened violations of this Chapter.

5. Any other measures necessary or appropriate to fully implement BMPs in accordance with Section 15.12.200(b).

15.12.420 Cease and Desist Orders.

a. The Administrator may issue a Cease and Desist Order. A Cease and Desist Order shall be delivered in accordance with Section 15.12.430 hereof. A Cease and Desist Order may direct the owner or occupant of any premises, or any other person responsible for any violation of this Chapter, to take any of the following action:

1. Immediately discontinue any prohibited discharge to the City stormwater conveyance system.

2. Immediately discontinue any other violation of this Chapter.

3. Clean up the area affected by the violation.

b. The Administrator may direct by a Cease and Desist Order that any person immediately cease any activity which may lead to a violation of Receiving Water Limitations.

15.12.430 Delivery of Notice.

Any notice of non-compliance, administrative compliance order, cease or desist order or other enforcement order pursuant to the requirements of this Chapter shall be subject to the following requirements:

a. The notice shall state that the recipient has a right to appeal the matter as set forth in Section 15.12.440 of this Chapter.

b. The notice shall state that the recipient or the property owner, or both, may be liable for all enforcement costs incurred by the City in correcting the violation.

c. Delivery shall be deemed complete upon either personal delivery to the recipient or deposit in the U.S. mail postage pre-paid for first class delivery.

d. Where the recipient of the notice is the owner of the property, the address for notice shall be the address from the most recently issued equalized assessment roll for the property.

e. Where the owner or occupant of any premises cannot be located after reasonable efforts of the Administrator, the notice shall be deemed delivered after posting on the premises for a period of ten (10) business days.

15.12.440 Administrative Appeals.

a. Except as set forth in subsection (c) below, any person receiving a notice of non-compliance, a designation as a person who conducts Subject Activities, an administrative compliance order or who is otherwise subject to an adverse determination pursuant to this Chapter may appeal the matter by requesting an administrative hearing before a hearing officer appointed by the City Council.

b. Any person appealing a notice of non-compliance, administrative compliance order, designation as a person who conducts Subject Activities or other adverse determination shall file, within thirty (30) days of receipt of notice thereof, a written request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the City Council, with the Administrator. A hearing on the matter shall thereafter be held before a hearing officer within forty-five (45) days of the filing of the written request unless, in the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted.

c. An administrative hearing on the issuance of a cease and desist order or following an emergency abatement action shall be held within five (5) business days

following the issuance of the order or the action of abatement, unless the hearing or the time requirement for the hearing is waived in writing by the party subject to the cease and desist order or the emergency abatement. A request for an administrative hearing shall not be required from the person subject to the cease and desist order or the emergency abatement.

d. The Administrator shall appear in support of the notice, order, designation, determination or emergency abatement action and the appealing party shall appear in support of the withdrawal of the notice, order, designation, determination or in opposition to the emergency abatement action. The City shall have the burden of supporting any enforcement or other action by a preponderance of the evidence. Each party shall have the right to present testimony and other documentary evidence as necessary for the appropriate presentation of the case.

e. Except in the case of a proceeding to determine the validity of a cease and desist order or a hearing following an emergency abatement, the final decision of the hearing officer shall be issued within ten (10) business days of the conclusion of the hearing and shall be delivered by first-class mail, postage prepaid, to the appealing party. In the case of a proceeding to determine the validity of a cease and desist order or a hearing following an emergency abatement, the final decision of the hearing officer shall be issued within five (5) business days following the conclusion of the hearing. The final decision shall include notice that any legal challenge to the final decision shall be made pursuant to the provisions of Code of Civil Procedure Sections 1094.5 and 1094.6 and shall be commenced within ninety (90) days following the final decision. Any administrative hearing fee paid by a prevailing party shall be refunded.

15.12.450 Nuisance and Abatement.

a. Any condition in violation of the provisions of this Chapter, including, but not limited to, the maintenance or use of any illicit connection or the occurrence of any prohibited discharge, shall constitute a threat to the public health, safety and welfare and is declared and deemed to be a public nuisance.

b. At the request of the Administrator, the City may seek a court order to enjoin or abate the nuisance, or both. Prior to seeking any court order to enjoin or abate a nuisance or threatened nuisance, the Administrator shall provide notice of the proposed injunction or abatement to the owner and occupant, if any, of the premises where the nuisance or threatened nuisance is occurring.

c. At the request of the Administrator, the City may seek an abatement warrant or other appropriate judicial authorization to enter the premises where any nuisance or threatened nuisance is occurring and to abate the condition and restore the area.

d. In the event the nuisance constitutes an imminent danger to public safety or the environment, the Administrator may enter the premises from which the nuisance emanates, abate the nuisance and restore any property affected by the nuisance

without prior notice to or consent from the owner or occupant thereof and without judicial warrant.

1. An imminent danger shall include, but is not limited to, exigent circumstances created by the dispersal of pollutants, where such pollutants presents a significant and immediate threat to the public safety or the environment.

2. Notwithstanding the authority of the City to conduct an emergency abatement action, an administrative hearing pursuant to Section 15.12.440 shall follow the emergency abatement action.

15.12.460 Civil Penalties.

a. In addition to any other remedies provided by this Chapter, there is hereby imposed an administrative civil penalty of up to $5,000 for each violation of this Chapter. Notice of any administrative civil penalty shall be served and proof of service shall be made in the same manner as provided in Section 15.12.430 hereof. The notice shall provide that any administrative civil penalty imposed shall be administratively reviewed by a hearing officer before it is enforced. When violation of this Chapter pertains to a continuing violation that does not create an immediate danger to health or safety, as determined by the Administrator, the violator shall be provided with a reasonable time to correct or otherwise remedy the violation prior to imposition of the penalty. The Administrator shall determine and notify the violator of the time within which the violator must correct or remedy the violation. The notice shall provide that an administrative civil penalty will be imposed if the continuing violation is not remedied or corrected within the time stated.

b. Enforcement of the administrative civil penalty imposed by the Administrator shall be by written order issued by the hearing officer following notice and an opportunity for hearing. Procedures concerning notice, conduct of the hearing, and service shall be as provided in Section 15.12.440 hereof. The order of the hearing officer concerning the administrative civil penalty shall be in writing resolving the essential issues raised and confirming, amending or rejecting the administrative civil penalty imposed by the Administrator. In reaching a decision concerning any administrative civil penalty, the hearing officer shall be guided by factors including, but not limited to the following: the danger to public health, safety and welfare represented by the violation, recidivism, and any economic benefit associated with non-compliance.

c. The manner of contesting the final order of the hearing officer concerning any administrative civil penalty is governed by Government Code Section 53069.4, or any successor provision thereto. Service of the notice of appeal authorized by Government Code Section 53069.4 on the City shall be served upon the Clerk of the City Council.

15.12.470 Criminal Penalties.

a. Any person who negligently or knowingly violates any provision of this Chapter, undertakes to conceal any violation of this Chapter, continues any violation of this Chapter after notice thereof, or fails to implement BMPs in accordance with Section 15.12.200(b) shall be guilty of a misdemeanor and upon conviction thereof be fined not more than $1,000 or imprisoned for not more than six (6) months in the City Jail, or both.

b. Each day in which a violation occurs and each separate failure to comply with either a separate provision of this Chapter, an administrative compliance order, a cease and desist order, or failure to implement BMPs in accordance with Section 15.12.200(b) shall constitute a separate violation of this Chapter punishable by fines or sentences in accordance herewith.

c. The Administrator may authorize specifically designated City employees to issue citations for misdemeanor violations of this Chapter pursuant to Penal Code Section 836.5.

15.12.480 Miscellaneous Enforcement Provisions.

a. Each and every remedy available for the enforcement of this Chapter shall be non-exclusive and it is within the discretion of the Administrator to seek cumulative remedies.

b. The Administrator may request the City to file a civil action in a court of competent jurisdiction seeking an injunction against any threatened or continuing noncompliance with the provisions of this Chapter. Any temporary, preliminary or permanent injunction issued pursuant to this subsection may include an order for reimbursement to the City of all costs incurred in enforcing this Chapter, including, but not limited to, costs of inspection, investigation and monitoring, the costs of abatement undertaken at the expense of the City, costs relating to the restoration of the environment and any other costs or expenses authorized by law.

c. The Administrator may request the City to file an action for civil damages in a court of competent jurisdiction seeking recovery of any of the following:

1. All costs incurred in the enforcement of this Chapter, including, but not limited to, costs relating to investigation, sampling, monitoring, inspection, administrative expenses, all other expenses authorized by law and consequential damages.

2. All costs incurred in mitigating harm to the environment or reducing the threat to human health.

3. Damages for irreparable harm to the environment.

d. The City is authorized to file actions for civil damages resulting from any trespass or nuisance occurring on public property or to the City stormwater conveyance system from any violation of this Chapter where such violation has caused damage, contamination or harm to the environment, public property or the City stormwater conveyance system.

e. The remedies available to the City pursuant to the provisions of this Chapter shall not limit the right of the City or any law enforcement agency to seek any other legal or equitable remedy that may be available to it.

f. Each day in which a violation occurs and each separate failure to implement BMPs in accordance with Section 15.12.200(b) or to comply with either a separate provision of this Chapter, an administrative compliance order, or a cease and desist order shall constitute a separate violation of this Chapter punishable by administrative penalties in accordance with this Chapter.

Article 6
Recovery of Cost of Abatement

15.12.500 Costs of Abatement – Confirmation.

a. When proceedings under this Chapter result in the correction of a violation of this Chapter or in a final determination that a violation exists subsequent to the date specified in any notice issued pursuant to the provisions of this Chapter, the costs of such proceedings incurred by the City may be assessed against the property. Such costs may include, but are not limited to, those incurred in inspecting property, publication, mailing and posting of notices, conducting hearings, processing appeals and pursuing any judicial action. It is the purpose of this section to allow the assessment against property of costs of proceedings if a violation is corrected in any manner.

b. The Administrator shall keep an account of the administrative and other costs of abatement, and shall submit to the City Council for confirmation an itemized written report showing such costs and their proposed assessment to the respective properties. The report shall be filed with the Clerk of the City Council not later than fifteen (15) calendar days in advance of the confirmation hearing required below.

c. Upon receipt of the report, the Clerk of the City Council shall schedule a public hearing to receive protests and confirm the report. A statement of the proposed assessment and notice of the time, date and place of the hearing, together with reference to the report on file with the Clerk, shall be mailed to the owner or owners of each parcel of property proposed to be assessed shown on the last equalized assessment roll available on the date of mailing of the notice or any other address or addresses ascertained to be more accurate. Such notice shall be mailed not later than fifteen (15) calendar days in advance of the hearing. Notice of the time, date and place of the public hearing by the City Council shall be published once in a newspaper of general circulation published with the City. With respect to each property proposed to be assessed for which the name or the owner or owners is not shown on the last equalized

assessment roll or no address for an owner is shown on the last equalized assessment roll, the notice shall show the name or names of the owner or owners, if such name or names are shown on the last equalized assessment roll, the assessor's parcel number, the street address of the property, if the property has an address and the address is known to the Administrator, the name of the street or road upon which such property abuts, if the property abuts upon a street or road, the amount of the proposed assessment and reference to the report on file with the Clerk. Such publication shall be made not later than fifteen (15) calendar days in advance of the hearing.

d. At the time fixed for receiving and considering the report, the City Council shall conduct a public hearing and shall receive and consider any objections from members of the general public or property owners liable to be assessed for the abatement. Written protests or objections shall specify the date, hour and description of the subject property under hearing. The City Council may continue the hearing and delegate to the City Manager or his designee the responsibility of hearing individual protests and submitting a recommendation with respect thereto; provided that the City Council provides an opportunity for individual consideration of each project upon receipt of the recommendation by the City Manager or his designee. The City Council may modify the report if it is deemed necessary. The City Council shall then confirm the report by motion or resolution.

15.12.510 Costs – Assessments.

a. If the costs as confirmed are not paid within thirty (30) days of the date of mailing of the notice or date of publication pursuant to Section 15.12.500 above, such costs shall be assessed against the parcel of land pursuant to Section 25845 of the Government Code, and shall be transmitted to the Tax Collector for collection and shall be subject to the same penalties and the same procedures and sale in case of delinquency as provided for ad valorem taxes.

b. If subsequent to the mailing of the notice of non-compliance and prior to transmittal of the notice of unpaid costs to the Tax Collector for collection as set forth in subsection (a) of this section, the property subject to the notice of non-compliance is sold, or title otherwise transferred to a bona fide purchaser, said costs shall be the responsibility of the owner of record as of the date said notice of non-compliance was placed in the United States postal system or posted on the property.

c. In addition to assessing the unpaid costs as provided in subsection (a) herein, the Tax Collector or his designated representative may pursue any remedy provided by law for collection of the unpaid costs.

15.12.520 Treble Costs.

Pursuant to Government Code Section 25845.5, upon entry of a second or subsequent civil or criminal judgment within a two (2) year period finding that an owner is responsible for a condition in violation of this Chapter that may be abated pursuant to

Government Code Section 25845, a court may order the owner to pay treble the costs of abatement.

15.12.530 Hearing of Protests.

Upon the day and hour fixed for the hearing, the City Council shall hear and pass upon the report of the Administrator together with any such protests or objections. The City Council may make such revision, correction or modification of the report or the charge as it may deem just; and in the event the City Council is satisfied with correctness of the charge, the report of the Administrator (as submitted or as revised, corrected or modified) together with the charge, shall be confirmed or rejected. The decision of the City Council on the report and the charge and on all objections or protests shall be final and conclusive.

15.12.540 Assessment for Summary Abatement.

Where the charge to be made is the result of summary abatement pursuant to Section 15.12.460(c), the City Council may determine whether or not the action to abate was proper, and may confirm the charge or not as it may deem proper.

15.12.550 Time for Contest of Assessment.

The validity of any assessment made under the provisions of this Chapter shall not be contested in any action or proceeding unless the same is commenced within thirty (30) days after the assessment is ordered to be placed upon the assessment roll as provided herein.

15.12.560 Filing Copy of Report with County Auditor.

A certified copy of the assessment shall be filed with the County Auditor on or before August 1. The descriptions of the parcels reported shall be those used for the same parcels on the map books of the County Assessor for the current year.

Article 7
Commercial and Industrial Facilities

15.12.600 Findings.

a. One of the requirements of the municipal stormwater permit (NPDES No. CAS0082597) to which the City is a co-permittee, is to track, inspect, and ensure compliance with stormwater ordinances at certain commercial and industrial facilities.

b. The Sacramento County Environmental Management Department (EMD), as both the State-designated Certified Unified Program Agency (CUPA) and the Environmental Health Agency for Sacramento County, is currently tracking and inspecting the majority of commercial and industrial facilities subject to the provisions of the municipal stormwater permit.

c. Utilizing EMD to fulfill the commercial and industrial inspection program requirements under the municipal stormwater permit will result in greater program efficiency, reduced program costs, reduced impacts to the regulated business community, and is in the best interest of the City.

d. On March 17, 2004, the City Council authorized the City Manager to enter into an agreement with EMD for fulfilling the NPDES permit inspection requirements with respect to commercial and industrial facilities.

e. Under the Agreement, the City is required to amend the stormwater ordinance as necessary to authorize the County EMD to implement the stormwater compliance program for commercial and industrial facilities. The City must make any necessary amendments to the stormwater ordinance to the extent necessary to authorize EMD to:

1. Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated City area;

2. Take any necessary enforcement actions as authorized by the Municipal Code and consistent with a City-approved enforcement plan;

3. Investigate and follow-up referred complaints at eligible facilities;

4. Establish and collect fees necessary to recover program implementation costs.

f. The term of the Agreement is July 1, 2004 through June 30, 2010, unless sooner terminated, or extended by the City and County.

15.12.610 Purpose and Intent.

a. The purpose of this Article is to fulfill the requirements of the Agreement between the City and Sacramento County, authorized by the City Council on March 17, 2004, whereby the County shall assume responsibility for providing tracking, inspection, and enforcement of the City's stormwater ordinance with respect to commercial and industrial facilities within the incorporated City area as required by the municipal stormwater permit.

b. It is the intent of the City Council in adopting this Article to provide the necessary amendments in order to authorize the County to accomplish the following goals:

1. Conduct all necessary inspections or re-inspections of regulated facilities within the incorporated City area;

2. Take any necessary enforcement actions as authorized by the Municipal Code and consistent with a City-approved enforcement plan;

3. Investigate and follow-up referred complaints at eligible facilities;

4. Establish and collect fees necessary to recover program implementation costs.

15.12.620 Delegation of Authority to County EMD

a. Pursuant to the Agreement authorized by the City Council on March 17, 2004, whereby the County shall assume responsibility for tracking, inspecting, and enforcing the City's stormwater ordinance at certain commercial and industrial facilities specified in the municipal stormwater permit, the term "Administrator," as used in this Chapter shall also mean the Director of the Sacramento County Environmental Management Department and his or her designees.

b. Any administrative or civil enforcement by the Director of the Sacramento County EMD or his or her designees of any provision of this Chapter under this Article shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County Code.

c. Sacramento County may establish and collect from commercial and industrial facilities located within the City such fees as may be necessary to cover the actual costs incurred by Sacramento County to include these facilities in its commercial and industrial compliance program, provided that the fees are established and collected in accordance with the provisions of the Agreement and all applicable legal requirements.

d. The delegation of authority to Sacramento County under this Article is limited to only that required by the March 17, 2004 Agreement, as may be necessary to allow the Director of the County EMD to track, inspect, and ensure compliance with the City's stormwater ordinance at commercial and industrial facilities as required under the municipal stormwater permit.

15.12.630 Expiration of This Article.

The provisions of this Article 7 shall remain in effect only to the extent that the March 17, 2004 Agreement between the City and County EMD, or any successor agreement, remains in effect. Upon expiration of the Agreement, or any successor agreement, the provisions of this Article shall expire.

SECTION 4. EFFECTIVE DATE. This ordinance shall take effective immediately as an urgency ordinance. As of July 1, 2004, the Sacramento County Environmental Management Department is responsible for conducting inspections on certain commercial and industrial facilities within the City's jurisdiction. In order to conduct these inspections, and to allow the County to reschedule any inspections which may have been missed in the intervening time since July 1, 2004, this ordinance is necessary immediately. For these reasons, the City Council finds that the immediate passage of this ordinance is necessary for the immediate preservation of the public

peace, health, and safety, the physical integrity of the City and orderly administration of municipal affairs within the City of Elk Grove.

SECTION 5. PUBLICATION. In lieu of publication of the full text of the ordinance within 15 days after its passage, a summary of the ordinance may be published at least five days prior to and fifteen (15) days after adoption by the City Council and a certified copy shall be posted in the office of the City Clerk, pursuant to GC 36933(c)(1).

PASSED AND ADOPTED by the City Council of the City of Elk Grove on this 18th day of August 2004.

SOPHIA SCHERMAN, MAYOR
CITY OF ELK GROVE

ATTEST:

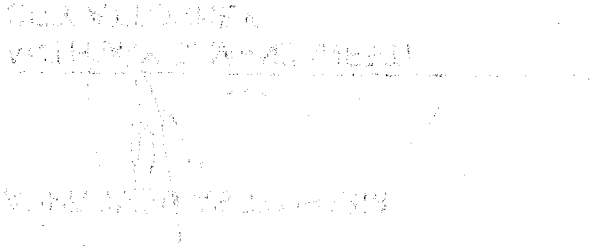
PEGGY E. JACKSON, CITY CLERK

APPROVED AS TO FORM:

ANTHONY B. MANZANETTI
CITY ATTORNEY

Effective Date: August 18, 2004

AYES: **Scherman, Soares, Briggs, Cooper, Leary**
NOES: **None**
ABSTAIN: **None**
ABSENT: **None**



CITY OF FOLSOM
Office of the City Attorney

50 Natoma Street
Folsom, California 95630

Bruce C. Cline
City Attorney

Steven Wang
Assistant City Attorney

CITY OF
FOLSOM
DISTINCTIVE BY NATURE

April 20, 2009

Mr. William Marshall
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670-6114

Re: Statement of Legal Authority to Implement and Enforce Federal NPDES Storm Water Regulations and Sacramento NPDES/MS4 Permit No. CAS082597

Dear Mr. Marshall:

The "Waste Discharge Requirements [for County of Sacramento and] Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer System Sacramento County, NPDES No. CAS082597, Order No. R5-2008-0142" (Order) which was issued by the California Regional Water Quality Control Board Central Valley Region on September 11, 2008 requires a statement of legal authority to implement and enforce the requirements contained in 40 CFR Section 122.26(d)(2)(i)(A-F) and the Order. The statement is required to include the following:

a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;

b. Progressive enforcement policy and how it will be effectively implemented;

c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittee's urban runoff related ordinances, which incorporate the conditions of the Order;

d. Description of how these ordinances are implemented and how enforcement and actions under these ordinances may be appealed;

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions; and

f. A description and summarization of the Permittee's storm water management structure, including the coordination and communication between departments.

The City of Folsom submits the following statement verifying its authority to implement and enforce the requirements of the Order and associated federal Storm Water regulations. The City submits this statement along with its Stormwater Quality Improvement Plan ("SQIP") as required by the Order.

Statement of Legal Authority

a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable

The primary ordinance regulating and controlling discharges to the City's municipal separate storm sewer system (MS4) is Chapter 8.70, Storm Water Management and Discharge Control (a copy of which is attached hereto as Exhibit A, "Storm Water Ordinance") of the *Folsom Municipal Code* ("FMC"). One of the stated objectives of the Storm Water Ordinance is to provide the City with the legal authority to comply with the requirements of the NPDES permit.

FMC Chapter 14.29, Grading (a copy of which is attached hereto as Exhibit B, "Grading Ordinance") was adopted, in part, to: maintain the natural environment; address the harmful effects of runoff; assure the proper restoration of vegetation and soil systems; and control against dust and erosion and their consequent effects on soil structure and water quality. The Grading Ordinance sets forth rules and regulations to control: excavation; grading and earthwork construction, including fills and embankments; establishes the procedure for the issuance of grading permits; provides for approval of plans; and authorizes inspection of grading activities.

The City of Folsom Charter (Charter) was adopted on June 5, 1990 and filed with the Secretary of State on August 13, 1990. Section 1.01 of the Charter establishes the general powers of the City, including the power to make and enforce all ordinances and regulations with respect to municipal affairs and other matters subject to applicable general laws. The ordinances set forth in Chapters 8.70 and 14.29 of the FMC are enforceable as they were adopted by the Folsom City Council pursuant to the procedural requirements set forth in Section 2.12 of the Charter. These ordinances were codified pursuant to the provisions of the Government Code of the state of California.

Although Chapter 8.70, the Storm Water Ordinance, was substantially revised in 2004 to comply with the 2002 stormwater permit requirements, there is a requirement in the 2008 Order which is not specifically addressed by the Ordinance. The 2008 Order requires the Permittees to "require that all developments subject to Development Standards and site specific plan requirements provide verification of maintenance provisions for Structural

Treatment Control best management practices (BMP's), including, but not limited to, legal agreements, covenants, California Environmental Quality Act (CEQA) mitigation requirements, and/or conditional use permits." The Storm Water Ordinance currently requires proper operation, and maintenance of BMP's and other control measures; however, the ordinance does not address verification of maintenance provisions, such as a legally enforceable agreement.

City staff will recommend to the City Council that revisions be made to the Storm Water Ordinance to address the aforementioned provision and any others that arise throughout implementation of this Order.

b. Progressive enforcement policy and how it will be effectively implemented

The City of Folsom, pursuant to its authority as a charter city, has adopted procedures, standards, sanctions/fines and remedies for the enforcement of the FMC. These may be found at Title 1, Chapters 1.08-1.10. A copy of these code provisions are attached hereto as Exhibit C.

FMC Title 8, Health, Sanitation and Welfare, Chapter 8.70, Sections 8.70.400 through 8.70.510, provide that Chapter 8.70 shall be enforced pursuant to Title 1, Chapters 1.08 through 1.10, inclusive.

All of the sanctions for administrative violations (*See* FMC Title 1, Chapter 1.09, Section 1.09.013, attached) are available as progressive remedies under the Permittee's ordinance. Additionally, violation of Chapter 8.70 is identified as a Level E violation, subjecting the violator to a fine of $100 to $10,000, which may be imposed on a per day basis for each violation.

On or about April 4, 2004, the City entered into a Memorandum of Understanding with the County of Sacramento, Environmental Management Department, to track, inspect and insure the compliance of the City's commercial and industrial facilities per California Regional Water Quality Control Board Order No. R5-2002-0206. The County Environmental Management Department is both the State designated Certified Unified Program Agency and Environmental Health Agency for Sacramento County. Their authority is established in Chapter 6.11, Division 20 and Chapter 4, Division 104 of the Health and Safety Code.

In addition to the City ordinances, the County has a progressive enforcement policy for this portion of the City's compliance, which is founded in the County's stormwater ordinance, and those ordinances of the Permitees, including the City of Folsom's stormwater ordinance. Enforcement of City of Folsom provisions is conducted by the City of Folsom. A copy of the County's policy is attached hereto as Exhibit D.

c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittee's urban runoff related ordinances, which incorporate the conditions of the Order

The local administrative and legal procedures available to mandate compliance with Folsom's Storm Water Ordinance and Grading Ordinance are set forth in FMC Chapter 8.70, Storm Water Management and Discharge Control (Exhibit A); and FMC Chapter 14.29, Grading (Exhibit B). The provisions set forth in Chapter 8.70 are enforced pursuant to Chapter 1.08, Enforcement of the Folsom Municipal Code and Other Applicable Laws; Chapter 1.09, Administrative Violations and Administrative Enforcement Procedures; and Chapter 1.10, Additional Remedies (Exhibit C), of the FMC (Sections 8.70.400, 8.70.410, 8.70.420). The provisions set forth in Chapter 14.29 are enforced pursuant to Sections 14.29.430 and 14.29.410.

d. Description of how these ordinances are implemented and how enforcement and actions under these ordinances may be appealed

Storm Water Ordinance

Section 8.70.090 of the City's Storm Water Ordinance charges the "administrator" with the responsibility of administration, implementation and enforcement of the provisions of Chapter 8.70 (See also, Section 8.70.400.B.). The powers and duties granted or imposed upon the administrator may be delegated to other city employees or, upon the approval of the City Council, to employees of other public agencies. The "administrator" is defined as the Public Works Director or his or her designees (FMC Section 8.70.030). Implementation and enforcement of the ordinance may also require the participation of other departments and staff including, but not limited to, Code Enforcement, Community Development, Utilities and the City Attorney.

Pursuant to Section 8.70.230, the administrator has the authority to develop administrative rules and regulations governing the content and implementation of required Best Management Practices, the designation of significant dischargers, and the implementation of other provisions of the Storm Water Ordinance.

Any person charged with a violation of the Storm Water Ordinance and who has been served with a notice to correct, stop order or notice of administrative violation may contest the violation or proposed sanction by requesting a hearing (Section 1.09.030). Any stop order remains in effect until the time of the hearing and any subsequent judicial review (Section 1.09.031). The decision of the hearing officer constitutes the final administrative decision and such decision is not appealable to the City Council or any other City body (Section 1.09.050). Appeal is only available through judicial review of the final administrative decision by the filing of a writ of mandate (Section 1.09.051).

Grading Ordinance

Section 14.29.140 of the City's Grading Ordinance designates the Public Works department as the department responsible for the administration of the Grading Ordinance. Section 14.29.430.A. imposes the duty to enforce the provisions of the Grading Ordinance on the Public Works Director and other authorized employees of the City. Unless exempted, a grading permit must be issued by the Public Works Director, or his or her designee prior to the initiation of any grading, excavation, fill or dredging activities (Section 14.29.200, 14.29.260, 14.29.261, and 14.29.263). All grading operations for which a permit is required are subject to inspection by the Public Works Director (Section 14.29.400.A.). The Public Works Director also has the authority to suspend or revoke a permit (Section 14.29.410).

If a grading permit applicant or any other person is dissatisfied with any determination made by the Public Works Director, they may appeal the decision to the City Council (Sections 14.29.210 and 14.29.410.B.).[1]

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions

Storm Water Ordinance

If the Regional Board or the administrator determines that a discharge that is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any receiving water limitation, or results in the conveyance of significant quantities of pollutants to surface waters, or is otherwise a danger to public health or safety, the administrator has the authority to prohibit such discharge, or require the responsible party(ies) to implement BMP's that will reduce the pollutants to the maximum extent practicable (Section 8.70.130).

Pursuant to Section 8.70.230, the administrator has the authority to develop and establish BMP's which shall be implemented by persons conducting activities associated with certain categories of businesses as designated by the administrator. A violation of the Storm Water Ordinance is subject to the administrative enforcement procedures set forth in Chapter 1.08, Enforcement of the Folsom Municipal Code and Other Applicable Laws, Chapter 1.09, Administrative Violations and Administrative Enforcement Procedures, and Chapter 1.10, Additional Remedies (Exhibit C) (Sections 8.70.400, 8.70.410, 8.70.420). Violations are subject to a notice to correct, stop order, notice of administrative violation and administrative sanctions (1.09.023, 1.09.024, 1.09.012,

[1] Although the Grading Ordinance identifies the Public Works Director and the Public Works Department as the department and director responsible for administration and enforcement of the ordinance, due to departmental reorganizations the Grading Ordinance is being administered and enforced by the Community Development Director and the Community Development Department. The Community Development Director acts under authority as the designee. The departmental reorganizations have been generally addressed by Ordinance 994, however, specific changes to departmental references in the Grading Ordinance will be addressed in a future amendment to the Grading Ordinance.

1.09.013, 1.09.014). Administrative sanctions range from $100 to $10,000 (Section 8.70.410 C. and 1.09.012). A violation of the Storm Water Ordinance is also punishable as a misdemeanor (Section 8.70.410). Enforcement of the FMC or other applicable laws is not limited to the administrative enforcement procedures. If the City Attorney determines that enforcement through administrative procedures will not result in effective redress then enforcement may be sought through civil and criminal actions (Section 1.09.011).

Grading Ordinance

Unless exempted, a grading permit must be issued by the Public Works Director prior to the initiation of any grading, excavation, fill or dredging activities (Section 14.29.200, 14.29.260, 14.29.261, and 14.29.263). All work must be done in accordance with approved plans and specifications which cannot be changed, modified or altered without authorization from the Public Works Director. The Public Works Director may require modification of grading operations and project designs if delays occur which incur weather generated problems not considered at the time the permit was issued (Section 14.29.263.A.). Section 14.29.410 authorizes the Public Works Director to suspend or revoke a permit for various reasons, including failure to conform to the approved permit or threats to health, safety or public welfare. If the permittee fails to correct objectionable or emergency conditions, the City may correct the conditions and take action against the permittee's security to cover the cost (Section 14.29.410.C.). In the event any person, firm or corporation performs any work in violation of the Grading Ordinance or fails or refuses to perform any work required by the Grading Ordinance, such violation is declared a public nuisance, and at the direction of the City Council, the City Attorney is authorized to bring and prosecute an action to enjoin the performance of such work or maintenance of the completed work (Section 14.29.430.C.) A violation of the Grading Ordinance is also an infraction punishable by a progressive series of fines (Section 14.29.430.D.).

f. A description and summarization of the Permittee's storm water management structure, including the coordination and communication between departments

The City of Folsom Stormwater Management Program resides within the Department of Public Works. The Director of Public Works is the designated administrator of the Order who is responsible for overseeing the program and certifying all compliance deliverables. The City has designated staff in various departments to conduct the management, engineering, planning and maintenance activities required by the Stormwater Permit. A detailed description of the City's program organization and staffing is included in Section 7.2 Program Management, of the 2009 Stormwater Quality Improvement Plan.

Based on the ordinances discussed above and subject to the noted exceptions, this statement of legal authority is respectfully submitted. Please notify the undersigned if you need further information.

Very truly yours,



Bruce C. Cline
City Attorney

BCC:skm

Exhibit A

Chapter 8.70
STORMWATER MANAGEMENT AND DISCHARGE CONTROL

Sections:

Article I. General Provisions

8.70.010 Findings.
8.70.020 Purpose and intent.
8.70.030 Definitions.
8.70.040 Construction.
8.70.050 Applicability.
8.70.060 Regulatory consistency.
8.70.070 Compliance disclaimer.
8.70.080 Severability.
8.70.090 Administration.
8.70.100 Disclaimer of liability.

Article II. Prohibited Discharges

8.70.110 Prohibited discharge.
8.70.120 Exceptions to discharge prohibition.
8.70.130 Exception to otherwise applicable exemptions.
8.70.140 General discharge prohibition.
8.70.150 Threatened prohibited discharge.
8.70.160 Illicit connections prohibited.
8.70.170 Negligence or intent not required.

Article III. Reduction of Pollutants In Stormwater

8.70.200 General requirements.
8.70.210 Containment and notification of spills.
8.70.220 Compliance with best management practices.
8.70.230 Best management practices.

Article IV. Inspection and Monitoring

8.70.300 Scope of inspections.
8.70.310 Establishment of stormwater management and discharge control fund.
8.70.320 Required commercial and industrial facility inspections.

Article V. Enforcement

8.70.400 Enforcement.
8.70.410 Penalties.
8.70.420 Enforcement procedures, notice to correct.

Article VI. Recovery of Costs

8.70.500 Abatement.
8.70.510 Regulatory actions.

Article I. General Provisions

8.70.010 Findings.

A. The Federal Clean Water Act provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System requirements to stormwater and urban run-off discharge into the city stormwater conveyance system.

B. Stormwater flows from individual properties to the city stormwater conveyance system and then ultimately to the waters of the United States.

C. The city is a co-permittee under the "Waste Discharge Requirements for County of Sacramento, Cities of Sacramento, Folsom, Elk Grove, Citrus Heights and Galt Area-Wide Storm Water Discharges From Municipal Separate Storm Sewer Systems Sacramento County" (Order No. R5-2002-0206) dated December 6, 2002, which also serves as a National Pollutant Discharge Elimination System Permit under the Federal Clean Water Act (NPDES No. CAS082597). As a co-permittee, the city is required to possess the necessary legal authority, and to implement appropriate procedures, to regulate the entry of pollutants and non-stormwater discharges into and from the city stormwater conveyance system.

D. The city's municipal stormwater permit requires the city effectively to prohibit non-stormwater discharges from the incorporated area of the city into the city stormwater conveyance system except as otherwise permitted by federal law.

E. Non-stormwater discharges and stormwater pollutants that are discharged directly to waters of the state without passing through the city stormwater conveyance system are not subject to the requirements of the municipal storm water permit. However, such discharges have the potential to degrade water quality and impact the quality of life for the people of the city. Regulation of such discharges by the city provides benefits to its people and protects the local environment.

F. The city council finds in this regard that the provisions of this chapter are necessary to provide the city with the legal authority necessary to implement and otherwise comply with the requirements of its municipal stormwater permit. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.020 Purpose and intent.

A. This chapter is adopted pursuant to Article XI, Section 7 of the California Constitution which authorizes the city to exercise its police power to protect and promote the public health, safety and general welfare. While stormwater runoff is one step in the natural cycle of water, human activities, including, but not limited to, agriculture, construction, manufacturing and the operation of an urban infrastructure, may result in undesirable discharges of pollutants and certain sediments. Such discharges may accumulate in local drainage channels and waterways and eventually may be deposited in the waters of the United States. The purpose of this chapter is to protect and enhance the water quality of watercourses, water bodies and wetlands within the incorporated area of the city in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and municipal discharge permit #CAS082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the city stormwater conveyance system.

B. It is the intent of the city council in adopting this chapter to provide the city with the legal authority to accomplish the following goals:

1. To reduce the discharge of pollutants in stormwater to the maximum extent practicable (MEP);

2. To effectively prohibit non-stormwater discharges into the city stormwater conveyance system;

3. To comply with the requirements of the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and NPDES municipal stormwater discharge permit #CAS082597 as they apply to the discharge of pollutants into and from the city stormwater conveyance system;

4. To fully implement the city's comprehensive stormwater management program as approved by the regional board;

5. To protect the physical integrity and function of the city stormwater conveyance system from the effects of pollutants and materials other than stormwater;

6. To prevent the contamination of groundwater as a result of pollution migration from the city stormwater conveyance system;

7. To promote cost effective management and beneficial use of sediments in the city stormwater conveyance system;

8. To protect the health and safety of maintenance personnel and the public who may be exposed to pollutants in the city stormwater conveyance system;

9. To provide for the recovery of regulatory costs incurred by the city in the implementation of the comprehensive stormwater management program, including, but not limited to, enforcement activities, inspections, investigations, sampling and monitoring; and

10. To establish appropriate enforcement procedures and penalties for violations of the provisions of this chapter. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.030 Definitions.

A. As used in this chapter, the following words and phrases shall have the meanings set forth below unless the context

clearly indicates otherwise.

"Administrator" means the public works director and his or her designees.

"Best management practices" or "BMPs" means schedules of activities, prohibition of practices, general good house-keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce to the maximum extent practicable pollutant discharges directly or indirectly to the city stormwater conveyance system or receiving waters. BMPs shall also be defined to include structural controls, treatment controls, source controls, training requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw materials storage. BMPs may be established by the administrator for a particular individual business or industry type which shall be implemented by the owner or operator of a business.

"Business" means any commercial/industrial/retail business, enterprise, trade, service, calling, vocation, profession, or any means of livelihood whether or not carried on for gain or profit.

"City council" means the city council of the city of Folsom.

"City stormwater conveyance system" means those public and natural facilities within the incorporated area of the city which are owned, operated, maintained or controlled by the city by which stormwater may be conveyed to waters of the United States, including, but not limited to, any roads with drainage systems, municipal streets, catch basins, water quality basins, detention basins, constructed wetlands, natural and artificial channels, aqueducts, canyons, stream beds, gullies, curbs, gutters, ditches, sumps, pumping stations, drain inlets and storm drains.

"County" means the county of Sacramento.

"Discharge" means the release or placement of any pollutant into the city stormwater conveyance system or receiving waters.

"Illicit connection" means any physical connection to the city stormwater conveyance system or receiving waters which is not expressly authorized by the city.

"Illicit discharge" means any discharge to the storm drain system or receiving waters that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-stormwater discharges except discharges pursuant to an NPDES permit, or discharges that are authorized by the regional board.

"Implementing agency" means the agency or department designated by the administrator to enforce the provisions of this chapter with respect to a particular site, facility or industry category.

"Material" means any substance, including, but not limited to, raw materials, finished products, garbage and debris, lawn clippings, leaves and other vegetation, biological and fecal waste, sediment and sludge, oil and grease, gasoline, paints, solvents, cleaners and any fluid or solid containing chemicals.

"Municipal stormwater permit" means NPDES Permit #CAS082597, including any amendments thereto or successor permit, issued by the regional board to the city, the selected incorporated cities within the boundaries of the county, and the county of Sacramento.

"National Pollutant Discharge Elimination System Permit" or "NPDES permit," means a permit issued by either the regional board or the State Water Resources Control Board pursuant to Chapter 5.5 (commencing with Section 13370) of Division 7 of the Water Code to control discharges from point sources to waters of the United States.

"Nonstormwater discharge" means any discharge to the city stormwater conveyance system or directly to the receiving waters that is not composed exclusively of stormwater.

"Person" means any natural person as well as any corporation, partnership, public agency, trust, estate, cooperative association, joint venture, business entity or other similar entity, or the agent, employee or representative of any of the above.

"Pollutant" means any contaminant or other substance which, if present in sufficient quantities or concentrations can cause exceedance of receiving water limitations defined in Section B 1. of the municipal stormwater permit, or any successor section or permit, or otherwise cause a violation of the municipal stormwater permit. Pollutant may include, but is not limited to, solid waste, sewage, garbage, medical waste, wrecked or discarded equipment, radioactive material, dredged soil, rock, sand, industrial waste, feces, fecal coliform, fecal streptococcus, enterococcus, volatile organic carbon, surfactants, oil and grease, petroleum hydrocarbon, organic solvents, metals, phenols, pesticides, nutrients, suspended or settleable solids,

materials causing an increase in biochemical or chemical oxygen or total organic carbon, substances which alter pH, and those pollutants defined in Section 1362(6) of the Federal Clean Water Act.

"Potential discharger" means any person who by nature of the business in which such person is engaged, or by the use, possession or ownership of specified types of equipment, is determined by the administrator to generate or have the capacity to generate pollutants which have significant potential to be discharged to the city stormwater conveyance system or receiving waters.

"Premises" means any building, lot, parcel or land, or portion thereof, whether improved or unimproved.

"Prohibited discharge" means any non-stormwater discharge to the city stormwater conveyance system or directly to the receiving waters, which is not otherwise specifically authorized by this chapter, the regional board, state or federal law, or an NPDES permit.

"Receiving water limitations" means those restrictions and prohibitions defined and listed in Section B 1. of the municipal stormwater permit or any successor section, or permit.

"Receiving waters" means surface bodies of water, as defined by the municipal stormwater permit, including, but not limited to, creeks and rivers, which serve as discharge points for the city stormwater conveyance system.

"Regional board" means the California Regional Water Quality Control Board, Central Valley Region.

"Significant redevelopment" means the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to, expansion of a building footprint, or replacement of a structure; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related to structural or impervious surfaces.

"Stormwater" means surface runoff and drainage resulting from storm events and snowmelt.

"Threatened prohibited discharge" means any condition or activity which does not currently result in a prohibited discharge but has a substantial likelihood of resulting in a prohibited discharge.

"Discharger" means any person who discharges, or causes to discharge, either directly or indirectly, stormwater or any other pollutant into the city stormwater conveyance system or receiving waters.

"Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state.

"Waters of the United States" has the same meaning as set forth in Part 122.2 of Title 40 of the Code of Federal Regulations or any successor provision.

B. Any term(s) defined in the Federal Clean Water Act, as amended, and/or defined in the regulations for the stormwater discharge permitting program issued by the Environmental Protection Agency, as amended, and that are not specifically defined in subsection A of this section shall, when used in this chapter, have the same meaning as set forth in such act or regulations. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.040 Construction.

The provisions of this chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and any acts amendatory thereof or supplementary thereto, applicable implementing regulations, and NPDES Permit # CA 0082597 and any amendment, revision or reissuance thereof. In the event of a conflict between this chapter and any federal or state law, regulation, order or permit, the requirement which establishes the higher standard for public health and safety shall govern. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.050 Applicability.

The provisions of this chapter shall be applicable to all dischargers and potential dischargers located within the incorporated area of the city and all dischargers or potential dischargers that discharge either directly or indirectly into the city stormwater conveyance system or receiving waters. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.060 Regulatory consistency.

The provisions of this chapter shall take precedence over and are controlling with respect to any conflicting or inconsistent

provisions in this code. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.070 Compliance disclaimer.

Compliance by any person with the provisions of this chapter shall not preclude the need to comply with other local, state or federal statutory or regulatory requirements relating to the control of pollutant discharges or protection of stormwater quality, or both. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.080 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this chapter is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this chapter. The city council hereby declares that it would have adopted this chapter and each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof without regard to whether any other section, subsection, subdivision, paragraph, sentence, clause or phrase of this chapter would subsequently be declared to be invalid or unconstitutional. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.090 Administration.

Except as otherwise provided herein, the administrator shall be responsible for the administration, implementation and enforcement of the provisions of this chapter. Any powers granted to or duties imposed upon the administrator may be delegated by the administrator to other city employees or, upon the approval of the city council, to employees of other public agencies. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.100 Disclaimer of liability.

The degree of protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific, engineering and other relevant technical considerations. The standards set forth herein are minimum standards and this chapter does not imply that compliance will ensure that there will be no unauthorized discharge of pollutants into the waters of the United States. This chapter shall not create liability on the part of the city or any officer or employee thereof for any damages that result from reliance on this chapter or any administrative decision lawfully made thereunder. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

Article II. Prohibited Discharges

8.70.110 Prohibited discharge.

Except as provided in Section 8.70.120, it shall be unlawful for any person to make or cause to be made any non-stormwater discharge into the city stormwater conveyance system or receiving waters. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.120 Exceptions to discharge prohibition.

The following discharges to the city stormwater conveyance system are exempt from the otherwise applicable discharge prohibition set forth in Section 8.70.110:

A. Any discharge regulated under an NPDES permit issued to the discharger, and administered by the state pursuant to Chapter 5.5 of Division 7 of the Water Code, provided that any such discharge is in compliance with all requirements of the NPDES permit and all other applicable laws and regulations.

B. Any discharge from the following activities provided that any such discharge does not cause or contribute to the violation of any receiving water limitation.

1. Water line flushing and other planned or unplanned discharges from potable water sources;
2. Landscape irrigation and lawn watering;
3. Diverted stream flows;
4. Rising groundwaters or springs;
5. Uncontaminated groundwater infiltration, as defined in 40 CFR 35.2005(20) or any successor provision, to separate storm sewers;
6. Pumped groundwater that does not contain any pollutants;

7. Water from crawl space pumps;

8. Passive foundation and footing drains;

9. Air conditioning condensation;

10. Individual residential car washing;

11. Natural flows from riparian habitats and wetlands;

12. Dechlorinated swimming pool discharges that do not contain biocides or other chemicals, excluding filter backwash water;

13. Irrigation water; and

14. Waters that do not contain any wastes as defined in Water Code Section 13050(d) and Health and Safety Code Section 25117.

C. Any discharges which the administrator, the county health officer or the regional board determines in writing are necessary for the protection of public health or safety.

D. Additional categories of non-stormwater discharges which do not cause or contribute to the violation of any receiving water limitation may be exempted from the otherwise applicable prohibition by the administrator upon approval of the executive officer of the regional board, as provided in the municipal stormwater permit, or any successor sections. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.130 Exception to otherwise applicable exemptions.

Notwithstanding the exemptions provided for in Section 8.70.120, if the regional board or the administrator determines that a discharge which is otherwise exempt from the prohibition on discharges causes or significantly contributes to the violation of any receiving water limitation or is identified as a source of pollutants to waters of the State, or is otherwise a danger to public health or safety, the administrator may prohibit such discharge or require the responsible party(ies) to implement BMPs that will reduce the pollutants to the maximum extent practicable. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.140 General discharge prohibition.

It shall be unlawful for any person to discharge, or cause to be discharged, any pollutant to the city stormwater conveyance system or receiving waters which results in, or contributes to, a violation of the municipal stormwater permit. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.150 Threatened prohibited discharge.

It shall be unlawful for any person to maintain, or cause to be maintained, a threatened prohibited discharge after having received notice of the administrator's determination as to the existence of a threatened prohibited discharge. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.160 Illicit connections prohibited.

A. It shall be unlawful or any person to establish, use or maintain, or cause to establish, use or maintain, any illicit connection. Illicit connections shall be subject to removal and abatement by the city pursuant to Chapters 1.08 to 1.10 of this code.

B. The prohibition set forth in subsection A of this section shall apply to connections in existence at the time that this chapter becomes effective, irrespective of whether such connection was made under a permit or other authorization or whether permissible under the laws or practices applicable or prevailing at the time that the connection was made. Upon the effective date of this chapter, any person who maintains an illicit connection shall have 30 days from the effective date of this chapter to disconnect and discontinue use of such connection. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.170 Negligence or intent not required.

A violation of the provisions of this article shall occur irrespective of the negligence or intent of the violator to construct, maintain, operate or utilize an illicit connection or to cause, allow or facilitate any prohibited discharge. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

Article III. Reduction of Pollutants In Stormwater

8.70.200 General requirements.

Any person engaged in activities which may result in non-stormwater or pollutants entering the stormwater conveyance system or receiving waters shall undertake all measures to eliminate or reduce the risk of non-stormwater and/or pollutant discharges to the maximum extent practicable. The following requirements shall apply:

A. Business Related Activities.

1. Stormwater Pollution Prevention Plan. The administrator may require any business in the city that is engaged in activities that may result in non-stormwater and/or pollutant discharges to develop and implement a stormwater pollution prevention plan in accordance with requirements established by the administrator.

2. Coordination with Hazardous Materials Release Response Plans and Inventory. Any business requiring a hazardous materials release response and inventory plan under Chapter 6.95 (commencing with Section 25500) of Division 20 of the California Health and Safety Code, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-stormwater discharges and illicit discharges, and requiring the discharge of pollutants to be reduced to the maximum extent practicable.

3. Coordination with Hazardous Waste Generator Contingency Plan and Emergency Procedures. Any business requiring a hazardous waste generator contingency plan and emergency procedures pursuant to California Code of Regulations, Title 22, Sections 66265.51 to 66265.56, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-stormwater discharges and illicit discharges, and requiring the discharge of pollutants to be reduced to the maximum extent practicable.

B. Development/Redevelopment.

1. The administrator may develop controls as appropriate to minimize the long-term, post construction discharge of non-stormwater and/or pollutants from new development or significant redevelopment. Controls may include source control measures to prevent pollution of stormwater and/or treatment controls designed to remove pollutants from stormwater.

2. Any person associated with construction activities in the city shall prevent non-stormwater and/or pollutants from entering the stormwater conveyance system or receiving waters and comply with all applicable federal, state and local laws, ordinances or regulations including but not limited to the general permit for stormwater discharges associated with construction activity issued by the State Water Resources Control Board and any city ordinance, regulation or standard related to development and grading.

C. Compliance with General and/or Individual Stormwater Permits. Each discharger subject to any general and/or individual stormwater permit issued by the United States Environmental Protection Agency, the State Water Resources Control Board, the Regional Water Quality Control Board or the city of Folsom shall comply with the requirements of such permit. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.210 Containment and notification of spills.

Any person owning or occupying a premises that has knowledge of any discharge of pollutants, any non-stormwater discharge or threatened prohibited discharge, from the premises to the city stormwater conveyance system or receiving waters shall immediately take all reasonable action to contain and otherwise minimize any such discharge and notify the city within 24 hours of such prohibited discharge or threatened prohibited discharge. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.220 Compliance with best management practices.

Every person undertaking any activity or use of a premises which may cause or contribute to stormwater pollution or contamination, illicit discharges, or other non-stormwater discharges shall (1) comply with those best management practices or pollution control measures as may be established by the administrator and (2) properly operate and maintain those best management practices or control measures utilized on the premises to prevent or reduce, to the maximum extent practicable, stormwater pollution or contamination, illicit discharges, or other non-stormwater discharges as required by the administrator. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.230 Best management practices.

The administrator may establish BMPs which shall be implemented by persons conducting activities associated with certain categories of businesses as designated by the administrator. Those activities for which BMPs may be established include, but are not limited to, new development and/or significant redevelopment, construction, maintenance, storage, material handling, food handling, waste handling, air pollution control, water and wastewater treatment, heating and cooling, manufacturing, assembly, equipment operations, vehicle washing, maintenance, loading, and fueling, and cleaning (including carpets, streets, sidewalks, etc.). BMPs may be established for individual premises or businesses, or may be established generally for categories of business activities or equipment. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

Article IV. Inspection and Monitoring

8.70.300 Scope of inspections.

A. Prior to commencing any inspection authorized pursuant to this section, in the absence of an emergency situation that results in an immediate threat to life, health, safety, or the general welfare, the administrator shall obtain the consent of the owner or occupant of the premises. If such consent is not obtained, the administrator shall obtain an administrative inspection warrant or a criminal search warrant, as may be required by law. In the event an emergency situation is in progress, the administrator may enter upon private property to eliminate an immediate threat to life, health, safety, or the general welfare including, but not limited to, abatement, cleanup and disposal of a prohibited discharge or threatened prohibited discharge.

B. Routine and/or area inspections shall be based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this chapter, including, but not limited to, random sampling, sampling in areas with evidence of stormwater contamination, illicit connections, discharge of non-stormwater to the city stormwater conveyance system or receiving waters or similar factors.

C. The administrator may enter upon private property to investigate the source of any discharge to any public street, inlet, gutter, storm drain or the city stormwater conveyance system or receiving waters.

D. The administrator may enter upon private property for the purpose of verifying compliance with the provisions of this chapter, including, but not limited to, the following:

1. Identifying products produced, processes conducted, chemicals used and materials stored on or contained within the property;

2. Identifying point(s) of discharge of all wastewater, process water systems, pollutants and other discharges from the property;

3. Investigating the natural slope of the premises, including drainage patterns and artificial conveyance systems;

4. Establishing the location of all points of discharge from the property, whether by surface run-off or through a storm drain system;

5. Locating any illicit connection or the source of any prohibited discharge; and

6. Evaluating compliance with BMPs.

E. For purposes of verifying compliance with the provisions of this chapter, the administrator may inspect any vehicle, truck, trailer, tank truck or other mobile equipment.

F. The administrator may inspect, review and copy all records of the owner and/or occupant/business owner of any premises relating to illicit connections, prohibited discharges or threatened prohibited discharge of pollutants to the city stormwater conveyance system or receiving waters. This may include, but not be limited to, chemicals or processes presently or previously occurring on-site, including materials and/or chemical inventories, facilities maps or schematics or diagrams, material safety data sheets, hazardous waste manifests, business plans, pollution prevention plans, state general permits, monitoring program plans or any other records.

G. The administrator may inspect, sample and test any area runoff, soils area (including any groundwater testing), process discharge, materials within any waste storage area (including any container contents), and/or treatment system discharge for the purpose of determining the potential for the contribution of pollutants to the city stormwater conveyance system or receiving waters. The administrator may investigate the integrity of all storm drain and sanitary sewer systems or other pipelines on the premises using appropriate tests, including, but not limited to, smoke and dye tests or video surveys. The administrator may take photographs or videotape, make measurements or drawings, and create any other record reasonable necessary to document conditions on the premises.

H. The administrator may erect and maintain monitoring and sampling devices for the purpose of measuring any discharge or potential source of discharge to the city stormwater conveyance system or receiving waters.

I. The administrator may require regular reports from a premises owner and/or business owner regarding the provisions of this chapter whose premises discharges to the city stormwater conveyance system or receiving waters.

J. City-approved construction permits including approved building permits shall constitute permission by premises owner and/or business owner for administrator or designee to enter upon premises and conduct any and all inspections, monitoring and testing necessary to determine compliance with this code and approved permits.

K. The business owner and/or premises owner shall bear all costs incurred by the city associated with the administration and enforcement of this chapter including, but not limited to, investigation, testing, reports, and monitoring. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.310 Establishment of stormwater management and discharge control fund.

Fees to defray the cost of processing applications, determining compliance, and monitoring compliance pursuant to this title may be established by resolution of the city council. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.320 Commercial and industrial facility inspections.

A. The city and Sacramento County are co-permittees under NPDES Permit No. CAS082597. The permit requires regular compliance inspections and enforcement at certain commercial and industrial facilities as defined by the permit. Sacramento County operates an inspection, investigation and enforcement program that enforces compliance with environmental and water quality requirements by commercial and industrial facilities located within the county.

B. Under Article 11, Section 8 of the California Constitution, and applicable provisions of the city and Sacramento County Charters, the city and Sacramento County may enter into agreements for Sacramento County to perform specified municipal functions within the city.

C. In order to provide for effective and efficient administration and enforcement of this chapter with respect to commercial and industrial facilities within the city, and to ensure compliance with NPDES Permit No. CAS082597, the city council and the Sacramento County board of supervisors may enter into an agreement or agreements for Sacramento County to administer and enforce the provisions of this chapter with respect to commercial and industrial facilities located within the city, by including commercial and industrial facilities located within the city in Sacramento County's commercial and industrial compliance program. If the city council and the Sacramento County board of supervisors enter into such an agreement or agreements:

1. Sacramento County and its authorized official(s) and employee(s) shall enforce the provisions of this chapter as they apply to commercial and industrial facilities located within the city, in accordance with the provisions of such agreement(s).

2. Sacramento County and its authorized official(s) and employee(s) shall be authorized to take any action with respect to commercial and industrial facilities located within the city, in accordance with the provisions of this chapter and such agreement(s).

3. Sacramento County may establish and collect from commercial and industrial facilities located within the city such fees as may be necessary to cover the actual costs incurred by Sacramento County to include these facilities in its commercial and industrial compliance program, provided that the fees are established and collected in accordance with the provisions of such agreement(s) and all applicable legal requirements. (Ord. 1018 § 2 (part), 2004)

Article V. Enforcement

8.70.400 Enforcement.

A. This chapter shall be enforced pursuant to the provisions of Chapters 1.08 to 1.10, inclusive, of Title 1 of the Folsom Municipal Code.

B. The administrator shall enforce the provisions of this chapter.

C. If the city council and the Sacramento County board of supervisors enter into an agreement for Sacramento County to administer and enforce the provisions of this chapter with respect to the commercial and industrial facility inspections within the city, pursuant to Section 8.70.320 of this chapter, any administrative or civil enforcement by Sacramento County of any provision of this chapter with respect to such facilities shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County Code, and the provisions of subsections A and B of this section and sections 8.70.410 and 8.70.420 of this chapter shall not apply. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.410 Penalties.

A. A violation of this chapter shall be an administrative violation as defined in Section 1.08.020 of this code. In addition to enforcement by any procedure set forth in Chapters 1.08 to 1.10, inclusive, any violation of this chapter shall be punishable as a misdemeanor, which shall be punishable by a fine not to exceed $1,000, or by imprisonment in the county jail for not more than 6 months, or by both such fine and imprisonment.

B. Each of the sanctions for administrative violations identified in Section 1.09.013 of this code shall be available for enforcement of the provisions of this chapter.

C. In addition to the criminal penalty set forth in subsection A of this section, based upon the criteria for the imposition of administrative sanctions set forth in Section 1.09.014 of this code, a violation of a provision of this chapter shall be deemed a level E violation, as that term is described in Section 1.09.012 of this code. The range of monetary sanctions available for a violation of this chapter shall be as set forth in Section 1.09.012(A)(5) and may be imposed on a per day basis for each violation. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

8.70.420 Enforcement procedures, notice to correct.

A. Prior to the suspension, revocation, or denial of any license or permit, or the assessment of any fee, penalty, or charge, or the commencement of any other enforcement action pursuant to this chapter, the enforcement authority shall follow the procedures set forth in Chapter 1.09 of this code. The rights to judicial review set forth in Sections 1.09.050 to 1.09.059, inclusive, of this code shall apply.

B. A notice to correct shall not be required to commence the administrative hearing procedures set forth in Chapters 1.08 to 1.10, inclusive, of this code. Pursuant to Section 1.09.024(A) of this code, a notice of administrative violation shall be served in accordance with the provisions of Section 1.09.027 of this code. (Ord. 1018 § 2 (part), 2004: Ord. 922 § 1 (part), 2000)

Article VI. Recovery of Costs

8.70.500 Abatement.

A. Any person engaged in activities which cause, allow, facilitate or result in a prohibited discharge or threatened prohibited discharge, whether on public or private property, shall bear all costs incurred by the city as a result of such prohibited discharge or threatened prohibited discharge including, but not limited to, the cost of abatement, cleanup and disposal.

B. The administrator will keep an account of the administrative, labor, equipment and other costs of abatement, cleanup and recovery. (Ord. 1018 § 2 (part), 2004)

8.70.510 Regulatory actions.

Any person determined to be in violation of this chapter whose activities result in the city being in violation of any federal, state or local statute, ordinance, regulation or permit, shall bear all costs incurred by the city resulting from, or related to any correction of a violation or the payment of monetary sanctions, or both. (Ord. 1018 § 2 (part), 2004)

Exhibit B

Chapter 14.29
GRADING

Sections:

14.29.100 Short title.
14.29.110 Purpose.
14.29.120 Definitions.
14.29.130 Scope.
14.29.140 Administration.
14.29.150 Validity and severability.
14.29.160 Fees.
14.29.170 Exemptions.
14.29.180 Transfer of responsibility for certification.
14.29.190 Uniform Building Code superseded.
14.29.200 Grading permits.
14.29.201 Excavation.
14.29.202 Fill.
14.29.203 Earth-filled dams.
14.29.204 Gravel extraction.
14.29.210 Appeals.
14.29.220 Hazards.
14.29.230 Amendment to permit.
14.29.240 Extension of time.
14.29.250 Transfer of permit.
14.29.260 Grading permit requirements.
14.29.261 Application.
14.29.262 Plans and specifications.
14.29.263 Issuance.
14.29.300 Grading standards.
14.29.301 Grading standards--Cuts and fills minimum.
14.29.302 Grading standards--Cut slopes.
14.29.303 Grading standards--Fills.
14.29.310 Setbacks.
14.29.320 Drainage and terracing.
14.29.321 Drainage plan content.
14.29.322 Storm drainage system standards.
14.29.330 Erosion control.
14.29.400 Grading inspection.
14.29.410 Suspension and revocation of permit.
14.29.420 Security.
14.29.430 Enforcement and penalty.

14.29.100 Short title.

This chapter shall be known as the "Grading Ordinance" of the city and may be so cited. (Ord. 415 § 1 (part), 1981)

14.29.110 Purpose.

This chapter establishes standards for the preparation of sites and construction activities to protect the health, safety and general welfare of those working or living on or near the site by protecting against unwarranted or unsafe grading, drainage works or other aspects of site development as follows:

1. To establish standards and procedures for grading and excavation so as to minimize hazards to life and limb, protect against erosion, maintain the natural environment, and protect the safety, use and stability of public rights-of-way and drain-age channels;

2. To assure that projects approved under this chapter will be free from harmful effects of runoff, including inundation and erosion, and that neighboring and downstream properties will be protected from drainage problems resulting from new development;

3. To assure proper restoration of vegetation and soil systems disturbed by grading or fill activities authorized under this chapter. It is intended through this chapter to maintain an attractive and healthy landscape and to control against dust and erosion and their consequent effects on soil structure and water quality. (Ord. 415 § 1 (part), 1981)

14.29.120 Definitions.

The definitions as stated in the glossary of the Erosion and Sediments Control Handbook maintained by the department of public works shall apply to the interpretation and enforcement of this chapter. (Ord. 415 § 1 (part), 1981)

14.29.130 Scope.

This chapter sets forth rules and regulations to control excavation, grading and earthwork construction including fills and embankments, establishes the administrative procedure for issuance of permits, and provides for approval of plans and inspection of grading construction. (Ord. 415 § 1 (part), 1981)

14.29.140 Administration.

The public works department is designated the department responsible for the administration of this chapter. (Ord. 415 § 1 (part), 1981)

14.29.150 Validity and severability.

If any part of this chapter is found not valid, the remainder of this chapter shall remain in effect. (Ord. 415 § 1 (part), 1981)

14.29.160 Fees.

A schedule of fees may be established by resolution of the city council for all costs incurred in the processing of any grading application. Such fees shall cover the full costs of review, approvals, inspections, certification of compliance, or other determinations or actions necessitated by the permit application. A separate and distinct fee may be set by the city council by resolution for the cost of appeals filed pursuant to this chapter. (Ord. 415 § 1 (part), 1981)

14.29.170 Exemptions.

A grading permit is not required if the proposed work consists of the following activities and such activities will not endanger adjacent property, cause increased erosion, sedimentation and rate of water runoff, divert or impair the flow of water within a water course or cause a public nuisance. All development activities exempted from the grading permit requirement shall be carried out in a manner consistent with the design principles and standards set out herein to assure that the potential for erosion of any project is minimized.

A grading permit is not required for the following:

1. Excavation below finished grade for basements and footings of a building, retaining wall, swimming pool, or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than five feet after the completion of such structures;
2. Excavation for cemetery graves;
3. Excavation when all of the following conditions are met:
    a. The quantity is fifty cubic yards or less,
    b. The depth is three feet or less,
    c. The slope of the cut face is two feet horizontal to one foot vertical or less;
4. Fill when all of the following conditions are met:
    a. The quantity is fifty cubic yards or less placed on ground sloping twenty percent or less,
    b. The height is three feet or less,

c. The slope of the fill embankment face is two feet horizontal to one foot vertical or less,

d. The existing drainage patterns are not altered;

5. Minor agricultural land leveling when the change in elevation is three feet or less;

6. Clearing vegetation when all of the following conditions are met:

a. The slope of the ground is twenty percent or less,

b. The area to be cleared is one acre or less;

7. Grading in refuse disposal areas and sanitary landfills;

8. Trenches for public utilities, unless encroachment permits are otherwise necessary. (Ord. 415 § 1 (part), 1981)

14.29.180 Transfer of responsibility for certification.

If the civil engineer, the soil engineer, the engineering geologist, or the testing agency of record are changed during the course of the work, the work shall be stopped until the replacement has agreed to accept the responsibility within the area of their technical competence for certification upon completion of the work. (Ord. 415 § 1 (part), 1981)

14.29.190 Uniform building code superseded.

If there is any inconsistency between the provisions of this chapter and Chapter 70 of the Uniform Building Code as adopted by the city, the provisions of this chapter shall control. (Ord. 415 § 1 (part), 1981)

14.29.200 Grading permits.

Unless exempted under Section 14.29.170, a grading permit is required from the public works director prior to the initiation of any grading, excavation, fill or dredging activities included under Section 14.29.201 or Section 14.29.202. (Ord. 415 § 1 (part), 1981)

14.29.201 Excavation.

A grading permit is required for any excavations that:

1. Disturbs more than five thousand square feet in surface area or more than eight hundred cubic yards total cut area; or

2. Disturbs more than two thousand five hundred square feet in surface area or more than four hundred cubic yards total cut area in a flood hazard or erosion hazard area;

3. Is more than two feet deep; or

4. Creates a cut slope more than five feet high and steeper than two horizontal to one vertical. (Ord. 415 § 1 (part), 1981)

14.29.202 Fill.

A grading permit is required for any fill that:

1. Exceeds fifty cubic yards on any one lot; or

2. Exceeds twenty-five cubic yards on any one lot in a flood hazard or erosion hazard area; or

3. Has an unsupported height more than five feet; or

4. Is more than one foot deep and is placed on natural terrain with a slope steeper than two horizontal to one vertical; or

5. Is more than three feet deep and is intended to support structures;

6. Obstructs a natural or manmade drainage course which carries a significant amount of storm runoff to the extent that increased erosion and siltation will occur. (Ord. 415 § 1 (part), 1981)

14.29.203 Earth-filled dams.

For the purpose of creating ponds or catching stormwater, earth-filled dams require a grading permit. Such requirement may be waived on a case-by-case basis by the public works director where the following conditions exist:

1. The proposed dam will not create a hazard to private property and improvements;

2. The proposed dam will not drastically affect existing drainage patterns or create erosion hazards. (Ord. 415 § 1 (part), 1981)

14.29.204 Gravel extraction.

Grading in areas of mining, quarrying, excavating, processing and stockpiling of rock, sand, gravel, aggregate or clay shall be conducted in accordance with a mining and reclamation plan prepared in accordance with the laws of the state of California and any ordinances of this city enacted pursuant thereto and shall conform to the provisions of this chapter. (Ord. 415 § 1 (part), 1981)

14.29.210 Appeals.

The decision of the public works director upon applications for permits under this chapter shall be in writing and a copy of such decision shall be served upon the applicant, in person or by first class mail, postage prepaid. Any other person who files a written request therefor with the public works director shall also receive a copy of such decision.

If the applicant or any other person is dissatisfied with any determination made by the public works director, he may appeal in writing to the city council stating the reasons for his dissatisfaction with the determination of the public works director. The appeal must be filed within 10 days of the decision by the public works director. The appeal shall be filed with the clerk of the city council and the council shall hear the appeal within sixty days after the date of the filing of the appeal. Written notice shall be given to the public works director, the appellant and all other persons requesting the same, specifying the place, date and time of hearing the appeal. (Ord. 415 § 1 (part), 1981)

14.29.220 Hazards.

Existing Hazards. Whenever the public works director determines that any existing excavation or embankment or fill on private property, to include the exceptions listed in Section 14.29.170 has become a hazard to life or limb, endangers property or adversely affects the safety, use or stability of a public way or drainage channel, the owner of the property upon which the excavation, embankment or fill is located, or other person or agent in control of said property or project, upon receipt of notice in writing from the public works director, shall within the period specified therein repair or eliminate such excavation, embankment or fill so as to eliminate the hazard and be in conformance with the requirements of this chapter. The public works director may issue special or conditional permits and/or require performance bonds or other forms of security in accordance with Section 14.29.420 to ensure compliance with the intent of this section. (Ord. 415 § 1 (part), 1981)

14.29.230 Amendment to permit.

All changes in the plans, grades, timing or extent of work shall be submitted to the director of public works for written approval and incorporation into the permit before any change in the work is commenced. The director of public works may amend the permit to approve such changes if appropriate, or may deny approval of such changes.

Failure to obtain prior approval for any change in the work shall be cause for the suspension of the permit until approval is obtained, and may result in the revocation of the permit if such changes are deemed to be hazardous to adjoining properties or to the public at large. (Ord. 415 § 1 (part), 1981)

14.29.240 Extension of time.

Each permit shall be valid for a period of one year from the date of issuance unless noted otherwise on the permit. The date the permit expires shall be noted on the permit.

1. The permittee may, before the expiration of the permit, apply for an extension of time in which to complete the work in a reasonable and expeditious manner.

2. Extensions of time may be granted by the director of public works for a period or periods not exceeding a total of one year.

3. Denial of an extension of time shall not preclude the right of the permittee to apply for a new permit for the remaining balance of the work.

4. Written consent of the surety to any extension of time must be furnished before the approval of the extension becomes effective, unless the security consists of a cash deposit.

5. Every permit issued by the public works director under the provisions of this chapter shall expire by limitation and become null and void if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred twenty days. Permits may be granted an extension of time where the public works director finds that unusual circumstances warrant such an extension of

time and will not create a hazard or nuisance.

6. Before any work can be recommenced, if a permit has expired, a new permit shall be first obtained to do so, and the fee therefor shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original plans and specifications for such work and provided further, that such suspension or abandonment has not exceeded one year. (Ord. 415 § 1 (part), 1981)

14.29.250 Transfer of permit.

The transfer of a permit from the permittee to another person shall be subject to the written approval of the director of public works. The person to whom the permit is being transferred shall agree in writing to such modifications as may be required, and shall furnish the required security before transfer of the permit will be approved. (Ord. 415 § 1 (part), 1981)

14.29.260 Grading permit requirements.

Except as exempted in Section 14.29.170, no person shall do any grading without first obtaining a grading permit from the public works director. A separate permit shall be required for each site and may cover both excavations and fills. Subdivisions on which all grading is performed as a unit shall be considered a single site. (Ord. 415 § 1 (part), 1981)

14.29.261 Application.

To obtain a permit the applicant shall first file an application therefor in writing on a form furnished for that purpose by the public works director. Every application shall include the following:

1. The name, address and telephone number of the applicant;
2. The names, addresses, and the telephone numbers of all property owners other than the applicant;
3. The names, addresses, and telephone numbers of any and all contractors or persons actually doing the work, and the work that each will be doing;
4. The name, address, telephone number and registration number of the party responsible for preparing the grading plan;
5. The name, address and telephone number of the party responsible for preparing the erosion and sediment control plan;
6. The name, address and telephone number and registration number of the registered civil engineer responsible for the preparation of the soils and engineering report, if required;
7. Identify and describe the work to be covered by the permit for which application is made;
8. Describe the land on which the proposed work is to be done, by lot, block, tract, and house and street address or similar description that will readily identify and definitely locate the proposed building or work;
9. Indicate the use or occupancy for which the proposed work is intended;
10. Be accompanied by plans and specifications as required in Section 14.29.263;
11. Be signed by the permittee, or his authorized agent, who may be required to submit evidence to indicate such authority;
12. State the estimated quantity of work involved;
13. State the estimated starting and completion dates;
14. Give such other information as reasonably may be required by public works director. (Ord. 415 § 1 (part), 1981)

14.29.262 Plans and specifications.

A. Minor Grading. A minor grading plan is to be submitted where the grading includes less than five thousand cubic yards total of cut and fill where the public works director has determined that a grading project is of a minor nature due to the absence of:

1. Steep slopes (greater than or equal to fifteen percent);
2. Location in a geologic study area or flood hazard area;
3. Potential damage to structures on or adjacent to the subject site;
4. Potential blockage of drainage channels;
5. Potential impairment of significant natural vegetation, biological habitats, public views or other sensitive natural resources.

B. A minor grading plan is to consist of the following as determined by the public works director, provided that

information submitted with any required plot plan, site plan, or development plan may also be used to fulfill those submittal requirements:

1. General vicinity map;
2. Property limits of the site;
3. Generalized existing contours and drainage channels including those areas of the subject site and adjoining properties that will be affected by the disturbance either directly or through drainage alterations;
4. Location of any buildings or structures that are within fifty feet of the area which may be affected by the proposed grading operation,
5. Limiting dimensions, elevations or finished contours to be achieved by the grading and proposed drainage channels and related construction.

C. Engineered Grading. An engineered grading plan is to be submitted for any grading in excess of five thousand cubic yards or where the public works director has determined that a grading project should be engineered, based on the presence of:

1. Steep slopes;
2. Located in an erosion hazard area or a flood hazard area;
3. Potential damage to structures on the subject site or adjacent properties;
4. Potential impairment of natural vegetation, biological habitats, public views, or other sensitive resources.

D. Where it is determined by the public works director that, due to terrain, soil characteristics, grading design, etc., engineered grading plans will serve no benefit with respect to effecting a safe and adequate grading operation, such engineered grading plan requirements may be waived.

E. An engineered grading plan is to be drawn to scale and is to be of sufficient clarity to indicate the nature and extent of the work proposed and show in detail that it will conform to the provisions of this chapter. Two sets of plans and specifications are to be prepared and signed by a civil engineer and are to include the following information as determined by the public works director:

1. General vicinity map;
2. Property limits of the subject site;
3. Details of terrain and area drainage and accurate contours of existing ground at intervals determined by the public works director;
4. Location of any buildings or structures that are within fifty feet of the area which may be affected by the proposed grading operations;
5. Limiting dimensions, elevations of finished contours to be achieved by the grading, and proposed drainage channels and related construction;
6. Specifications covering construction and material requirements;
7. Soil engineering report to include data regarding the nature, distribution and strength of existing soils, conclusions and recommendations for grading procedures and criteria for corrective measures when necessary, and opinions and recommendations covering adequacy of sites to be developed by the proposed grading;
8. Engineering geology report to include a description of the site, conclusions and recommendations regarding the effect of geologic conditions and recommendations covering the adequacy of sites to be developed by the proposed grading;
9. A statement indicating methods to mitigate any conditions whereby the public works director may require an engineered grading plan such as steep slopes, location in a geologic study area or flood hazard area, potential damage to structures on the subject site or adjacent property, potential impairment of natural vegetation, habitat, public view or other sensitive resources;
10. Drainage plan if not included in any of the above;
11. Erosion control plan and/or recommendation for mitigating measures. (Ord. 415 § 1 (part), 1981)

14.29.263 Issuance.

A. The application, plans and specification filed by an applicant for a permit shall be checked by the public works director. Such plans may be reviewed by other departments of the city to check compliance with the laws and ordinances under their jurisdiction. If the public works director is satisfied that the work described in an application for permit and the plans filed therewith conform to the requirements of this chapter and other pertinent laws and ordinances and that the fee specified in Section 14.29.160 has been paid, the public works director shall issue a permit therefor to the applicant.

When the public works director issues the permit, he shall endorse in writing or stamp on both sets of plans and specifications "APPROVED." Such approved plans and specifications shall not be changed, modified, or altered without authorization from

the public works director; and all work shall be done in accordance with the approved plans. The public works director may require that grading operations and project designs be modified if delays occur which incur weather generated problems not considered at the time the permit was issued.

B. Coordination of Grading Plans. The public works director may require inspection and testing by an approved testing agency or the public works department, and he is responsible for coordination of the parties to all grading activities including the civil engineer, soils engineer, engineering geologist, public works department, other city departments where required, the grading contractor, and the testing agency.

C. Retention of Plans. One set of approved plans, specifications and computations shall be retained by the public works director for a period of not less than ninety days from date of completion of the work covered therein, and one set of approved plans and specifications shall be returned to the applicant, which set shall be kept on such building or work site at all times during which the work authorized thereby is in progress.

D. The issuance of a permit based upon plans and specifications shall not prevent the public works director from thereafter requiring the correction of errors in said plans and specifications or from preventing building operations being carried on thereunder when in violation of this chapter or of any other ordinance of the city.

E. Upon completion of the rough grading and/or final grading for any engineered gradings, the public works director may require submission of an as-graded grading plan and soil and geologic grading reports.

F. The applicant is to notify the public works director when the grading operation is ready for final inspection. Final approval will not be given until all work has been completed in accordance with the final approved grading plan including installation of all drainage facilities and their protection devices and all revegetation and erosion control measures as required. (Ord. 415 § 1 (part), 1981)

14.29.300 Grading standards.

Excavations and fills are to be conducted in accordance with the standards set out in Section 14.29.301 through Section 14.29.303. (Ord. 415 § 1 (part), 1981)

14.29.301 Grading standards--Cuts and fills minimum.

Cuts and fills are to be limited to the minimum amount necessary to provide stable embankments for required parking areas or street rights-of-way, structural foundations, and adequate residential yard area or outdoor storage or sales area incidental to a nonresidential use. Adequate graded storage and sales area is to be limited to not more than twenty percent of gross floor area. (Ord. 415 § 1 (part), 1981)

14.29.302 Grading standards--Cut slopes.

Cut slopes are to be no steeper than two horizontal to one vertical or fifty percent except where certified by a registered civil engineer as to stability and/or approved by the public works director. (Ord. 415 § 1 (part), 1981)

14.29.303 Grading standards--Fills.

Fills are to be subject to the following standards, provided that the public works director may exempt minor fills that are not intended to support structures unless otherwise recommended in an approved soil engineering report:

1. Fill slopes may not be constructed on natural slopes steeper than two to one or as determined by the public works director.

2. The ground surface is to be prepared to receive fill by removing vegetation, noncomplying fill, topsoil, and other unsuitable materials, scarifying to provide a bond with the new fill, and, where slopes are steeper than two to one and the height is greater than five feet, benching into sound bedrock or other competent materials as determined by the public works director.

3. The bench under the toe of a fill on a slope steeper than two to one is to be at least ten feet wide. The area beyond the toe of a fill is to be sloped for sheet overflow or a paved drain provided. Where fill is to be placed over a cut, the bench under the toe of a fill is to be at least ten feet wide, but the cut must be made before placing any fill and approved by the soils engineer (or public works director for minor grading) as a suitable foundation for fill. Unsuitable soil is soil which is not competent to support other soil or fill, to support structures, or to perform satisfactorily the other functions for which the soil is intended.

4. Detrimental amounts of organic material may not be permitted in fills. No rock or similar irreducible material with a maximum dimension greater than twelve inches is to be buried or placed in fills, except that the public works director may permit placement of larger rock when the soils engineer properly devises a method of placement, continuously inspects its placement and approves the fill stability. The following conditions also apply in such case:

a. Prior to issuance of a grading permit, potential rock disposal areas are to be delineated on the grading plan if required;

b. Rock sizes greater than twelve inches in maximum dimension are to be below grade, measured vertically at a distance determined by the public works director;

c. Rocks are to be placed so as to assure filling of all voids with fines.

5. All fills for building pads and roads are to be compacted to a minimum of ninety percent of maximum density as determined by the public works director. Fill density will be determined by the public works director.

6. Drainage and terracing is to be provided and the area above fill slopes and the surfaces of terraces are to be graded and paved as required in Section 14.29.320. (Ord. 415 § 1 (part), 1981)

14.29.310 Setbacks.

Setbacks for cuts and fills are to be as follows:

1. The tops of cuts and toes of fill slopes are to be set back from the outer boundaries of the permit area including slope right areas and easements in accordance with Figure No. 1 and Table No. 1 attached to the ordinance codified in this chapter.

2. Setbacks between graded slopes and structures are to be provided in accordance with Figure No. 2 attached to the ordinance codified in this chapter. (Ord. 415 § 1 (part), 1981)

14.29.320 Drainage and terracing.

Drainage facilities and terracing are to conform to the following unless otherwise indicated on the approved grading plan:

1. Terraces at least six feet in width are to be established at not more than thirty-foot-in-height intervals on all cut or fill slopes to control surface drainage and debris except that, where only one terrace is required, it is to be a mid-height. For cut slopes greater than sixty feet and up to one hundred twenty feet in height are to be twelve feet in width. Terraces on cut or fill slopes greater than one hundred twenty feet in height are to be designed by the civil engineer and approved by the public works director. Suitable access is to be provided to permit proper cleaning and maintenance.

2. Swales or ditches on terraces are to have a minimum gradient of five percent paved with reinforced concrete not less than three inches in thickness or an approved equal paving. They are to have a minimum paved width of five feet.

3. A single run of swale or ditch may not collect runoff from a tributary area exceeding thirteen thousand five hundred square feet (projected) without discharging into a down drain without approval of the public works director.

4. Cut and fill slopes are to be provided with subsurface drainage as determined necessary by the public works director based upon the soils engineer report or in accordance with a drainage and/or erosion control plan prepared pursuant to this chapter. Check dams, cribbing, rip-rap, or other devices or methods are to be employed to control erosion and provide safety.

5. All drainage facilities are to be designed to carry waters to the nearest practical drainage way approved by the public works director as a safe place to deposit such waters. Erosion of ground in the area of discharge is to be prevented by installation of nonerosive down drains or other devices.

6. Building pads are to have a drainage gradient of two percent toward the street or in an underground conduit. The approved drainage facilities may be one percent if approved by the public works director and all of the following conditions exist throughout the permit area:

a. No proposed fills are greater than ten feet in maximum depth;

b. No proposed finish cut or fill slope faces have a vertical height in excess of ten feet;

c. No existing slope faces, which have a slope face steeper than ten horizontally to one vertically, have a vertical height in excess of ten feet.

7. Paved interceptor drains are to be installed along the top of all cut slopes where the tributary drainage area above slopes towards the cut and has a drainage path greater than forty feet measured horizontally or as approved by the public works director. Interceptor drains are to be paved with a minimum of three inches of reinforced concrete or approved equal. They are to have a minimum depth of twelve inches and a minimum paved width of thirty inches measured horizontally across the drain. The slope of such drain is to be approved by the public works director.

Grading, dredging or diking may not alter any intermittent or perennial stream as shown on any USGS seven and one-half minute map, except as permitted through approval of a streambed alteration permit from the California Department of Fish and Game issued under Section 1601 or 1602 of the Fish and Game Code.

Contours of finished surfaces are to be blended with adjacent natural terrain to achieve a consistent grade and natural appearance. Borders of cut slopes and fills are to be rounded off to a minimum radius of 5 feet so as to blend with the natural terrain. (Ord. 415 § 1 (part), 1981)

14.29.321 Drainage plan content.

Drainage plans are to be accurately and neatly drawn to include the following as determined by the public works director:

1. Flow of surface water onto and off the site;
2. Existing and finished contours at intervals determined by the public works director;
3. Building and road elevations, existing and proposed;
4. Existing and proposed drainage channels including drainage swales, ditches and berms;
5. Location and design of any proposed facilities for storage or for conveyance of runoff into indicated drainage channels including sumps, basins, channels, culverts, ponds, storm drains and drop inlets;
6. Estimates of existing and increased runoff resulting from the proposed improvements if required. (Ord. 415 § 1 (part), 1981)

14.29.322 Storm drainage system standards.

Drainage facilities are to be adequate to assure that the development will not result in stormwater runoff that could cause flooding, ponding, soil erosion, sediment production, and sediment pollution. The following standards also apply:

1. Site development is to be accomplished wherever possible in a manner that will maximize percolation and infiltration of precipitation into the ground and will minimize direct surface runoff into adjoining streets, water courses, or properties.
2. In general, the release rate of stormwater from all parts of the subject site after development should not exceed the stormwater runoff rate from the area in its previous undeveloped state for all intensities and durations of rainfall. The carrying capacity of the channels immediately downstream is to be considered in determining the permitted amount of the stormwater release.
3. All drainage facilities are to be designed to carry stormwaters to the nearest stable channel or natural drainage way with adequate capacity to carry the flow. If drainage facilities discharge onto natural ground, the applicant is to provide a method to reduce the velocity of flow in order to prevent erosion or other harmful effects to the subject site or other adjoining properties. (Ord. 415 § 1 (part), 1981)

14.29.330 Erosion control.

A. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where it is determined by the public works director that cut slopes are not subject to erosion due to erosion-resistant character of the materials, such protection may be omitted.

B. Erosion control plan content. With any minor or engineered grading plan, an erosion control plan may be required to be submitted including the following items:

1. Protective measures to be taken during construction such as hydromulching, berms (temporary or permanent), interceptor ditches, subsurface drains, terraces and/or sediment traps in order to prevent erosion by surface or ground water of the cut faces of excavations or of the sloping surfaces of fills;
2. Permanent methods of revegetation following completion of proposed grading or improvements;
3. Approximate sequence and timing of grading and construction increments and/or subsequent revegetation and/or landscaping work.

C. Revegetation standards.

1. Permanent revegetation or landscaping, if required, is to be commenced on the construction site as soon as practical and in no case exceeding twelve months after achieving final grades and utility implacements. Whenever practical, land is to be developed in increments of workable size which can be completed during a single construction season; erosion control measures are to be coordinated with the sequence of grading or improvements.
2. Grading equipment is to be confined to area immediately adjacent to areas of disturbance as indicated by the plan approved by the public works director.
3. All surfaces disturbed by vegetation removal, grading, haul roads, or other activity of construction which alters the natural vegetative cover are to be prepared for expedient revegetation or otherwise maintained to control erosion unless covered with impervious or other improved surfaces pursuant to approved plans within thirty days of

following the completion of grading, or removal of vegetation if no grading was involved. Erosion control described in the Erosion and Sediment Control Handbook, May 1978, may be used as a guide.

4. Topsoil removed from the surface in preparation for grading and construction is to be stored whenever possible on or near the site and protected from erosion while grading operations are underway; provided, that such storage may not be located where it would cause suffocation of root systems of trees intended to be preserved. After completion of such grading, topsoil is to be restored to exposed cut and fill embankments or building pads so as to provide a suitable base for seeding and planting.

5. Acceptable methods of revegetation include straw-mulching, hydro-mulching or planting of mixture specified by public works director. Other methods of revegetation may be approved by the public works director where equivalent protection is provided.

6. All revegetation and landscaping are to be conducted within suitable growing periods. Native plant material are specifically encouraged in order to reduce irrigation demands.

7. For all grading or improvements to be conducted during the rainy season, a sedimentation control plan is to be submitted including, where necessary, temporary sedimentation basins. Sedimentation control facilities are to be installed in conjunction with initial grading operations and maintained throughout the construction period to remove sediments from runoff waters during development.

8. Permanent sediment catchment basins or other types of sediment retention facilities are required wherever necessary to prevent discharge of sediment into stream channels. Accumulated sediment is to be inspected and removed for disposal according to a regular maintenance schedule.

9. The planting or seeding of vegetative protection must be effective. If the vegetation does not grow and offer proper protection, it must be replanted or reseeded.

10. The maintenance of vegetative protection on graded slopes shall be the responsibility of the permittee and shall be guaranteed until the vegetation is well established or is officially assumed by another party approved by the public works director. (Ord. 415 § 1 (part), 1981)

14.29.400 Grading inspection.

A. General. All grading operations for which a permit is required shall be subject to inspection by the public works director. When required by the public works director, special inspection of grading operations and special testing shall be performed in accordance with the provisions of this chapter.

B. Engineered Grading Requirements. For engineered grading, it shall be the responsibility of the civil engineer who prepares the approved grading plan to incorporate all recommendations from the soil engineering and engineering geology reports into the grading plan. He shall also be responsible for the professional inspection and certification of the grading within his area of technical specialty. This responsibility shall include, but need not be limited to, inspection and certification as to the establishment of line, grade, and drainage of the development area. The civil engineer shall act as the coordinating agent in the event the need arises for liaison between the other professionals, the contractor and the public works director. The civil engineer shall also be responsible for the preparation of revised plans and the submission of as-graded grading plans upon completion of the work.

Soil engineering and engineering geology reports may be required as specified in Section 14.29.262. During grading all necessary reports, compaction data, and soil engineering and engineering geology recommendations shall be submitted to the civil engineer and public works director by the soil engineer and the engineering geologist. The engineering geologist's area of responsibility shall include, but need not be limited to professional inspection and certification of the adequacy of natural ground for receiving fills and the stability of cut slopes with respect to geological matters and the need for sub-drains or other ground water drainage devices. He shall report his findings to the soil engineer and the civil engineer for engineering analysis. The public works director shall inspect the project at the various stages of the work requiring certification and at any more frequent intervals necessary to determine that adequate control is being exercised by the professional consultants.

C. Regular Grading Requirements. The public works director may require inspection and testing by an approved testing agency, the expense of which shall be borne by the applicant. The testing agency's responsibility shall include, but need not be limited to, certification concerning the inspection of cleared areas and benches to receive fill and the compaction of fills.

When the public works director has cause to believe that geologic factors may be involved, the grading operation will be required to conform to engineered grading requirements at no expense to the city. (Ord. 415 § 1 (part), 1981)

14.29.410 Suspension and revocation of permit.

A. A grading permit shall be suspended or revoked by the public works director, unless exempted by said director, if:

1. Conditions at the site vary appreciably from those shown on the approved plans;

2. Construction does not conform to the approved grading plan, final erosion and sediment control plan, time schedules, or conditions of the grading permit;

3. The site is left in a condition hazardous to the public or to the adjacent properties, and permittee does not comply with reasonable requirements to correct said conditions;

4. The permittee does not comply with reasonable requirements to safeguard the workmen, the public or other persons acting in a lawful manner;

5. The permittee, in connection with the operations for which the permit was issued, fails to operate his equipment properly on public roads; or allows material to encroach, obstruct, or be deposited within a public road right-of-way or within a drainage channel in a manner not authorized by said permit; or causes unauthorized obstruction or diversion of drainage channels;

6. The permittee fails to have a qualified inspector, working under the supervision of a registered civil engineer, on the site during operations when so required by the permit or fails to have the work under proper supervision at all times;

7. Emergency conditions exist on the site which constitute a threat to health, safety or public welfare.

B. Prior to the suspension or revocation of a permit, the public works director shall give to the permit holder written notice of intention to suspend or revoke the permit, which notice shall specify the grounds for such intended action and the time and place for the holding of a conference between the public works director and the permit holder and/or their authorized representatives to review the grounds for the proposed action. Notice of the proposed action shall be given to the permit holder at least forty-eight hours, but not more than seventy-two hours before the time set for the conference, if given by personal service, and at least ninety-six hours, but not more than one hundred twenty hours before the time set for the conference, if given by first class mail. Weekends and holidays shall not be counted in determining the time for the giving of notice and the holding of the conference. With the consent of the permit holder the time periods provided for herein may be shortened or extended.

Upon receipt of the notice of intended suspension or revocation, the permit holder shall cease all work in connection with the permit, with the exception of work necessary to correct any condition or perform any work cited in the notice of proposed action as a ground for suspension and/or revocation and work of an emergency nature.

Within twenty-four hours following the conclusion of the conference, the public works director shall render his written decision, either revoking the permit, suspending the permit, or authorizing the permit holder to proceed with the work. Such action may be with or without conditions. The decision shall be served upon the permit holder by personal service or first class mail, postage prepaid, within twenty-four hours after the rendition of the decision.

If the permit holder is dissatisfied by the decision of the public works director, he may appeal to the city council. Said appeal shall be filed, noticed, and acted upon within the same time and in the same manner as an appeal under Section 14.29.210.

C. If the permittee fails to correct said objectionable or emergency conditions, the city may cause the work necessary to correct said conditions to be done, and the city may take action against the permittee's security to cover the cost of performing the work.

D. Any permit which has been suspended may be either reinstated or revoked by the public works director. (Ord. 415 § 1 (part), 1981)

14.29.420 Security.

In all cases, the application for engineered grading permit shall be accompanied by a performance bond or other form of security acceptable to the public works director, posted by the applicant. A bond may also be required along with the application for a minor grading permit if deemed necessary by the public works director. The amount of the bond or security shall be the full cost of the installed erosion and sediment control measures and for the maintenance of such facilities. The bond shall be held until the erosion and sediment control measures have performed satisfactorily for a period of one year following completion of development or until such measures are permanently stabilized as provided for in this chapter. The bond may be used to provide for the installation and maintenance of the control measures if not done by the applicant and sediment runoff is occurring as a result. (Ord. 415 § 1 (part), 1981)

14.29.430 Enforcement and penalty.

A. It shall be the duty of the public works director and other authorized employees of the city, to enforce the provisions of this chapter. No oversight or dereliction on the part of the public works director, or any authorized assistants of any official, or employee of the city vested with the duty or authority to issue permits, shall legalize, authorize, waive or excuse the violation of any provision of this chapter.

B. In the administration and enforcement of this chapter, any duly authorized official or employee of the city shall have authority to enter upon the premises for the purposes of investigation and inspection; provided, however, that the above referred to right of entry shall be exercised only during the daylight hours. No person shall refuse to permit such inspection.

C. In the event any person, firm or corporation shall perform any work in violation of this chapter or any permit issued pursuant thereto, or fail or refuse to perform any work required by this chapter or any permit issued pursuant thereto, the same is declared to be a public nuisance and at the direction of the city council, the city attorney is authorized to bring and prosecute an action in a court of competent jurisdiction to enjoin the performance of such work or, if such work has been accomplished, from maintaining the same.

D. The violation of this chapter is an infraction and shall be punishable by:

1. A fine not exceeding fifty dollars for a first violation;

2. A fine not exceeding one hundred dollars for a second violation within one year;

3. A fine not exceeding two hundred fifty dollars for each additional violation within one year. (Ord. 415 § 1 (part), 1981)

Exhibit C

Chapter 1.08
ENFORCEMENT OF THE FOLSOM MUNICIPAL CODE AND OTHER APPLICABLE LAWS

Sections:

1.08.010 Purpose and intent.
1.08.020 Definitions.
1.08.030 Public nuisance.
1.08.040 Procedures for enforcement.

1.08.010 Purpose and intent.

Pursuant to its authority as a charter city, the city of Folsom adopts the procedures and remedies set forth in this title for the enforcement of the Folsom Municipal Code and Uniform Codes adopted by the city. The purpose of Chapters 1.08 through 1.10 is:

A. To provide standards for the enforcement of the Folsom Municipal Code and other applicable laws;

B. To establish administrative sanctions for violations of the Folsom Municipal Code and other applicable laws as an alternative to criminal or civil enforcement penalties;

C. To establish a hierarchy of administrative sanctions and a prescribed method for enforcement through administrative hearings that are consistent with constitutional protections;

D. To provide for administrative abatement to remedy code violations and to provide for the recovery of costs incurred in administrative abatement as allowed for by state law; and

E. To provide for judicial review of final administrative orders or decisions made pursuant to this title in accordance with the procedures set forth in Code of Civil Procedure Sections 1094.5 and 1094.6.

Nothing in this chapter is intended to abridge or modify the authority of the city manager or other designated person to enforce the Folsom Municipal Code through criminal or civil penalties where such remedies are designated by ordinance as appropriate. (Ord. 846 § 2 (part), 1996)

1.08.020 Definitions.

As used in this chapter:

"Administrative violation" means any infringement or alleged infringement of the Folsom Municipal Code or other applicable laws for which enforcement is to be handled through the administrative procedures established in this title.

"Administrative sanctions" means the sanctions set forth in this chapter for violation of the Folsom Municipal Code or other applicable laws.

"Applicable laws" means any provisions of the Charter of the city of Folsom, any Uniform Code as adopted by the city of Folsom, design standards adopted by the city of Folsom, conditions imposed on any entitlement or environmental document issued or approved by the city of Folsom, and those state laws enforced by the city of Folsom which also have been designated by ordinance for enforcement pursuant to the procedures established in this title.

"Citizen complaint" means a report of an alleged violation of the Folsom Municipal Code or other applicable laws by any person or entity. "Citizen complaint" means and includes a complaint by a city official or city employee only to the extent such official or employee is able to demonstrate a direct affect on his/her person or property as a result of the alleged violation.

"Design standards" means written design standards, design guidelines or development standards that may be adopted by resolution or ordinance from time to time by the city council and/or planning commission, or that may be adopted as part of the conditions of approval on any project, that govern development of land within the city and that are on file with the city clerk.

"Enforcement authority" means the city manager or designated department head, building official, code enforcement officer or police official charged with responsibility for enforcement under this title.

"Entitlement" means any project approval issued by the city council, the planning commission, or any other committee, commission, or department as allowed for under procedures established by the Folsom Municipal Code.

"Mediation" means a meeting held between the enforcement authority and a responsible person under the supervision of an impartial third party to informally resolve issues relating to alleged violations of the Folsom Municipal Code or other applicable laws.

"Notice of administrative violation" means the notice issued by the enforcement authority of an alleged infringement of the Folsom Municipal Code or other applicable laws.

"Notice to correct" means the notice issued by the enforcement authority for required action to achieve compliance with the Folsom Municipal Code or other applicable laws.

"Reasonable time(s)" means between the hours of eight a.m. and five p.m., Monday through Friday, inclusive, unless otherwise required by: (1) an emergency impacting the safety or preservation of life or property; or (2) the fact that the alleged violation of the Folsom Municipal Code or other applicable laws only occurs at some other hour or on a weekend.

"Responsible person" means any person or entity charged with or found to have violated the Folsom Municipal Code or other applicable laws. "Responsible person" includes the parents and/or legal guardian of any person under the age of 18 who is charged with a violation of the Folsom Municipal Code or other applicable laws.

"Stop order" means a written order issued by the enforcement authority or his/her designee that any and all work on a project, improvement or other development must cease on the terms and conditions set forth in the order.

"Uniform Codes" means those Uniform Codes that have been adopted and amended from time to time by ordinance by the Folsom city council, including but not limited to the California Building Code, the Uniform Building Code, the Uniform Housing Code, the Uniform Fire Code, the Uniform Building Code Material Testing and Installation Standards, the Uniform Mechanical Code, the Uniform Plumbing Code, the Uniform Administrative Code, the Uniform Swimming Pool and Hot Tub Code, the Uniform Code for the Abatement of Dangerous Buildings and the National Electrical Code. (Ord. 846 § 2 (part), 1996)

1.08.030 Public nuisance.

Any violation of the Charter of the city of Folsom, of any ordinance of the Folsom Municipal Code, of any provision of any Uniform Codes adopted by the city, or of any design standards is declared to be a public nuisance, subject to redress as provided for in this title. (Ord. 846 § 2 (part), 1996)

1.08.040 Procedures for enforcement.

The city of Folsom shall enforce the provisions of the Folsom Municipal Code or other applicable laws through any of the following procedures:

A. Administrative action concerning an administrative violation as provided for in Chapter 1.09 of this title;

B. Criminal action prosecuted in the name of the people of the state of California when a criminal violation is expressly provided for by ordinance;

C. Civil action instituted by the city attorney in the name of the city of Folsom; or

D. Abatement as authorized by Chapter 1.10 of this title. (Ord. 846 § 2 (part), 1996)

Chapter 1.09
ADMINISTRATIVE VIOLATIONS AND ADMINISTRATIVE ENFORCEMENT PROCEDURES

Sections:

Article I. Administrative Violations

1.09.010 Designation of administrative violations.
1.09.011 Administrative violations are not exclusive remedy.
1.09.012 Levels of administrative violations.
1.09.013 Sanctions for administrative violations.
1.09.014 Standards for imposition of administrative sanctions.

Article II. Administrative Enforcement Procedures

1.09.020 Responsibility and authority.
1.09.021 Purpose of enforcement.
1.09.022 Guidelines for exercising administrative enforcement authority.
1.09.023 Notice to correct and stop order.
1.09.024 Notice of administrative violation.
1.09.025 Right of entry for inspection.
1.09.026 Informal attempts to encourage compliance.
1.09.027 Service of notices.
1.09.028 Responsibility of parent(s) and/or legal guardian.
1.09.029 Confidentiality in connection with citizen complaints.

Article III. Hearings

1.09.030 Right to a hearing.
1.09.031 Preservation of status quo pending hearing.
1.09.032 Request for hearing and fee--Notice of denial of hearing based on untimely appeal.
1.09.033 Meeting with enforcement authority.
1.09.034 Mediation.
1.09.035 Timely hearing.
1.09.036 Notice of time and place of hearing.
1.09.037 Hearing officer.
1.09.038 Ex parte communications.
1.09.039 Rights of the parties.
1.09.040 Hearing procedure.
1.09.041 Hearing open to the public.
1.09.042 Oath.
1.09.043 Quantum and burden of proof.
1.09.044 Rules of evidence.
1.09.045 Subpoenas.
1.09.046 Record of the hearing.
1.09.047 Written transcript.
1.09.048 Written decision.

Article IV. Judicial Review

1.09.050 Final administrative decision.
1.09.051 Judicial review.
1.09.052 Review standard.

Article V. Enforcement of Monetary Sanctions

1.09.060 When monetary sanctions are due.
1.09.061 Place for payment of monetary sanction.
1.09.062 Failure to pay a monetary sanction.

Article I. Administrative Violations

1.09.010 Designation of administrative violations.

A. The following shall be designated as administrative violations and shall be subject to enforcement pursuant to the provisions of this chapter:

1. All violations of the Folsom Municipal Code, unless otherwise excepted by ordinance;
2. All violations of the Charter of the city of Folsom, unless otherwise excepted by ordinance;
3. All violations of Uniform Codes adopted by the city of Folsom;
4. All violations of design standards adopted by the city council and/or the planning commission and on file with the city clerk;
5. All violations of conditions imposed on any entitlement, permit, contract, or environmental document issued or approved by the city of Folsom;
6. All violations of state laws enforced by the city of Folsom that have been designated for enforcement through this chapter by ordinance.

B. An administrative violation may only be adjudicated pursuant to the administrative enforcement procedures established in Sections 1.09.020 through 1.09.049 of this chapter. Each responsible person shall have the right to request an administrative hearing and subsequent judicial review pursuant to the procedures established in Code of Civil Procedure Sections 1094.5 and 1094.6 before the city will take action to collect any administrative penalty. (Ord. 846 § 2 (part), 1996)

1.09.011 Administrative violations are not exclusive remedy.

Nothing in this chapter is intended to limit or prohibit the enforcement of the Folsom Municipal Code or other applicable laws through civil or criminal process where the city attorney has evaluated the criteria set forth in Sections 1.09.014 and 1.09.024, and has determined that enforcement through the administrative enforcement procedures will not result in effective redress, where there have been repeated administrative violations, or where the severity of the violation warrants redress through civil or criminal action. (Ord. 846 § 2 (part), 1996)

1.09.012 Levels of administrative violations.

A. Administrative violations shall be designated by level based upon the potential monetary sanction as follows:

1. Level A violations shall be subject to a fine of $20--$500.
2. Level B violations shall be subject to a fine of $100--$2,500.
3. Level C violations shall be subject to a fine of $100--$5,000.
4. Level D violations shall be subject to a fine of $100--$7,500.
5. Level E violations shall be subject to a fine of $100--$10,000.

Unless otherwise provided for by ordinance, all administrative violations will be deemed a Level A violation.

B. At the time of issuance of a notice of administrative violation pursuant to Section 1.09.024, the enforcement authority shall evaluate in writing the criteria set forth in Section 1.09.014 to determine the appropriate level of sanction and shall provide written notice to the responsible person of the proposed level of sanction and the reasons therefor as required by Section 1.09.024.

C. Where multiple violations have occurred or are occurring, each violation of the Folsom Municipal Code or other applicable laws shall be subject to a separate sanction.

D. The enforcement authority shall have no power or discretion to void any notice of administrative violation until after a meeting with the enforcement authority's supervisor as provided for in Section 1.09.033. If a notice of administration violation is voided, the enforcement authority shall provide written justification for such action to the city manager. (Ord. 846 § 2 (part), 1996)

1.09.013 Sanctions for administrative violations.

Any one of the following sanctions shall be available to redress infringement of the Folsom Municipal Code or applicable

laws.

A. Revocation and/or suspension of licenses or permits, conditional use permits or other entitlements issued by the city of Folsom;

B. The placement of requirements for corrective action on permits, licenses or entitlements issued by the city of Folsom as a condition to avoid revocation of the permit, license or entitlement;

C. Monetary sanctions as set forth in Section 1.09.012 of this chapter;

D. The issuance of a compliance order setting forth corrective action;

E. As an alternative to other sanctions and in appropriate circumstances, requiring community service by the responsible person;

F. Requiring a responsible person to post a performance bond, irrevocable letter of credit or other adequate security to ensure compliance with the Folsom Municipal Code or other applicable laws. (Ord. 846 § 2 (part), 1996)

1.09.014 Standards for imposition of administrative sanctions.

The following factors shall be considered in determining the appropriate sanctions for any administrative violation:

A. The knowledge or intent of the person/entity found to have violated the Folsom Municipal Code or other applicable laws;

B. A final determination of prior violations of the Folsom Municipal Code or other applicable laws within 12 months of the date of the violation. Violations of a similar nature shall be given additional weight in evaluating the appropriate sanctions as provided for in Section 1.09.012(C);

C. Efforts by the person/entity found to have violated the Folsom Municipal Code or other applicable laws to take remedial action upon notice of a violation;

D. Any financial gain realized by a responsible person as a result of an administrative violation;

E. The extent to which the violation undermines the purpose of the ordinance violated;

F. The number of other violations existing at the time of the issuance of the notice of administrative violation;

G. The costs incurred for remedial action taken by the enforcement authority;

H. The degree and permanence of harm to health, safety and/or the environment caused by the violation, including but not limited to any loss of life to person or animal;

I. The amount it would have cost the responsible person to comply with the law;

J. Where the violation consists of failure to obtain a permit or license, the financial cost to obtain a permit or license prior to engaging in the conduct that is the subject of administrative violation. The amount of any sanction imposed for failure to obtain a license or permit shall be no less than one and one-half times the cost of obtaining such license or permit. (Ord. 846 § 2 (part), 1996)

Article II. Administrative Enforcement Procedures

1.09.020 Responsibility and authority.

The city manager shall have overall responsibility and authority to enforce the provisions of the Folsom Municipal Code or other applicable laws. The city manager may delegate to department heads or other appropriate subordinates the authority to enforce any of the provisions of the Folsom Municipal Code or other applicable laws which relate to the responsibilities of their department. The city manager may also delegate to the police department or code enforcement officer the authority to enforce any of the provisions of the Folsom Municipal Code or other applicable laws. (Ord. 846 § 2 (part), 1996)

1.09.021 Purpose of enforcement.

The purpose of administrative enforcement is to obtain fair and uniform compliance with the provisions of the Folsom Municipal Code and other applicable laws. (Ord. 846 § 2 (part), 1996)

1.09.022 Guidelines for exercising administrative enforcement authority.

Administrative enforcement of the provisions of the Folsom Municipal Code and other applicable laws shall be limited to cases where: (1) specific bona fide citizen complaints have been received, (2) where the violation occurs within the context of the city's oversight and approval of a project, or (3) where the enforcement action is a part of a plan for the uniform enforcement of a provision of the Folsom Municipal Code or other applicable laws within the city. No notice to correct or notice of administrative violation shall be issued pursuant to a citizen complaint until the enforcement authority has conducted an independent investigation and determined that there is good cause to believe that a violation of the Folsom

Municipal Code or other applicable laws has occurred. The enforcement authority shall keep a record of all citizen complaints. (Ord. 846 § 2 (part), 1996)

1.09.023 Notice to correct and stop order.

Whenever a violation is discovered which can be corrected and the responsible person has not been issued a notice to correct or notice of administrative violation for the same violation within the past 12 months, the enforcement authority shall issue a notice to correct in order to notify the responsible person of the violation and to order that the violation be corrected within a reasonable time. Unless a different period is specifically set forth in the Folsom Municipal Code, 10 calendar days shall be considered a reasonable time to correct any violation. The notice to correct shall be in writing and shall set forth the facts that constitute the violation, the specific provisions of the law which have been violated, the specific acts required to correct the violation, the time allowed to correct the violation, and the rights to appeal the notice to correct. If the violation is related to a permit, license or other city approval of a project, the notice to correct may be accompanied by a stop order which orders the responsible person to immediately stop any and all work on the project that is subject to the permit, license or approval until the violation is corrected. The notice to correct shall be served in accordance with the provisions of Section 1.09.027. (Ord. 846 § 2 (part), 1996)

1.09.024 Notice of administrative violation.

A notice of administrative violation may be issued under any of the following circumstances:

A. When the violation cannot be corrected;

B. When the violation can be corrected, a notice to correct has been served, and the specified time has passed without adequate correction of the violation;

C. When a stop order has been issued and has not been complied with by the responsible person;

D. When the same violation has been committed by the same responsible person within the past 12 months and a notice to correct or notice of administrative violation has been served on the responsible person within that same 12 month period.

The notice of administrative violation shall be in writing and shall set forth the facts constituting the violation, the specific provisions of the law which have been violated, the proposed sanctions for the violation as specified in Section 1.09.013 of this chapter, and the rights that the responsible person has to appeal the notice of administrative violation. The notice of administrative violation shall be served as provided in Section 1.09.027. (Ord. 846 § 2 (part), 1996)

1.09.025 Right of entry for inspection.

A. Whenever necessary to make an inspection to enforce the Folsom Municipal Code or other applicable laws, or whenever there is reasonable cause to believe there exists a violation of the Folsom Municipal Code or other applicable laws in any building or upon any premises within the jurisdiction of the city, any authorized official of the city may, upon presentation of proper credentials, enter such building or premises at all reasonable times (as that phrase is defined in Section 1.08.020(k) of this title) to inspect the same or to perform any duty imposed by the Folsom Municipal Code or other applicable laws.

B. Except in emergency situations or when consent of the owner and/or occupant of the building or premises to be inspected has been obtained, the city official shall give the owner and/or occupant, if they can be located after reasonable effort, 24 hours written notice of the authorized official's intention to inspect through a notice of intention to inspect. The notice of intention to inspect shall state that the property owner has the right to refuse entry and, that in the event such entry is refused, inspection may be made only upon issuance of an administrative warrant or search warrant as allowed by law by a duly authorized judge.

C. The written notice of intention to inspect shall be served by certified mail, return receipt requested. Where the authorized official intends to inspect within the next 24-hour period, the written notice shall be hand delivered. The notice of intention to inspect may be left with any person above the age of 18 who identifies himself/herself as an occupant, tenant or owner of the premises. If no one is at the premises at the time of delivery, the notice of intention to inspect shall be posted in 2 conspicuous places on the premises.

D. Prior to entering the premises, the authorized official conducting the inspection shall ascertain from the owner and/or occupant whether the notice of intention to inspect has been received and shall obtain permission for entry. Unless an emergency situation exists, if the owner and/or occupant refuses entry after such a request has been made, or if no actual contact is made with the owner and/or occupant prior to the attempt to enter, the official must seek assistance from any court of competent jurisdiction in obtaining such entry. (Ord. 846 § 2 (part), 1996)

1.09.026 Informal attempts to encourage compliance.

Nothing in this chapter shall be interpreted to preclude an enforcement authority from informally encouraging citizens to

comply with the Folsom Municipal Code or other applicable laws. Informal oral or written requests to encourage compliance are encouraged as are attempts to informally negotiate or mediate issues relating to compliance. (Ord. 846 § 2 (part), 1996)

1.09.027 Service of notices.

Any notices required under this chapter except a notice of intention to inspect pursuant to Section 1.09.025 shall be served by personal delivery to the responsible person or by certified mail, return receipt requested, to the last known address of the responsible person. If the responsible person is not present for personal delivery, if certified mail is refused, or if the location of a responsible person cannot be determined after diligent efforts, notices may be posted in a conspicuous place on the affected property for a period of 10 calendar days and by mailing first class to the last known address. When there is no affected property, such alternative service shall be accomplished by publication of any notices in a newspaper of general circulation that is most likely to give actual notice to the responsible person 2 times in a 10-day period and by mailing first class to the last known address. (Ord. 846 § 2 (part), 1996)

1.09.028 Responsibility of parent(s) and/or legal guardian.

Whenever the responsible person is a person under the age of 18, the enforcement authority shall provide copies of all notices and orders specified in this title to the parent(s) and/or legal guardian. Any administrative sanctions levied under this chapter may be levied against the juvenile and the parent(s) and/or legal guardian of the juvenile. The parent(s) and/or legal guardian shall have the right to a hearing and judicial review as set forth in this chapter. In addition to any other defenses that may be raised to the administrative violation, the parent(s) or legal guardian may raise a defense that the parent(s) or legal guardian have exercised good faith efforts to control the behavior of the minor but have been unsuccessful in achieving such control. (Ord. 846 § 2 (part), 1996)

1.09.029 Confidentiality in connection with citizen complaints.

The city shall take all reasonable steps to ensure that the identity of any person making a complaint to the city concerning a violation of the Folsom Municipal Code or other applicable laws shall remain confidential. However, no enforcement action shall be taken beyond issuance of a notice of correction unless: (1) the complaining witness agrees to be identified upon request of the responsible person, or (2) the enforcement authority has developed sufficient independent evidence to proceed with a notice of administrative violation. (Ord. 846 § 2 (part), 1996)

Article III. Hearings

1.09.030 Right to a hearing.

Any person charged with an administrative violation who has been served with a notice to correct, stop order or notice of administrative violation and who wishes to contest the violation or the proposed sanction may request a hearing by filing a request for hearing within 10 calendar days of date of the service of the notice to correct, stop order or notice of administrative violation. (Ord. 846 § 2 (part), 1996)

1.09.031 Preservation of status quo pending hearing.

Any stop order issued pursuant to Section 1.09.023 shall remain in effect until the time of the hearing and any subsequent judicial review. Any additional compliance obligations that may be imposed as the result of a notice to correct, stop order or notice of administrative violation shall also be stayed if a timely request for hearing is filed and until a final decision after the hearing is completed unless an emergency situation affecting the safety or preservation of life or property exists. The enforcement authority shall provide written justification for invoking an emergency situation exception under this section to the responsible person within 24 hours of taking the action to correct the emergency situation. (Ord. 846 § 2 (part), 1996)

1.09.032 Request for hearing and fee--Notice of denial of hearing based on untimely appeal.

The request for hearing shall be filed with the city clerk on a form provided by the city clerk and shall include reference to the notice which is being appealed, shall state all of the grounds for the appeal, and shall be accompanied by payment of: (1) an amount not to exceed $500 as security for payment of the proposed administrative sanction; and (2) a hearing fee. The city clerk shall not accept any request for hearing unless it is accompanied by the hearing fee and the required security for administrative sanction. The amount of the hearing fee shall be established from time to time by resolution of the city council. The amount of the security for the administrative sanction shall be the amount of the maximum sanction specified in the notice of violation, or $500, whichever is less. If the city clerk determines that the request for a hearing is untimely, the city clerk shall advise the responsible person of that determination in writing and shall mail a notice of denial of hearing based on untimely appeal to the responsible person by first class mail. The responsible person shall then have the right to

judicial review of that determination as provided for in Sections 1.09.050 through 1.09.059 of this chapter. Upon a showing of good cause for the delay in filing a request for hearing, the city clerk may refer the issue of the right to an appeal to an administrative hearing pursuant to the procedures set forth in this chapter. The hearing officer shall determine whether there was good cause for the delay in filing the request for hearing before proceeding to the merits of the appeal. (Ord. 846 § 2 (part), 1996)

1.09.033 Meeting with enforcement authority.

Persons charged with a violation of the Folsom Municipal Code or other applicable laws are encouraged to meet with the enforcement authority and/or the appropriate department head or his/her designee prior to requesting a hearing to seek resolution of the matter. Such a meeting may be requested before or after the request of hearing is filed, but a request for the meeting shall not extend the time for filing the request for hearing. (Ord. 846 § 2 (part), 1996)

1.09.034 Mediation.

With the filing of a request for a hearing or at any time before a hearing, the enforcement authority or a responsible person may request that an impartial mediator be appointed to help resolve the issues relating to the charged violation and/or proposed sanctions. The purpose of the mediation shall be to provide an opportunity for the enforcement authority and a responsible person to reach mutual agreement upon steps to achieve compliance with the Folsom Municipal Code or other applicable laws. If the enforcement authority agrees to mediation, the city clerk shall appoint a volunteer mediator to assist in the resolution of the dispute. The hearing may be postponed until completion of the mediation if both parties agree to the postponement. The city will solicit members of the community to act as volunteer mediators and shall provide them with training in mediation skills. Mediators will not receive compensation but shall be recognized publicly for their service to the community. If the enforcement authority and the responsible person reach agreement on a compliance plan, that agreement shall be placed in writing and shall be signed by the enforcement authority, the responsible person and the mediator. If the terms of the agreement are violated, the enforcement authority shall serve a notice of administrative violation as provided for in Section 1.09.024 of this chapter. (Ord. 846 § 2 (part), 1996)

1.09.035 Timely hearing.

The hearing shall be held within 30 calendar days of the filing of a request for hearing unless both parties agree to a postponement of the hearing or the hearing officer rules that there is good cause to postpone the hearing. After the hearing has started, it may be continued with the consent of all parties or upon a showing of good cause for such continuance. (Ord. 846 § 2 (part), 1996)

1.09.036 Notice of time and place of hearing.

The city clerk shall mail to all parties written notice of the time and place of the hearing at least 10 calendar days prior to the date set for the hearing. Such notice shall also include a description of the rights of the parties in the hearing. Hearings shall be conducted in the city. (Ord. 846 § 2 (part), 1996)

1.09.037 Hearing officer.

The city clerk shall appoint an impartial hearing officer for each hearing who may be an employee of the city or a person whose services are acquired by contract with the hearing officer or some public or private agency. The person appointed to conduct the hearing shall not have had within the past 12 months any responsibility for the investigation, prosecution or enforcement of the provision of the Folsom Municipal Code or other applicable laws at issue in the hearing and shall not have had any personal involvement in the case to be heard. (Ord. 846 § 2 (part), 1996)

1.09.038 Ex parte communications.

The hearing officer shall have no communications with any party, any city employee or official, or any potential witness concerning the substance of the case. Having such communications outside the presence of a party may be grounds for disqualification of the hearing officer from conducting the hearing. All communications concerning the case between the hearing officer and any person shall be revealed to the parties in the matter. (Ord. 846 § 2 (part), 1996)

1.09.039 Rights of the parties.

The parties to a hearing shall have the following rights:

A. Timely and adequate notice of the time and place of the hearing, their rights during the hearing and the issues that are to be the subject of the hearing;

B. The right to present evidence and witnesses;

C. The right to present argument;

D. The right to be presented. The representative need not be an attorney;

E. The right to open disclosure of all evidence presented to the hearing officer in the case;

F. The right to confront and cross-examine adverse witnesses;

G. The right to subpoena witnesses or documents;

H. The right to a verbatim record of the hearing;

I. The right to a decision based upon the evidence in the record of the hearing;

J. The right to an impartial hearing officer;

K. The right to a written decision setting forth the reasons for the decision and the evidence relied upon. (Ord. 846 § 2 (part), 1996)

1.09.040 Hearing procedure.

The hearing shall be informal and the hearing officer will have an affirmative obligation to seek the truth concerning the issues in the hearing. The hearing officer may ask questions of any witness and may establish the procedure for the presentation of evidence. The hearing officer may, on his or her own motion, call or subpoena a witness. The hearing officer may order the exclusion of witness during the testimony of other witnesses. (Ord. 846 § 2 (part), 1996)

1.09.041 Hearing open to the public.

All hearings provided under this chapter shall be open to the public and press. (Ord. 846 § 2 (part), 1996)

1.09.042 Oath.

All testimony shall be given under oath. Hearing officers have the authority to administer such oaths. (Ord. 846 § 2 (part), 1996)

1.09.043 Quantum and burden of proof.

All facts must be established by a preponderance of the evidence. The enforcement authority will have the burden to prove that a violation occurred and that the proposed sanction is appropriate. The enforcement authority shall be required to present its case first. (Ord. 846 § 2 (part), 1996)

1.09.044 Rules of evidence.

The rules of evidence adopted by state or federal law shall not apply. All relevant evidence shall be admissible and hearsay evidence may be used for the purpose of supplementing and explaining other evidence. (Ord. 846 § 2 (part), 1996)

1.09.045 Subpoenas.

The hearing officer shall have the authority to issue subpoenas (order to appear and give testimony) and subpoenas duces tecum (order to produce document(s) or paper(s)). The hearing officer may only issue subpoenas and subpoenas duces tecum upon a showing of reasonable necessity by the requesting party. (Ord. 846 § 2 (part), 1996)

1.09.046 Record of the hearing.

The hearing shall be tape recorded and a copy of the recording will be provided to anyone requesting a copy upon the payment of a fee set from time to time by resolution of the city council to cover the cost of duplication. (Ord. 846 § 2 (part), 1996)

1.09.047 Written transcript.

Any person, including a party, may request a typed written transcript of the hearing but the requesting person will be responsible for the cost of transcription, including an administrative fee. An estimate will be provided of the cost of the transcription and the person requesting the transcript will be required to deposit an amount equal to that estimate before transcription will be started. If the cost of the transcription is greater than the estimate, the person requesting the transcript will be required to pay the additional cost before the transcript is provided. If the actual cost of transcription is less than the

estimate, the city will refund the difference. (Ord. 846 § 2 (part), 1996)

1.09.048 Written decision.

The hearing officer shall prepare and forward to the parties a written decision within 30 calendar days of the close of the hearing. The decision shall be mailed by first class mail. If the hearing officer grants the appeal, the hearing officer shall have the discretion to refund the fee charged to the responsible person for the appeal. (Ord. 846 § 2 (part), 1996)

Article IV. Judicial Review

1.09.050 Final administrative decision.

The decision of the hearing officer shall constitute the final administrative decision and shall not be appealable to the city council or any committee or commission of the city. (Ord. 846 § 2 (part), 1996)

1.09.051 Judicial review.

Appeal shall be through judicial review of the final administrative decision by filing a petition for a writ of mandate with the Superior Court in accordance with the provisions of Sections 1094.5 and 1094.6 of the California Code of Civil Procedure. Such writs must be filed within 90 calendar days from the date of the final administrative decision. (Ord. 846 § 2 (part), 1996)

1.09.052 Review standard.

The court may not change the findings of fact of the hearing officer unless there is no substantial evidence to support those findings. (Ord. 846 § 2 (part), 1996)

Article V. Enforcement of Monetary Sanctions

1.09.060 When monetary sanctions are due.

Monetary sanctions levied against a responsible person are due at the following times:

A. If a request for hearing is not filed in relation to the notice of administrative violation, the monetary sanction set out in the notice shall be due and payable 10 calendar days after service of the notice of administrative violation.

B. If a request for hearing is filed within the time limits proscribed by Section 1.09.030 and there is no appeal of the hearing decision to the court pursuant to Section 1.09.051, the monetary sanction shall be due and payable 90 calendar days after the date of a hearing decision, an order by the hearing officer dismissing the request for hearing, or the date the hearing request is withdrawn by the responsible party. The amount of sanction payable shall be the amount set by the hearing officer in a decision after hearing, or the amount set forth in the notice of administrative violation if there is no hearing decision.

C. If there is judicial review of the hearing decision pursuant to Section 1.09.051, the monetary sanction shall be due and payable 30 calendar days after the date of the final court order in relation to that review. The amount due shall be the amount ordered by the hearing officer unless a court modifies the amount of monetary sanction. (Ord. 846 § 2 (part), 1996)

1.09.061 Place for payment of monetary sanction.

All monetary sanctions shall be paid to the city and delivered to the finance department of the city. All payments shall be accompanied by a copy of the notice of administrative violation, or the decision of the hearing officer or the court decision establishing the amount of the monetary sanction. The finance department shall prepare a receipt documenting the payment of the monetary sanction and shall forward one copy of the receipt to the enforcement authority and one copy of the receipt to the city clerk. The city clerk shall thereafter verify that the sanction has been paid in full. If the sanction has been paid in full, the city clerk shall so note in the records pertaining to the administrative violation. If the sanction has not been paid in full, the city clerk shall notify the enforcement authority and responsible person in writing. (Ord. 846 § 2 (part), 1996)

1.09.062 Failure to pay a monetary sanction.

If the responsible party does not pay the monetary sanction within the times provided under Section 1.09.060, or if the responsible party fails to pay the required monetary sanction in full within the times provided under Section 1.09.060, any unpaid portion shall bear interest at the rate of 10 percent per annum from the date such payment was due until paid in full and the city may take any of the following actions to collect the monetary sanction.

A. Liens. The amount of the unpaid sanction plus interest plus a reasonable administrative fee established by the city council from time to time to cover the cost of collection constitutes and may be declared a lien on any real property owned by the responsible party within the city.

1. Notice shall be given to the responsible party prior to the recordation of the lien, and shall be served in the same manner as a summons in a civil action pursuant to Article 3, (commencing with Section 415.10) of Chapter 4 of Title 5 of Part 2 of the Code of Civil Procedure.

2. The lien shall attach when the city manager or his/her designee records a lien listing delinquent unpaid sanctions with the Sacramento County recorder's office. The lien shall specify the amount of the lien, the date of the code violation(s), the date of the final administrative decision, the street address, legal description, and assessor's parcel number of the parcel on which the lien is imposed and the name and address of the recorded owner of the parcel.

3. In the event that the lien is discharged, released or satisfied, either through payment or foreclosure, notice of the discharge containing the information specified in subsection (A)(1) of this section shall be recorded by the city clerk.

B. Special Assessments. The amount of the unpaid sanction plus interest plus a reasonable administrative fee established by the city council from time to time to cover the cost of collection may be declared a special assessment against any real property owned by the responsible person within the city to the extent the responsible person owns more than one parcel within the city. The city council may impose the special assessment on more than one parcel. However, the amount of the assessment shall not exceed the penalty imposed for the administrative violation. The city manager/or his/her designee may present a resolution to the city council to declare a special assessment, and upon passage and adoption thereof, shall cause a certified copy thereof to be recorded with the Sacramento County recorder's office. The assessment may then be collected at the same time and in the same manner as ordinary municipal taxes are collected, and shall be subjected to the same penalties and the same procedure and sale in case of delinquency as provided for ordinary municipal taxes.

C. Withholding Entitlements. The city may withhold issuance of licenses, permits and other entitlements to a responsible person until payment is received.

D. Other Enforcement Procedures. The city may take such other actions as are allowed for enforcement of a civil judgment as provided for pursuant to the Enforcement of Judgments Law, California Code of Civil Procedure Sections 680.010, et seq. (Ord. 846 § 2 (part), 1996)

Chapter 1.10
ADDITIONAL REMEDIES

Sections:

1.10.010 Abatement by city.
1.10.020 Procedure for creation of nuisance abatement lien.
1.10.030 Treble damages for subsequent abatement judgments.

1.10.010 Abatement by city.

Pursuant to California Government Code Section 38773, the city may abate any nuisance at the expense of the persons creating, causing, committing or maintaining the nuisance and any and all expenses of abatement, including reasonable attorney's fees incurred, shall constitute a lien against the property on which the nuisance is maintained and such debt becomes a personal obligation against the property owner. (Ord. 846 § 2 (part), 1996)

1.10.020 Procedure for creation of nuisance abatement lien.

A. Notice Requirement. Whenever a responsible person refuses to abate a nuisance and the owner or person occupying the property refuse to consent to abatement by the city, the enforcement authority shall serve a written notice to abate such nuisance upon the owner of the property (as shown on the last equalized assessment roll or the supplemental roll, whichever is most current), and on any persons known to be possessing such property.

B. Contents of Notice. The notice shall include the following information:

1. The street address, legal description or other description sufficient to identify the affected property;

2. A statement that the property owner and/or person in possession of the property has 10 calendar days from the date of the notice to voluntarily abate the nuisance;

3. A statement that the property owner and/or person in possession of the property, may, during the period of voluntary abatement, (1) file a written request for a hearing with the city clerk as provided for in Section 1.09.030 of this chapter if there is an objection to the demand to abate the nuisance, or (2) present written evidence to the enforcement authority to show that the property owner or person in possession of the property had no responsibility for creating or maintaining the nuisance on the property and that to be required to remove or abate such nuisance will cause financial or physical hardship; and

4. A statement that if the nuisance is not voluntarily abated within the stated period, and the property owner and/or person in possession of the property fails to present the information set forth in subsection (B)(3) of this section or to file a timely written request for a hearing, all persons served with such notice shall be deemed to have consented to the abatement of the nuisance and that, at the election of the city, the city will abate the nuisance and the costs for such abatement may be charged against the premises and may be recorded as a lien against the premises.

C. Service of Notice. The notice to abate the nuisance shall be served in the same manner as a summons in a civil action in accordance with Article 3 (commencing with Section 415.10) of Chapter 4 of Title 5 of Part 2 of the Code of Civil Procedure. If the owner of record, after diligent search, cannot be found, the notice may be served by posting a copy thereof in a conspicuous place upon the property for a period of 10 days. The failure to make or attempt such service on any person as required herein shall not invalidate any proceedings under this chapter as to any other person duly served.

D. Failure to Pay Costs--Authority to Record Lien or to Declare Lien a Special Assessment Against Parcel.

1. Except as to persons who have demonstrated a financial or physical hardship in paying for the costs of abatement, if all or any portion of the costs and expenses incurred by the city in abating the nuisance and accounted for by the enforcement authority remain unpaid after 30 days, pursuant to authority created by law, including Government Code Section 38773, et seq., such portion thereof as remains unpaid shall constitute and shall be declared to constitute a lien on the real property which was the subject of notice to abate.

2. Prior to recordation of the lien, notice shall be given to the land owner. If the land owner, after a diligent search cannot be found, the notice may be served by posting a copy of the notice upon the property subject to the lien, in a conspicuous place, for a period of 10 days. The notice shall also be published in a newspaper of general circulation in the city.

3. The lien shall attach when the city manager or his/her designee records a lien listing delinquent unpaid nuisance abatement costs with the Sacramento County recorder's office. The lien shall specify the amount of the lien, the date of the abatement order, the street address, legal description and assessor's parcel number of the parcel on which the lien is imposed and the name and address of the recorded owner of the parcel.

4. In addition to the recordation of a lien, the amount of the costs and expenses incurred by the city in abating the nuisance plus a reasonable administrative fee established by the city council from time to time to cover the cost of collection may be declared a special assessment against any real property owned by the responsible person within the city to the extent the responsible person owns more than one parcel within the city. The city council may impose the special assessment on more than one parcel. However, the amount of the assessment shall not exceed the penalty imposed for the administrative violation. The city manager/or his/her designee may present a resolution to the city council to declare a special assessment, and upon passage and adoption thereof, shall cause a certified copy thereof to be recorded with the Sacramento County recorder's office. The assessment may then be collected at the same time and in the same manner as ordinary municipal taxes are collected, and shall be subjected to the same penalties and the same procedure and sale in case of delinquency as provided for ordinary municipal taxes.

5. In the event that the lien or special assessment is discharged, released, or satisfied, either through payment or foreclosure, notice of the discharge containing the information specified in subsection (D)(1) of this section shall be recorded. (Ord. 846 § 2 (part), 1996)

1.10.030 Treble damages for subsequent abatement judgments.

Pursuant to California Government Code Section 38773.7, upon the entry of a second or subsequent civil or criminal judgment within a 2-year period that finds an owner of property responsible for a condition that may be abated in accordance with California Government Code Section 38773.5, a court may order the owner to pay treble the costs of the abatement. These costs shall not include conditions abated pursuant to California Health and Safety Code Section 17980. (Ord. 846 § 2 (part), 1996)

Exhibit D

County of Sacramento Environmental Management Department
Water Protection Division Stormwater Compliance Section
Stormwater Enforcement Policy

PURPOSE AND INTENT

The purpose and intent of this document is to provide a framework for inspections and enforcement actions taken by County of Sacramento Environmental Management Department (EMD) Stormwater Compliance Section (SCS) pursuant to Chapter 15.12 of the Sacramento County Code (Stormwater Ordinance) and the stormwater ordinances of the cities of Sacramento, Folsom, Citrus Heights, Galt, Elk Grove and Rancho Cordova (which defer to Chapter 15.12 in matters relating to stormwater enforcement at businesses that EMD regulates).

Effective enforcement against dischargers of pollutants to County and municipal storm drainage systems is a requirement of the National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit (MS4 Permit) and EMD has agreed to regulate nine required categories of businesses for stormwater compliance on behalf of the MS4 Permittees.

Implementation and interpretation of this policy should be consistent with local stormwater ordinances (hereafter referred to as "Stormwater Ordinance"), including but not limited to, the protection of water quality and compliance with the provisions of the MS4 Permit.

DEFINITIONS

A. **Best Management Practices (BMPs).** Best Management Practices or BMPs are defined in section 15.12.130 (b) of the County Stormwater Ordinance and includes policies, practices, structures, and any other means of reducing or eliminating the discharge of pollutants and non-stormwater discharges to the storm drain system.

B. **Enforcement Official.** An enforcement official is any person authorized to conduct inspections and/or issue enforcement actions pursuant to the Stormwater Ordinance. Within the Environmental Management Department, SCS staff will be primarily responsible for enforcing the stormwater ordinance, although, Environmental Health Division and Hazardous Materials Division staff may also enforce.

C. **Fine.** A fine is a monetary Administrative Civil Penalty assessed under the authority of County Section 15.12.560 of the County Stormwater Ordinance and corresponding sections of municipal stormwater ordinances.

D. **General Permit.** The Industrial General Stormwater Permit is a permit issued by the California State Water Resources Control Board, under the National Pollutant Discharge Elimination System provisions of the Federal Clean Water Act. The Industrial General Permit applies to facilities that discharge stormwater associated with industrial activities as defined in 40 CFR 122.26 (b)(14) *i-ix* and *xi.* The MS4 Permit requires inspection of these facilities on a triennial basis.

E. **Hearing Officer.** The hearing officer is any person approved by the Board of Supervisors or Stormwater Program Administrator to conduct administrative hearings as provided by Chapter15.12.

F. **MS4 Permit.** The Municipal Separate Storm Sewer System Permit is a permit issued by the Regional Board under the Federal Clean Water Act National Pollutant Discharge Elimination System for discharges from Municipal Separate Storm Sewer Systems. For the purposes of this policy, MS4 Permit is NPDES Permit number CAS082597 and any successor permits, issued to the County of Sacramento and the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento.

G. **Operator.** Any individual that runs, manages, or owns a business.

H. **Receiving Water Limitations.** Receiving water limitations are those limitations included in Provision B of the MS4 Permit.

I. **Regional Board.** The Regional Board is the California Regional Water Quality Control Board, Central Valley Region.

J. **Stormwater Compliance Section (SCS).** SCS is the group within the Water Protection Division that manages EMD's Commercial / Industrial Stormwater Compliance Program.

K. **Storm Drain System.** The storm drain system or stormwater conveyance system, are those public facilities within the County which are owned, operated, maintained or controlled by the County or cities, by which stormwater may be conveyed to waters of the United States, including, but not limited to, any roads with drainage systems, municipal streets, roadside drainage ditches, catch basins, water quality basins, detention basins, constructed wetlands, artificial channels, aqueducts, curbs, gutters, ditches, sumps, pumping stations, and storm drains. The storm drain system also includes natural creeks and streams which are identified as receiving waters by the MS4 Permit, but does not include the Sacramento, American, Mokelumne, or Cosumnes rivers, or navigable waters of the Delta.

L. **Stormwater Ordinance.** Stormwater Ordinance refers to Chapter 15.12 of the Sacramento County Code, and/or any equivalent ordinance adopted by a City that establishes authority under which the Environmental Management Department provides stormwater inspection and enforcement services. Each of the incorporated cities within the County (except Isleton) has a stormwater ordinance that has been modified to provide inspection and billing authority to EMD for stormwater compliance. Each of the city ordinances refer to County chapter 15.12 for enforcement matters at businesses that EMD regulates for stormwater on their behalf, to allow for consistent, county-wide enforcement.

- The City of Folsom's stormwater ordinance are sections 8.70.010 – 420
- The City of Sacramento's stormwater ordinance are sections 13.16.010 – 200
- The City of Galt's stormwater ordinance are sections 16.10.010 – 220
- The City of Elk grove's stormwater ordinance are sections 15.12 010 - 560

- The City of Citrus Heights and Rancho Cordova refer to the County's ordinance

AUTHORITY

- **Source of Authority.** The authority for this enforcement policy is established in the stormwater ordinance. All enforcement actions must be generally in accordance with the provisions of chapter 15.12, the County Stormwater Ordinance.

- **Delegation of Authority.** Authority for the interpretation, implementation and enforcement of the stormwater ordinance has been delegated to the Director of EMD by the Administrator of the County OF Sacramento's Municipal Services Agency and through agreements with city departments responsible for administering stormwater ordinances.

FLEXIBILITY

This policy is intended to provide a reasonable framework for selecting and conducting enforcement actions in a manner that is fair, consistent, and well-documented. However, this policy can not anticipate all factors or define all situations that are relevant to determining the proper enforcement action for all violations. Therefore, EMD staff who are responsible for conducting enforcement of the Stormwater Ordinance are expected to exercise a reasonable amount of discretion in implementation of this policy.

RECORDKEEPING

Records shall be kept that include inspection reports, warning letters, violation notices, and other pertinent documents that demonstrate the effort made to bring the violator into compliance. All enforcement records should be imaged and photo should be placed on the I: drive, and/or other appropriate file.

INSPECTION

Types of Businesses:

The MS4 Permit requires triennial stormwater compliance inspections and stormwater complaint response at the following categories of businesses:

- Businesses covered under the State's General Industrial Stormwater Permit
- Auto repair
- Auto body
- Auto dealers (dealers with over 5000 sq-ft of outdoor display space)
- Equipment rental businesses (facilities with over 200 sq-ft of outdoor storage or display space)
- Nurseries (small retailers that do not apply pesticides, fertilizers are excluded)
- Kennels (facilities with over 400 sq-ft. of space devoted to dog kenneling)
- Retail gasoline outlets

- Restaurants and related non-mobile food prep facilities

Stormwater Inspection Compliance Criteria:

- No prohibited discharges to the storm drain system are evident
- No illicit connections to the storm drain system are evident
- No prohibited conditions are evident that are likely to result in pollutant discharges to the storm drain system upon contact with rainfall irrigation overflows, etc. such as:

    1. Poor housekeeping resulting in pollutants on the ground and other outdoor areas
    2. Inadequate spill response resulting in unattended spills and leaks on outdoor areas throughout the facility, or indoor areas that could impact outdoor areas.
    3. Uncovered stored wastes, materials, or inventory items that may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.
    4. Open waste receptacles such as tallow bins, dumpsters and compactors that contain pollutants that may be made to wash or leak out by rainfall, and/or leak wastes that may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.
    5. Leaky or contaminated equipment stored or used outdoors that are likely to result in wash-off or leakage of significant pollutants
    6. Track-out of sediment or other materials to street or outdoor areas where it may be expected to be transported to storm drain system by rainfall, irrigation runoff, etc.

Checklist / Notice of Violation (NOV)

Two types of checklists / NOVs are utilized:

1. Food facility checklists / NOVs
2. All other facilities (non-food) checklist / NOVs

When stormwater compliance inspections are conducted, the specialist will always fill out and issue a stormwater checklist and NOV to the facility operator. If there are no violations, the specialist will write "no violations noted" on the NOV form. The checklist and NOV are to be signed by the business operator and is left with a copy of each. In all instances, appropriate compliance literature is provided to the facility operator.

Corrective Actions

The specialist will require the facility operator to correct violations within the 19/35 day time frame, as described in the NOV section below. A re-inspection may be avoided by the facility operator if he/she submits clear proof of compliance to the specialist within the required time frame, or submits an acceptable request for extension prior to the compliance due date.

Acceptable proof of compliance submittals may include photos, receipts, or invoices that clearly demonstrate correction. In many instances, statements from the operator explaining how he/she

intends to change practices to correct and/or avoid repeating violations and/or training logs showing that employees have been trained may be appropriate, in addition to other proof of compliance.

In some instances, it may not be feasible for a facility operator to make necessary corrections within the required time frame, especially when corrections include major repairs or facility modifications. Extensions may be granted but the specialist should require an action plan or statement to be submitted by the facility operator within the initial compliance time frame. The action plan or statement should specify the corrections that are to be made and should provide a time frame for completion.

PROGRESSIVE ENFORCEMENT:

The following steps will be taken to ensure return to compliance at facilities found to be in violation of the Stormwater Ordinance:

Notice of Violation (NOV)

A NOV will be left with the operator after the inspection, regardless of whether violations were found or not. If there are **no** violations found, the NOV will clearly state that there are no violations.

Depending upon the nature of violations noted, the NOV will typically specify the following compliance deadlines:

- **14 days to correct violations** and **19 days to provide proof of compliance** in situations involving unauthorized non-stormwater (prohibited) discharges to the storm drain system or illicit connections.

  Although 14 days are allowed to make corrections, unauthorized non-stormwater discharges should be stopped immediately, especially if the discharge contains hazardous constituents, or hazardous levels of non hazardous constituents.

  However, if a prohibited discharge results from vehicle washing activities at an auto dealer, the operator may be allowed to continue discharging the vehicle wash water for 14 days as he/she explores compliance options (see Commercial Vehicle Wash Policy).

- **30 days to correct violations** and **35 days to provide proof of compliance** for violations that are not prohibited discharges.

***Cease and Desist Order**

The County's Stormwater Ordinance (section 15.12.520) says that a Cease and Desist Order may be issued as an alternative to a NOV when immediate action by the responsible party is necessary to eliminate a continuing or threatened serious violation of the Stormwater Ordinance.

Extensions of Compliance Deadlines

There will be instances when a business operator will not be able to comply with requirements within

the time frame specified. The specialist may grant an extension to the operator if the inspector determines that an extension is warranted. **A request for extension must be received in writing** (mail, e-mail, fax, hand delivered, etc) **by the inspector by no later than the specified compliance deadline date.** It is strongly recommended that a business operator discusses the extension request with the inspector well before the deadline to determine if the inspector is likely to grant the extension. The extension request must include an explanation as to why the extension is needed, as well as a summary of actions taken to date by the operator to comply with requirements of the NOV.

Typically, it will be more appropriate to allow extensions for violations involving pollutant exposure problems that require the implementation of a broad set of BMPs, or significant facility cleanup or remediation.

In general, extensions should not be granted to allow the continuation of unauthorized non-stormwater discharges (NSDs). Exceptions may be made, however, in situations involving vehicle washing. When extensions are allowed for the continuation of NSDs, the extension must be made with the condition that storm drain filters are installed and other appropriate measures implemented in order to help mitigate continuing discharges during the extension period.

Re-Inspections

A facility will be subject to a stormwater compliance re-inspection (typically within 8 weeks) to ensure return to compliance for the following conditions:

- Illicit connections are found.

- Violations are so serious, numerous, or complicated that specialist does not feel that photo or similar document (RTC) submission will be adequate to demonstrate compliance.

- Specialist does not believe that operator is credible enough to rely on document (RTC) submission based upon operator's compliance history, nature of violation(s), and/or inconsistent or contradictory information provided by operator

- Operator fails to provide clear proof of compliance submission (RTC), or fails to request (and is granted) an extension within the NOV specified time frame (19/35 days). The specialist will review the facility file to determine if violations warrant a re-inspection. If the specialist believes that the operator has failed to bring the facility into compliance, a re-inspection should occur within 8 weeks of the initial inspection. **If violations have not been corrected, specialist may charge for re-inspection and associated drive and office time.**

- In lieu of fine, <u>for moderate and repeat minor violations</u>, the specialist may deny the operator the option of submitting a proof of compliance (RTC) submittal and do a re-inspection with fee. For more serious moderate and repeat moderate violations, the specialist may place the facility on **monitoring status**.

Monitoring Status

As an alternative to issuing fines for repeat multiple minor violations and for any moderate violations, the operator may place a facility on monitoring status.

This means that in addition to a charged re-inspection at the end of 19 or 35 days, the operator is put on written notice that he/she will be subject to unannounced re-inspection at charge, one or more times over a given year or years, depending upon the severity of the violations. Repeat multiple minor violations should result in no more that one re-inspection and one monitoring status re-inspection. Moderate violations may result in multiple monitoring status re-inspections.

If the operator is **not** found to have repeat same or similar violations while on monitoring status, he/she is to be released from monitoring status, after final re-inspection. If same or similar repeat violations are noted during monitoring status re-inspections, a fine is to be issued, following policy guidelines.

If, during monitoring status re-inspections, violations unrelated to the violation(s) that resulted in monitoring status are noted, the monitoring status should be extended, at a minimum. If the violations are moderate or major, further enforcement actions should follow, per policy.

Charge for re-inspections should include related drive time and office time.

Charging for re-inspections and complaint responses.

*The cost of performing one complaint response visit and one re-inspection, if necessary, for each facility every three years is included in the stormwater inspection program fees approved by the Board of Supervisors.

Within any given 3-year period beginning with either the start of the stormwater inspection Program in July 2004, or the addition of a given facility to the inspection inventory, which ever best applies, each facility is entitled to one complaint response visit and one re-inspection visit, if needed, without charge (except as noted below).

Any second complaint response or second re-inspection is to be charged for at the current EMD hourly Rate in six minute increments, rounded up, including drive time. If, however, the inspector wishes to reward compliance or provide a compliance incentive, he/she may waive the fee for a second complaint or re-inspection visit, upon his/her discretion. All third or subsequent complaint or re-inspection visits within the 3 year period will be charged.

When a re-inspection is necessary to verify compliance because RTC documentation was not submitted, or submittal was incomplete, a re-inspection fee may be charged at the discretion of the inspector even if it is a first re-inspection.

***Re-inspection fee in lieu of fine.** Re-inspection fees that include inspection, drive time, and associated office time may be assessed as an alternative to a fine, in instances where the re-inspection reveals that a facility operator has failed to correct, or at least make a meaningful effort to correct violations. The fee alone, as an alternative to the fine should not be used in cases involving egregious violations (where a fine and possibly fine and re-inspection billing is more appropriate).

Assessment of Fines

The Stormwater Ordinance (section 15.12.560) authorizes assessment of administrative civil penalties (referred to in this policy as "fines"). In addition to providing the operator the right to appeal the fine or NOV, the assessment of fine amounts will be determined by an assigned Administrative Appeals Hearing Officer except in cases where pre-set fine levels are established by the Board of Supervisors for specific violations. EMD staff will not determine fine levels.

The enforcement notice (typically an NOV) informs the responsible party of the right to a hearing within the given time frame and informs the responsible party regarding the necessary steps to make an appeal.

When a violation involves a continuing violation that does not create an immediate danger to health or safety, as determined by the enforcement official, the violator shall be provided with a reasonable time to correct or otherwise remedy the violation prior to imposition of the penalty. The enforcement official shall determine and notify the violator of the time within which the violator must correct or remedy the violation. The notice shall provide that a fine will be imposed if the continuing violation is not remedied or corrected within the time stated.

When/How to Issue a Fine

Fines should be issued under the following circumstances:

- Despite warning, operator has failed to bring his/her facility into either short or long-term compliance despite having been provided standard compliance time frame (19/35 days) and at least one reasonable extension time frame, if requested. This includes failure to implement appropriate BMPs for pollutant sources/activities.
- Despite warning, operator has failed to submit Proof of compliance, and has refused to allow EMD staff access to re-inspect.
- Operator has committed a repeat violation(s) identical in principal to violation(s) that he/she was issued a violation notice for within the past 5 years.
- Operator has committed an egregious, first time offense that results in serious environmental harm and/or potential or actual threat to human health and offense appears intentional, or is a result of gross negligence.

Note: The preceding conditions will not apply to minor violations such as open dumpster/receptacle lids until such time that pre-set fine amounts are established, unless said minor violations have occurred at least 4 times. Fines shall typically only be issued for moderate to major violations with emphasis on repeat violations and situations where the operator refuses to comply

When the Specialist feels that the imposition of a fine is appropriate he/she shall:

1. Prepare and submit a written report via e-mail or memo regarding the nature of, and circumstances surrounding, the violation to the WPD Chief and gain written approval to proceed with the fine.
2. Prepare all evidence including a summary of the violations, photos, and copies of all notes and notices relevant to the case.

3. Propose a fine level based upon the matrix and guidelines shown below and draft a Notice of Determination (fine letter) to provide to the hearing officer.
4. Contact the assigned Appeals Hearing Officer (or county counsel) to arrange a hearing / fine assessment date
5. Inform County Counsel of intention to issue a fine and provide copies of all pertinent materials.
6. Within 24 hours of setting a hearing date, send fine letter to the business operator informing him/her of the time, date, and location of the hearing.
7. Attend hearing
8. Submit a report to WPD Chief summarizing results of hearing

Draft Fine Matrix: Fine level suggestions are made to the hearing officer based upon authority to impose maximum fines of $5000 per day, per violation, using the matrix below. Settlement offers may be made to the violator to avoid a hearing. The proposal of a settlement amount should be based upon a percentage (less than 25%) of the total suggested fine amount.

AUTHORITY: SACRAMENTO COUNTY CODE, CHAPTER 15, SECTION 12.560	ACTUAL OR POTENTIAL HARM ▼		
EXTENT OF DEVIATION ▼	**Major**	**Moderate**	**Minor**
Major	Maximum: $5,000	Maximum: $3,000	Maximum: $2,000
	Average: $4,000	**Average: $2,500**	**Average: $1,5 00**
	Minimum: $3,000	Minimum: $2,000	Minimum: $1,000
Moderate	Maximum: $3,000	Maximum: $2,000	Maximum: $1,000
	Average: $2,500	**Average: $1,500**	**Average: $7500**
	Minimum: $2,000	Minimum: $1,000	Minimum: $500
Minor	Maximum: $2,000	Maximum: $1,000	Maximum: $500
	Average: $1,500	**Average: $750**	**Average: $250**
	Minimum: $1,000	Minimum: $500	Minimum: $0

Guidelines for using matrix to propose fine levels:

B. Steps in Determining Penalties

1. Initial Penalty. SCEMD will determine an initial penalty for each violation by considering the actual and potential harm and the extent of the deviation from well ordinance requirements. Assigning degrees of actual and potential harm:

(1) Major – the nature of the violation has the potential to present a major threat to human health or safety or the environment and the circumstances of the violation indicate a high potential for harm, or significant harm has occurred.

(2) Moderate – the nature of the violation does not present a major threat to human health or safety or the environment and the likelihood of harm from noncompliance is not high, or moderate harm has occurred.

(3) Minimal – the overall threat to human health or the environment is low or minimal harm has occurred.

b. ***Assigning degrees of extent of the deviation.***

(1) Major – the act deviates from the requirement to such an extent that the requirement is completely ignored or the function of the requirement is rendered ineffective because some of its provisions are not complied with.

(2) Moderate – the act deviates from the requirement but functions to some extent.

(3) Minimal – the act deviates from the requirement but functions nearly as intended.

2. ***Adjusted Initial Penalty***

a. The initial penalty may be adjusted based on the violator's intent in committing the infraction. The following factors will be considered as a basis for adjustment.

ADJUSTMENT FACTOR	CIRCUMSTANCES
Downward adjustment of 100%	Violation was completely beyond the control of the violator.
Downward adjustment of 0 to 50%	Violation occurred even though good faith efforts to comply with regulations were made.
No adjustment	Violation indicated neither good faith efforts nor intentional failure to comply.
Upward adjustment of 50 to 100%	Violation was the result of intentional failure to

	comply.

b. Economic Benefit Adjustment. The initial penalty may be increased if, in the opinion of the SCEMD, the violator realized significant economic benefit as a result of the failure to comply.

(1) The adjustment to the initial penalty cannot exceed the statutory maximum.

(2) Economic benefits to consider include: avoided or delayed costs, or increased profits.

3. ***Combining Multiple Violations. A single penalty may be assessed for multiple violations for the following situations:***

a. The Respondent has violated the same requirement in different locations or units within a site.

b. The Respondent has violated the same requirement on different days. This would not be appropriate if the Respondent has been notified of the violation and has had sufficient time to correct the violation.

4. ***Adjustment factors for cooperation.***

Degree of Cooperation/Effort	Adjustment Factor	Circumstance
Extraordinary	Downward adjustment of up to 25 %	Violator exceeded minimum requirements in returning to compliance or returned to compliance faster than requested.
Good Faith	No adjustment	Violator demonstrated a cooperative effort.
Recalcitrance	Upward adjustment of up to 25 %	Violator failed to cooperate, delayed compliance, created unnecessary obstacles to achieving compliance, or the compliance submittal failed to meet requirements.
Refusal	Upward adjustment of 50 to 100 %	Violator intentionally failed to return to compliance with regulations or to allow cleanup operations to take place. This does not include refusal to allow inspection.

b. Adjustment to create a preventive or deterrent effect. The total base penalty may be adjusted upward or downward to ensure that the penalty is sufficient to provide a deterrent effect on both the violator and/or the regulated community as a whole.

c. Adjustment for compliance history. The total base penalty may be adjusted upward or downward based on the Respondent's compliance history.

(1) General considerations.

(a) Previous violations at the site should receive more weight than previous violations at another site owned or operated by the same person.

(b) Recent violations should receive more weight than older violations.

(c) The same or substantially similar previous violations should receive more weight than previous unrelated violations.

(2) Specific guidance.

(a) Downward adjustments of up to 5% for each previous consecutive inspection with no violations can be made up to a maximum of 10%.

(b) Upward adjustments of up to 100% can be made if a Respondent has a consistent history of noncompliance over the past five (5) years

Project or Training in Lieu of Fine

In lieu of paying a fine, upon approval of the Chief of the WPD, the responsible party may apply all or part of the amount of an imposed fine to complete projects or programs designed to reduce or eliminate the possibility of future violations. Allowable projects or programs may include, but are not limited to, structural BMP installation or staff training, but should generally not include on-going operational or maintenance costs. The cost of the project should roughly equal the amount of the fine to be waived. When considering approval of such projects or programs, the Enforcement Official should consider at, a minimum, the following factors:

A. Severity of the violation.
B. Compliance history of the responsible party.
C. Competitive advantage gained by the responsible party as a result of the violation.
D. Existence of malicious intent or gross negligence that contributed to the violation.

E. Environmental benefit

Cost Recovery

When, in association with a complaint response or violation that requires clean-up and/or extensive investigation by county/municipal staff, EMD staff determines who is responsible for a violation, the responsible party may be required to reimburse the County for all costs incurred by the County or city related to the violation, pursuant to County Stormwater Ordinance, or corresponding sections of the appropriate city ordinance

Cost recovery fees that may be collected include, but are not limited to, investigation, enforcement, compliance assistance, damage, control, and clean-up.

Appeals

The County's Stormwater Ordinance (section 15.12.540) requires that any person served with a notice, order, or fine, be provided an opportunity for a hearing before an appeals hearing officer. Any notice, order, or fine issued, must inform the recipient of his/her right to appeal and provide instructions for requesting an appeals hearing.

To request a hearing, the recipient of the notice, order, or fine must submit a written request, along with a fee of $360 to this department within **30 days** of receipt of the notice, order, or fine. The request is valid if it is postmarked within that **30 day** period. If the appeal is upheld in its entirety by the hearing officer the appellant's fee is to be refunded. If not, the fee is retained.

The hearing must be held within **90 days** of receipt of the hearing request unless a Cease and Desist Order is being appealed, in which case the hearing must be held within **15 days**. This means that when a cease and Desist Order is issued, the operator should be informed that if he/she wishes to appeal, he/she must notify EMD immediately. When the issuing inspector receives a hearing request, he/she should contact the approved hearing officer within 24 hours, to arrange a hearing date. Within 72 hours, the inspector will send a letter by certified mail, informing the appellant as to the date and location of the hearing, as well as other necessary information.

Referrals to the Regional Board

All significant violations and all NOI non-filers must be referred to the Regional Board within 30 days of determination that a significant violation or NOI non-filer status exists. At a minimum, the following information must be included: Name of facility, name of operator, name of owner, type of activities conducted at the facility and copy of the violation.

Abatement by County

When a responsible party is not available, or is otherwise unable or unwilling to cease or control a condition that results in or is likely to result in further or continuing violations, abatement of the condition by the County may be required. Section 15.12.450 of the Stormwater Ordinance authorizes the County Enforcement Official to abate violations on private property.

Referral of Violations to Other Agencies

A. Regional Board

All significant violations and all NOI non-filers must be referred to the Regional Board within 30 days of determination that a significant violation or NOI non-filer status exists. At a minimum, the following information must be included: Name of facility, name of operator, name of owner, type of activities conducted at the facility and copy of the violation.

B. Other County and City Departments

The County Enforcement Official may defer enforcement action against Stormwater Ordinance violations by referring the violation to other County or city departments for enforcement. This may be done when enforcement against the violation itself, or against the practice or condition that caused the violation, is clearly within the jurisdiction and responsibility of the other department.

C. District Attorney

Severe or continuing violations should be referred to the District Attorney for consideration of criminal charges.

CITY OF FOLSOM

GENERAL PLAN

January 1993 UPDATE

MANDATORY AND OPTIONAL ELEMENTS
Adopted October 31, 1988
Resolution Number 2522

* * * AMENDMENTS * * *

Resolution # 1616 April 11, 1983
Urban Development Policy

Resolution # 2616 March 30, 1989
Land Use Resignation Change Natoma Station Project

Resolution # 2522 July 6, 1990
Policy 8.1, General Plan Goals & Policies Pg. 15-05
Policy 8.1, Chapter 21 Land Use Element Pg. 21-11

Resolution # 3018 August 20, 1990
Land Use Designation Change Blue Ravine Oaks East Parcel B

Resolution # 3242 February 12, 1991
Land Use Designation Change Briggs Ranch Unit #4

Resolution # 3579 February 25, 1992
Land Use Designation Change
Willow Springs and Suncountry Project Areas

Resolution # 3673 June 30, 1992
Adding 310± acres Alder Creek Auto Center Project

Resolution # 3762 August 25, 1992
Housing Element Amendment

Resolution # 3798 September 10, 1992
- Light Rail corridor alignment, LRT stations and Park & Ride lots
- Alignment of major roads and interchange placement
- Amendment to policies 17.6 and 17.17; transportation and circulation element
- Amendment to 33.0 Public Facilities Element, 33.1 Introduction
- Amendment to Chapter 40.0 Area Plans and Specific Plans, 40.1.3 Folsom East Area Facilities Plan (EAFP)

Resolution # 3860 October 27, 1992
Land Use Designation Change - Broadstone II

Resolution # 3896 December 1, 1992
Land Use Designation Change - Russell Ranch

RESOLUTION NO. 2522

A RESOLUTION TO ADOPT FINDINGS OF FACT AND A STATEMENT OF OVERRIDING CONSIDERATION AND APPROVING THE UPDATED CITY OF FOLSOM GENERAL PLAN

WHEREAS, the City of Folsom had undertaken a comprehensive planning effort to update the City General Plan; and

WHEREAS, the General Plan update process has involved extensive public participation, both through the substantial contributions made by the Citizens General Plan Advisory Committee and through several Planning Commission and City Council public hearings at which comments were received from concerned citizens; and

WHEREAS, the City Planning Commission, after substantial consideration of alternatives, recommended on September 26, 1988 that the City Council certify the EIR prepared for the Proposed General Plan and approve the General Plan as revised; and

WHEREAS, the Planning Commission further recommended the Preferred Alternative land use plan be approved by the City Council; and

WHEREAS, on October 7, 1988, after holding several work sessions and public hearings, the City Council certified the EIR and approved the revised General Plan, subject to preparation and approval of Findings of Fact and Statements of Overriding Considerations; and

WHEREAS, proposed Findings of Fact and Statements of Overriding Considerations as set forth in Exhibit A and incorporated herein by reference, have been prepared for and reviewed by the City Council in accordance with CEQA Guidelines Section 15091, 15092 and 15093; and

WHEREAS, the proposed General Plan has been prepared in conformance with State Planning and Zoning Law (Government Code Sections 65000-66003), and has been considered pursuant to the California Environmental Quality Act (CEQA) (Public Resources Codes Sections 21000-21177).

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF FOLSOM RESOLVES AS FOLLOWS:

1.The Final EIR for the revised General Plan has been completed in compliance with CEQA, and has been reviewed and considered by the City Council prior to approving the proposed General Plan.

2.The proposed Findings of Fact and Statements of Overriding Considerations, attached as Exhibit A, have been reviewed and considered by the City Council, and are hereby adopted as the City Council's Findings of Fact and Statement of Overriding Considerations.

3.After having considered the Final EIR in conjunction with the approved Findings, the proposed City of Folsom General Plan, and Preferred Alternative Land Use Element and Land Use Map, are hereby adopted and supersede the prior General Plan.

The foregoing Resolution was duly passed and adopted at a properly noticed meeting of the Folsom City Council held on the 31st day of October, 1988, by the following vote:

AYES: Councilmen Goodell, Hannaford, Carmody, Kipp
NOES: None
ABSTAIN: None
ABSENT: Councilman Gibson

MAYOR

ATTEST:

SECRETARY, CITY COUNCIL

APPROVED AS TO FORM:

CITY ATTORNEY

LIST OF PARTICIPANTS
CITY OF FOLSOM, CALIFORNIA

MAYOR AND CITY COUNCIL

Mayor John E. "Jack" Kipp
Vice Mayor Guy Gibson, Jr.
Councilman Lindsay S. Goodell
Councilman George E. Hannaford
Councilman Rod Carmody

PLANNING COMMISSION

Chairman Charles Townsend
Vice Chairman Marilyn Gautschi
Commissioner Bob Bowen
Commissioner Art Carlson
Commissioner Nick Econome
Commissioner Jim Reeves
Commissioner Gail Zittel

CITIZEN'S ADVISORY COMMITTEE

Stan Gisler, Chairman
Neva Cimaroli
Dennis Inks
Kim Lloyd
Steve Speights
Steve Toney
Eleanor Vance
Thomas Dille
Price Walker
Dick Merz
Cy Thomas
Nick Johnson
Martin Hill
Jim Loughridge
Al Fitzsimons
Jim Williams
Scott Schneider
Bret Worthington
Donna Lunardini
Jack Wilson

CITY STAFF

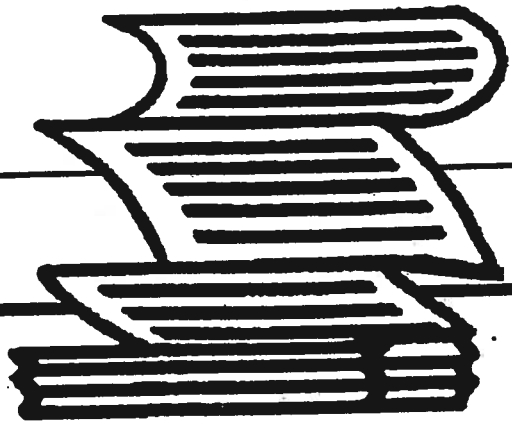
City Manager, William Kime
City Attorney, Philip C. Mering
Finance Director, Luther Faler
City Treasurer, Barbara J. Patrick
Director of Public Works, Bob Blaser
City Clerk, Arlene Soto
Fire Chief, Robert B. Welch
Police Chief, Hal Barker
Chief Building Inspector, Marvin May

COMMUNITY DEVELOPMENT DEPARTMENT

Community Development Director, Brad Kortick
Senior Planner, Steven K. Harris
Associate Planner, Amy Feagans
Assistant Planner, Loretta McMaster
Planning Commission Secretary, Lorna Daskalu
Secretary, Sandy Amick
Clerk Typist, Valerie Castellano

CONSULTANTS

Stephen L. Jenkins
Steve Feher
Connerly and Associates
Brown and Buntin Associates
Mundie and Associates
Minitier and Associates
CH2M Hill
James A. Roberts
Mike Melanson
QUAD Consultants
Sierra Research
Balfrey and Abbott
Wilbur Smith and Associates



10.0 INTRODUCTION

Prepared By The City of Folsom
Community Development Department

October 31, 1988

INTRODUCTION

TABLE OF CONTENTS

PAGE

10.0 INTRODUCTION 10.0

11.0 URBAN DEVELOPMENT POLICY 11.0

12.0 ASSUMPTIONS 12.0

13.0 FOLSOM GENERAL PLAN GOALS AND POLICIES 13.0

20.0 MANDATORY ELEMENTS

- 21.0 Land Use 21.0
- 22.0 Transportation and Circulation 22.0
- 23.0 Housing (ADOPTED 8/25/92 RESO# 23
- 24.0 Open Space and Conservation 24
- 25.0 Safety 25
- 26.0 Noise 26.0

PAGE

30.0 OPTIONAL ELEMENTS
- 31.0 Parks and Recreation 31.0
- 32.0 Air Quality 32.0
- 33.0 Public Facilities 33.0
- 34.0 Hazardous Materials 34.0
- 35.0 Fiscal Element (TO BE ADDED) 35.0

40.0 AREA PLANS AND SPECIFIC PLANS 40.0

50.0 ENVIRONMENTAL ELEMENT/
ENVIRONMENTAL IMPACT REPORT (incorporated by reference) 50.0

60.0 IMPLEMENTATION PROGRAMS 60.0

GLOSSARY ..... BACK OF BOOK

INTRODUCTION

Folsom's General Plan is a long term policy guide for the physical, economic, and environmental growth of the City. It is comprised of goals, policies, and implementation programs which are based on an assessment of current and future needs and available resources.

California State Law requires each City and County to adopt a General Plan "for the physical development of the City or County, and any land outside its boundaries which...bears relation to its planning (Government Code Section 65300)." The role of each community's General Plan is to act as a "constitution" for development, the foundation upon which all land use decisions are made. It expresses community development goals and embodies public policy relative to the distribution of future land use, both public and private (General Plan Guidelines June 1987, OPR). The Plan is to be used by local decision-makers as a visionary document, a "blueprint" for the City's future growth and development.

Folsom's General Plan is strongly oriented toward physical development of land uses, a circulation network, and supporting facilities and services. Because of this, the document is the principle tool for City use in evaluating public and private building projects and municipal service improvements. Conformance of projects and improvements with the General Plan is a major step toward their approval.

Another important concern of the General Plan is enhancement of Folsom's quality of life. This is perhaps the single most important issue facing the City, and is the underlying goal of the local planning process. Goal 1 of the Plan reenforces the City's commitment to maintain and enhance the quality of life.

To retain and enhance Folsom's quality of life, separate identity and sense of community.

Folsom's quality of life is a function of the economic, social, cultural, recreational and environmental conditions experienced by City residents. It depends on how residents perceive their home, neighborhood, and community. Their standard of living, personal happiness, all affect their outlook and perceptions of the City's overall quality of life. Quality of life is a set of values based on individual experiences. Especially true is how people view change and growth in their community. Some people view change for the positive, as dynamics of urban/suburban living, others would prefer things as they were and regard any change as a negative.

The overriding issue, therefore, is whether the existing perceived quality of life will be enhanced by effective decisions dealing with the quality of growth or will it suffer.

10.1 PLAN ORGANIZATION

The City's General Plan is divided into three major parts:

- Master Environmental Assessment
- Environmental Impact Report
- Goals, Policies, and Implementation Document

Since the City has opted to prepare a Master Environmental Assessment (MEA) along with an Environmental Impact Report (EIR), these two documents together with the more typical goals and policies document, constitute the official General Plan. State Planning Law allows a jurisdiction this option (Government Code Section 15166, 15169), although it is still somewhat uncommon, it does allow for a greater degree of flexibility and the ability to update baseline data found in the MEA. All three documents are circulated and certified as the General Plan and accompanying EIR. The General Plan's Environmental Element also serves as the Draft EIR. Upon its certification, the Final EIR will be made part of the Plan.

The Goals and Policies Document is organized into 10 sections. The first of which present an overview of the Plan, its organization, the City's Urban Development Policy, update study assumptions, and Goals and Policies. Chapters 20 and 30 present the Plan's Mandatory and Optional Elements, as defined by State of California law. The last major section, Implementation Programs, is designed to help the reader understand how the General Plan text and map should be used by government staff and private sector

interests to evaluate proposed projects or programs. This section also outlines how the Plan is to be administered and maintained. A Glossary has been included to assist the reader. Finally, the fold out map graphically depicts the City's adopted land use map for Land Uses, circulation, and service-facility uses as currently proposed.

Chapters 20 and 30 embody the General Plan Mandatory and Optional Elements. These are:

Chapter 21.0 Land Use Element:
Discussion focusses on the distribution and development intensity of residential, commercial, industrial, and open space land uses.

Chapter 22.0 Transportation and Circulation Element:
Describes the City's streets, parking, highways, pedestrianways, bikeways, railroads, and future light rail needs. A separate traffic study on the Land Use Plan has been conducted and is incorporated into the supporting technical appendix.

Chapter 23.0 Housing Element:
This section amends the 1985 adopted Element which deals with housing needs and provisions for meeting them.

Chapter 24.0 Open Space and Conservation Element:
Combined in this section are those subjects specified by State Law for the two separate Mandatory Elements. Preservation and management of limited resources is the central orientation. Parks as a form of open space are addressed in the Parks and Recreation Element.

Chapter 25.0 Safety Element:
This section includes seismic safety, flood control, fire, and noise and hazardous materials to some extent.

Chapter 26.0 Noise Element:
Existing future noise sources and issues are addressed, as are noise mitigation measures.

Chapter 31.0 Parks and Recreation Element:
Discusses the City's existing and projected inventory of open space and parklands. Includes parkland dedication standards and the City's efforts to maintain and enhance the City's park and recreation programs.

Chapter 32.0 Air Quality Element:
This section discusses methods and programs available to the City to aid in local and regional air quality improvement efforts. This Element is closely related to the Land Use, Transportation and Circulation Elements.

Chapter 33.0 Public Facilities Element:
This section deals primarily with municipal services and facilities that support development projects. Infrastructure such as water, sanitary sewer, and drainage is discussed; as well as schools, police and fire protection, libraries, and others. Additional material can be found in the MEA.

Chapter 34.0 Hazardous Materials Element:
Presents a discussion on hazardous materials and wastes in today's regulatory environment, and actions and programs that are available to the City to help reduce risks of exposure.

In addition, the City will have a Fiscal Element prepared that will discuss financing mechanisms to pay for future and on-going public facilities and services. Once completed and adopted, the General Plan will be amended to include this Element.

State Planning Law establishes certain minimum requirements which local jurisdictions must meet regarding the substance and content of a General Plan (Government Code Section 65300 et. seq.). Folsom considers this General Plan, incorporating the MEA and EIR, to meet all of these requirements.

State guidelines for the preparation of a General Plan also suggest a certain format or structuring of elements and their content; however, reorganization is permissible, as are Optional Elements, as long as there is internal consistency within the entire General Plan. Folsom has chosen to organize the various elements and achieve internal consistency as demonstrated in Table 10-1. This illustrates the relationship between the City's General Plan Elements and the mandated and optional State

Elements. It should also be mentioned that the accompanying MEA and Draft EIR (Chapter 50.0, Environmental Element) play an important role in determining the consistency and completeness of Folsom's General Plan. Potential significant environmental impacts and mitigation measures are cross-referenced with specific policies and implementation measures, thus creating a valuable document which lays a foundation for future environmental analyses. These documents are incorporated into the General Plan by reference.

10

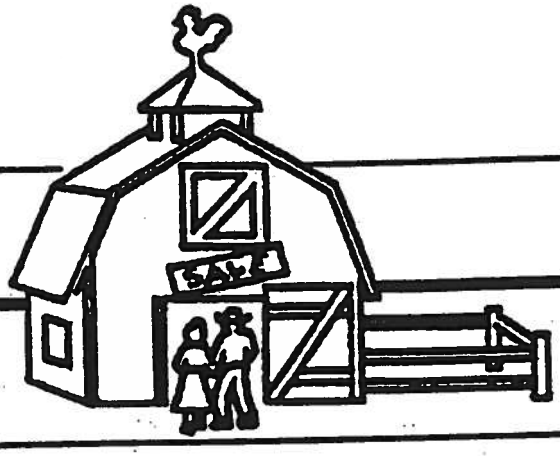
TABLE 10-1

RELATIONSHIP BETWEEN FOLSOM GENERAL PLAN AND STATE MANDATORY/OPTIONAL ELEMENTS

	FOLSOM GENERAL PLAN ELEMENTS									
STATE ELEMENTS	LAND USE	TRANS. & CIR.	HOUSING	OPEN SPACE & CONSER	SAFETY	NOISE	PARKS & REC.	AIR QUALITY	PUBLIC FACILITIES	HAZARDOUS MATERIALS
MANDATORY										
Housing	X		X							
Land Use	X		X	X			X	X	X	
Circulation		X								
Conservation				X						
Open Space	X			X			X			
Safety					X	X		X		X
Noise					X	X				
OPTIONAL										
Parks and Rec.	X			X			X			
Hazardous Mat.					X					X
Public Facilities	X			X					X	
Air Quality					X			X		

Background data on these topics can also be found in the MEA and technical appendix.

SKH:ld



11.0
URBAN DEVELOPMENT POLICY

Planning Commission Resolution No. 83-2
Approved April 11, 1983

City Council Resolution No. 1616
Approved June 6, 1983

October 31, 1988



URBAN DEVELOPMENT POLICY

TABLE OF CONTENTS

PAGE

11.1 APPLICATION 11-2

11.2 STATEMENT OF POLICY BASIS 11-2

11.3 POLICY ON DEVELOPMENT OF UNINCORPORATED AREAS 11-2

11.4 ANNEXATION POLICY 11-2

11.5 POLICY FOR APPROVAL OF URBAN DEVELOPMENT PLANS 11-3

11.6 POLICY ON MUNICIPAL SERVICES AND FACILITIES FEES 11

11.7 POLICY FOR AREA FACILITIES PLAN 11-4

11.8 DEFINITIONS 11-4

URBAN DEVELOPMENT POLICY

11.1 APPLICATION

This Urban Development Policy shall be applicable to the Folsom General Plan Area. A distinction is made in the Policy for incorporated and unincorporated areas and for agricultural uses.

11.2 STATEMENT OF POLICY BASIS

The City of Folsom seeks to implement its General Plan, to direct the orderly growth of the City of Folsom (versus haphazard or leapfrog development), and to provide an adequate level of service to the community. To this end, the City of Folsom has found it to be both timely and appropriate to set forth its Policy for urban development in its General Plan area to ensure that the City can carry out its role as provider of urban services in the northeastern portion of the County of Sacramento. This Policy is set forth in recognition of the following:

1. The State planning policy disfavors encirclement of incorporated Cities with urban development which lacks adequate and comprehenstve urban services.

2. The City of Folsom is a general law City and such political subdivisions have limited authority and means to generate funds under State Law.

3. There has been a further reduction of available revenue for urban development resulting from the fiscal constraints of Articles XIII A and B of the Constitution of the State of California, otherwise known as Propositions 13 and 4.

4. Planned, orderly urban development decreases the cost of urban services while simultaneously improving the environment for urban development.

11.3 POLICY ON DEVELOPMENT OF UNINCORPORATED AREAS

To insure the orderly growth of the City, to enable the logical and most economic extension of services and to better ensure a quality living environment, it is the policy of the City of Folsom to encourage urban development within the City Limits and to discourage urban development in the unincorporated sections of the General Plan area and to coordinate with the County of Sacramento to implement this Policy.

11.4 ANNEXATION POLICY

It is the policy of the City of Folsom to annex all areas within its General Plan area and Sphere of Influence at the earliest time consistent with the Goals and Policies of the Folsom General Plan, the orderly extension of the Folsom City Limits and the provision of public services and facilities in accordance with Sections VI and VII of this Urban Development Policy. In conjunction with this Policy, it is the policy of the City to continue to actively develop additional sources and capacities for services for newly annexed lands. Annexation does not imply development approval.

Section 56076 of the Government Code states that a Sphere of Influence is to be a plan for the probable ultimate physical boundaries and service area of a local governmental agency. A copy of the City's currently adopted Sphere of Influence is shown in Figure 11-1. It is the policy of the City of Folsom to request that LAFCO expand the City's current Sphere of Influence to include areas south of U.S. 50 in a manner consistent with the City's General Plan which will foster orderly urban development and discourage leapfrog development and urban sprawl.

It is the policy of the City of Folsom to encourage annexations which:

1. Are consistent with the City's General Plan, State Law and LAFCO standards and criteria.

2. Constitute fiscally sound additions to the existing City.

3. Ensure the provision of adequate public facilities and services.

4. Are part of a planned and orderly annexation program.

It is the policy of the City of Folsom to pre-zone all properties proposed for annexation in a manner consistent with the City's General Plan. Generally this will involve use of the Agricultural Reserve District (A-1-A) until such time as public facilities and services are available for urban development. However, the City may utilize the County of Sacramento General Plan designation or the existing zoning as a basis for determining pre-zoning consistency so long as the proposed annexation is consistent with and furthers the goals and policies of the City's General Plan.

It is the policy of the City of Folsom that prior to the approval of a tentative map, building permit or other development permit, properties located within the annexation area shall comply with the provisions of Sections VI and VII of this Urban Development Policy to the extent deemed applicable by the City Engineer.

11.5 POLICY FOR APPROVAL OF URBAN DEVELOPMENT PLANS

It is the policy of the City of Folsom to approve development proposals for urban development (not including agricultural development) only when such development is consistent with the General Plan and when full urban services can be logically provided, expanded, and/or extended to serve such development. To insure the logical extension of services in an economically feasible manner, it is the policy of the City of Folsom to restrict development without full services except under extraordinary circumstances. Extraordinary circumstances may be found to exist when the City Council, after considering the recommendation from the Planning Commission finds that:

1. This Policy would cause extreme hardship on the property owner; or

2. The type and extent of the development will not impede implementation of this Policy.

In every case where an exception is granted, there must be a finding of consistency with the General Plan and a finding that the use can function in a safe and healthful manner. The property owner must provide information to the City to support the health and safety finding.

The property owner for whom an exception is granted must:

1. Pay all fees associated with the normal provision of services.

2. Enter into a binding agreement with the City, recorded in the County of Sacramento Recorder's Office, whereby the property owner, his successors, heirs and assigns agree to extend line(s) and connect to services when the adjacent property develops or at the request of the City Council, whichever occurs first.

Agricultural development includes the uses set forth in the A-1-A Zone. These uses, in areas zoned A-1-A, are not governed by this Section of the Urban Development Policy, except as stated in the text of that District, which includes a statement regarding General Plan consistency.

11.6 POLICY ON MUNICIPAL SERVICES AND FACILITIES

It is the policy of the City of Folsom require new development to bear the cost of its increased demand/effect on municipal services and facilities so as not create a greater burden on existing residents. Development contributes to the need for the expansion and extension of the City's circulation, water, sewer, storm drainage, and parks systems and other capital improvements, facilities, and equipment to adequately serve the development area. Service expansion and extension is not necessarily site-specific; rather, it is generally related to a larger area and the City as a whole. In order to accommodate the new development, maintain an acceptable level of service, and alleviate the effects of the increased demand on City services, it is the policy of the City of Folsom to require certain necessary improvements as a part of the development and/or the payment of municipal services and facilities fees consistent with the proportional effect of the development on such services.

The City of Folsom has previously adopted various fees for financing facilities, includi roads, water, sewer, drainage, capital impro ments, and parks. The fees, in effect prior 1983, do not, for the most part, provide sufficie

revenue for improvements needed and for the provision of adequate and acceptable levels of services. The City will periodically update its fees to reflect the cost of providing municipal services and facilities. Also, the City of Folsom is addressing the need for adequate and acceptable educational facilities during the City's urban growth and development by considering an impact fee ordinance.

11.7 POLICY FOR AREA FACILITIES PLANS

In order to assure an adequate funding level for municipal services and facilities in developing areas of the City and in recognition of the possible need for special financing plans to provide such services and facilities, it is the policy of the City of Folsom to formulate and adopt Area Facilities Plans as part of a Public Facilities Element of the Folsom General Plan. Such Area Facilities Plans shall identify the necessary services and facilities and the means to finance such improvements.

It is the policy of the City of Folsom to require the preparation of an Area Facilities Plan or other suitable substitute as approved by the City Council, for a particular area of the City when:

1. Development of an area necessitates provision, extension, and/or expansion of municipal services and facilities which are not customarily constructed by a developer, or

2. There is a need for services or facilities not otherwise funded by the regular City fees, or

3. The construction of the necessary services and facilities cannot be logically or economically provided by one landowner/developer in the normal sequence of orderly development as directed by this Urban Development Policy.

An Area Facilities Plan shall be prepared for and shall apply to all properties within the identified plan area, unless a parcel is specifically excluded in the adopted text of the plan. Where a development proposal covers property which is within an Area Facilities Plan boundary as established by the City Council and such Plan has not been adopted nor has any suitable substitute been approved by the City Council, no tentative subdivision map or development permit shall be approved for such property until the Area Facilities Plan has been adopted. This restriction shall not, however, preclude the approval of final subdivision maps which are in substantial compliance with unexpired tentative subdivision maps which were approved prior to the City Council's determination to require an Area Facilities Plan for the area encompassing such property. The City Council may require the applicant to bear or to share in the cost of the preparation of the Area Facilities Plan.

The adoption of Area Facilities Plans shall not limit the City's authority to impose fees in other areas of the City nor shall it limit the City's or another jurisdiction's authority to impose additional fees in the plan areas for other public facilities when found to be needed in the future.

An Area Facilities Plan shall include, but not be limited to those topics listed in the Public Facilities Element of the General Plan.

11.8 DEFINITIONS

1. Agricultural Development means the types of uses provided for in the City's A-1-A District in areas zoned A-1-A.

2. Development means the act, process, or result of securing approval of a use permit, variance, and/or land division, including a subdivision map, parcel map, land division plat, building permit or the like.

3. Municipal Services and Facilities means those services and related facilities including, but not limited to, water, sewer and storm drainage systems, circulation and transportation systems, parks, police, fire, administration, and other similar services.

4. Urban Development means land development which generates a need for municipal services and facilities as defined. The following development activities typically do not generate a need for services and, therefore, are specifically excluded from the term "urban development" as addressed in this Urban Development Policy:

A. Agricultural development as defined herein.

B. The operation, repair or minor alteration of existing public or private structures, facilities, or mechanical equipment which does not involve physical expansion of the use.

C. The construction of minor structures such as carports, patios, swimming pools, or fences which are accessory and appurtenant to existing residential uses.

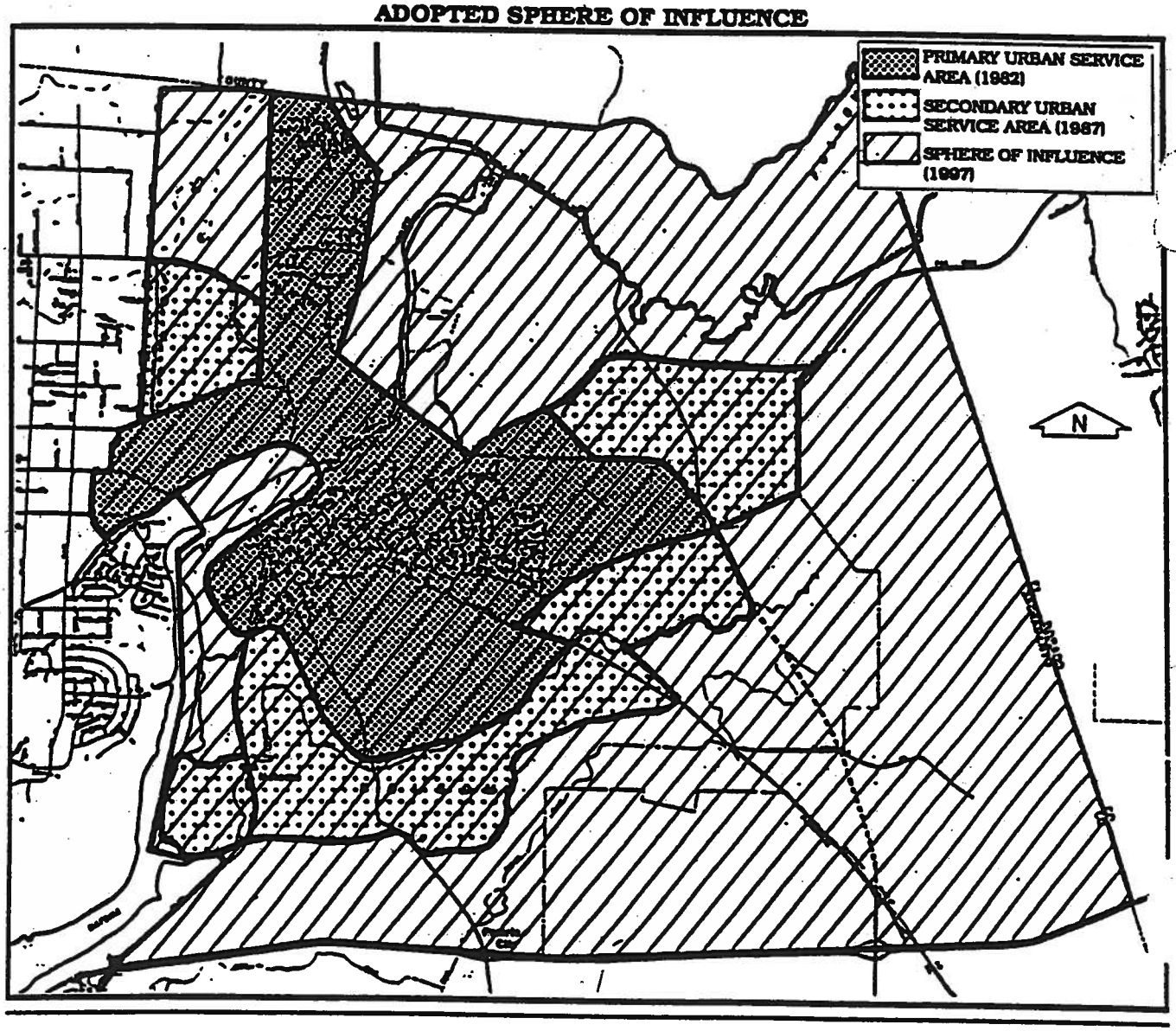
D. The construction or placement of minor structures such as on-premise signs, small parking lots, or fences which are accessory and appurtenant to existing commercial, industrial, or institutional facilities.

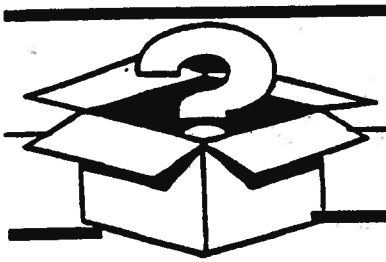
E. Re-occupancy of existing vacant structures by uses which are found by the City to be consistent with the land use designation of the site.

F. Reconstruction of a damaged, destroyed, or unsafe building which involves no expansion of the previously existing use when that use presently is consistent with the Folsom General Plan.

G. Such other development as may be found and declared by resolution of the City Council not to constitute urban development because such development does not generate a need for development improvements and/or City services.

FIGURE 11-1
ADOPTED SPHERE OF INFLUENCE





12.0 ASSUMPTIONS

STUDY ASSUMPTIONS FOR GENERAL PLAN UPDATE AND EAST FOLSOM PLANNING STUDIES

The following major assumptions will be used by staff and consultants to prepare the General Plan Update and East Folsom Planning Studies:

1. The Quality of Life in the City will be maintained as reflected by the policies of the Mayor's Citizen's Advisory Committee.

2. The City will have adequate supplies of water to serve future development when needed.

3. The General Plan Update and East Folsom Planning Studies will show urbanization of the entire City Limits.

4 A stable, local and regional economy is assumed throughout the Planning Period.

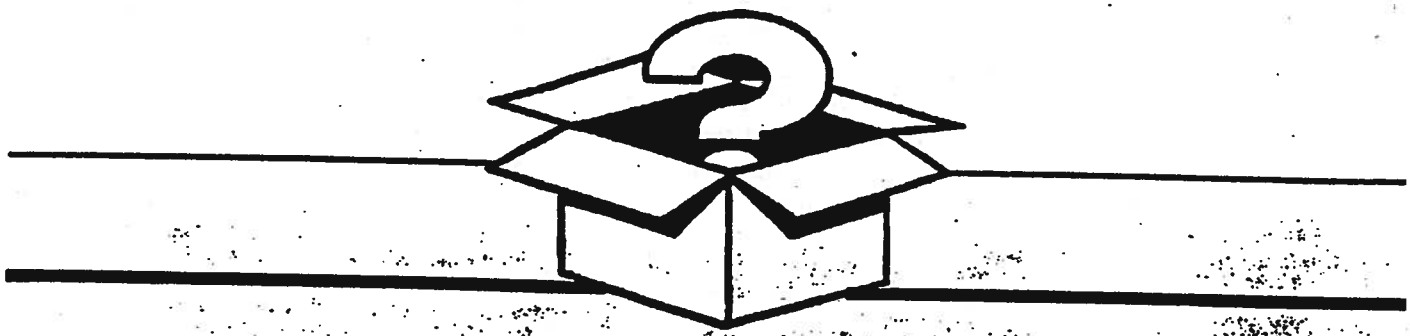
5. The Planning Period for the City General Plan Update and East Folsom Planning Studies will be the year 2010. All land use alternatives will be assumed to have been built-out by that time.

6. It is assumed that there will be no constraints for development due to a lack of adequate public services, facilities or infrastructure.

7. Vehicular traffic on surface streets will be accommodated at a Level of Service (LOS) "C" or better in accordance with current City policies.

8. Construction of additional vehicle capacity over the American River (i.e., Bridge Construction) will occur prior to or simultaneous with traffic demand created by new development.

SOURCE: May 18, 1987 Memo to the City Council from the Community Development Department.



12.0
ASSUMPTIONS

October 31, 1988

revenue for improvements needed and for the provision of adequate and acceptable levels of services. The City will periodically update its fees to reflect the cost of providing municipal services and facilities. Also, the City of Folsom is addressing the need for adequate and acceptable educational facilities during the City's urban growth and development by considering an impact fee ordinance.

11.7 POLICY FOR AREA FACILITIES PLANS

In order to assure an adequate funding level for municipal services and facilities in developing areas of the City and in recognition of the possible need for special financing plans to provide such services and facilities, it is the policy of the City of Folsom to formulate and adopt Area Facilities Plans as part of a Public Facilities Element of the Folsom General Plan. Such Area Facilities Plans shall identify the necessary services and facilities and the means to finance such improvements.

It is the policy of the City of Folsom to require the preparation of an Area Facilities Plan or other suitable substitute as approved by the City Council, for a particular area of the City when:

1. Development of an area necessitates provision, extension, and/or expansion of municipal services and facilities which are not customarily constructed by a developer, or

2. There is a need for services or facilities not otherwise funded by the regular City fees, or

3. The construction of the necessary services and facilities cannot be logically or economically provided by one landowner/developer in the normal sequence of orderly development as directed by this Urban Development Policy.

An Area Facilities Plan shall be prepared for and shall apply to all properties within the identified plan area, unless a parcel is specifically excluded in the adopted text of the plan. Where a development proposal covers property which is within an Area Facilities Plan boundary as established by the City Council and such Plan has not been adopted nor has any suitable substitute been approved by the City Council, no tentative subdivision map or development permit shall be approved for such property until the Area Facilities Plan has been adopted. This restriction shall not, however, preclude the approval of final subdivision maps which are in substantial compliance with unexpired tentative subdivision maps which were approved prior to the City Council's determination to require an Area Facilities Plan for the area encompassing such property. The City Council may require the applicant to bear or to share in the cost of the preparation of the Area Facilities Plan.

The adoption of Area Facilities Plans shall not limit the City's authority to impose fees in other areas of the City nor shall it limit the City's or another jurisdiction's authority to impose additional fees in the plan areas for other public facilities when found to be needed in the future.

An Area Facilities Plan shall include, but not be limited to those topics listed in the Public Facilities Element of the General Plan.

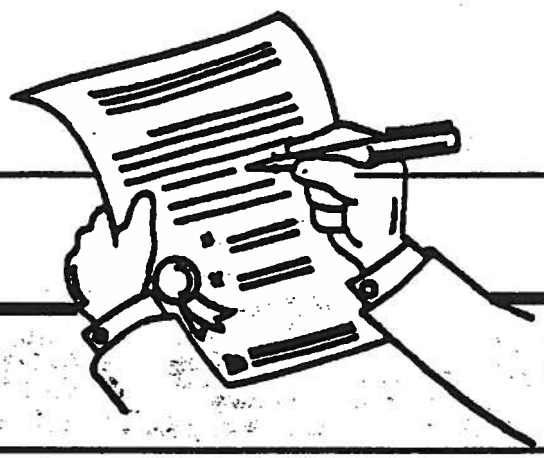
11.8 DEFINITIONS

1. Agricultural Development means the types of uses provided for in the City's A-1-A District in areas zoned A-1-A.

2. Development means the act, process, or result of securing approval of a use permit, variance, and/or land division, including a subdivision map, parcel map, land division plat, building permit or the like.

3. Municipal Services and Facilities means those services and related facilities including, but not limited to, water, sewer and storm drainage systems, circulation and transportation systems, parks, police, fire, administration, and other similar services.

4. Urban Development means land development which generates a need for municipal services and facilities as defined. The following development activities typically do not generate a need for services and, therefore, are specifically excluded from the term "urban development" as addressed in this Urban Development Policy:



13.0 GENERAL PLAN GOALS AND POLICIES

October 31, 1988



GENERAL PLAN GOALS & POLICIES

TABLE OF CONTENTS

PAGE

LAND USE ELEMENT GOALS AND POLICIES 2

TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES 18

HOUSING ELEMENT GOALS AND POLICIES 22

OPEN SPACE AND CONSERVATION ELEMENT GOALS AND POLICIES 24

SAFETY ELEMENT GOALS AND POLICIES 27

NOISE ELEMENT GOALS AND POLICIES 28

AIR QUALITY ELEMENT GOALS AND POLICIES 3

PARKS AND RECREATION ELEMENT GOALS AND POLICIES 33

PUBLIC FACILITIES ELEMENT GOALS AND POLICIES 38

HAZARDOUS MATERIALS ELEMENT GOALS AND POLICIES 40

FISCAL ELEMENT GOALS AND POLICIES 40

LAND USE ELEMENT GOALS AND POLICIES

GOAL 1

This is the key Goal of the Plan and this sets the tone of the Plan.

To retain and enhance Folsom's quality of life, separate identity and sense of community. Folsom's identity and quality of life are defined by:

1. The diverse natural setting, including the American River, its tributary streams, natural vegetation, topography, native wildlife, and other unique features of the landscape.
2. Developed parks and open space.
3. The historic district and other historic places throughout the community.
4. The State prison site, which provides a large, visual open area in the City.
5. The physical form of Folsom's neighborhoods.
6. Ease of movement.
7. Public access to pedestrian and bicycle trails.

POLICY 1.1

New development shall preserve and/or enhance to the maximum degree feasible, the existing natural vegetation, landscape features and open space, consistent with the Goals and Policies of this Plan.

POLICY 1.2

Existing viewsheds and opportunities for viewsheds should be incorporated into the design of new developments.

POLICY 1.3

Each residential neighborhood should be planned with at least one park/recreational/school area within approximately one half mile of each residential unit.

POLICY 1.4

Each new residential development shall be encouraged to provide pedestrian and bicycle access to parks or schools located within or near the development.

POLICY 1.5

Each new residential development shall be designed with a system of local streets, collector streets, and access to an arterial road that protects the residents from through traffic.

POLICY 1.6

Folsom's historic district shall be enhanced and maintained through the improvement of public facilities.

POLICY 1.7

Historic buildings or locations shall be preserved or incorporated into the design of new developments.

POLICY 1.8

The City shall prepare an inventory of historically and culturally significant buildings and sites. The City should investigate measures for Historic Preservation of these building sites.

POLICY 1.9

Development proposed along streams shall be in conformance with a comprehensive development and management plan to be prepared for stream waterbeds prior to project approval.

POLICY 1.10

When development incentives are required for the preservation of identified resources and open spaces, the City and public shall cumulatively receive the greater short-term and long-term benefits of such incentives.

POLICY 1.11

The location, configuration, and extent of open space and parkway designated on the land use map shall be determined on a project by project basis through site specific mapping approved by the City and consistent with mitigation of environmental impacts and implementation of the overall goals and policies of the General Plan.

The lines depicting the location of Humbug and Willow Creeks on the General Plan are for illustrative purposes and shall be consistent with the Humbug/Willow Creek Management Plan when adopted.

GOAL 2

To ensure that the City exercise appropriate controls over the planning process.

POLICY 2.1

The General Plan sets the overall guidelines for the location and intensity of development in Folsom.

POLICY 2.2

The City will prepare area or specific plans as appropriate to further refine the standards and regulations for development.

POLICY 2.3

General Plan Amendments may be approved when the applicant has successfully indicated substantial benefit could be derived from the project.

1. Requests for higher residential densities must include a demonstration of need for higher density housing.

2. Requests for land use changes must include an evaluation of economic, social and environmental factors which would be enhanced by a change in the land use.

3. Design features for open space, improved recreational facilities, protection of natural features and sensitivity to surrounding development shall be carefully evaluated.

POLICY 2.4

The City shall adopt a grading ordinance which prohibits any substantial grading or modification of the topography prior to approval of a tentative map, planned development or other land use permit. The ordinance shall provide for performance bonds or similar measures acceptable to City and a specific time period for construction to commence. The City shall require slope analysis maps early in the project review process in order to judge future grading activity.

GOAL 3

To address comprehensively Folsom's development issues on the basis of community-wide needs.

POLICY 3.1

The City shall evaluate the community-wide impact of each development on the need for public facilities and services, the circulation and housing impacts from the project, and the effects on the City's identified resources.

POLICY 3.2

Developments should be compatible with the natural features and the buildings that surround them. Compatibility will be measured by the size and configuration of buildings in a project, the use of materials and landscaping, the preservation of existing vegetation and landscape features, and the location of entrance and exit routes on the project site.

POLICY 3.3

Development standards shall be prepared for large land holdings prior to approval of tentative maps or Planned Development permits. Development standards may consist of standards adopted by resolution of the Planning Commission describing standards for development and relationships among land uses within the area covered by the plan. Development standards may be included in specific plans, area plans, or by reference as a condition of approval.

GOAL 4

To provide opportunities for residents to live, work, shop, and enjoy leisure activities within the City.

POLICY 4.1

The City will plan for additional housing needs as determined in the Housing Element for the next 5 to 25 years.

POLICY 4.2

The City will plan for a central community shopping district and a regional shopping center.

POLICY 4.3

Neighborhood business areas will be allowed, subject to size and business use restrictions. The location of such business areas should be based on area or community plans covering the projects to be served by the neighborhood business area. Neighborhood business areas should be pedestrian-oriented, that is, drawing their customers primarily from the residences in the immediate vicinity of the businesses.

POLICY 4.4

The City will expand its system of parks, open spaces, and recreational facilities as new development proceeds.

POLICY 4.5

Industrial and office employers should be encouraged to locate in Folsom to provide more job opportunities for Folsom residents.

GOAL 5

To influence land use decisions of Sacramento, Placer, and El Dorado counties and other governmental agencies which may impact Folsom.

POLICY 5.1

The City shall request to participate in the planning process of other governmental agencies whose jurisdiction includes areas within the city limits of Folsom.

POLICY 5.2

The City shall request copies of proposed plans prepared by other government agencies outside of Folsom but which could affect land in Folsom. City officials should respond in a timely manner to such proposed plans and participate in public meetings or hearings as appropriate.

POLICY 5.3

The City will continue to participate in the Sacramento Area Council of Governments and the Sacramento Local Agency Formation Commission.

GOAL 6

To expand Folsom's Sphere of Influence based on the ultimate boundaries of development that the City can reasonably control and service and to discourage premature development in unincorporated areas surrounding the City.

POLICY 6.1

The Sphere of Influence shall include those parcels of land adjacent to the city limit whose development could have significant visual, traffic, service, and environmental impacts on Folsom so that the City may influence the ultimate development of those parcels.

POLICY 6.2

The City shall consider existing roads or natural features which might logically define a new Sphere of Influence boundary.

POLICY 6.3

A new Sphere of Influence boundary shall include only those lands to which road, water, sewer and other facility/service connections can be extended within the next 25 to 30 years and, therefore, to those areas which will ultimately be annexed to the City.

GOAL 7

To provide for the orderly annexation and development of unincorporated areas within Folsom's Sphere of Influence.

POLICY 7.1

The City shall only annex those lands which can be developed in accordance with the City's General Plan, are fiscally sound additions to the City, can be adequately served by municipal (or acceptable alternative) facilities and services, and are part of a planned, orderly annexation program.

POLICY 7.2

All properties proposed for annexation shall be pre-zoned by the City in a manner consistent with the General Plan. Until facilities and services can be provided, such properties will be designated as agricultural reserve. The existing County zoning or General Plan designation which applies to a property may be considered in determining the appropriate pre-zoning of the subject land which is served by on-site facilities or connected to County facilities.

POLICY 7.3

Prior to the annexation of lands to the City, the applicant shall submit a plan demonstrating the financial feasibility of providing services and facilities to the area proposed for annexation. (refer to Goal 40 and its policies)

POLICY 7.4

The General Plan and zoning designations for annexed lands should consider the following criteria:

1. The capacity of facilities and municipal services.
2. The environmental effects that development on lands proposed for annexation may have on properties within the existing city limits.
3. Existing land uses, if any, on and in the vicinity of the annexed land.
4. The extent of any natural habitats and features of the landscape which should be preserved.
5. The demonstrated need for additional housing, retail commercial uses, other commercial uses, and industrial uses.

GOAL 8

To allow a variety of housing types which provides living choices for Folsom residents.

POLICY 8.1

Average residential densities shall be calculated as the number of dwelling units divided by the total area of the project, excluding any commercial, business and professional or industrial uses. Areas devoted to open space, public parks roads, public schools and other miscellaneous land uses shall be included in the calculation.

NOTE: SEE PAGE 15-5A FOR ADDITION

POLICY 8.2

In order to promote a more diverse housing stock and to allow for a greater mix of compatible densities, five residential density ranges shall be established and applied to the various residential areas. Table 21-5 illustrates these densities and compatible housing types. Examples of these housing types are defined in Figure 21-1.

TABLE 21-5

GENERAL PLAN RESIDENTIAL DENSITIES

HOUSING TYPE	SF (2-3.9)	SFHD (4-6.9)	MLD (7-11.9)	MMD (12-17.9)	MHD (18-25)
SF Detached	◆	◆			
SF Zero Lot Line		◆	◆		
SF Patio		◆	◆		
Duplex		◆	◆		
Halfplex		◆	◆		
Townhouse			◆	◆	
Condominiums			◆	◆	
Garden Apartments			◆	◆	◆
Conventional Apartments				◆	◆
Mobile Home Parks		◆			

POLICY 8.3

Open space will be required as part of each residential development except in residential estates, multifamily parcels of less than 10 acres and parcels of less than 20 acres for single family uses surrounded by existing development. Open space includes required park lands, common areas, landscaped areas, pedestrian paths, plazas and similar public or private areas, but not areas devoted to vehicle parking and streets. To achieve the open space guidelines, a developer may be allowed to group the homes at somewhat smaller lot sizes than would otherwise be permitted, provided the average density does not increase. (See Policy 8-7 and the Goals and Policies of the Open Space and Conservation Element)

POLICY 8.4

All residential development or residential portions of multi-use developments shall contain a minimum of 30 percent of the land in natural or improved open space, exclusive of roadways and parking lots.

Buffering shall be required between adjacent multi-family projects and single family developments along common boundaries.

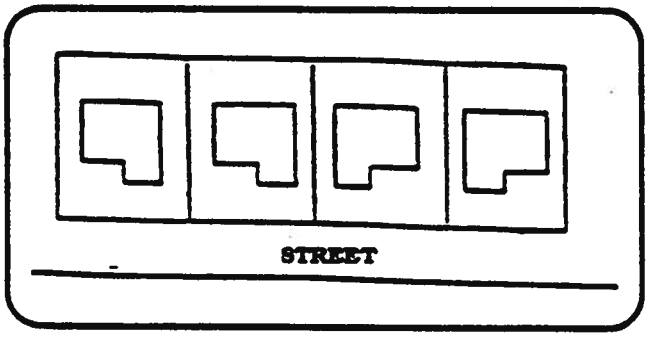
POLICY 8.5

Sufficient off-street parking for residents shall be included in the design of all residential projects. Off-street parking for guests shall be included in the design of all multifamily projects. The City shall review its parking standards to ensure that resident and guest parking is adequate to accommodate the anticipated average demand per dwelling unit. Surface lots for off-street parking should be landscaped to reasonably screen the parking area from street view and from adjacent properties.

FIGURE 21-1
VARIOUS TYPES OF HOUSING

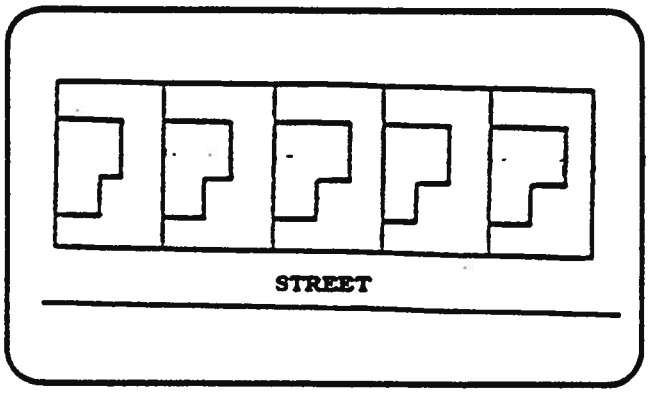
Single Family Detached

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Conventional Building Setbacks from Front, Rear and Side Property Lines



Single Family-Zero Lot Line

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Zero Setback on One Side of all Lots Leaving Yard on Three Sides of House
- Permits more Usable Sideyard, Smaller Lots and Units, and thus Greater Overall Unit Density



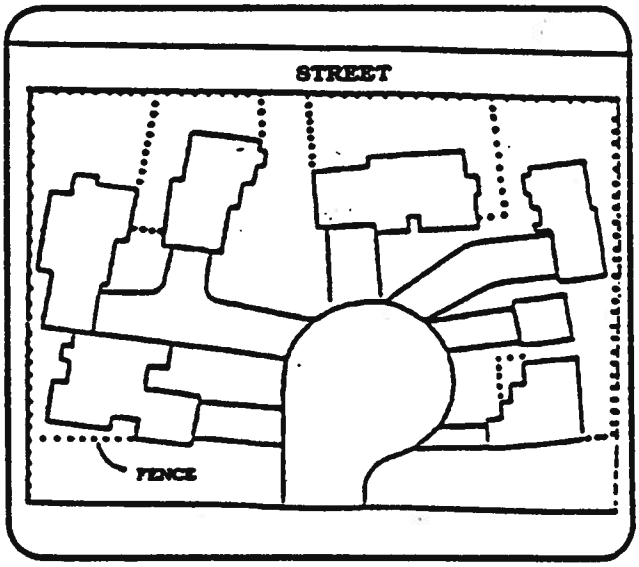
PARAGRAPH TO BE ADDED TO POLICY 8.1

In any development in which land is reserved for acquisition by a public agency for open space, parks, public schools, or other public purposes such land shall be taken into account in calculating the allowable residential desnsity on the remaining land, provided no building permit shall be issued covering residential units attributing to such reserved land, until the reserved land has been acquired by the public agency for which such land was reserved.

FIGURE 21-1

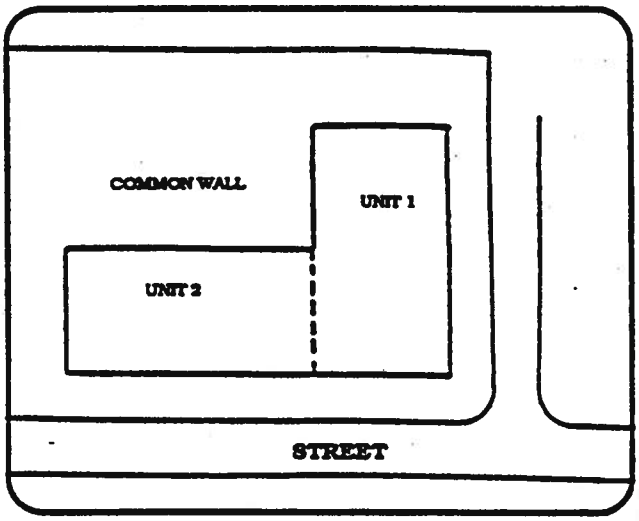
Single Family- Patio Homes

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Flex Building Setbacks, Building Orientation and Lot Sizes
- Emphasis on Creating Gardens and Patios through Use of Fences and Screening
- Sometimes a Development includes Common Open Spaces Owned by All Residents under a Home Owners Association



Duplex

- Two Units per Lot
- Single Ownership of both Units and Lot
- Conventional Building Setbacks Rear and Side Yard Separate for Each Unit
- A Common Wall Between Units
- Often Located on Corner Lots



Half-Plex

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Conventional Building Setbacks. Rear and Side Yards Separate for Each Unit
- A Common Wall Between Units. The Wall is also Located on the Property Line.

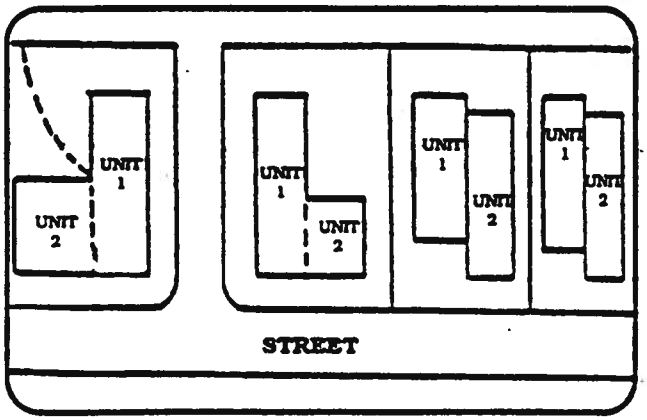
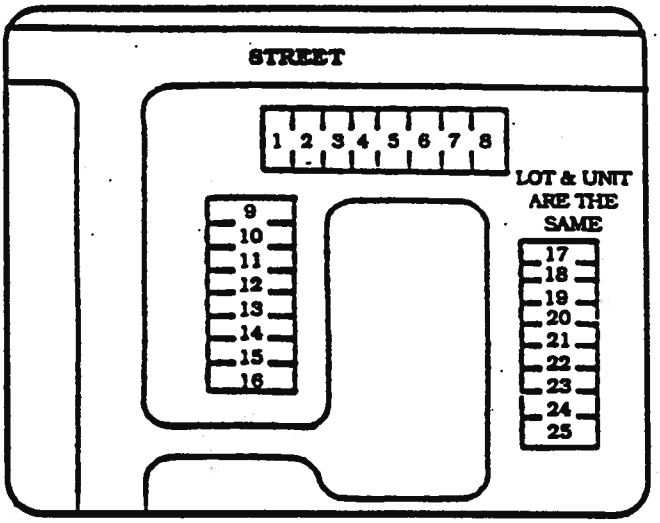


FIGURE 21-1

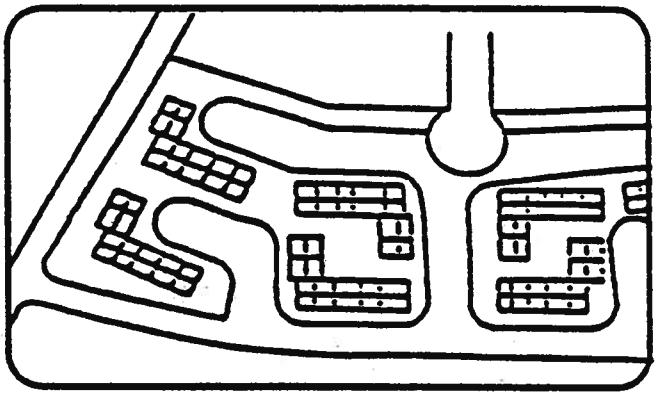
Townhouse- Condominium

- A Housing Style with each Unit having Two Stories and usually Attached with Other Units by Common Walls
- Each Unit and Lot Individually Owned
- Usually includes Common Oven Spaces Owned by All Owners Association



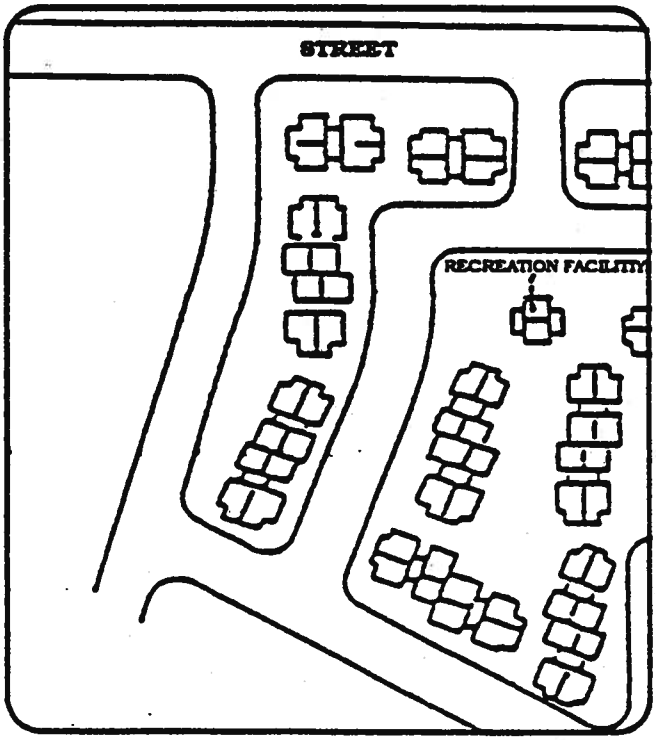
Conventional Apartment

- Rental Units Grouped withinBuildings which are Usually Two or More Stories in Height
- Each Unit Usually Takes Up One Floor.Hence Separate Units are Available on Each Level of the Building
- Single Ownership of All Units and Land
- Higher Density which Generally means Less Emphasis on Landscaping and Recreational Facilities



Air Space Condominium/ Garden Apartments

- Units are Grouped within Buildings which are Two or More Stories in Height
- Each Units taxes up only One Floor, hence Separate Units Are Available on Each Level of the Building
- Common Walls between Units
- Greater Emphasis on Landing and Providing Amenities such as Recreational Facilities
- Condominiums- Each Unit Individually Owned but All Land Beneath Units and Surrounding Area Owned in Common
- Apartments- Single Ownership of All Units and Land and Units are Rented. Usually Less Dense than Conventional Apartments



13

POLICY 8.6

The City should develop a package of incentives and encourage the following:

1.Additional active parkland.
2.Development of parkland.
3.Increased historic preservation.
4.Additional open space.
5.Preservation of natural habitat.
6.Preservation of Savanna Oak Clusters.
7.Additional items as desired.

Policies and Guidelines by Residential Classification

POLICY 8.7

Residential densities for each land use category will be based upon the range of densities which is established for each category of residential use as hereafter set forth. The lower number in each range is allowed as a matter of right. Units in excess of the lower number of each range, up to the top of each range, are permitted at the discretion of the Planning Commission/ City Council in exchange for the provision of special benefits which satisfy a City need over and above the minimum requirements of the General Plan and other City policies and regulations. Examples of special benefits which may qualify the project for densities in excess of the lower number include:

1. Additional park or open space set asides.

2. On-site recreation facilities.

3. The planting of additional trees or other landscaping in excess of the minimum required.

4. The provision of transit facilities or services.

The density bonus allowed for qualifying seniors and low or moderate or lower income family residents pursuant to California Code Section 65915 is to be calculated based upon the lower number of each density range and no additional bonus or other incentive is to be provided; irrespective of whether such project also qualifies for special benefits. In other words, under no circumstances shall the maximum number in each density range be exceeded.

A. Single-Family (SF 2-3.9 Dwelling Units Per Acre)

Single family detached homes at low to medium densities (maximum of two dwelling units per acre). Up to 3.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) The project should be located adjacent to an existing single family development or should be of sufficient size to ensure that a single family residential environment can be maintained within the project.

2) Internal roads should be designed to serve the project or connect with adjacent developments and access to through-traffic should be discouraged.

3) No more than 40% of a lot shall be covered.

B. Single-Family High Density/Mobile Home Park (SFHD 4-6.9 Dwelling Units Per Acre)

Single-family homes at high densities (maximum of four dwelling units per acre) are permitted. Up to 6.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. Halfplexes, mobile home parks, and attached homes may be included. The following standards shall apply:

1) Lands located near neighborhood commercial centers, along public transit routes, or adjacent to low or medium density multifamily areas would be appropriate for this type of housing.

2) With the exception of mobile home parks, a development may include a mix of housing types within the average density allowed including attached homes, zero lot-line homes and halfplexes.

3) Each home must have its own lot.

4) No more than 35% of a lot shall be covered.

5) Internal roads should be designed to serve the project or connect with adjacent developments and access to through-traffic should be discouraged.

6) A Planned Development Permit shall be required for development within this category.

C. Multi-Family Low Density (MLD 7-11.9 Dwelling Units Per Acre)

Low density multi-family developments at a maximum density of seven dwelling units per acre. Up to 11.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) Appropriate locations are along arterial roads and public transit routes, adjacent to neighborhood commercial centers, or in undeveloped areas where the project is of sufficient size to provide any needed buffers for adjacent or proposed single family developments.

2) Homes should generally be in one or two story buildings, with some three story buildings allowed on sloped sites.

3) Project entrances and exits shall be designed with access to a collector or arterial road.

4) Buildings on hillsides shall be sited with respect to existing native vegetation or landscaping to reduce their visual prominence.

5) A design review procedure shall be established to evaluate the proposed use of building and landscaping materials with respect to the natural features of a site.

6) Buildings of multiple stories shall follow the contour of the site and be "stepped" or terraced.

7) Projects shall generally consist of smaller, multiple buildings rather than a few large multifamily buildings.

D. Multi-Family Medium Density (MMD 12-17.9 Dwelling Units Per Acre)

Multi-family medium density at a maximum density of 12 dwelling units per acre are permitted. Up to 17.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) Appropriate locations include parcels along arterial roads and public transit routes, lands near commercial centers and major public institutions, and as a buffer between industrial or commercial areas and single family neighborhoods.

2) Parcels shall be of sufficient size to allow the placement of buffers along any project boundary adjacent to an existing or proposed single family development.

3) Buildings should be mainly one or two stories, with three story buildings allowed on sloped sites or to provide parking under a building.

4) Project area shall include adequate open space.

5) Project entrances and exits should be designed with direct access to a collector or arterial road.

6) Buildings on hillsides should be sited with respect to existing native vegetation or landscaping to reduce their visual prominence.

7) Design review of materials and landscaping shall be included in the application process.

8) Buildings of multiple stories should follow the contour of the site and be "stepped" or terraced.

9) Projects shall consist of clusters of smaller buildings (typically 4 to 12 dwelling units per building) and not a few large buildings.

10) Open spaces shall be dispersed throughout a project, unless it is necessary to create a single large open space to preserve an important natural habitat.

11) A landscaping and project maintenance plan shall be submitted to the City. The City will adopt an ordinance detailing the requirements of such a plan.

12) Locations for this type of housing should be selected to reinforce the customer base of a central commercial area, and the proximity of housing to major employment centers.

13) Amenities shall be included in larger projects such as swimming pools and on-site recreation.

E. Multi-Family High Density (MHD 18-25 Dwelling Units Per Acre)

High density multi-family at a maximum density of 18 units per acre are permitted. Up to 25 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following shall apply:

1) Locations shall generally be limited to areas near a central commercial center or regional commercial center, but may also include parcels at the intersection of arterial roads, along transit routes, adjacent to public institutions, and as part of a commercial/industrial development compatible with residential uses.

2) Locations of this type of housing shall be selected to reinforce the customer base of a central commercial area, and the proximity of housing to major employment centers.

3) The internal road system shall be designed to ensure that traffic from the project does not use local streets in any adjacent or nearby single family areas.

4) At least 30 percent of the project area shall be reserved for open spaces.

5) Open spaces shall be dispersed through out the project, unless it is necessary to create a single large open space or to preserve an important natural feature.

6) Buildings shall be predominantly two and three stories. Buildings of four or five stories may be permitted in exchange for the preservation of more open space than the minimum required and to allow for the placement of parking underneath buildings.

7) Any hillside or hilltop areas that may be included in the project shall be reserved for open spaces or one and two story buildings that can be integrated with the natural landscape.

8) Buildings on hillsides shall follow the contour of the site and shall be "stepped" or terraced.

9) The use of materials on hillside buildings will be part of a design review process.

10) A landscaping and project maintenance plan shall be submitted to the City. The City will adopt an Ordinance detailing the requirements of such a plan.

11) Recreational facilities for the use of the residents shall be included in the project design including swimming pools and other amenities in larger projects.

12) Turnouts and shelters for buses shall be incorporated into project design for projects along existing or proposed transit routes.

13) Landscaping, especially trees, shall be provided around the boundaries of the project to lessen the visual impact of the development.

POLICY 8.8

Elderly and convalescent housing facilities providing health care shall be encouraged. The Zoning Code shall guide the placement and standards for development of such facilities. Proposed facilities shall be evaluated based on the location, impacts on services and neighboring properties and not on a density basis.

POLICY 8.9

All multiple family projects will be required to obtain a planned development permit in accordance with the City's Zoning Code. Similar development approvals, such as Specific Plans, that cover the same requirements as the planned development permit shall be considered a substitute.

POLICY 8.10

Residential densities within an area plan or specific plan may vary, provided 1) that the overall dwelling unit buildout within the plan area shall not exceed that authorized by the Land Use Element of the General Plan and 2) in no event shall densities within any portion of the Plan area exceed 25 dwelling units per acre. An area plan or specific plan is defined as a large development area typically over 100 acres with an overall master development plan.

POLICY 8.11

Residential density shown on the land use map shall be consistent with General Plan Policies 8.1 and 8.10 for the purpose of calculating density.

GOAL 9

To set criteria which would allow for flexibility in the siting of land uses within a planned area.

POLICY 9.1

A planned area consists of acreage containing one or more projects for which a comprehensive site plan is prepared showing the location of proposed land uses, the configuration of roads within the planned area, public land uses and open spaces, and other aspects of site design.

POLICY 9.2

For planned developments covering large areas, the project applicant may exercise some discretion in locating school, park, and other public facility sites within approximate boundaries specified by the General Plan. However, the locations should reflect:

1. The ability of project residents to walk or bicycle to parks or schools without crossing uncontrolled crossings on arterial roads.

2. The preservation of significant features of the natural landscape, such as trees, important wildlife habitats, and streams or ponds.

3. The usability of school and park sites with respect to terrain, flooding, and access to and from the site.

POLICY 9.3

To encourage the preservation of open spaces and natural features of the landscape, a project applicant may be allowed to concentrate the proposed development on a portion of the site through the clustering of buildings, smaller lot sizes, or taller buildings, provided that the overall unit buildout within the Plan area shall not exceed that authorized by the Land Use Element of the General Plan.

POLICY 9.4

In large-scale residential projects which include a neighborhood commercial center, the proposed location of the center may vary from the approximate location indicated by the General Plan if, based on the proposed street layout and design, improved traffic circulation would result, and there are no significant negative impacts.

GOAL 10

To provide for a commercial and industrial base of the City to encourage:

1. A strong tax base.
2. More jobs within the City
3. A greater variety of commercial goods and services.
4. A regional shopping center.
5. Businesses and industries compatible with Folsom's quality of life.

POLICY 10.1

The City shall have a variety of commercial uses such as:

1. Home occupations in which a resident operates a small business within the home in compliance with City regulations and standards.

2. Individual businesses outside of a commercial area, serving a commercial or industrial project or providing highway-oriented services.

3. Small commercial centers serving individual neighborhoods.

4. A central business district with offices and retail establishments serving the entire community.

5. A regional retail center serving Folsom residents and others from outside the community.

6. An historic business district serving residents and tourists.

7. Specialty commercial areas.

POLICY 10.2

The City should designate lands for a variety of industrial land uses such as:

1. Warehousing/storage facilities for supplies serving other businesses.

2. Industrial parks providing space for research and product development firms.

3. Manufacturing of electronic equipment or components; and manufacturing on a small scale of products to be sold on the premises.

POLICY 10.3

The City should encourage the development of campus-like industrial developments with low-rise buildings and landscaped or natural open spaces.

POLICY 10.4

The City should implement facilities plans to finance the provision of municipal facilities and services to the industrial areas.

POLICY 10.5

The City should preserve and enhance the tourist-oriented, historic commercial uses in the Sutter Street commercial area.

POLICY 10.6

The use or storage of flammable, volatile, or toxic substances as part of an industrial or commercial establishment shall be strictly controlled.

POLICY 10.7

Allow for the continued operation of existing arterial-oriented commercial uses along Folsom-Auburn Road and Natoma Street from Riley Street to Fargo Way.

POLICY 10.8

New commercial uses shall be subject to design and parking standards to be developed by the City for:

1. The number of location of allowed curb cuts.
2. Landscaping or parking areas.
3. The location, size, number and construction of signs.
4. The configuration and design of commercial buildings.

POLICY 10.9

Commercial centers and industrial/office parks when feasible should be served by public transit, and when appropriate public transit centers should be incorporated into the project.

POLICY 10.10

Industrial/office parks shall be designed with internal circulation and incorporate buffering and landscaped setbacks to minimize potential adverse impacts on adjacent land uses.

POLICY 10.11

Child care centers shall be encouraged in the central commercial district, commercial centers, and office parks, when appropriate.

POLICY 10.12

The City should develop an industrial development strategy that identifies the City's industrial market segment and promotional opportunities.

POLICY 10.13

Buffer zones shall be established around existing and proposed industrial areas to prevent encroachment of incompatible uses. The City shall prepare an implementation study to provide notice requirements to users in the buffer zones and identify incompatible uses.

GOAL 11

To plan for a central commercial district which includes retail, office, and service establishments, and cultural and entertainment facilities.

POLICY 11.1

The central commercial district shall be located to incorporate existing community-wide commercial services, and shall generally include properties along East Bidwell Street, generally between Coloma Street and the west side of Blue Ravine Road and south of Riley Street generally west of Glenn Drive.

POLICY 11.2

The purpose of the central commercial district shall be to provide a location for businesses with a city-wide market, to provide a focus for cultural and entertainment activities (public and private), and to provide a City financial center.

13

POLICY 11.3

"Strip" commercial uses, characterized by shallow commercial frontage on arterial streets and multiple curb-cuts, shall not be allowed.

POLICY 11.4

Circulation within the central commercial district shall allow for convenient automobile access and parking, public transit routes, bicycles, and safe pedestrian access among the businesses within the district.

POLICY 11.5

Each block within the district shall contain usable public open space in the form of public plazas, mini-parks, or landscaped pedestrian pathways. Maintenance programs for public and community improvements should be required for commercial areas in order to provide long term maintenance.

POLICY 11.6

In general, the height of buildings in the central commercial district shall not exceed 4 stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1. Additional height or a higher floor area ratio may be allowed in exchange for the provision of open space or other specified benefits meeting a City need that are above and beyond the minimum requirements of the General Plan policies and other applicable City policies and regulations.

POLICY 11.7

Public improvements should be provided to support a central commercial area, such as landscaping on existing commercial streets, street furniture (benches, waste receptacles, planters, etc.), and uniform street and other public signing.

POLICY 11.8

A plan for the central commercial district shall be prepared in conjunction with the redevelopment plan to address issues discussed in Goal 11 and support policies including development standards and circulation.

POLICY 11.9

All commercial development or commercial portions of multi-use development shall contain at least ten percent of land area in natural, improved or functional open space, exclusive of roadways and parking lots.

POLICY 11.10

A public transit service center shall be established within the central commercial district.

GOAL 12

To plan for regional commercial centers.

POLICY 12.1

Regional commercial centers shall be primarily highway-oriented retail commercial areas. The purpose of the centers shall be to provide locations for businesses whose customers come primarily from outside the City of Folsom, although businesses may also provide goods and services to Folsom residents.

POLICY 12.2

Regional centers should be located close and accessible to Highway 50, preferably near an interchange.

POLICY 12.3

A ring-road or limited access parkway should define the boundaries of regional centers. A parking and circulation plan should ensure that trees and landscaping are provided to break up the amount of paved surfaces and that traffic entering and exiting centers do not adversely affect any future residential developments nearby.

POLICY 12.4

Regional centers shall include landscaped public open spaces.

POLICY 12.5

Highway-commercial areas shall be designated adjacent to U.S. 50 in order to support the travelling public at major interchanges.

POLICY 12.6

Regional commercial centers should be served by public transit and developed in conjunction with public transit service centers.

POLICY 12.7

In general, the height of buildings in a regional commercial center shall not exceed four stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1.

POLICY 12.8

In general, the height of buildings in a highway commercial site shall not exceed four stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1, with a maximum lot coverage of 60 percent.

GOAL 13

To plan for small, neighborhood-oriented convenience commercial areas which provide goods and services that may meet the daily needs of nearby residents.

POLICY 13.1

Neighborhood convenience commercial areas should be located so that residents in each neighborhood may meet their daily needs for commercial goods and services.

POLICY 13.2

Neighborhood commercial areas shall in general be limited to five acres or less.

POLICY 13.3

Neighborhood centers should be designed to minimize impacts on adjacent uses through site design, access and parking, landscaping and lighting standards.

POLICY 13.4

Neighborhood commercial areas may be adjacent to future public transit stations.

POLICY 13.5

In general, the height of buildings in a neighborhood commercial center shall not exceed two stories. The combined floor area ratio of all buildings on site shall not exceed .5:1, and 30 to 40 percent lot coverage.

POLICY 13.6

Neighborhood commercial centers shall be developed under the Planned Development Process.

GOAL 14

To plan for and preserve specialty commercial areas.

POLICY 14.1

The City should preserve and enhance the historic business district centered on Sutter Street. The purpose of the district is to provide a tourist-oriented location for businesses offering goods and services consistent with the historic setting of the area. An historic district plan for the area should be prepared by the City containing:

1. Design guidelines for the restoration and/or modification of buildings or sites identified as having historic or cultural significance and for the design and placement of buildings within or adjacent to identified historic buildings or sites.

2. The City should adopt design guidelines to ensure that signage is consistent and harmonious with the theme of the historic business district.

POLICY 14.2

The City should provide for offices, retail, and restaurant uses associated with a hospital when appropriate.

POLICY 14.3

Additional specialty commercial centers for specified commercial uses containing a grouping of businesses offering one or several related goods or services may be considered according to the following standards:

1. The commercial center must serve a purpose not fulfilled by the central commercial district, the regional commercial center, or other designated commercial areas.

2. A plan for the area proposed for commercial uses must be submitted by the landowner(s) clearly stating the purpose of the commercial area; the location of proposed commercial uses, public improvements, landscaping, parking, and open spaces; and a proposed circulation plan.

3. New specialty commercial areas will not be designated on the Folsom General Plan Land Use Map in advance of a specific request for such a designation.

4. The commercial center may not be a "strip" commercial project characterized by one or more long, shallow lots, multiple curb cuts, and a variety of unrelated businesses.

5. Access to and from the commercial center is via an arterial street.

6. The proposed commercial area shall be located and designed to minimize negative traffic, noise, and visual impacts on nearby residential areas.

GOAL 15

To plan for community commercial areas providing goods and services for large neighborhood areas.

POLICY 15.1

Community commercial centers shall in general range in size from five to ten acres.

POLICY 15.2

Community commercial centers should be designed to minimize impacts on adjacent uses through site design, access and parking, landscaping and lighting standards.

POLICY 15.3

Community commercial centers should be developed adjacent to future public transit stations.

POLICY 15.4

Community commercial centers should be developed adjacent to higher density residential, offices, and public uses.

POLICY 15.5

Community commercial centers shall be developed under the Planned Development Process.

POLICY 15.6

In general, the height of buildings on a community commercial center shall not exceed two stories. The combined floor area ratio of all buildings shall not exceed .5:1 and 30 to 40 percent lot coverage.

GOAL 16

To allow for public and quasi-public land uses meeting the governmental service, education, cultural, recreational, and religious needs of Folsom residents.

POLICY 16.1

Fire and Police department substations shall be planned and located so that a maximum response time goal as set by the City Council can be maintained.

POLICY 16.2

Public facilities, such as utility substations, water storage or treatment plants, pumping stations, and sewer treatment plants, should be located, designed, and maintained so that noise, light, glare, or odors associated with these facilities will not negatively impact nearby land uses. Building materials and landscaping shall be used to make these land uses less visually obtrusive from neighboring properties.

POLICY 16.3

The City shall work closely with the school district(s) serving Folsom to ensure that school sites are dedicated or reserved for purchase by the district(s) so that:

1. Each residential neighborhood will contain or have access to the appropriate elementary school according to school district standards.

2. Children do not have to cross an uncontrolled intersection on an arterial road to reach an elementary school.

3. The school can be reached on foot by most of the neighborhood's residents (for elementary schools only).

4. A joint park/school site can be developed wherever possible.

POLICY 16.4

The acreage recommended for new schools should be set according to school district standards.

POLICY 16.5

If a school will serve more than one development, and the subject development will not contain the school site, the applicant must clearly show that a school site has been or will be dedicated elsewhere or that a school already exists with capacity to serve the project and is accessible to the project according to the standards in Policy 16-3.

POLICY 16.6

In determining the number and location of new school sites, standards established by the district shall be used. These standards are based on the assumed average number of students per household for each grade level (varies for different types of housing) and the average size of an elementary school, junior high school, and high school.

POLICY 16.7

The City shall develop standards for the location of proposed private schools. Standards will address:

1. Required off-street parking and street frontage for the dropping off and picking up of students.

2. Access to the proposed school via City streets.

3. Noise, according to the Noise Element of the Folsom General Plan.

4. Size of the parcel on which a proposed school is to be located in relation to the pupil capacity of the school.

5. Required landscaping and other visual/noise barriers if the proposed school is to be located in a residential area.

POLICY 16.8

Utility company rights-of-way may be considered for their use as public or private open space, trails, parkland, or other compatible recreational uses.

POLICY 16.9

Religious institutions may be allowed in residential neighborhoods if sufficient off-street parking is provided and the design of the facility is consistent with the residential character of the neighborhood, and includes:

1. Access to the property via an arterial or collector street.
2. The screening of parking with landscaping and/or materials that will blend with surrounding natural and constructed features of the neighborhood.
3. The shielding of adjacent residential properties from direct light and glare from the property.

POLICY 16.10

Clubs and fraternal organizations shall generally be limited to commercial areas. The use of a single family home in a residential area for a club or fraternal organization may be permitted subject to the following standards:

1. Noise levels shall meet the requirements of the Noise Element of the Folsom General Plan.
2. One small exterior sign will be allowed, subject to City standards.
3. No external modification to the house will be permitted except to provide handicapped access.
4. Off-street parking will be required, according to City parking standards for clubs and fraternal organizations.

TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

GOAL 17

To develop a comprehensive transportation/circulation system which includes as a minimum:

1. Freeways, highways, and/or expressways designed to route through-traffic away from Folsom's neighborhoods.
2. Arterial roads which provide access among Folsom's neighborhoods, major cross-town links, and links between Folsom and adjacent communities.
3. Additional crossing(s) over the American River.
4. Pathways and designated routes for bicycle and pedestrian traffic.
5. Designated routes for commercial vehicles.
6. The protection of residential neighborhoods from through-traffic.
7. Public transportation routes.

POLICY 17.1

The City shall plan for an integrated circulation system which provides for travel by private vehicles, commercial vehicle routes, a public transportation system, and for pedestrian and bicycle routes.

POLICY 17.2

The City should establish a hierarchy of roads consisting of the following:

1. Freeways or limited access highways. Such roads shall be grade separated at each intersection with another road. The major purpose of such roads is to route traffic around Folsom, with as few interruptions to the surface street system as possible. U. S. Highway 50 currently meets the definition of a freeway. The City has made a firm commitment that a new freeway would not bisect the City.

2. Expressways. Allow for moderate- to high-speed travel within the City. The purpose of an expressway is to carry cross-town traffic from other communities or between neighborhoods within the City. An expressway may contain some grade-separated intersections, but this type of road would be mainly a surface street. Expressways should be located to allow for controlled intersections spaced at one-half mile intervals or more. Only arterial and collector roads should intersect with an expressway.

3. Arterial roads (or major streets). Serve to connect neighborhoods within the City and the City with surrounding communities. Arterials would normally define the boundaries of neighborhoods, not provide internal access to a neighborhood.

4. Collector (or secondary) roads. Serve to route traffic from local streets within a neighborhood to an arterial road. Collector streets would not normally serve as "through" roads for more than one area, but would circulate throughout a neighborhood.

5. Local (or tertiary) roads. Serve a portion of a neighborhood only and route traffic to a collector street.

6. Street-ends (cul-de-sacs, dead-end streets, etc.). Limited in length and serve only a few residences.

POLICY 17.3

Arterial roads serving new developments shall be aligned with existing arterial roads when ever possible.

POLICY 17.4

Routes for additional bridge crossings over the American River shall be designated on the Plan Map. Because the Proposed Oak Avenue and Folsom-Auburn Road crossings will serve a significant amount of regional through traffic with distinctly different origins and destinations, financing and construction of the bridges should be considered as a package rather than separately.

POLICY 17.5

The City should locate and improve existing arterial roads to provide direct access between a central commercial district, a regional commercial center, and major public institutions (hospital site, community college site, Civic Center).

POLICY 17.6

The City should require that new arterial roads or extensions or widening of existing arterial roads that are needed to serve a new development are planned and constructed in accordance with the Plan Map and standards contained herein. Land must be set aside by dedication for sufficient rights-of-way and landscaping in accordance with standards contained herein, and a planting strip or other buffer shall be required in single family developments to ensure that homes do not back directly onto the arterial road.

POLICY 17.7

The City shall require the establishment of landscape maintenance assessment agreements or districts for new developments adjacent to arterial roads to ensure that planting strips are required and properly maintained.

POLICY 17.8

A five-year Capital Improvement Plan (CIP) for road improvements should be prepared and implemented by the City. The road improvement plan shall be updated at least every other year subsequent to its initial adoption. The road improvements plan shall establish a schedule for needed road repair and construction and identify sources of funding for road improvements. The

five-year CIP should be consistent with the Fiscal Element of the General Plan which will be prepared to identify total Citywide public facility funding mechanisms.

As part of this program the City should update the Folsom Area Traffic Study on a regular basis (at least annually) as part of a regular traffic monitoring program to attempt to achieve that at least a traffic Level of Service "C" is achieved throughout the City.

POLICY 17.9

The City should plan for the expansion of future public transit routes (bus and fixed rail service).

1. Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership.

2. The City should preserve existing railroad rights-of-way for their potential future use as public transit routes. The City should work with Regional Transit to determine other rights-of-way which could be preserved for rail transit use. Proposed light rail alignments and station locations are designated on the Plan Map and dedication of land for the required right-of-way shall be required as part of the approval process for development of adjoining parcels.

3. Bus routes should follow major roads with service to residential neighborhoods via collector streets.

POLICY 17.10

The City should develop and maintain a bikeways and pedestrian master plan that links residential developments with sources of employment, public open spaces, parks, schools, neighborhood shopping areas, the central commercial district, other major recreational destinations, and adjoining communities.

1. The City should ensure that new residential developments incorporate pedestrian and bicycle paths or routes when there are nearby schools, parks, public open spaces, sources of employment or other destinations for such travel. Such paths or routes should be designed so that schools and parks are accessible to area residents. Pedestrian/bicycle over- or under-crossings may be provided when necessary to cross arterial roads or expressways.

2. The existing bicycle and pedestrian paths along the American River shall be preserved.

3. The City should establish and maintain an internal pathway system that links parks sources of employment and public open spaces using rights-of-way and parkways.

4. Where on-street bikeways are not feasible, the City should provide for Class I off-street bikeways.

5. The City should endeavor to provide routes paralleling the major arterial routes for long distance bicycle travel.

6. The City should endeavor to provide routes for recreational travel, providing access to important recreational areas of the City, including Folsom Lake.

POLICY 17.11

Whenever any major repair, alteration, or construction of roads are undertaken, immediate consideration of incorporating and providing bicycle routes and facilities should occur, as designated by the City of Folsom Bikeway Master Plan, and state specifications for bikeways.

POLICY 17.12

The City of Folsom should establish an ongoing public education program on bicycle safety and encourage bicycle safety programs for cyclists and motorists.

POLICY 17.13

The Master Plan includes four typical bike lane cross sections which shall be used where appropriate.

1. Class-1 bikeways, separated bicycle paths will be the preferred bikeway, wherever feasible. This form of bike lane will be encouraged in areas such as the Willow Creek-Humbug Creek Parkway, and along the Lake Natoma frontage, and along major boulevards, such as Folsom Boulevard.

2. Class-2 bike lanes, which include a five foot stripped bike lane on the outside of an eight foot parking lane, will be encouraged in areas where on-street parking is likely to occur. Such areas would be in the vicinity of apartment complexes and condominium complexes.

3. Class 3 & 4 bike lanes, which include four foot and eight foot stripped bike lanes on the edge of pavement, should be utilized on city arterial, collector, and other roads as indicated on the bikeways master plan.

POLICY 17.14

The City shall require facilities for parking bicycles in accordance with the Zoning Code.

POLICY 17.15

The City shall review parking requirements to ensure that adequate off-street parking can be provided for new development projects.

POLICY 17.16

The City shall designate locations for park and ride lots and adopt standards for their development. Several such lots are designated on the Plan Map and dedication of land for each site shall be required as part of the approval process for development of adjoining parcels.

POLICY 17.17

The City should strive to achieve at least a traffic Level of Service "C" throughout the City. During the course of Plan buildout it may occur that temporarily higher Level of Service result where roadway improvements have not been adequately phased as development proceeds. However, this situation will be minimized based on annual traffic studies and monitoring programs.

POLICY 17.18

The City will work with the California Department of Transportation in planning for and funding freeway interchange improvements and additional interchanges along U.S. Highway 50. A specific study should be prepared by the City to determine the required phasing of construction of freeway and interchange improvements based upon buildout of land uses designated on the Plan Map.

POLICY 17.19

Because the Traffic Studies upon which this Transportation and Circulation Element are based shows various intersections which will not achieve Level of Service "C", the City should adopt a mandatory TSM program that applies to existing as well as future development and will ensure the assumed reduction in peak hour trips. Prior to adoption of the Program by the City, all discretionary development permits issued by the City should require the applicants to participate in the TSM program when enacted. Specific Studies should be conducted to determine the most desirable methods for achieving the required level of trip reduction.

POLICY 17.20

The City shall develop a long range public transit plan for Folsom. Such a Plan shall be developed in cooperation with SACOG and Regional Transit, and shall include a study to determine the feasibility and financing requirements of:

1. Continued City operated intra-community bus service.

2. Continued City operated commuter bus service to downtown Sacramento and/or service to the nearest RT Metro Rail Station.

3. Extending RT Metro service to Folsom and the preservation of future rights-of-way.

POLICY 17.21

Establishment of speed limits for streets within residential areas should include consideration of the potential traffic noise reduction

which may be achieved through lower speeds. In some cases it may be appropriate to establish a lower speed limit than may be allowed by roadway design to accomplish the goal of maintaining acceptable traffic noise levesl within a neighborhood.

POLICY 17.22

The City shall require a minimum two lanes of arterial roads to be installed adjacent to or in the vicinty of new subdivisions.

HOUSING ELEMENT GOALS AND POLICIES

GOAL 18

To provide for the City's regional share of new housing for all income groups.

POLICY 18.1

Maintain sufficient land zoned at a range of residential densities to accommodate the City's regional share of housing.

POLICY 18.2

Identify sites that are suitable for multifamily housing and residential redevelopment.

POLICY 18.3

To encourage home builders to use multifamily-designated land for the highest allowed density housing consistent with the City's low- and moderate-income housing needs.

13

GOAL 19

To encourage the provision of affordable housing.

POLICY 19.1

The City will make use of state and federal programs for which it would be the applicant, and work with non-profit and for-profit developers to make use of those programs for which the developer must be the applicant. As one of its first implementation actions, the City will identify available, funded programs, determine which of those programs could be used in Folsom (based on the purpose and eligibility requirements for each program), and determine the most appropriate public agency or private entity to take primary responsibility for applying for funding.

POLICY 19.2

The City will also investigate the feasibility of issuing tax-exempt bonds or mortgage credit certificates to provide low-interest financing for affordable housing.

POLICY 19.3

The City will provide density bonuses to home builders proposing to include at least 10% very low-income housing or 20% low-income housing in their residential developments.

POLICY 19.4

The City will work with non-profit organizations, to identify potential projects and sources of funding to develop low- and moderate-income housing.

POLICY 19.5

The City will identify surplus government property that could be used for construction of housing affordable to

RESC # 3762 Housing

low- and moderate-income households and encourage interested developers to make use of such land.

POLICY 19.6

The City will develop a plan for the use of redevelopment tax increment funds set-aside for the construction and rehabilitation of housing for low- and moderate-income households.

GOAL 20

To improve the existing supply of housing.

POLICY 20.1

Provide property owners with assistance to inspect and identify code violations in residential buildings.

POLICY 20.2

Continue to apply for state and federal assistance for housing rehabilitation for low-income households. Rental housing that is repaired with government assistance shall remain affordable to low-income households for a specified period of time.

POLICY 20.3

Require the abatement or demolition of substandard housing that is not economically feasible to repair and which represents a health and safety threat.

POLICY 20.4

Seek, through code enforcement, the private rehabilitation of substandard dwelling units and provide financial assistance, when available, to owners of dwelling units occupied by low-income households. In applying this policy, the City shall seek to avoid the displacement of low-income households.

POLICY 20.5

Periodically survey housing conditions in the to maintain a current data base on housing repair needs.

POLICY 20.6

Allocate a portion of the City's redevelopment tax increment set-aside funds for preserving substandard housing occupied by lower-income households.

GOAL 21

To ensure equal housing opportunity

POLICY 21.1

The City will provide information and referral to individuals with fair housing complaints.

GOAL 22

To promote energy conservation

POLICY 22.1

Continue to implement state energy-efficient standards.

POLICY 22.2

Include energy conservation guidelines as part of the development standards for the specific plan area.

POLICY 22.3

Provide weatherization assistance to low-income households.

RESO # 3762 HOUSING

GOAL 22-A

To promote the preservation of historic residences.

POLICY 22-A.1

The City will encourage the preservation of residential buildings with historic or architectural value.

GOAL 22-B

To develop a plan for the use of redevelopment housing set-aside funds.

POLICY 22-B.1

The City will prepare a plan to guide the use of redevelopment tax-increment funds set aside to support low- and moderate-income housing programs.

RESO # 3762 HOUSING

OPEN SPACE AND CONSERVATION ELEMENT

GOAL 23

To preserve existing heritage trees through a City Ordinance.

POLICY 23.1

The City shall continue to enforce the Tree Preservation/Landscape Ordinance and identify heritage trees to be preserved. Site designs shall consider building and parking configurations which will preserve as many heritage trees as possible.

POLICY 23.2

Replacement trees shall be required whenever existing trees are removed.

POLICY 23.3

The City may allow proposed development to be concentrated on a portion of a site and include taller buidlings or smaller lot sizes to preserve a greater number of existing trees.

GOAL 24

To ensure that projects contain landscaping and trees that compliment the City's natural character.

POLICY 24.1

Development projects shall contain landscaping of common or public areas, surface parking areas, and streets bordering the project.

POLICY 24.2

Prior to the granting of a buidling permit, a project must have an approved landscaping plan showing the location, type, and proposed maintenance of landscaping.

POLICY 24.3

The developer or property owners shall be responsible for maintaining landscaping required as part of the project approval for residential developments where there are common areas, and for all commercial and industrial developments. The City will require the establishment of a landscaping maintenance district or other legally binding maintenance agreement and will reserve the power to enforce the maintenance agreement through appropriate means.

POLICY 24.4

The City shall adopt a landscaping ordinance with standards for:

1. Preferred types of plants and materials.
2. Agreements to ensure the continued maintenance of landscaped areas.
3. Minimum size of trees upon planting.
4. Amount of landscaping area.

GOAL 25

Wherever feasible, to preserve, acquire, rehabilitate, enhance and maintain the identified resources for the use and enjoyment of present and future generations. The identified resources include, but are not limited to:

1. Northern Hardpan Vernal Pools and Associated Sensitive Flora
2. Valley Bunch Grasslands and Associated Sensitive Flora
3. Freshwater Marshlands and Associated Sensitive Flora
4. Riparian Forests and Woodlands and Associated Sensitive Flora
5. Oak Savannah and Woodlands and Associated Sensitive Flora
6. Permanent and Seasonal Wetlands and Associated Sensitive Flora
7. American River Corridor
8. Humbug Creek
9. Blue Ravine Creek
10. Hinkle Creek
11. Willow Creek
12. Lake Natoma
13. Folsom Lake
14. Willow Hill Reservoir, if feasible
15. Tricolored Blackbird
16. Swainson's Hawk
17. Tiger Salamander
18. Valley Elderberry Longhorn Beetle
19. Folsom Boulevard Scenic Corridor, from Highway 50 to Sutter Street
20. Greenback Lane Scenic Corridor, from the Folsom City Limits to Riley Street
21. East Natoma Street Scenic Corridor, from Oak Avenue Parkway to the El Dorado County Line
22. Folsom-Auburn Road Scenic Corridor, from the Folsom City Limits to Greenback Lane

POLICY 25.1

The surface and groundwater quality of Folsom shall not be degraded from City standards.

POLICY 25.2

The City may obtain fee title or protective easements of identified resources.

POLICY 25.3

Sensitive habitat areas and open space shall have their borders defined by public access ways, and/or shall have views from adjacent buildings oriented toward the areas.

POLICY 25.4

The City shall require that a qualified biologist conduct a vegetative/wildlife field survey, and analysis prior to consideration of development applications for projects within or adjacent to sensitive habitat areas and potential habitats for sensitive wildlife and floral species.

POLICY 25.5

The City shall adopt standards for the designation, enhancement and maintenance of identified sensitive habitat areas.

POLICY 25.6

The City shall establish a vegetation preservation ordinance which:

1. Specifies native or "naturalized" vegetation which should be given highest priority for preservation.

2. Requires an applicant to show the approximate location of existing priority vegetation.

3. Specifies the quantity and manner of vegetation which must be planted for replacement.

POLICY 25.7

Trees and other vegetation comprising riparian or other special habitats targeted for preservation should be preserved regardless of whether they are heritage trees.

GOAL 26

The City shall actively encourage the restoration and maintenance of historic buildings or sites.

POLICY 26.1

Identification and publication of available federal, state and private funding sources and incentive programs.

POLICY 26.2

The City should adopt consistent standards for development, public improvements, alley utilization, and frontage improvements for the original 50' x 140' lots situated within the original town boundaries, including the area generally bounded by Bidwell Street, Riverway, Stafford Street and Folsom Boulevard.

GOAL 27

To preserve, acquire, rehabilitate, enhance and maintain the City's identified open spaces for passive and active recreational uses.

POLICY 27.1

The City shall encourage the improvement of public access to recreational facilities and open spaces through:

1. The publication of a trails and recreation guide which maps the trails, open spaces, and parks within the City of Folsom and shows the interconnection with trails and facilities in adjoining communities. The guide shall describe the facilities and hours of operation.

2. The City should require the new parks and open spaces shall be easily accessible to the public, including the mobility impaired.

POLICY 27.2

The City shall develop parkway plans for each identified sensitive habitat area and should include:

1. Provision for pedestrian, bike and/or equestrian trail(s) with connections to adjacent trail systems.

2. Provision for trailhead/parking areas spaced along parkways.

3. Consideration of the development of interpretive centers or trails within parkways.

POLICY 27.3

The City shall adopt a Scenic Corridor Plan for the identified scenic corridors including but not limited to:

1. Folsom Boulevard Scenic Corridor, from Highway 50 to Sutter Street.

2. Greenback Lane Scenic Corridor, from the City Limits to Riley Street.

3. East Natoma Street Scenic Corridor, from Oak Avenue Parkway to the El Dorado County Line.

4. Folsom-Auburn Road Scenic Corridor, from the City Limits to Greenback Lane.

POLICY 27.4

The City shall encourage land owners to consolidate identified habitats, open space and park lands between separately owned development projects and individually owned properties where feasible.

GOAL 28

To provide for the production of natural resources when compatible with the goals and policies of this General Plan.

POLICY 28.1

The City should adopt water conservation measures which reduce water consumption, by user type.

POLICY 28.2

The quality and quantity of surface water runoff from a property shall not exceed existing flows or existing quality or shall comply with City standards for off-site drainage. The City shall implement a surface-runoff water quality monitoring program to insure compliance with City standards.

POLICY 28.3

The City should maintain existing and develop new sources of water to ensure adequate, long term and high quality water supplies.

POLICY 28.4

The City shall when feasible require new development on dredge tailings to reclaim the tailings in conformance with the guidelines and regulations of the California Division of Mines and Geology.

POLICY 28.5

Where feasible, the City shall protect existing or future mining and/or gravel extraction sites from encroachment of non-compatible uses through phasing of development and performance standards. The City recognizes that, as a practical matter, the prospects for mining and/or gravel extraction are extremely unlikely in view of the restrictions upon the issuance of surface mining permits imposed by Ordinance No. 613 adopted in response to an initiative measure.

POLICY 28.6

The City shall encourage community wide recycling in an effort to conserve natural resources and reduce solid waste disposal. This may be established through the development of recycling programs promoted and sponsored by the City with non-profit groups. These programs could include but not be limited to curbside recycling programs, siting of a recycling center or drop off collection centers.

SAFETY ELEMENT GOALS AND POLICIES

GOAL 29

To protect lives and property from unacceptable risks resulting from natural and man-made hazards.

POLICY 29.1

Fire and Police Department personnel/resident population ratios shall be maintained at adequate levels as defined by the City Council.

POLICY 29.2

The City shall maintain a fire prevention and retention program for buildings.

POLICY 29.3

The City shall develop standards for building within the 100 year floodway to assure that the water flows above stream and downstream from a property will not be altered from existing levels.

POLICY 29.4

The City shall work with the U.S. Army Corp of Engineers in developing standards for development within the inundation boundary resulting from a failure of Folsom Dam or the dikes retaining Folsom Lake.

POLICY 29.5

The City shall prepare, publish and coordinate an emergency response plan which addresses medical care, escape routes, mutual aid agreements, temporary housing and communications.

POLICY 29.6

The City shall encourage the preparation and distribution to the general public of a safety guide for the use and enjoyment of Folsom's resources.

POLICY 29.7

The City shall cooperate with SMUD's efforts in preparing and publishing an emergency evacuation plan for Rancho Seco Nuclear Power Plant.

NOISE ELEMENT GOALS AND POLICIES

GOAL 30

To protect the citizens of Folsom from the harmful effects of exposure to excessive noise and to protect the economic base of Folsom by preventing the encroachment of incompatible land uses within areas affected by existing noise-producing uses.

POLICY 30.1

Provide sufficient noise exposure information in the General Plan data base so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes.

POLICY 30.2

Develop and implement effective strategies to abate and avoid excessive noise exposures in the City by requiring that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.

POLICY 30.3

Protect areas within the City where the present noise environment is within acceptable limits.

POLICY 30.4

Areas within the City of Folsom shall be designated as noise impacted if exposed to existing or projected exterior noise levels exceeding 60 dB Ldn/CNEL or the performance standards of Table 26-3 of the Noise Element.

Noise created by non-transportation-related noise sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards as set forth below as measured at any affected residentially designated lands or land use situated in either the incorporated or unincorporated areas. New residential development shall not be allowed where the ambient noise level due to non-transportation-related noise sources will exceed the noise level standards as set forth below:

TABLE 26-3

NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AND DEVELOPMENTS

EXTERIOR NOISE LEVEL STANDARDS, DBA

CATEGORY	CUMULATIVE NUMBER OF MINUTES IN ANY ONE-HOUR TIME PERIOD	DAYTIME 7:00 A.M. TO 10:00 P.M.	NIGHTTIME 10:00 P.M. TO 7:00 A.M.
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

Each of the noise level standards specified above shall be reduced by five DBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

Noise from single occurrences such as the passage of locomotives, heavy trucks or aircraft should also be evaluated in terms of single event noise levels. The maximum noise level created by such an event may have the potential to result in activity interference even though the cumulative noise exposure in terms of Ldn is within acceptable limits. The potential for sleep disturbance is usually of primary concern in such cases, and should be evaluated on a case-by-case basis.

POLICY 30.5

New development of residential or other noise sensitive land uses will not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to:

1. For noise due to traffic on public roadways, railroad line operations and aircraft: 60 dB Ldn/CNEL or less in outdoor activity areas, and interior noise levels to 45 dB Ldn/CNEL or less. Where it is not possible to reduce exterior noise due to these sources to 60 dB Ldn/CNEL or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dB Ldn/CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB Ldn/CNEL with the windows and doors closed.

2. For non-transportation related noise sources: achieve compliance with the performance standards contained within Table 26-3.

3. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a statement of overriding considerations for the project must be provided.

POLICY 30.6

When industrial, commercial land uses or other uses including non-transportation related noise sources are proposed which would affect areas containing noise sensitive land uses, noise levels generated by the proposed use shall not exceed the performance standards contained within Table 26-3.

POLICY 30.7

Prior to approval of proposed development of residential or other noise-sensitive land uses in a noise impacted area, an Acoustical Analysis may be required. The acoustical analysis shall:

1. Be the responsibility of the applicant.

2. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.

4. Include estimated noise levels in terms of Ldn/CNEL and/or the standards of Table 3 for existing and projected future (20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.

5. Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.

6. Include estimates of noise exposure after the prescribed mitigation measures have been implemented.

POLICY 30.8

The City of Folsom shall endeavor to develop and employ procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are implemented as part of the project review and building permit processes. The appropriate time for requiring an acoustical analysis would be as early in the project review process as possible so that noise mitigation may be an integral part of the project design.

POLICY 30.9

Noise level criteria applied to land uses other than residential or other noise sensitive uses shall be consistent with the standards in Figure 26-5.

POLICY 30.10

The City of Folsom shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code (UBC). Title 24 requires that an acoustical analysis be prepared for all new developments of multi-family dwellings, condominiums, hotels and motels proposed for areas within the 60 dB Ldn/CNEL contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn/CNEL or below will be achieved. UBC Chapter 35 requires that common wall and floor/ceiling assemblies within multi-family dwellings comply with minimum standards concerning the transmission of airborne sound and structure-borne impact noise.

POLICY 30.11

The City of Folsom shall adopt a community noise control ordinance to address noise complaints and to provide local industry with performance standards for future development and equipment modifications. The ordinance should be consistent with the model noise control ordinance contained in the data base of the General Plan.

POLICY 30.12

The City of Folsom shall actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

POLICY 30.13

The findings and specific policies of the Noise Element shall be incorporated into the City of Folsom Zoning Code as appropriate.

POLICY 30.14

The City of Folsom shall periodically review and update the Noise Element to ensure that noise exposure information and specific policies are consistent with changing conditions within the community and with noise control regulations enacted after the adoption of this Element.

POLICY 30.15

If noise barriers are required to achieve the noise level standards contained within this Element, the following construction practices are recommended:

1. Noise barriers exceeding six feet in height relative to the roadway should incorporate an earth berm so that the total height of the solid portion of the barrier (such as masonry or concrete) does not exceed six feet.

2. The total height of a noise barrier above roadway elevation should normally be limited to 12 feet.

3. The noise barriers should be designed so that their appearance is consistent with other noise barriers in the project vicinity.

13

AIR QUALITY ELEMENT GOALS AND POLICIES

GOAL 31

To improve the air quality of the City of Folsom including:

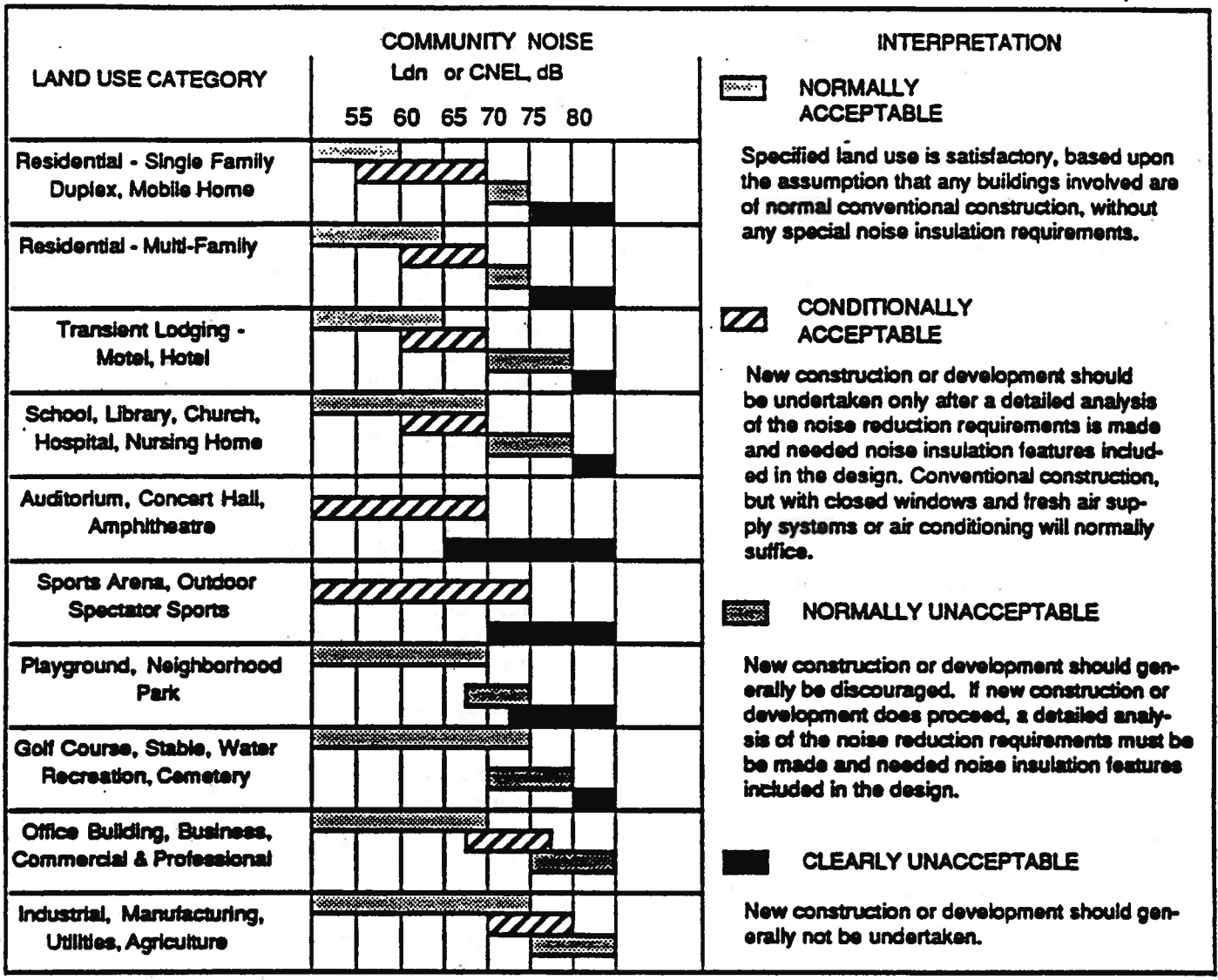
1. Achievement and maintenance of ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.

2. Minimizing public exposure to toxic or hazardous air pollutants.

3. Limiting visibility reducing particulate matter in the atmosphere.

4. Minimizing public exposure to air pollutants which create a public nuisance through irritation to the senses or unpleasant odor.

FIGURE 26-5
LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS



CONSIDERATIONS IN DETERMINATION OF NOISE - COMPATIBLE LAND USE

A. NORMALIZATION NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitable with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposes do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which to encourage land compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

Source: California Office of Noise Control

POLICY 31.1

Because the City of Folsom shares the air basin with other jurisdictions, and suffers from poor air quality due to regional ozone violations, the City shall work cooperatively with other members of the Sacramento Area Council of Governments, the Sacramento County Air Pollution Control District, the California Air Resources Board, CALTRANS, and the U.S. Environmental Protection Agency toward the development of a consistent and effective approach to the regional air pollution problem. The City will participate in the updating of the 1982 Air Quality Plan, and incorporate Air Quality Plan update measures into the General Plan.

POLICY 31.2

The City shall use consistent and accurate procedures approved by the California Air Resources Board in the review of projects which may have air quality impacts. Comments on the analysis shall be solicited from the Sacramento County Air Pollution Control District and the Air Resources Board.

POLICY 31.3

The City shall encourage the adoption of more stringent vehicle emission standards and enhancements to the Smog Check program through active participation in hearings held by the State Legislature, the California Air Resources Board and the Bureau of Automotive Repair.

POLICY 31.4

To minimize air quality impacts mitigation measures shall be required for transportation emissions associated with all development estimated to generate 2,000 or more trips per day. Measures may include:

1. Project proponent funding of roadway improvements.

2. Commercial/industrial project proponent sponsorship of van pools or club buses.

3. Project proponent funded transit subsidies sufficient to reduce emissions from transit through the substitution of diesel-fueled buses with buses powered by alternative fuels, such as methanol and electric.

4. Commercial/industrial project sponsored daycare and employee services at the employment site.

5. Park and ride lots.

POLICY 31.5

The City shall work with the Air Resources Board or Sacramento County Air Pollution Control District in establishing a carbon monoxide monitoring program in order to accurately determine the status of carbon monoxide air quality and to quantify the impacts of growth and development in the Folsom area.

POLICY 31.6

Non-retail industrial and non-retail commercial projects which directly emit air pollutants should be located in areas designated for industrial development, and separated from residential mixed use areas.

POLICY 31.7

All employers of 50 or more full time employees per shift shall develop and implement incentive-based trip reduction programs for their employees. Incentives may include:

1. Provision of reserved and preferentially located parking spaces for the exclusive use of employees who actively participate in ridesharing.

2. Provision of secure bicycle storage facilities.

3. Provision of shower and locker facilities for use by employees who commute by non-motorized means.

4. Distribution by employers of current information regarding the availability, cost and schedules of public transit.

5. Employer provision of economic incentives to maximize the use of transit, ridesharing, van pooling and non-motorized transportation.

POLICY 31.8

The City shall participate in the development of a regionally consistent transportation emissions accounting system so that transportation emission reductions are accounted for, and those responsible receive appropriate credit.

POLICY 31.9

The City should encourage bicycle usage through the development and maintenance of a safe and comprehensive bikeway system which includes:

1. The provision of securely anchored bicycle racks.

2. Sidewalks in residential development with protective curbing and adequate lighting.

POLICY 31.10

The City of Folsom shall develop, as part of its transportation plan and the Transportation and Circulation Element of the General Plan, a transit development plan so that Folsom residents may safely and conveniently use transit for work, school, shopping, recreational and other trips within the City and outside of the City.

GOAL 32

To minimize public exposure to toxic or hazardous air pollutants.

POLICY 32.1

Reference Policy 31.6.

GOAL 33

To minimize visibility-reducing particulate matter in the atmosphere.

POLICY 33.1

Reference Policy 31.7.

POLICY 33.2

Reference Policy 31.9.

GOAL 34

To minimize public exposure to air pollutants which create a public nuisance through irritation to the senses or unpleasant odor.

PARKS AND RECREATION ELEMENT GOALS AND POLICIES

GOAL 35

To achieve and maintain quality parks which provide optimum satisfaction to the leisure and recreation needs of the citizens.

POLICY 35.1

The City shall construct parks with originality and innovation in design that provide challenge and self-renewal to the user and viewer.

POLICY 35.2

The City shall develop a listing of equipment standards and design guidelines for parks and recreation facilities.

POLICY 35.3

The City shall maintain its parks and recreation facilities in accordance with City adopted maintenance standards.

POLICY 35.4

The City shall encourage, where appropriate, the inclusion of bikeways, walkways, and equestrian trails in parks, parkways, and open space acreage.

POLICY 35.5

Where feasible, park sites throughout the City shall be integrated with the Bikeways Mas-

ter Plan and bicycle trails outside the City such as the American River Bike Path.

POLICY 35.6

The City shall encourage the development of parks with night-use capability.

POLICY 35.7

The City shall encourage construction of shelters, such as pavilions, arbors, lattice canopies, etc. to form shade and shelter for year round use. In conjunction with the shelters, the planting of trees shall be encouraged to increase the shade areas and aesthetics of the parks.

POLICY 35.8

Parkland shall be accepted by the City, if judged to be useful for passive and/or active uses. Land constrained by drainage, slopes or structures which limit the full recreational use of the site shall not be accepted for full credit under the City Parkland Dedication Ordinance. Such lands may be accepted as open space or parkway acreage. Partial credit for constrained lands may be allowed if they are found to be usable or can be made usable in compliance with standards for parkland dedication included in the Parks and Recreation Master Plan.

POLICY 35.9

Lands designated as open space on the Land Use Map of this General Plan may be used for parks, but shall not be credited as parkland pursuant to the Parkland Dedication Ordinance.

Open spaces are an existing resource within Folsom as identified in the General Plan and that to credit these lands for parkland would reduce the full potential of open space that the City requires in order to achieve and maintain the desired quality of life.

POLICY 35.10

The City shall actively encourage the protection and preservation of natural habitats identified in the Open Space and Conservation Element.

POLICY 35.11

The City shall strive to acquire and develop parklands within existing neighborhoods which comply with the standards of this Element and the General Plan.

POLICY 35.12

The following standards are the minimum acceptable standards for parks, open space and recreation facilities in the City of Folsom:

PARK ACREAGE STANDARD

Five acres per thousand population (5 acres per 1,000 persons).

PARKLAND

Areas are generally designated on the Land Use Map of the General Plan for park acreage credit. Those lands which are consistent with the goals and policies of this Element and the General Plan and the Park and Recreation Master Plan shall be credited as parkland.

PARK CATEGORIES

In order to provide a balance, parks have been categorized in terms of their function and sizes. The acreages listed are approximate desirable sizes. The categories are:

- Mini Parks (1 to 2 Acres): Specialized facilities that usually serve a concentrated or limited population or specific group such as tots or senior citizens. Mini parks may feature children's play areas, quiet game areas, landscaping and some sport activities such as multi-purpose courts if space allows. Ideal in close proximity to apartment complexes, townhouses, or elderly housing. May be used to enhance beauty of the City.

- Neighborhood Parks (10 to 20 Acres): A recreation area which provides for indoor and outdoor programs and activities. Neighborhood recreation parks should serve one neighborhood, and be centralized within that neighborhood, a park which can be walked to by children. Where possible they

should be located next to schools to avoid duplication and achieve joint use advantages. Neighborhood recreation parks should primarily serve the needs of the neighborhood residents.

- School/Parks (10 to 20 Acres): A neighborhood park located adjacent to a school. See Neighborhood Park.

- Schools (10 to 20 Acres): School playing fields and facilities can be shared with the City Parks and Recreation program to maximize facilities use. Conversely, parks and other recreational facilities can be shared with schools to enhance school facilities and reduce the need for duplicate facilities and programs.

- Special Use Areas (Undetermined): Within the City there are special use areas which do not fit easily in the other categories.

- Community Parks (20 to 60 Acres): A recreation area which provides recreational opportunities for several neighborhoods. Community parks should avoid duplication of facilities already provided in neighborhood recreation parks, and where suitable, be located adjacent to a secondary school. It should include such facilities as an aquatic center, provision for evening recreation, indoor facilities, amphitheater, specialized athletic fields, tennis, handball, basketball courts, large and small picnic areas, and barbecue facilities, convenient parking, tot play apparatus and restrooms.

- Regional Parks (200+ Acres): A recreation area which provides some remoteness from the urban setting or has features of regional significance including opportunities not possible in other parks within the City park system. This type of park serves a population within a large region, usually those within an hour's travel time. A regional park may be the joint effort of more than one government agency. It should be developed to preserve existing natural areas, areas of great scenic beauty, or areas of historical interest. A regional park could include such facilities as arboretums, camping areas, boating and fishing facilities, bicycling, equestrian and hiking trails, and other special use facilities.

- Open Space/Natural Areas/Parkways (Undetermined): Natural habitat areas, stream courses, utility easements or other corridors designated in the Open Space and Conservation Element and/or Circulation Element for purpose of preservation of natural features or circulation. Open space is clearly distinguished from park acreage and shall not be calculated or credited as parkland acreage. Parkways shall be preserved in their natural state with a network of trails for walking, cycling and horseback riding. Parkways are classified as open space for the preservation of natural resources and shall not be credited as parkland acreage.

SPACE STANDARDS

Park sites and related standards are based Table 31-2. User distribution, user preference, accessibility, availability, and economic factors are to be individually considered.

GOAL 36

To acquire and improve land and facilities recreational use in pace with local needs.

POLICY 36.1

The City shall acquire and develop sufficient lands to meet the recreational needs of the citizens.

POLICY 36.2

The City shall encourage the creation of a series of parks that serve as focal points for surrounding neighborhoods.

POLICY 36.3

The City shall encourage the development of parkways and greenbelts as an integral link between the Citywide park system.

TABLE 31-2
PARK ACREAGE STANDARDS

PARK CATEGORY	SERVICE AREA	DESIRABLE SIZE	ACRES/1000 POPULATION	POPULATION
Mini Park	Less than 1/4 mile radius	1-2 acres	.5 to 1 acre -	1,000-2,000
Neighborhood Park	1/4-1/2 mile radius	15 acres	2.5 to 3.5	2,000-5,000
Community Park	Several Neighborhoods 1-2 miles	45 acres	2.5 to 3.5	12,000-25,000
Special Use Recreation Area/ Natural Area/ Wildlife Area/ Parkway	Not applicable standard	Variable depending on desired size	Variable	Within community 25,000 - 50,000
Regional	Several communities within one hour driving time radius	200 + acre	5 to 10	Contiguous to or encompassing natural resources

POLICY 36.4

The City shall monitor the condition of all facilities in order to repair and replace equipment as needed, and insure that State safety standards and guidelines are being met.

POLICY 36.5

The City shall develop programs to identify and attain alternative sources of funding for the acquisition and development of parklands and financing of recreation programs.

POLICY 36.6

The City shall improve undeveloped and developed parkland as financially feasible.

POLICY 36.7

The City shall develop and maintain a capital improvement program for long term and short term recreation projects.

GOAL 37

To achieve and maintain quality recreation activities which provide optimum satisfaction to the leisure and recreation needs of the citizens.

POLICY 37.1

The City shall encourage the provision of programs and activities designed to meet the recreational needs of the residents of Folsom.

POLICY 37.2

The City shall continue to develop facilities and programs for indoor and outdoor activities directed toward the needs of the neighborhood served.

POLICY 37.3

The City shall encourage the incorporation into parks and recreation planning the needs of all age groups, handicapped, and special interest groups.

POLICY 37.4

The City shall encourage the expansion of services to senior citizens and latch key kids.

POLICY 37.5

The City shall encourage and/or co-sponsor various ethnic programs and activities of local interest.

POLICY 37.6

The City shall encourage that residents of Folsom be given first priority in participation of recreation sponsored programs, activities, and leagues.

POLICY 37.7

The City shall encourage or co-sponsor programs that involve the entire family, e.g., Family Fun Faire, Sports and Field Day, community picnics, and Kite Day.

GOAL 38

To involve and inform the residents, merchants, and visitors of the need for public participation in planning, development, and proper maintenance of recreation facilities.

POLICY 38.1

The City shall strive to implement registration procedures which require minimal paperwork for individuals and groups.

POLICY 38.2

The City shall encourage citizen participation in park and recreation planning through the Park and Recreation Commission.

POLICY 38.3

The City shall encourage neighborhood beautification projects, anti-pollution drives, recycling and other conservation activities that enhance the environment.

POLICY 38.4

The City shall develop a handbook of facility use and maintenance for groups and individuals using City facilities.

POLICY 38.5

The City shall continue to publish and advertise recreation programs, leagues and special events at a minimum of three times per year.

GOAL 39

To effectively use the resources of the City of Folsom and other governmental entities (such as school districts, county, state and federal agencies) to accomplish coordinated, effective planning of recreation and leisure activities.

POLICY 39.1

The City shall encourage those agencies actively providing recreational programs and activities to continue those programs and activities.

POLICY 39.2

The City shall encourage the use of college interns in all areas of parks and recreation.

POLICY 39.3

The City shall encourage the use of community residents to instruct special interest programs; e.g., fishing, fly-tying, gun safety, dance, etc. The City may serve as coordinator for such programs by providing facilities, public relations, instructors, and by paying instructor fees.

POLICY 39.4

The City shall encourage the aid of State or County park rangers, i.e., Folsom Lake State Recreation Area, to provide leadership in programs that inform the community on topics such as conservation and fire safety.

POLICY 39.5

The City shall continue the execution of a joint use, and development arrangement with the Folsom Cordova Unified School District and encouraging an agreement with the Los Rios Community College District.

POLICY 39.6

The City shall work cooperatively with the County Department of Parks and Recreation, State Department of Parks and Recreation, State Department of Corrections and State Department of Fish and Game in coordinating facility development and program offerings.

PUBLIC FACILITIES ELEMENT GOALS AND POLICIES

GOAL 40

To set targets for the ultimate build-out of the City, to plan for the provision of public facilities and services to meet this level of development, and to phase development according to the capacity of public facilities and services to meet those targets.

POLICY 40.1

No permit for construction shall be issued for any new development not served by existing municipal facilities until the following condition have been met:

1. The applicant can provide for the installation and/or financing (through fees or other means) of needed public facilities.

2. The project is included in the area covered by an existing facilities plan approved by the City.

3. The project can be served by on-site or private facilities meeting City and County health and safety requirements.

POLICY 40.2

The City shall require the preparation of a facilities plan for an identified area when:

1. Development of an area necessitates the provision, extension, and/or expansion of municipal services and facilities which are not customarily constructed by a developer; or

2. There is a need for services or facilities not otherwise funded by regular City fees; or

3. The construction of the necessary services and facilities cannot be logically or economically provided by one landowner/developer in the normal sequence of orderly development.

POLICY 40.3

An area facilities plan shall include, but not be limited to the following:

1. The description of the plan area and the basis for the selection of the proposed boundaries and the development potential of the area when it is based on a comprehensive land use map.

2. A statement of the plan's consistency with the Folsom General Plan and the City's Urban Development Policy.

3. Identification of the nature and extent of facilities necessary to serve the area and a schedule of estimated time within which facilities must be constructed.

4. Engineer's estimate of the total cost of such improvements (including plan preparation).

5. A plan for the equitable apportionment of costs among benefitted properties and adjustments thereof based upon the time such costs are paid.

6. The nature of the obligation of each land owner or developer.

7. Discussion of the options available to finance the improvements, including, but not limited to, construction by developers.

not limited to, construction by developers, an assessment district, fees, or a combination of these and/or other provisions.

8. Provisions for amendments to the Plan, which may result from changes in the plan area, development patterns, etc.

9. Provisions to refund or reimburse land - owners who construct facilities with capacity beyond the ultimate need of their developments.

10. Provisions for administration of the area plan and the collection and distribution of funds.

11. A statement which recognizes that the financial commitments required pursuant to such plans are not in lieu of other municipal service and facilities fees. The financial commitments of land owners/developers shall be taken into account by the City in determining the extent of the imposition of such other municipal service and facilities fees.

12. A statement which recognizes that the Area Facilities Plan is not intended to be responsible for the provision of all possible public facilities that will be needed in the future and that there are or may be additional costs/fees established by the City and other juristictions (such as school districts) that may apply to the area. However, the plan must address the need for all public facilities which may reasonably be assumed to be necessary during buildout of the area.

POLICY 40.4

All new development projects shall be planned for an urban level of services:

1. Sidewalks, gutters, and storm drains constructed to standards established by the City, except for residential estates and other projects when appropriately excluded.

2. Sanitary sewer lines of appropriate size to accommodate the project and that will tie into the City's main lines.

3. Public or private roads that can accommodate at least two lanes of traffic.

4. Parking and circulation systems that accommodate emergency vehicles and equipment.

POLICY 40.5

The City shall annually monitor the City's available municipal water supply to ensure adequate reserves exist to serve projected water demand. In the event projected demand exceeds supply, the City may take the following actions to prevent the anticipated shortfall.

1. Condition development approvals on the availability of identified water supplies.

2. Building permits covered by the former General Plan area should be restricted until such time as the City determines adequate supplies exist to allow unrestricted hookups to the municipal water system.

3. Seek to renegotiate municipal water contracts with large water demand users.

4. Within the area known as the East Area Facilities Plan Area consisting of approximately 3,900 acres, and any area south of U.S. Highway 50 which could be annexed to the City, the City shall not approve a final subdivision map or final parcel map, or other entitlement which would permit the commencement of construction until such time as the City has acquired an additional water supply which is adequate to supply such development as required under the Urban Development Policy. This prohibition shall not preclude the approval of final parcel maps covering all or a portion of the property covered by an approved tentative subdivision map, where multiple final subdivision maps are to be filed pursuant to Government Code Section 66456.1.

HAZARDOUS MATERIALS ELEMENT GOALS AND POLICIES

GOAL 41

To protect the health and welfare of the residents of Folsom through the management and regulation of hazardous materials in a manner that will focus on preventing problems.

POLICY 41.1

The City shall endeavor to work with industry, community groups, and government agencies to develop an effective, workable, and fair hazardous materials management system.

POLICY 41.2

As much as feasible, the City shall provide information to the general public and interested parties on technical and administrative developments in the field of hazardous materials management.

POLICY 41.3

The City shall endeavor to develop and implement with Sacramento County, a comprehensive hazardous materials management program.

POLICY 41.4

The City shall expand and strengthen existing Folsom programs where appropriate, to fill in gaps in the current federal, state and local hazardous materials management efforts.

POLICY 41.5

The City shall encourage the effective implementation of workplace safety regulations, and to assure that hazardous material information is available to users and employees.

POLICY 41.6

The City shall improve cooperation, information gathering, and information availability within existing Folsom programs.

POLICY 41.7

The City shall support a household hazardous waste disposal program.

POLICY 41.8

The City shall endeavor to develop land use standards that will reduce the risk of health or environmental damage through industrial or commercial use of hazardous materials.

POLICY 41.9

The City shall endeavor to protect residents and sensitive facilities from avoidable incidents in the transportation of hazardous materials in the county.

POLICY 41.10

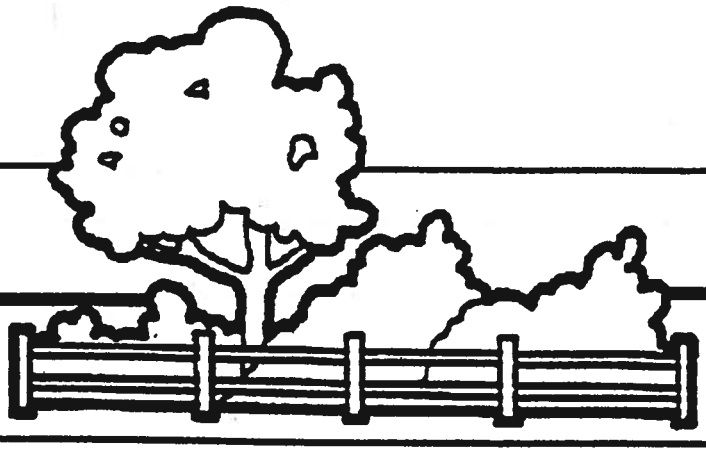
The City shall endeavor to protect residents from avoidable accidents and mishandling of hazardous materials in industrial and commercial facilities.

POLICY 41.11

The City shall support local enforcement of hazardous materials regulations.

FISCAL ELEMENT GOALS AND POLICIES

Goals and Policies will be added upon adoption of the Fiscal Element.

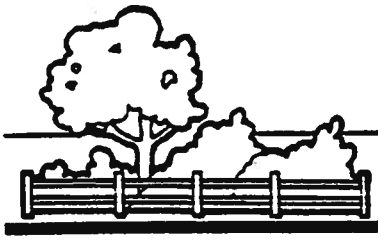


21.0 LAND USE ELEMENT

Prepared For The City of Folsom
Community Development Department

By
Connerly and Associates

October 31, 1988



21.0 LAND USE

TABLE OF CONTENTS

PAGE

21.1 INTRODUCTION 2

21.1.1 State Policy and Authorization 2
21.1.2 Related State Regulations 2

21.2 SETTING/ASSUMPTIONS/ISSUES 3

21.2.1 Setting 3
21.2.2 Assumptions .....
21.2.3 Issues. .....

21.3 LAND USE ELEMENT GOALS AND POLICIES .....

21.4 RELATED GOALS AND POLICIES 24

21.5 IMPLEMENTATION 24

21.0 LAND USE

21.1 INTRODUCTION

The Land Use Element of a City's General Plan brings together policies and considerations from the other Elements (resources, geology, natural and human created hazards, traffic and circulation) to determine the most appropriate mix and distribution of land uses. The Land Use Element addresses all aspects of land use: housing, commercial, industry, parks, schools and open spaces. This Element must, therefore, consider the land use implications of each of the other nine Elements.

During the preparation of this Element, extensive consideration was given to existing land uses and future land uses on sites with approved development proposals. The policies developed by the Citizen's Advisory Committee stressed sensitivity to the historical development of Folsom and the relationships among existing land uses. The land use policies strongly favor the preservation of existing single family neighborhoods; the preservation and enhancement of Folsom's Historic District; and the strengthening of the City's existing commercial core, centered on East Bidwell Street.

The policies also envision substantial expansion of the City's commercial and industrial base to meet the City's internal business needs, provide employment to residents who will live in the Folsom area, meet regional commercial and industrial needs, and improve the City's revenue base.

Because of the close economic and social links between jobs, commerce, and housing, the land use policies have been developed to promote a jobs and housing balance. The Citizen's Advisory Committee sought to ensure that all Folsom residents would have access to neighborhood and community-wide commercial goods and services, that residents who so desired could both live and work in Folsom, and that Folsom could serve regional commercial needs along Highway 50.

Although many of the land use policies address the built environment, much attention is also devoted to the maintenance of Folsom's natural environment. The Open Space and Conservation Element (Section 24) contains more specific policies and implementation measures directed to the preservation and enhancement of important natural features. In setting forth land uses, the protection of natural features, waterways, vernal pools, riparian habitats, trees, ridge lines, scenic vistas and other special natural features were given high priority.

The land use policies in this Element establish the standards for development and the direction of development in Folsom. These written policies are further interpreted in the form of a Land Use Map, which illustrates the location of all land uses envisioned in the Folsom General Plan. The Land Use Map is an integral part of the General Plan and the Land Use Element. A change in the Land Use Map must be consistent with the policies of this Element and the other Elements. Conversely, any policy changes could imply changes to the Land Use Element.

21.1.1 STATE POLICY AND AUTHORIZATION

State Law (Government Code Section 65302(a)) requires that the Land Use Element of a General Plan designate the proposed general distribution and general location of housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land.

The Land Use Element must also include standards for population density and building intensity for each district, and identify areas subject to flooding.

21.1.2 RELATED STATE REGULATIONS

SITING OF HAZARDOUS WASTE STORAGE (GOVERNMENT CODE SECTION 6593.1)

The State Department of Health Services maintains a list of sites known or designated to contain hazardous wastes. Any new sites which will store or process hazardous wastes must be approved by the Department of Health Services as well as the City of Folsom.

DESIGNATION OF AGRICULTURAL LAND (GOVERNMENT CODE SECTION 65570)

The State Director of Conservation compiles "important farmland series" maps based on information from the United States Soil Conservation Service. These maps show the several designations of land suited to agricultural uses based on soil quality and characteristics. These maps may be consulted by local agencies in determining areas which should be designated for agriculture or grazing.

DENSITY BONUSES (GOVERNMENT CODE SECTION 65915)

Notwithstanding the maximum number of dwelling units otherwise permitted in a residentially designated area, State Law provides for density bonuses of 25 percent of the number of homes otherwise allowed for the provision of low or moderate income housing. The density bonus or equivalent financial incentives must be offered when a developer proposes to build at least 25 percent of the homes in a project for low and/or moderate income households, or ten percent of the homes for lower income households, or 50 percent of the homes for qualifying elderly or disabled residents.

SURFACE MINING AND RECLAMATION ACT

See Section 24.1.2 of the General Plan.

FAMILY DAY CARE HOMES AND HOMES FOR MENTALLY DISORDERED, HANDICAPPED PERSONS, OR DEPENDENT AND NEGLECTED CHILDREN (CHAPTERS 3.4 AND 3.6, DIVISION 2 OF THE HEALTH AND SAFETY CODE; SECTION 5115 ET. SEQ. OF THE WELFARE AND INSTITUTIONS CODE)

Certain child day care, elderly care, family care, foster home, group home, alcoholic recovery home and other similar facilities are to be considered residential uses allowed in any residentially designated area, notwithstanding any local standards which may define such land uses as commercial or institutional.

21.2 SETTING/ASSUMPTIONS/ISSUES

21.2.1 SETTING

Volume III, Chapter 82.0 of the General Plan and the Master Environmental Assessment (MEA) describe the setting of the Folsom area and the data base upon which the General Plan has been prepared. A summary of the community setting is provided below as it relates to the Land Use Element.

LAND USE

There are approximately 15,200 acres (23.7 square miles) within the City of Folsom, most of which is presently undeveloped. However, the City is undergoing rapid change and urban development. In May 1987, there were about 7,264 homes completed or under construction in Folsom. The most recent evaluation of the City's development status as of November 1987 shows:

TABLE 21-1
EXISTING LAND USES

LAND USE	GROSS ACRES
Residential	1,700
Commercial	179
Industrial	152
Schools/Public Facilities	350
Parks	222
Open Space	854
Folsom Prison	848
Undeveloped and Water	10,415
Under Construction Various Uses	440
TOTAL	15,160

Folsom's population growth relative to Sacramento County is a good indicator of its urbanizing character. The following table compares population growth in the City versus the County.

TABLE 21-2
POPULATION GROWTH TRENDS

1970 POPULATION	1980 POPULATION PERCENT CHANGE*	1988 POPULATION PERCENT CHANGE*	PERCENT CHANGE*
Folsom	5,810** (48%)	11,003 (89.4%)	23,300 (112%)
Sacramento County	631,498 (25.6%)	783,381 (24.1%)	930,100 (18.7%)

SOURCE: U.S. Census, Department of Finance, May 1988

* From previous decade or period.

** Excluding Folsom Prison population.

The distribution of land uses under this Element reflects the more urban nature of development in Folsom. The prior General Plan, prepared during the late 1960s and updated periodically, called for more low density residential development, fewer residential categories, and a maximum residential density of 12 units per acre. The proposed distribution, as reflected in the Land Use Map, provides for fewer residential acres but at higher densities. Commercial acreage is increased by 71 percent, and open space by 43 percent. The following comparison summarizes the changes between the prior and the adopted General Plan land use distribution.

TABLE 21-3
LAND USE DISTRIBUTION

LAND USE CATEGORY	PRIOR GENERAL PLAN ACRES/DWELLING UNITS	ADOPTED GENERAL PLAN ACRES/DWELLING UNITS
Residential Density		
Single Family Low/Low (0.5 du/ac)	2,563	N/A
Single Family Low (2 du/ac)	752	N/A
Single Family (2-3.9 du/ac)	2,345	4,392
Single Family Medium (5 du/ac)	841	N/A
Single Family High (4-6.9 du/ac)	N/A	836
Mobile Home (7 du/ac)	149	N/A
Multi Family Low (7-11.9 du/ac)	N/A	648
Multi Family (12 du/ac)	743	N/A
Multi Family Medium (12-17.9 du/ac)	N/A	146
Multi Family High (18-25 du/ac)	N/A	110
SUBTOTAL RESIDENTIAL	7,393/22,875	6,132/28,184
Commercial	700	1,329
Industrial	1,686	1,531
Schools/Public	389	580
Park	250	300
Open Space	1,541	3030
Prison	848	848
Water	1410	1410
Projected Employment	87,040	99,680
Average Residential Density	3.09/acre	4.60/acre
Estimated Population (Excluding Prison)	56,273	69,333

ASSUMPTIONS:

Population projections are based on an average household size of 2.46. Dwelling units projections are based on the density range average. Employment projections are based on an average employee density per acre of 28 for commercial developments and 40 for industrial developments.

PHYSICAL SETTING

The natural environment of Folsom presents few development constraints. There are site specific environmental considerations which will affect the building location and density of some projects on hillsides and along ridge lines, riparian habitats, vernal pools, and other localized environmentally sensitive areas, for example. Much of these areas would be preserved for open space (see Chapters 2, 3, 4 and 5 of the MEA for discussion of these environmentally sensitive areas).

The mining of significant mineral beds, especially sand and gravel, could also present a localized constraint to development in some areas of Folsom (see Chapter 2 of the MEA for a discussion of the locations of mineral deposits). Policy 28.5 of the Open Space and Conservation Element requires the protection of mining and/or gravel extraction sites so that sand and gravel can be extracted prior to the use of these sites for other purposes.

This policy may require a phasing of development on or near extraction sites to ensure the priority of mineral extraction prior to other development.

Finally, localized soil conditions in the hillside areas of East Folsom may require special development techniques to reduce slope erosion and to ensure slope stability. Most of the eastern hillsides consist of weathered bedrock. Site specific development conditions could ensure that proper erosion control and slope stability techniques are followed.

AREAS SUBJECT TO FLOODING

The General Plan Maps show the general location of designated open spaces and recreation areas. For properties located in areas subject to flooding, special conditions may be attached to reduce flooding potential and to reduce the risks of property damage or injury. These conditions may include underground storm drainage systems to reduce surface runoff from areas that drain into streams and reservoirs and that are capable of handling run-off from a 100-year storm, limits on the amount of paved and other impermeable surfaces, and drainage fees to help pay for downstream improvements needed as a result of the development.

Development proposals located within potential flood prone areas will be required to submit hydrological/drainage studies to determine flood water elevations, water runoff violations and acceptable mitigations as a condition of project approval.

21.2.2 ASSUMPTIONS

The policies contained in this Element are based on several assumptions which were discussed by the Citizen's Advisory Committee. These assumptions are listed below.

PRESERVATION OF IMPORTANT HABITAT

Important natural habitats, such as riparian corridors and vernal pools, can remain viable for wildlife if preserved.

BALANCE OF LAND USES

Folsom can achieve a balance of land uses that will allow residents to live, work, shop, and enjoy recreational activities within the City.

HOUSING

The predominate housing demand will be for single family homes and other affordable ownership housing. Thus, more land is devoted to high density single family housing and low density multi family housing, rather than low and very low density single family housing.

COMMERCIAL SERVICES

As Folsom's resident and worker population grows, the City will be able to support additional neighborhood shopping areas, at least one additional community-level commercial center, and an expanded central commercial district.

JOBS HOUSING BALANCE

Many future residents will live and work in Folsom, reducing the level of inter community travel that would otherwise occur if Folsom were a predominantly "bedroom" community.

REGIONAL SERVICES

Folsom has a strategic location and access with respect to the growing population of eastern Sacramento County, western El Dorado Hills and South Placer County. The City would be well suited for regional-serving commercial establishments.

CENTRAL COMMERCIAL DISTRICT

Folsom is capable of supporting a multi-function commercial core which contains retail, offices, financial services and cultural/entertainment establishments. These uses will have a community wide market area, in addition to being supported in part by nearby residents.

INSTITUTIONS

Large institutional uses (hospital, community college) will provide a local focus for commercial activities and higher density housing.

21.2.3 ISSUES

Several issues were identified during the development of the land use policies. These include:

VIABILITY OF COMMERCIAL AREAS

Without controls on the size and number of neighborhood and community commercial centers, the viability of a central commercial district could be compromised.

VARIETY OF HOUSING TYPES

The prior General Plan provided mainly for low to medium density single family housing. To ensure that Folsom meets its regional housing responsibilities, the City has attempted to expand the number and types of homes that can be constructed while preserving important environmental features.

ECONOMIC BASE

The allocation of land uses has important economic implications for its residents as well as financial implications for the City's revenue base. The City's land use policies provide for commercial and industrial uses which can improve Folsom's tax base. The need to assure an adequate financial base is balanced against the City's responsibility to plan for housing that will serve workers and other new residents.

DEFINING SENSITIVE AREAS

One of the most difficult issues facing the City is to define those areas of the city which are most important to preserve in their natural state. There are many areas that deserve high priority, and these areas are listed in the policies.

21.2.4 LAND USE STANDARDS

State Planning Law requires that the Land Use Element incorporate standards for population density and building intensity. All development projects are governed by General Plan goals and policies, zoning and building code regulations, as well as other applicable City regulations.

Residential development is more adaptable to an application of population and building standards with minimum lot sizes (zoning) and density ranges (General Plan), than non-residential development. Given the wide variety of uses and activities that are permitted in the non-residential zones, it is more difficult to apply strict development standards to commercial and industrial projects. Building intensity and employment density will vary by activity. The Zoning Code regulates actual building intensity (lot coverage) for specific projects through the application of minimum setbacks, maximum lot coverage, height restrictions, parking and landscaping requirements.

As a general rule however, the following building intensities and population/employment densities will be used in analyzing community wide development impacts. Project specific environmental analysis will be used in determining impacts of individual projects. These standards, therefore, are to be used as a guide on a case-by-case basis for project review.

The generalized standards recommended below are based on the policies applicable to each land use designation:

TABLE 21-4
RECOMMENDED DEVELOPMENT STANDARDS

LAND USES	DWELLING UNITS PER ACRE	POPULATION PER ACRE	BUILDING HEIGHT	BUILDING COVERAGE	FLOOR AREA RATIO
Residential [1]					
Single Family	2-3.9	6-12	30-35'	30-35%	-
Single Family High Density	4-6.9	10-17	35'	35%	-
Multi Family Low Density	7-11.9	15-26	35'	40%	-
Multi Family Medium Density	12-17.9	24-36	50'	60%	-
Multi Family High Density	18-25	27-38	35-50'	50-60%	-
		EMPLOYEES PER ACRE	**NUMBER OF STORIES**	**BUILDING COVERAGE**	**FLOOR AREA RATIO**
Non-Residential [2]					
Commercial-					
Neighborhood		20-25	1-2	35%	-
General/Community		25-30	1-2	30-40%	-
Regional		30	3-4	-	2:1
Central District		30-35	4	-	2:1
Specialty [3]		-	-	-	-
Industrial/Office Park		10-40	3-4	40-50%	2:1
Public/Quasi Public [4] -		-	-	-	
Parks/Recreation		-	-	10%	-
Open Space		-	-	10%	-

1 An average household size of 2.46 has been assumed for General Plan and EIR purposes.

2 An average employee density of 28 for commercial uses and 40 for industrial uses has been assumed for General Plan and EIR purposes.

3. Specialty Commercial Area: Building intensity and employment density will vary by type of commercial project. These standards will be determined on a case-by-case basis through a planned development process. Land uses within these designations include: Sutter Street Historic District, Specialty Commercial District, Business/ Professional Offices and other identified areas as appropriate.

4. Public/Quasi - Public Land Uses: Standards will vary depending on the type of Development standards will be applied c... case-by-case basis.

21.3 LAND USE ELEMENT GOALS AND POLICIES

GOAL 1

This is the key Goal of the Plan and this sets the tone of the Plan.

To retain and enhance Folsom's quality of life, separate identity and sense of community. Folsom's identity and quality of life are defined by:

1. The diverse natural setting, including the American River, its tributary streams, natural vegetation, topography, native wildlife, and other unique features of the landscape.

2. Developed parks and open space.

3. The historic district and other historic places throughout the community.

4. The State prison site, which provides a large, visual open area in the City.

5. The physical form of Folsom's neighborhoods.

6. Ease of movement.

7. Public access to pedestrian and bicycle trails.

POLICY 1.1

New development shall preserve and/or enhance to the maximum degree feasible, the existing natural vegetation, landscape features and open space, consistent with the Goals and Policies of this Plan.

POLICY 1.2

Existing viewsheds and opportunities for viewsheds should be incorporated into the design of new developments.

POLICY 1.3

Each residential neighborhood should be planned with at least one park/recreational/school area within approximately one half mile of each residential unit.

POLICY 1.4

Each new residential development shall be encouraged to provide pedestrian and bicycle access to parks or schools located within or near the development.

POLICY 1.5

Each new residential development shall be designed with a system of local streets, collector streets, and access to an arterial road that protects the residents from through traffic.

POLICY 1.6

Folsom's historic district shall be enhanced and maintained through the improvement of public facilities.

POLICY 1.7

Historic buildings or locations shall be preserved or incorporated into the design of new developments.

POLICY 1.8

The City shall prepare an inventory of historically and culturally significant buildings and sites. The City should investigate measures for Historic Preservation of these building sites.

POLICY 1.9

Development proposed along streams shall be in conformance with a comprehensive development and management plan to be prepared for stream waterbeds prior to project approval.

POLICY 1.10

When development incentives are required for the preservation of identified resources and open spaces, the City and public shall cumulatively receive the greater short-term and long-term benefits of such incentives.

POLICY 1.11

The location, configuration, and extent of open space and parkway designated on the land use map shall be determined on a project by

project basis through site specific mapping approved by the City and consistent with mitigation of environmental impacts and implementation of the overall goals and policies of the General Plan.

The lines depicting the location of Humbug and Willow Creeks on the General Plan are for illustrative purposes and shall be consistent with the Humbug/Willow Creek Management Plan when adopted.

GOAL 2

To ensure that the City exercise appropriate controls over the planning process.

POLICY 2.1

The General Plan sets the overall guidelines for the location and intensity of development in Folsom.

POLICY 2.2

The City will prepare area or specific plans as appropriate to further refine the standards and regulations for development.

POLICY 2.3

General Plan Amendments may be approved when the applicant has successfully indicated substantial benefit could be derived from the project.

1. Requests for higher residential densities must include a demonstration of need for higher density housing.

2. Requests for land use changes must include an evaluation of economic, social and environmental factors which would be enhanced by a change in the land use.

3. Design features for open space, improved recreational facilities, protection of natural features and sensitivity to surrounding development shall be carefully evaluated.

POLICY 2.4

The City shall adopt a grading ordinance which prohibits any substantial grading or modification of the topography prior to approval of a tentative map, planned development or other land use permit. The ordinance shall provide for performance bonds or similar measures acceptable to City and a specific time period for construction to commence. The City shall require slope analysis maps early in the project review process in order to judge future grading activity.

GOAL 3

To address comprehensively Folsom's development issues on the basis of community-wide needs.

POLICY 3.1

The City shall evaluate the community-wide impact of each development on the need for public facilities and services, the circulation and housing impacts from the project, and the effects on the City's identified resources.

POLICY 3.2

Developments should be compatible with the natural features and the buildings that surround them. Compatibility will be measured by the size and configuration of buildings in a project, the use of materials and landscaping, the preservation of existing vegetation and landscape features, and the location of entrance and exit routes on the project site.

POLICY 3.3

Development standards shall be prepared for large land holdings prior to approval of tentative maps or Planned Development permits. Development standards may consist of standards adopted by resolution of the Planning Commission describing standards for development and relationships among land uses within the area covered by the plan. Development standards may be included in specific plans, area plans, or by reference as a condition of approval.

GOAL 4

To provide opportunities for residents to live, work, shop, and enjoy leisure activities within the City.

LICY 4.1

The City will plan for additional housing needs as determined in the Housing Element for the next 5 to 25 years.

POLICY 4.2

The City will plan for a central community shopping district and a regional shopping center.

POLICY 4.3

Neighborhood business areas will be allowed, subject to size and business use restrictions. The location of such business areas should be based on area or community plans covering the projects to be served by the neighborhood business area. Neighborhood business areas should be pedestrian-oriented, that is, drawing their customers primarily from the residences in the immediate vicinity of the businesses.

'OLICY 4.4

The City will expand its system of parks, open spaces, and recreational facilities as new development proceeds.

POLICY 4.5

Industrial and office employers should be encouraged to locate in Folsom to provide more job opportunities for Folsom residents.

GOAL 5

To influence land use decisions of Sacramento, Placer, and El Dorado counties and other governmental agencies which may impact Folsom.

POLICY 5.1

The City shall request to participate in the planning process of other governmental agencies whose jurisdiction includes areas within the city limits of Folsom.

POLICY 5.2

The City shall request copies of proposed plans prepared by other government agencies outside of Folsom but which could affect land in Folsom. City officials should respond in a timely manner to such proposed plans and participate in public meetings or hearings as appropriate.

POLICY 5.3

The City will continue to participate in the Sacramento Area Council of Governments and the Sacramento Local Agency Formation Commission.

GOAL 6

To expand Folsom's Sphere of Influence based on the ultimate boundaries of development that the City can reasonably control and service and to discourage premature development in unincorporated areas surrounding the City.

POLICY 6.1

The Sphere of Influence shall include those parcels of land adjacent to the city limit whose development could have significant visual, traffic, service, and environmental impacts on Folsom so that the City may influence the ultimate development of those parcels.

POLICY 6.2

The City shall consider existing roads or natural features which might logically define a new Sphere of Influence boundary.

POLICY 6.3

A new Sphere of Influence boundary shall include only those lands to which road, water, sewer and other facility/service connections can be extended within the next 25 to 30 years and, therefore, to those areas which will ultimately be annexed to the City.

GOAL 7

To provide for the orderly annexation and development of unincorporated areas within Folsom's Sphere of Influence.

POLICY 7.1

The City shall only annex those lands which

can be developed in accordance with the City's General Plan, are fiscally sound additions to the City, can be adequately served by municipal (or acceptable alternative) facilities and services, and are part of a planned, orderly annexation program.

POLICY 7.2

All properties proposed for annexation shall be pre-zoned by the City in a manner consistent with the General Plan. Until facilities and services can be provided, such properties will be designated as agricultural reserve. The existing County zoning or General Plan designation which applies to a property may be considered in determining the appropriate pre-zoning of the subject land which is served by on-site facilities or connected to County facilities.

POLICY 7.3

Prior to the annexation of lands to the City, the applicant shall submit a plan demonstrating the financial feasibility of providing services and facilities to the area proposed for annexation. (refer to Goal 40 and its policies)

POLICY 7.4

The General Plan and zoning designations for annexed lands should consider the following criteria:

1. The capacity of facilities and municipal services.
2. The environmental effects that development on lands proposed for annexati may have on properties within the existing city limits.
3. Existing land uses, if any, on and in the vicinity of the annexed land.
4. The extent of any natural habitats and features of the landscape which should be preserved.
5. The demonstrated need for additional housing, retail commercial uses, other commercial uses, and industrial uses.

GOAL 8

To allow a variety of housing types which provides living choices for Folsom residents.

POLICY 8.1

Average residential densities shall be calculated as the number of dwelling units divided t the total area of the project, excluding any commercial, business and professional or indus uses. Areas devoted to open space, public parks, roads, public schools and other miscellaneous land uses shall be included in the calculation.

SEE PAGE 21-11A FOR ADDITION

POLICY 8.2

In order to promote a more diverse housing stock and to allow for a greater mix of compatible densities, five residential density ranges shall be established and applied to the various residen-

TABLE 21-5
GENERAL PLAN RESIDENTIAL DENSITIES

HOUSING TYPE	SF (2-3.9)	SFHD (4-6.9)	MLD (7-11.9)	MMD (12-17.9)	MHD (18-25)
SF Detached	◆	◆			
SF Zero Lot Line		◆	◆		
SF Patio		◆	◆		
Duplex		◆	◆		
Halfplex		◆	◆		
Townhouse			◆	◆	
Condominiums			◆	◆	
Garden Apartments			◆	◆	◆
Conventional Apartments				◆	◆
Mobile Home Parks		◆			

PARAGRAPH TO BE ADDED TO POLICY 8.1

In any development in which land is reserved for acquisition by a public agency for open space, parks, public schools, or other public purposes such land shall be taken into account in calculating the allowable residential density on the remaining land, provided no building permit shall be issued covering residential units attributing to such reserved land, until the reserved land has been acquired by the public agency for which such land was reserved.

tial areas. Table 21-5 illustrates these densities and compatible housing types. Examples of these housing types are defined in Figure 21-5.

POLICY 8.3

Open space will be required as part of each residential development except in residential estates, multifamily parcels of less than 10 acres and parcels of less than 20 acres for single family uses surrounded by existing development. Open space includes required park lands, common areas, landscaped areas, pedestrian paths, plazas and similar public or private areas, but not areas devoted to vehicle parking and streets. To achieve the open space guidelines, a developer may be allowed to group the homes at somewhat smaller lot sizes than would otherwise be permitted, provided the average density does not increase. (See Policy 8-7 and the Goals and Policies of the Open Space and Conservation Element)

POLICY 8.4

All residential development or residential portions of multi-use developments shall contain a minimum of 30 percent of the land in natural or improved open space, exclusive of roadways and parking lots.

Buffering shall be required between adjacent multi-family projects and single family developments along common boundaries.

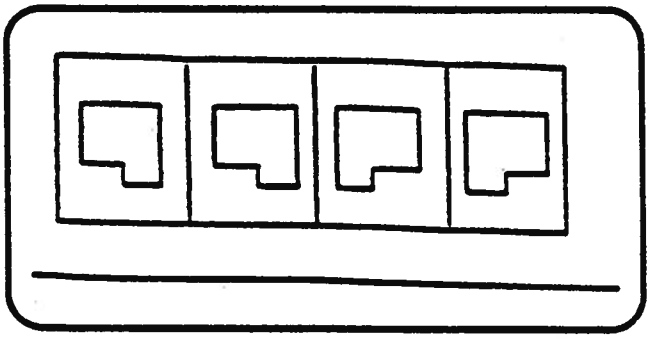
POLICY 8.5

Sufficient off-street parking for residents shall be included in the design of all residential projects. Off-street parking for guests shall be included in the design of all multifamily projects. The City shall review its parking standards to ensure that resident and guest parking is adequate to accommodate the anticipated average demand per dwelling unit. Surface lots for off-street parking should be landscaped to reasonably screen the parking area from street view and from adjacent properties.

FIGURE 21-1
VARIOUS TYPES OF HOUSING

Single Family Detached

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Conventional Building Setbacks from Front, Rear and Side Property Lines



Single Family-Zero Lot Line

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Zero Setback on One Side of all Lots Leaving Yard on Three Sides of House
- Permits more Usable Sideyard, Smaller Lots and Units, and thus Greater Overall Unit Density

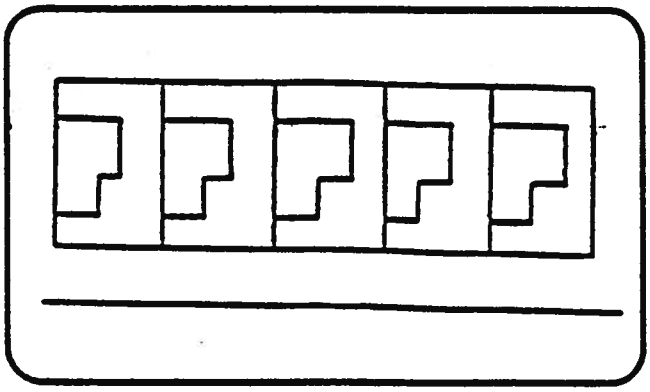
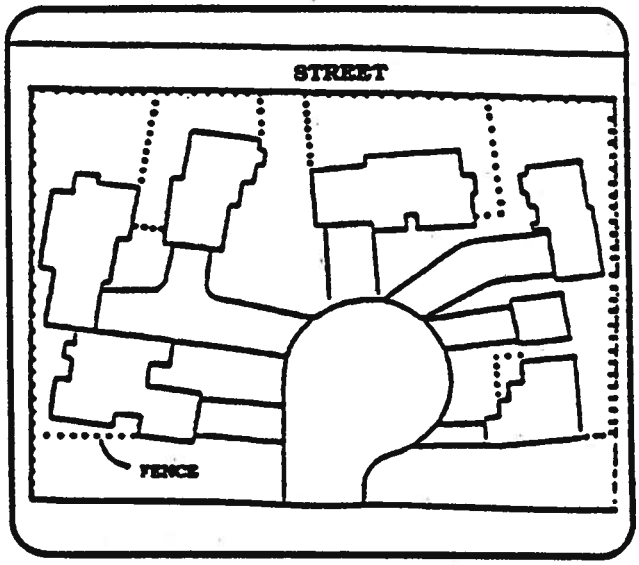


FIGURE 21-1

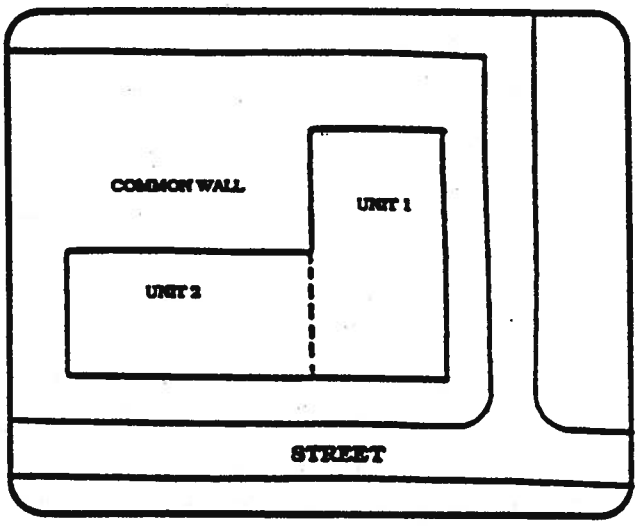
Single Family- Patio Homes

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Flex Building Setbacks, Building Orientation and Lot Sizes
- Emphasis on Creating Gardens and Patios through Use of Fences and Screening
- Sometimes a Development includes Common Open Spaces Owned by All Residents under a Home Owners Association



Duplex

- Two Units per Lot
- Single Ownership of both Units and Lot
- Conventional Building Setbacks Rear and Side Yard Separate for Each Unit
- A Common Wall Between Units
- Often Located on Corner Lots



Half-Plex

- One House (unit) per Lot
- Each House and Lot Individually Owned
- Conventional Building Setbacks. Rear and Side Yards Separate for Each Unit
- A Common Wall Between Units. The Wall is also Located on the Property Line.

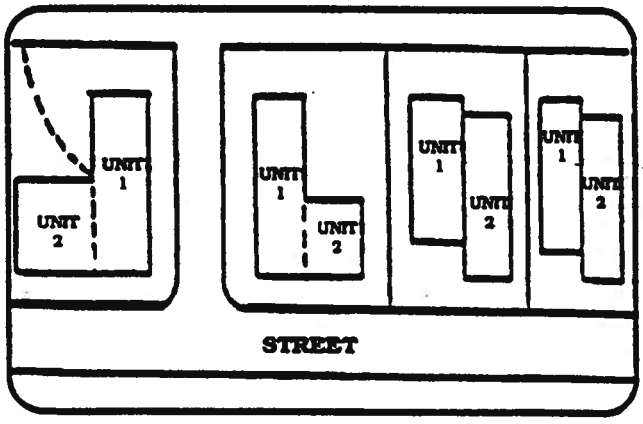
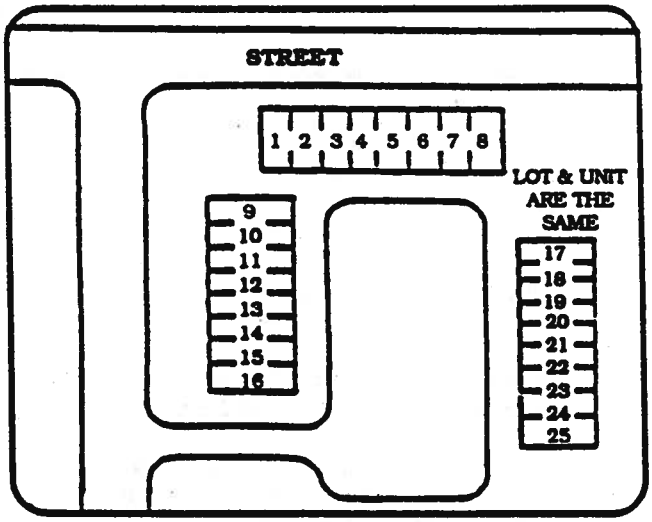


FIGURE 21-1

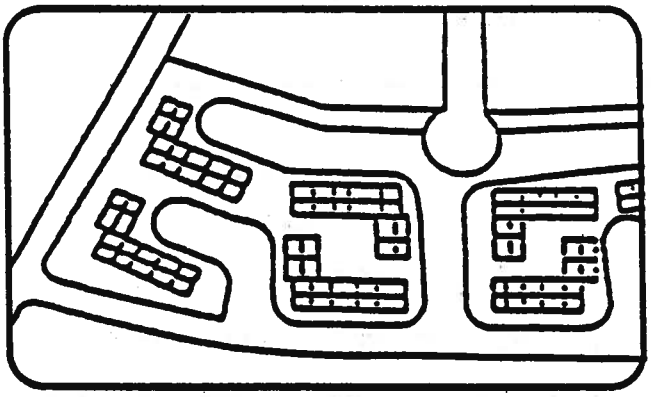
Townhouse- Condominium

- A Housing Style with each Unit having Two Stories and usually Attached with Other Units by Common Walls
- Each Unit and Lot Individually Owned
- Usually includes Common Oven Spaces Owned by All Owners Association



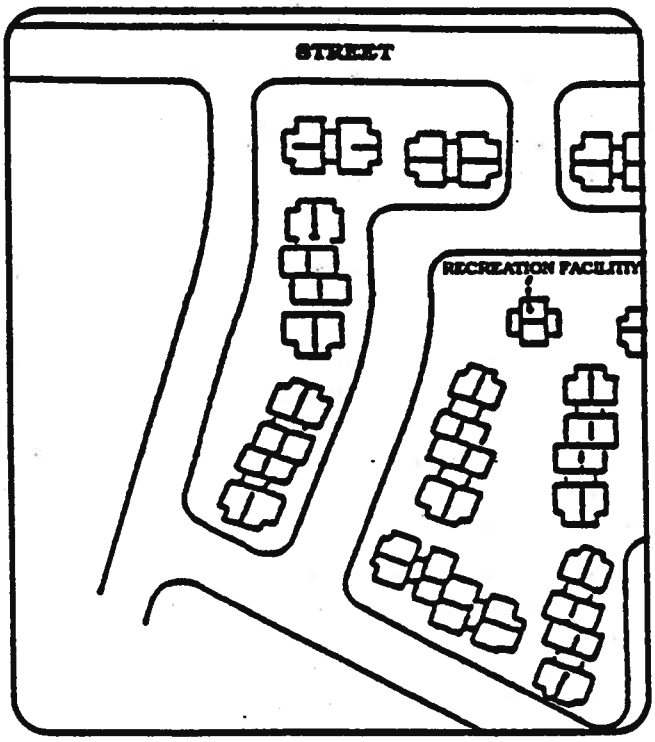
Conventional Apartment

- Rental Units Grouped withinBuildings which are Usually Two or More Stories in Height
- Each Unit Usually Takes Up One Floor.Hence Separate Units are Available on Each Level of the Building
- Single Ownership of All Units and Land
- Higher Density which Generally means Less Emphasis on Landscaping and Recreational Facilities



Air Space Condominium/ Garden Apartments

- Units are Grouped within Buildings which are Two or More Stories in Height
- Each Units taxes up only One Floor, hence Separate Units Are Available on Each Level of the Building
- Common Walls between Units
- Greater Emphasis on Landing and Providing Amenities such as Recreational Facilities
- Condominiums- Each Unit Individually Owned but All Land Beneath Units and Surrounding Area Owned in Common
- Apartments- Single Ownership of All Units and Land and Units are Rented. Usually Less Dense than Conventional Apartments



POLICY 8.6

The City should develop a package of incentives and encourage the following:

1. Additional active parkland.
2. Development of parkland.
3. Increased historic preservation.
4. Additional open space.
5. Preservation of natural habitat.
6. Preservation of Savanna Oak Clusters.
7. Additional items as desired.

POLICIES AND GUIDELINES BY RESIDENTIAL CLASSIFICATION

POLICY 8.7

Residential densities for each land use category will be based upon the range of densities which is established for each category of residential use as hereafter set forth. The lower number in each range is allowed as a matter of right. Units in excess of the lower number of each range, up to the top of each range, are permitted at the discretion of the Planning Commission/ City Council in exchange for the provision of special benefits which satisfy a City need over and above the minimum requirements of the General Plan and other City policies and regulations. Examples of special benefits which may qualify the project for densities in excess of the lower number include:

1. Additional park or ~~open~~ OPEN space set asides.

2. On-site recreation facilities.

3. The planting of additional trees or other landscaping in excess of the minimum required.

4. The provision of transit facilities or services.

The density bonus allowed for qualifying seniors and low or moderate or lower income family residents pursuant to California Code Section 65915 is to be calculated based upon the lower number of each density range and no additional bonus or other incentive is to be provided; irrespective of whether such project also qualifies for special benefits. In other words, under no circumstances shall the maximum number in each density range be exceeded.

A. Single-Family (SF 2-3.9 Dwelling Units Per Acre)

Single family detached homes at low to medium densities (maximum of two dwelling units per acre). Up to 3.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) The project should be located adjacent to an existing single family development or should be of sufficient size to ensure that a single family residential environment can be maintained within the project.

2) Internal roads should be designed to serve the project or connect with adjacent developments and access to through-traffic should be discouraged.

3) No more than 40% of a lot shall be covered.

B. Single-Family High Density/Mobile Home Park (SFHD 4-6.9 Dwelling Units Per Acre)

Single-family homes at high densities (maximum of four dwelling units per acre) are permitted. Up to 6.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. Halfplexes, mobile home parks, and attached homes may be included. The following standards shall apply:

1) Lands located near neighborhood commercial centers, along public transit routes, or adjacent to low or medium density multifamily areas would be appropriate for this type of housing.

2) With the exception of mobile home parks, a development may include a mix of housing types within the average density allowed including attached homes, zero lot-line homes and halfplexes.

3) Each home must have its own lot.

4) No more than 35% of a lot shall be covered.

5) Internal roads should be designed to serve the project or connect with adjacent developments and access to through-traffic should be discouraged.

6) A Planned Development Permit shall be required for development within this category.

C. Multi-Family Low Density (MLD 7-11.9 Dwelling Units Per Acre)

Low density multi-family developments at a maximum density of seven dwelling units per acre. Up to 11.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) Appropriate locations are along arterial roads and public transit routes, adjacent to neighborhood commercial centers, or in undeveloped areas where the project is of sufficient size to provide any needed buffers for adjacent or proposed single family developments.

2) Homes should generally be in one or two story buildings, with some three story buildings allowed on sloped sites.

3) Project entrances and exits shall be designed with access to a collector or arterial road.

4) Buildings on hillsides shall be sited with respect to existing native vegetation or landscaping to reduce their visual prominence.

5) A design review procedure shall be established to evaluate the proposed use of building and landscaping materials with respect to the natural features of a site.

6) Buildings of multiple stories shall follow the contour of the site and be "stepped" or terraced.

7) Projects shall generally consist of smaller, multiple buildings rather than a few large multifamily buildings.

D. Multi-Family Medium Density (MMD 12-17.9 Dwelling Units Per Acre)

Multi-family medium density at a maximum density of 12 dwelling units per acre are permitted. Up to 17.9 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following standards shall apply:

1) Appropriate locations include parcels along arterial roads and public transit routes, lands near commercial centers and major public institutions, and as a buffer between industrial or commercial areas and single family neighborhoods.

2) Parcels shall be of sufficient size to allow the placement of buffers along any project boundary adjacent to an existing or proposed single family development.

3) Buildings should be mainly one or two stories, with three story buildings allowed on sloped sites or to provide parking under a building.

4) Project area shall include adequate open space.

5) Project entrances and exits should be designed with direct access to a collector or arterial road.

6) Buildings on hillsides should be sited with respect to existing native vegetation or land scaping to reduce their visual prominence.

7) Design review of materials and landscaping shall be included in the application process.

8) Buildings of multiple stories should follow the contour of the site and be "stepped" or terraced.

9) Projects shall consist of clusters of smaller buildings (typically 4 to 12 dwelling units per building) and not a few large buildings.

10) Open spaces shall be dispersed throughout a project, unless it is necessary to create a single large open space to preserve an important natural habitat.

11) A landscaping and project maintenance plan shall be submitted to the City. The City will adopt an ordinance detailing the requirements of such a plan.

12) Locations for this type of housing should be

selected to reinforce the customer base of a central commercial area, and the proximity of housing to major employment centers.

13) Amenities shall be included in larger projects such as swimming pools and on-site recreation.

E. Multi-Family High Density (MHD 18-25 Dwelling Units Per Acre)

High density multi-family at a maximum density of 18 units per acre are permitted. Up to 25 dwelling units per acre may be permitted in exchange for the provision of the specified benefits as described above. The following shall apply:

1) Locations shall generally be limited to areas near a central commercial center or regional commercial center, but may also include parcels at the intersection of arterial roads, along transit routes, adjacent to public institutions, and as part of a commercial/industrial development compatible with residential uses.

2) Locations of this type of housing shall be selected to reinforce the customer base of a central commercial area, and the proximity of housing to major employment centers.

3) The internal road system shall be designed to ensure that traffic from the project does not use local streets in any adjacent or nearby single family areas.

4) At least 30 percent of the project area shall be reserved for open spaces.

5) Open spaces shall be dispersed throughout the project, unless it is necessary to create a single large open space or to preserve an important natural feature.

6) Buildings shall be predominantly two and three stories. Buildings of four or five stories may be permitted in exchange for the preservation of more open space than the minimum required and to allow for the placement of parking underneath buildings.

7) Any hillside or hilltop areas that may be included in the project shall be reserved for open spaces or one and two story buildings that can be integrated with the natural landscape.

8) Buildings on hillsides shall follow the contour of the site and shall be "stepped" or terraced.

9) The use of materials on hillside buildings will be part of a design review process.

10) A landscaping and project maintenance plan shall be submitted to the City. The City will adopt an Ordinance detailing the requirements of such a plan.

11) Recreational facilities for the use of the residents shall be included in the project design including swimming pools and other amenities in larger projects.

12) Turnouts and shelters for buses shall be incorporated into project design for projects along existing or proposed transit routes.

13) Landscaping, especially trees, shall be provided around the boundaries of the project to lessen the visual impact of the development.

POLICY 8.8

Elderly and convalescent housing facilities providing health care shall be encouraged. The Zoning Code shall guide the placement and standards for development of such facilities. Proposed facilities shall be evaluated based on the location, impacts on services and neighboring properties and not on a density basis.

POLICY 8.9

All multiple family projects will be required to obtain a planned development permit in accordance with the City's Zoning Code. Similar development approvals, such as Specific Plans, that cover the same requirements as the planned development permit shall be considered a substitute.

POLICY 8.10

Residential densities within an area plan or specific plan may vary, provided 1) that the overall dwelling unit buildout within the plan area shall not exceed that authorized by the Land Use Element of the General Plan and 2) in no event shall densities within any portion of the Plan area exceed 25 dwelling units per acre. An area plan or specific plan is defined as a large development area typically over 100 acres with an overall master development plan.

POLICY 8.11

Residential density shown on the Land Use Map shall be consistent with General Plan Policies 8.1 and 8.10 for the purpose of calculating density.

GOAL 9

To set criteria which would allow for flexibility in the siting of land uses within a planned area.

POLICY 9.1

A planned area consists of acreage containing one or more projects for which a comprehensive site plan is prepared showing the location of proposed land uses, the configuration of roads within the planned area, public land uses and open spaces, and other aspects of site design.

POLICY 9.2

For planned developments covering large areas, the project applicant may exercise some discretion in locating school, park, and other public facility sites within approximate boundaries specified by the General Plan. However, the locations should reflect:

1. The ability of project residents to walk or bicycle to parks or schools without crossing uncontrolled crossings on arterial roads.

2. The preservation of significant features of the natural landscape, such as trees, important wildlife habitats, and streams or ponds.

3. The usability of school and park sites with respect to terrain, flooding, and access to and from the site.

POLICY 9.3

To encourage the preservation of open spaces and natural features of the landscape, a project applicant may be allowed to concentrate the proposed development on a portion of the site through the clustering of buildings, smaller lot sizes, or taller buildings, provided that the overall unit buildout within the Plan area shall not exceed that authorized by the Land Use Element of the General Plan.

POLICY 9.4

In large-scale residential projects which include a neighborhood commercial center, the proposed location of the center may vary from the approximate location indicated by the General Plan if, based on the proposed street layout and design, improved traffic circulation would result, and there are no significant negative impacts.

GOAL 10

To provide for a commercial and industrial base of the City to encourage:

1. A strong tax base.
2. More jobs within the City
3. A greater variety of commercial goods and services.
4. A regional shopping center.
5. Businesses and industries compatible with Folsom's quality of life.

POLICY 10.1

The City shall have a variety of commercial uses such as:

1. Home occupations in which a resident operates a small business within the home in compliance with City regulations and standards.

2. Individual businesses outside of a commercial area, serving a commercial or industrial project or providing highway-oriented services.

3. Small commercial centers serving individual neighborhoods.

4. A central business district with offices and retail establishments serving the entire community.

5. A regional retail center serving Folsom residents and others from outside the community.

6. An historic business district serving residents and tourists.

7. Specialty commercial areas.

POLICY 10.2

The City should designate lands for a variety of industrial land uses such as:

1. Warehousing/storage facilities for supplies serving other businesses.

2. Industrial parks providing space for research and product development firms.

3. Manufacturing of electronic equipment or components; and manufacturing on a small scale of products to be sold on the premises.

POLICY 10.3

The City should encourage the development of campus-like industrial developments with low-rise buildings and landscaped or natural open spaces.

POLICY 10.4

The City should implement facilities plans to finance the provision of municipal facilities and services to the industrial areas.

POLICY 10.5

The City should preserve and enhance the tourist-oriented, historic commercial uses in the Sutter Street commercial area.

POLICY 10.6

The use or storage of flammable, volatile, or toxic substances as part of an industrial or commercial establishment shall be strictly controlled.

POLICY 10.7

Allow for the continued operation of existing arterial-oriented commercial uses along Folsom-Auburn Road and Natoma Street from Riley Street to Fargo Way.

POLICY 10.8

New commercial uses shall be subject to design and parking standards to be developed by the City for:

1. The number of location of allowed curb cuts.
2. Landscaping or parking areas.
3. The location, size, number and construction of signs.
4. The configuration and design of commercial buildings.

POLICY 10.9

Commercial centers and industrial/office parks when feasible should be served by public transit, and when appropriate public transit centers should be incorporated into the project.

POLICY 10.10

Industrial/office parks shall be designed with internal circulation and incorporate buffering and landscaped setbacks to minimize potential adverse impacts on adjacent land uses.

POLICY 10.11

Child care centers shall be encouraged in the central commercial district, commercial centers, and office parks, when appropriate.

POLICY 10.12

The City should develop an industrial development stragety that identifies the City's industrial market segment and promotional opportunities.

POLICY 10.13

Buffer zones shall be established around existing and proposed industrial areas to prevent encroachment of incompatible uses. The City shall prepare an implementation study to provide notice requirements to users in the buffer zones and identify incompatible uses.

GOAL 11

To plan for a central commercial district which includes retail, office, and service establishments, and cultural and entertainment facilities.

POLICY 11.1

The central commercial district shall be located to incorporate existing community-wide commercial services, and shall generally include properties along East Bidwell Street, generally between Coloma Street and the westside of Blue Ravine Road and south of Riley Street generally west of Glenn Drive.

POLICY 11.2

The purpose of the central commercial district shall be to provide a location for businesses with a city-wide market, to provide a focus for cultural and entertainment activities (public and private), and to provide a City financial center.

POLICY 11.3

"Strip" commercial uses, characterized by shallow commercial frontage on arterial streets and multiple curb-cuts, shall not be allowed.

POLICY 11.4

Circulation within the central commercial district shall allow for convenient automobile access and parking, public transit routes, bicycles, and safe pedestrian access among the businesses within the district.

POLICY 11.5

Each block within the district shall contain usable public open space in the form of public plazas, mini-parks, or landscaped pedestrian pathways. Maintenance programs for public and community improvements should be required for commercial areas in order to provide long term maintenance.

POLICY 11.6

In general, the height of buildings in the central commercial district shall not exceed 4 stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1. Additional height or a higher floor area ratio may be allowed in exchange for the provision of open space or other specified benefits meeting a City need that are above and beyond the minimum requirements of the General Plan policies and other applicable City policies and regulations.

POLICY 11.7

Public improvements should be provided to support a central commercial area, such as landscaping on existing commercial streets, street furniture (benches, waste receptacles, planters, etc.), and uniform street and other public signing.

POLICY 11.8

A plan for the central commercial district shall be prepared in conjunction with the redevelopment plan to address issues discussed in Goal 11 and support policies including development standards and circulation.

POLICY 11.9

All commercial development or commercial portions of multi-use development shall contain at least ten percent of land area in natural, improved or functional open space, exclusive of roadways and parking lots.

POLICY 11.10

A public transit service center shall be established within the central commercial district.

GOAL 12

To plan for regional commercial centers.

POLICY 12.1

Regional commercial centers shall be primarily highway-oriented retail commercial areas. The purpose of the centers shall be to provide locations for businesses whose customers come primarily from outside the City of Folsom, although businesses may also provide goods and services to Folsom residents.

POLICY 12.2

Regional centers should be located close and accessible to Highway 50, preferably near an interchange.

POLICY 12.3

A ring-road or limited access parkway should define the boundaries of regional centers. A parking and circulation plan should ensure that trees and landscaping are provided to break up the amount of paved surfaces and that traffic entering and exiting centers do not adversely affect any future residential developments nearby.

POLICY 12.4

Regional centers shall include landscaped public open spaces.

POLICY 12.5

Highway-commercial areas shall be designated adjacent to U.S. 50 in order to support the travelling public at major interchanges.

POLICY 12.6

Regional commercial centers should be served by public transit and developed in conjunction with public transit service centers.

POLICY 12.7

In general, the height of buildings in a regional commercial center shall not exceed four stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1.

POLICY 12.8

In general, the height of buildings in a highway commercial site shall not exceed four stories. Additional height may be allowed for the provision of open space. The combined floor area ratio of all buildings on a site shall not exceed 2:1, with a maximum lot coverage of 60 percent.

GOAL 13

To plan for small, neighborhood-oriented convenience commercial areas which provide goods and services that may meet the daily needs of nearby residents.

POLICY 13.1

Neighborhood convenience commercial areas should be located so that residents in each neighborhood may meet their daily needs for commercial goods and services.

POLICY 13.2

Neighborhood commercial areas shall in general be limited to five acres or less.

POLICY 13.3

Neighborhood centers should be designed to minimize impacts on adjacent uses through site design, access and parking, landscaping and lighting standards.

POLICY 13.4

Neighborhood commercial areas may be adjacent to future public transit stations.

POLICY 13.5

In general, the height of buildings in a neighborhood commercial center shall not exceed two stories. The combined floor area ratio of all buildings on site shall not exceed .5:1, and 30 to 40 percent lot coverage.

POLICY 13.6

Neighborhood commercial centers shall be developed under the Planned Development Process.

GOAL 14

To plan for and preserve specialty commercial areas.

POLICY 14.1

The City should preserve and enhance the historic business district centered on Sutter Street. The purpose of the district is to provide a tourist-oriented location for businesses offering goods and services consistent with the historic setting of the area. An historic district plan for the area should be prepared by the City containing:

1. Design guidelines for the restoration and/or modification of buildings or sites identified as having historic or cultural significance and for the design and placement of buildings within or adjacent to identified historic buildings or sites.

2. The City should adopt design guidelines to ensure that signage is consistent and harmonious with the theme of the historic business district.

POLICY 14.2

The City should provide for offices, retail, and restaurant uses associated with a hospital when appropriate.

POLICY 14.3

Additional specialty commercial centers for specified commercial uses containing a grouping of businesses offering one or several related goods or services may be considered according to the following standards:

1. The commercial center must serve a purpose not fulfilled by the central commercial district, the regional commercial center, or other designated commercial areas.

2. A plan for the area proposed for commercial uses must be submitted by the landowner(s) clearly stating the purpose of the commercial area; the location of proposed commercial uses, public improvements, landscaping, parking, and open spaces; and a proposed circulation plan.

3. New specialty commercial areas will not be designated on the Folsom General Plan Land Use Map in advance of a specific request for such a designation.

4. The commercial center may not be a "strip" commercial project characterized by one or more long, shallow lots, multiple curb cuts, and a variety of unrelated businesses.

5. Access to and from the commercial center is via an arterial street.

6. The proposed commercial area shall be located and designed to minimize negative traffic, noise, and visual impacts on nearby residential areas.

GOAL 15

To plan for community commercial areas providing goods and services for large neighborhood areas.

POLICY 15.1

Community commercial centers shall in general range in size from five to ten acres.

POLICY 15.2

Community commercial centers should be designed to minimize impacts on adjacent uses through site design, access and parking, landscaping and lighting standards.

POLICY 15.3

Community commercial centers should be developed adjacent to future public transit stations.

POLICY 15.4

Community commercial centers should be developed adjacent to higher density residential, offices, and public uses.

POLICY 15.5

Community commercial centers shall be developed under the Planned Development Process.

POLICY 15.6

In general, the height of buildings on a community commercial center shall not exceed two stories. The combined floor area ratio of all buidings shall not exceed .5:1 and 30 to 40 percent lot coverage.

GOAL 16

To allow for public and quasi-public land uses meeting the governmental service, education, cultural, recreational, and religious needs of Folsom residents.

POLICY 16.1

Fire and Police department substations shall be planned and located so that a maximum response time goal as set by the City Council can be maintained.

POLICY 16.2

Public facilities, such as utility substations, water storage or treatment plants, pumping stations, and sewer treatment plants, should be located, designed, and maintained so that noise, light, glare, or odors associated with these facilities will not negatively impact nearby land uses. Building materials and landscaping shall be used to make these land uses less visually obtrusive from neighboring properties.

POLICY 16.3

The City shall work closely with the school district(s) serving Folsom to ensure that school sites are dedicated or reserved for purchase by the district(s) so that:

1. Each residential neighborhood will contain or have access to the appropriate elementary school according to school district standards.

2. Children do not have to cross an uncontrolled intersection on an arterial road to reach an elementary school.

3. The school can be reached on foot by most of the neighborhood's residents (for elementary schools only).

4. A joint park/school site can be developed wherever possible.

POLICY 16.4

The acreage recommended for new schools should be set according to school district standards.

POLICY 16.5

If a school will serve more than one development, and the subject development will not contain the school site, the applicant must clearly show that a school site has been or will be dedicated elsewhere or that a school already exists with capacity to serve the project and is accessible to the project according to the standards in Policy 16-3.

POLICY 16.6

In determining the number and location of new school sites, standards established by the district shall be used. These standards are based on the assumed average number of students per household for each grade level (varies for different types of housing) and the average size of an elementary school, junior high school, and high school.

POLICY 16.7

The City shall develop standards for the location of proposed private schools. Standards will address:

1. Required off-street parking and street frontage for the dropping off and picking up of students.

2. Access to the proposed school via City streets.

3. Noise, according to the Noise Element of the Folsom General Plan.

4. Size of the parcel on which a proposed school is to be located in relation to the pupil capacity of the school.

5. Required landscaping and other visual/noise barriers if the proposed school is to be located in a residential area.

POLICY16.8

Utility company rights-of-way may be considered for their use as public or private open space, trails, parkland, or other compatible recreational uses.

POLICY 16.9

Religious institutions may be allowed in residential neighborhoods if sufficient off-street parking is provided and the design of the facility is consistent with the residential character of the neighborhood, and includes:

1. Access to the property via an arterial or collector street.

2. The screening of parking with landscaping and/or materials that will blend with surrounding natural and constructed features of the neighborhood.

3. The shielding of adjacent residential properties from direct light and glare from the property.

POLICY 16.10

Clubs and fraternal organizations shall generally be limited to commercial areas. The use of a single family home in a residential area for a club or fraternal organization may be permitted subject to the following standards:

1. Noise levels shall meet the requirements of the Noise Element of the Folsom General Plan.

2. One small exterior sign will be allowed, subject to City standards.

3. No external modification to the house will be permitted except to provide handicapped access.

4. Off-street parking will be required, according to City parking standards for clubs and fraternal organizations.

21.4 RELATED GOALS AND POLICIES

RELATED HOUSING GOALS AND POLICIES

- GOAL 18
  - POLICY 18.1
  - POLICY 18.3
- GOAL 21
- GOAL 22
  - POLICY 22.1
  - POLICY 22.2

RELATED OPEN SPACE AND CONSERVATION GOALS

- GOAL 25
  - POLICY 25.2
  - POLICY 25.3
  - POLICY 25.5
  - POLICY 25.6
  - POLICY 25.7
- GOAL 27
  - POLICY 27.2
  - POLICY 27.4
- GOAL 28
  - POLICY 28.4
  - POLICY 28.5
- GOAL 37
  - POLICY 37.1
- GOAL 38
  - POLICY 38.1
  - POLICY 38.2
- GOAL 40
  - POLICY 40.1
  - POLICY 40.4

21.5 IMPLEMENTATION

SPECIFIC PLANS AND MASTER PLANS FOR LARGE DEVELOPMENT AREAS

Specific plans meeting the requirements of State Planning Law and implemented by local guidelines. Large properties generally over 100 acres will utilize Specific Plans as an implementation tool.

Procedures, requirements and contents of specific plans shall be incorporated into the Folsom Municipal Code.

The specific plans must include the following:

1. The proposed land uses for all areas covered by the plan.

2. The types and configurations of building to be included in all developments within the plan area.

3. The location of and types of streets.

4. Public facilities and infrastructure required to serve developments within the specific plan areas.

5. A parking and circulation plan for off-street parking areas showing the location of parking lots, the approximate number of spaces, and the approximate location of entrances and exits.

6. Proposed conservation, open space and/or recreation areas, if any.

7. In the Historic Folsom area, an historic preservation program and building design guidelines to ensure compatibility of new construction with the existing land uses.

8. Any other programs, guidelines, or standards that are appropriate for the area covered by the plan.

IMPLEMENTS: GOALS 2, 3, 11, 12 AND 14

- Funding:General Fund and Plan Fees (from land owners within the specific plan areas)

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: March 1990 (Historic Folsom)
  June 1990 (Central Commercial District)
  September 1990 (Regional Commercial Center)

ESTIMATED COST

$40,000-$100,000 per plan, depending on area covered and level of detailed required.

GRADING ORDINANCE - SUBSTANTIAL GRADING

The existing City Grading Ordinance will be amended to prohibit the substantial grading of land prior to the approval of a tentative map, planned development, or use permit. Performance bond requirements will be specified in greater detail and required time periods for commencement of construction will be added. Substantial grading will be defined in the amended Ordinance and should be based on the volume and area of land to be graded, any changes in topography, and any removal of existing trees or vegetation.

IMPLEMENTS: GOAL 2 - POLICY 2.4

- Folsom Municipal Code: Title 14

- Responsible and Implementing Agencies

  Public Works Department
  Community Development Department

- Target Dates: Start: January 1989
  Complete: June 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
10/$450	$25	-	$475	General Fund

INCENTIVE PROGRAMS

Include in the Subdivision Ordinance incentives to property owners (density bonuses, height bonuses etc.) to facilitate consolidation of identified habitat areas, open space and park lands.

IMPLEMENTS: GOAL 27 - POLICY 27.4

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 16
- Resource Groups/Agencies/ Organizations

  Developers
  Realtors
  Banks

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: June 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

REVISION OF ZONES AND ZONING STANDARDS

Revise the Zoning Code and Zoning Map to reflect the new Land Use Element of the General Plan. Where possible, existing zoning categories and boundaries will be retained if they correspond with the General Plan designations to which the zoning categories are applied. New Zoning Code Standards will be developed to reflect the types of allowed uses for each district and the General Plan policies for height, density, and other development standards.

IMPLEMENTS: GOALS 8, 10, 11, 12, 13, 14, 15 AND 16

- Responsible and Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
1,000/$45,000	$4,500	-	$49,500	General Fund

SPECIALTY COMMERCIAL DISTRICT

Specialty commercial zones will be included in the new Zoning Code. Initially, three specialty commercial areas will be zoned: the Sutter Street Historic business district and the Folsom Auto Plaza, and the business professional facilities district. Zoning standards will be based on the following considerations:

1. Design guidelines for the restoration of and/ or modifications to historic buildings.
2. Guidelines for the design of new buildings in keeping with the historic character and architectural styles of the district.
3. The height and bulk of existing buildings in the district.

For other specialty commercial areas:

1. The specialty commercial area will be limited to one or more businesses or institutions providing related goods and services (such as the Folsom Auto Plaza). Supporting commercial services may also be included (such as child care establishment for employees in the district or a restaurant).
2. A specialty commercial area may be designated only in response to a specific proposal by a landowner or his/her representative.
3. The commercial center may not be a strip commercial area characterized by long, shallow lots, multiple curb-cuts, and a number of unrelated businesses.

4. The proposed commercial area shall be located and designed to minimize negative traffic, noise, and visual impacts on nearby residential areas.

The Zoning Code will also contain procedures for designating new specialty commercial areas. A development plan will be required which states the purpose of the district, the location and type of proposed commercial uses, proposed public improvements, landscaping, parking, internal circulation, access to public rights-of-way, and proposed open spaces.

IMPLEMENTS: GOAL 14

- Funding: General Fund and Permit Fees (for project review)
- Folsom Municipal Code: Title 17
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990
- Estimated Cost

  Part of Zoning Code revision cost.

COMMERCIAL DISTRICTS

New commercial uses or conversions of existing commercial buildings will be allowed in arterial-oriented commercial districts. These commercial areas will not be allowed to expand beyond their current boundaries, however. New commercial uses will be subject to design and parking standards to be included in the Zoning Code for:

1. The number and location of allowed curb-cuts.
2. Landscaping of parking areas.
3. The location, size, number and construction of signs.
4. The configuration and exterior design of the buildings themselves.

IMPLEMENTS: GOAL 15

- Funding: General Fund and Permit Fees (for project review)
- Folsom Municipal Code: Title 17
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990
- Estimated Cost

  Part of Zoning Code revision cost.

USE PERMITS

The revised Zoning Code will contain standards for the conditional permit approval of private schools, religious institutions, and fraternal organizations and social clubs in residentially zoned areas.

IMPLEMENTS: GOAL 16 - POLICIES 16.7; 16.9; AND 16.10

- Funding: General Fund and Permit Fees (for project review)
- Folsom Municipal Code: Title 17
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990
- Estimated Cost

  Part of Zoning Code revision cost.

PLAN REVIEW PROCEDURES

Development Plan Review Procedures:

Expand the Development Plan Review procedures of the Community Development Department and Building Inspection Department to

address physical facilities which are necessary for the handling of hazardous materials.

IMPLEMENTS: GOAL 41 - POLICY 41.10

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 13 and Title 9
- Resource Groups/Agencies/ Organizations

  State Department of Health Services
  Sacramento County Health Department
  State Air Resources Board

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agencies

  Building Inspection Department
  Community Development Department

- Target Dates: Start: March 1989
  Complete: March 1990

ESTIMATED COSTS PER YEAR

Person Hours/Dollars	Printing	Direct	Total	Funding
40/$1,800	$200	$200	$2,200	Development Application Building Permit Fees

PROJECT APPLICATION REQUIREMENTS

Modify the Code to require a qualified biologist conduct a vegetative/wildlife survey, analysis, and mitigation measures if applicable to be submitted with development applications for projects within or adjacent to sensitive habitat areas and potential habitats for sensitive wildlife and floral species.

IMPLEMENTS: GOAL 25 - POLICY 25.4

- Folsom Municipal Code: Title 17
- Resource Groups/Agencies/ Organizations

  State Department of Fish and Game
  U.S. Department of Fish and Wildlife
  U.S. Army Corps of Engineers

- Responsible Agencies

  Community Development Department
  City Council

- Implementing Agency

  Community Development Department

- Target Dates: Start: March 1989
  Complete: October 1990

ESTIMATED COSTS PER YEAR

Person Hours/Dollars	Printing	Direct	Total	Funding
40/$1,800	$200	$200	$2,200	Application Fees

PLANNED DEVELOPMENT PROCESS

Amend the current planned development provisions of the Zoning Code to reflect the policies of the revised General Plan. The overriding purpose of the planned development process is to encourage the comprehensive planning of a large area under one ownership. The planned development process will be used for individual developments, whereas the specific plan process will be used for multiple projects on sites that have more than one owner. The planned development process will allow flexibility in the location of residences, schools and other public facilities, and neighborhood commercial areas to be included in a development. Residential densities may be distributed within the planned development area differently than would otherwise be permitted for each individual property.

The planned development provisions in the Zoning Code will contain standards to address the criteria in Policy 9.2.

IMPLEMENTS: GOAL 9

- Folsom Municipal Code: Title 17
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COSTS

Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	Included in Zoning Code Revision		$1,800	General Fund

PRE-ZONING PROCEDURES

The City shall adopt procedures governing the pre-zoning of areas within Folsom's Sphere of Influence to be annexed to the City. These procedures shall be included in the revised Zoning Code. Criteria for pre-zoning shall consider existing land uses, if any, on the site to be annexed, existing County zoning, the land uses, if any, on sites adjacent to or nearby the area to be annexed, existing circulation patterns, and environmental conditions on and near the site to be annexed.

IMPLEMENTS: GOAL 7 - POLICY 7.2

- Folsom Municipal Code: Title 17
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
20/$900	Included in Zoning Code Revision		$900 Permit Fees (for project review)	General Fund

INCENTIVE PROGRAMS

Include in the Zoning Code incentives to property owners (density bonuses, height bonuses etc.) to facilitate consolidation of identified habitat areas, open space and park lands.

IMPLEMENTS: GOAL 27 - POLICY 27.4;- GOAL 8 - POLICIES 8.6 AND 8.7

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 16
- Resource Groups/Agencies/ Organizations
- Conservancy
- State Office of Planning and Research
- Responsible Agencies
- Community Development Department
- Public Works Department
- Implementing Agency
- Community Development Department
- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

UPDATE DEVELOPMENT STANDARDS

The City of Folsom Development Standards will be revised to include greater detail in the following areas:

1. Street standards, including roadway width, right-of-way width, bike lanes, moving and parking lane dimensions, sidewalks, median strips and turn lanes, and planting strips.

2. The bulk and height of buildings in relation to surrounding uses and topography, vehicular entrances and exits on commercial and industrial properties, and the incorporation of natural landscaping features and vegetation into new developments.

3. Location and design criteria for public facilities: utility substations, water or sewage storage, water or sewer treatment plants, and similar facilities.

4. Screening of any mechanical equipment or processes within buildings, behind landscaping, or behind walls or fences of approved design.

5. Establishment of minimum setbacks or lot line distances for any mechanical equipment or processes that may impact the adjoining properties visually through objectionable odors, or through noise.

6. Use of filters, building design, or other processes or materials to reduce excessive noise or odors from the facility.

7. Location and design of exits and entrances to parking lots on non-residential developments to minimize the use of residential streets in adjoining neighborhoods.

8. Screening of refuse facilities behind walls, fences, or landscaping or within solid enclosures of an approved design.

9. Lighting and landscaping districts or similar maintenance programs shall be provided where feasible in order to provide long term maintenance.

IMPLEMENTS: GOALS 2, 3, 8, 11, 12, 13, 14, 15, 16 AND 17

- Funding: General Fund
- Responsible Agency

  Community Development Department
  Public Works Department
- Implementing Agency

  Community Development Department
- Target Dates: Start: June 1989
  Complete: January 1990

INTER-AGENCY REVIEW AND COMMENT

The City will submit a standing written request to receive timely copies of any draft plans, policies, regulatory documents, development applications, or other similar documents which could affect land use and circulation in the City of Folsom. The City will comment on such documents in an appropriate manner, including attendance and testimony at public meetings or hearings if necessary.

IMPLEMENTS: GOAL 5 - POLICY 5.2

- Funding: General Fund
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Current and On-Going
- Estimated Cost

  Depends on the number and type of plans and regulatory documents to respond to, several hours of staff time per month.

SACRAMENTO AREA COUNCIL OF GOVERNMENTS

The City will continue to contribute financially to the Sacramento Area Council of Governments (SACOG) and provide a representative from the City to serve on the Council and on the Sacramento County Local Agency Formation Commission (LAFCO). According to the Joint Powers Authority and the Folsom/Isleton/Galt Agreements, such appointments to LAFCO will be made.

IMPLEMENTS: GOAL 5 - POLICY 5.3

- Funding: General Fund
- Target Dates: Current and On-Going

COORDINATION WITH SCHOOL DISTRICT

The City will review residential subdivision proposals for their impact on the school system. The Folsom-Cordova School District will be consulted to determine the location and acreage needed for new school sites. School district standards will be used in determining school space needs. To obtain subdivision approval, an applicant will have to provide evidence that existing schools can accommodate the expected number of students from the proposed development or that a new school has been planned for to serve the residents of that subdivision.

Locational criteria in Policy 16.4 shall apply to the determination of an appropriate school site.

IMPLEMENTS: GOAL 16 - POLICIES 16.5; 16.6 AND 16.7

- Funding: General Fund
- Folsom Municipal Code: Title 16
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Part of application review process.
- Estimated Cost

  Staff time to be recovered from permit fees for application review.

REGIONAL CONTROL STRATEGIES

Continue to participate through the political process to work for a regional approach to air pollution control.

1. Continue to participate in SACOG and support those programs which will provide methods of air pollution control on a regional basis.

2. Continue to cooperate with the Sacramento County Air Pollution Control District, State Air Resources Board, CALTRANS and U.S. Environmental Protection Agency on development project review and incorporate recommended mitigation measures into project design and conditions of approval.

3. Support the adoption of more stringent vehicle emission standards and enhancements to the Smog Check program through active participation in hearings held by the State Legislature, the California Air Resources Board and the Bureau of Automotive Repair.

ENVIRONMENTAL REVIEW PROCESS

The City will continue to use the environmental review process and EIRs to identify the environmental and economic impacts of developments, including effects on the natural environment, traffic, housing needs, public facilities, and other City resources and to identify and recommend appropriate mitigation measures.

IMPLEMENTS: GOALS 1, 2 AND 3

- Funding: General Fund and Permit Fees
- Responsible and Implementing Agency

  Community Development Department
- Target Dates: Current and On-Going
- Estimated Cost

  Varies depending on the type and complexity of the EIR

USE OF UTILITY EASEMENTS

The City will evaluate each proposal for use of utility company rights-of-way for open space, park, or recreational areas based on the conditions related to each proposal.

IMPLEMENTS: GOAL 16 - POLICY 16.8

- Funding: General Fund
- Responsible and Implementing Agency

Community Development Department

- Target Dates: Current and On-Going
- Estimated Cost

  Cost included in Component #1: Parks and Recreation Element, Master Plan and Ordinance.

SPHERE OF INFLUENCE STUDY

The City will prepare a study for the expansion of Folsom's Sphere of Influence south of Highway 50 and east of Hazel Boulevard. The study will recommend new Sphere of Influence boundaries, Folsom's ultimate service area over the next 15 to 30 years, and guidelines for the annexation and servicing of lands currently outside the City Limits. The study should address general municipal service needs for the area to be included in the Sphere of Influence, existing and potential land uses, and any relationships to developed areas adjacent to or near the new Sphere of Influence boundaries.

IMPLEMENTS: GOAL 6

- Funding: General Fund and Contributions from Affected Landowners
- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: January 1990
- Estimated Cost

  Varies depending on scope and area of study.

CAPITAL IMPROVEMENT PROGRAM

The City will prepare a five-year capital improvement program for the construction, extension, and improvement of arterial and collector streets. The capital improvement program will include a description of the streets to be constructed, extended, widened, or improved over a five year period, an estimated cost of the work described, sources of funding to pay for the work, and an approximate time frame for completing the work. Any City funds or fees collected from developers for street improvements shall be clearly earmarked for this purpose and expenditures accounted for separately from other source of funding. The capital improvement program shall be updated every two years after its initial adoption by the City Council.

IMPLEMENTS: GOAL 17 - POLICY 17.8

- Responsible and Implementing Agencies

  Public Works Department
  Community Development Department

- Target Dates: Start: January 1989
  Complete: June 1989

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
150/$6,750	$250		$7,000	General Fund

REDEVELOPMENT PLAN

The City will revise the Folsom Redevelopment Plan to reflect policy and program changes in the General Plan. Specifically, the Redevelopment Plan will be revised to reflect changes in land uses and circulation, policies for the historic business district, and the development of a central commercial district.

IMPLEMENTS: GOAL 2 - POLICY 2.2

- Responsible Agencies

  Redevelopment Agency
  Community Development Department
  Public Works Department

- Implementing Agencies

  Redevelopment Agency
  Community Development Department

- Target Dates: Start: July 1989
  Complete: December 1989

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$5,000	$250	$300	$5,550	General Fund Redevelopment Tax Increment Funds

FOLSOM TOWNSHIP PLAN

The City will prepare and adopt a Plan for the original Folsom Township area, that is intended to:

1. In order to further the quality of life goals and provide a method to preserve the unique nature of the original Folsom Township Area.

2. Provide appropriate levels of devleopment that will allow for preservation of the original Township Area.

3. Provide for coordination between Historic District Plan, Redevleopment Plan and a transition to the newly developing areas of the City.

4. Provide for a transportation and circulation system appropriate to the original Township Area.

The requirement may be satisfied by an expansion of the Historic District Plan currently being prepared so long as that plan carries out the above-listed goals.

IMPLEMENTS: GOAL 1 - POLICIES 1.6; 1.7 AND 1.8 -GOAL 2 - POLICIES 2.1 AND 2.2- GOAL 26 - POLICIES 26.1 AND 26.2

- Funding: General Fund and Developer Fees

- Folsom Municipal Code: Title 17

- Responsible Agencies

  Community Development Department
  Public Works Department
  Redevelopment Agency

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1990
  Complete: July 1990

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
200/$9,000	$250	$300	$9,550	General Fund and Developer Fees



22.0 TRANSPORTATION AND CIRCULATION ELEMENT

Prepared For The City of Folsom
Community Development Department

By
Connerly and Associates

October 31, 1988



TRANSPORTATION & CIRCULATION

TABLE OF CONTENTS

PAGE

22.1 INTRODUCTION 2

22.1.1 State Policy and Authorization 2
22.1.2 Related State Regulations 2
22.1.3 Relationship to the General Plan 2

22.2 SETTING/ASSUMPTIONS/ISSUES. 2

22.2.1 Setting .....
22.2.2 Assumptions .....
22.2.3 Issues .....

22.3 TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES 9

22.4 RELATED GOALS AND POLICIES 12

22.5 IMPLEMENTATION 13

TRANSPORTATION & CIRCULATION

22.1 INTRODUCTION

The Transportation and Circulation Element of the General Plan establishes the policies and programs for the movement of people and goods through the City of Folsom. This Element addresses the City's streets and highway system; the private, commercial, and public transit system; future public transit via fixed rail; transportation related facilities; and bicycle and pedestrian movement.

Circulation is more than the movement of vehicles on City streets. It is the very essence of how social and economic interactions take place in a community. The Transportation and Circulation Element must, therefore, address all related aspects of the system of movement of goods and people. These related aspects include the parking of vehicles, transportation terminals and other facilities, bus stops, commercial delivery policies, sidewalks, bicycle trails and more.

The Transportation and Circulation Element is closely related to the Land Use Element in that the type, density, and distribution of land uses determine the network and needed roads. Conversely, constraints on transportation improvements will affect the City's ability to accommodate the development envisioned under the General Plan.

22.1.1 STATE POLICY AND AUTHORIZATION

Section 65302(b) of the California Government Code requires a Circulation Element to consist of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the Plan. This statutory requirement clearly requires that the Circulation Element treat all related aspects of circulation (not just roads), and that a balance be achieved between proposed land uses which generate traffic demand and the facilities required to adequately serve that traffic.

22.1.2 RELATED STATE REGULATIONS

BRIDGE AND MAJOR THOROUGHFARE FEES (SECTION 66484 OF THE GOVERNMENT CODE)

Local jurisdictions may assess fees as a condition of subdivision approval to pay for bridges or major thoroughfares provided a Circulation Element has been adopted which addresses the facility for which the fee is being charged.

22.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Transportation and Circulation Element most closely affects, and in turn is most closely affected by the Land Use Element. Land use and circulation are inseparable, especially parking and roadway relationships to land uses in our private vehicle-dominated society. This Element is also closely related to the Public Facilities Element, which establishes standards and funding mechanisms for roads and other facilities. Bicycle circulation policies and programs in this Element also relate to the Parks and Recreation Element as most bicycling in Folsom is currently for recreation-oriented purposes.

22.2 SETTING/ASSUMPTIONS/ISSUES

22.2.1 SETTING

The setting for traffic and circulation comes largely from the Folsom Area Traffic Study, completed in December 1987, and supplemented in July 1988. Additional information on environmental conditions affecting circulation can be found in Chapters 2 and 5 of the MEA and Environmental Element of the General Plan. The setting for transportation and circulation is summarized below.

STREETS

Major sources and destinations of traffic in Folsom include:

1. Commuters along Highway 50, a four lane freeway at Folsom. The average daily traffic volume along Highway 50 between Folsom

Boulevard and Scott Road is 29,500. During the summer months, this volume increases to 33,500 due to visitors at Folsom Lake and the City's Historic Business District.

2. Folsom Prison, which employs over 2,000 staff members.

3. El Dorado County commuters using Green Valley Road (which becomes East Natoma Street at the Folsom City Limits). Traffic along this road will increase as approved projects in El Dorado Hills are completed.

4. Placer County and East Sacramento County commuters using Folsom-Auburn Road, Madison Avenue, Greenback Lane and Santa Juanita Road.

5. Visitors to Folsom's Historic Business District and Folsom Lake, many of whom use Folsom Boulevard, cross Rainbow Bridge, and turn onto Folsom-Auburn Road. During the summer months, weekend visitor traffic can be especially heavy.

Folsom's existing system of highways, major thoroughfares (arterial roads) streets consists of the following:

1.U.S. Highway 50
2.Folsom Boulevard
3.Natoma Street-East Natoma Street
4.East Bidwell Street
5.Folsom-Auburn Road
6.Greenback Lane
7.Oak Avenue Parkway (Under Construction)
8.Blue Ravine Road
9.Sibley Street/Prairie City Road
10. Riley Street
11. American River Canyon Drive
12. Madison Avenue
13.Folsom Dam Road

The Land Use Map shows the location of these existing roads and their designation as highways and arterial roads. In addition to these existing roads, a number of new arterial roads would have to be constructed in conjunction with new development. The Land Use Map also shows the general location and proposed designation of these new roads. They include:

1. Completion of the Oak Avenue Parkway.

2. Construction of a new arterial road parallel to U.S. Highway 50.

3. Construction of a new arterial road roughly parallel to the County Line.

4. Extension of Glenn Drive to Folsom Boulevard.

5. Construction of a network of collector streets to serve new developments in East Folsom, the South Area Assessment District, and American River Canyon.

6. Extension of Riley Street southward from Blue Ravine to Oak Avenue Parkway, extended.

The Transportation Study reviewed traffic patterns at 45 intersections in Folsom, as well as probable traffic patterns in developing areas of the City. To accommodate the build out of land uses allowed under the Land Use Element, the following road widths (see Figure 22-1) would be needed based on the adopted General Plan:

Six Lanes
- U.S. Highway 50
- Folsom Boulevard
- Blue Ravine Road
- East Natoma Street
- American Aggregates Extension (arterial parallel to U.S. Highway 50)
- Russell Ranch Road (arterial parallel to County Line)
- Oak Avenue Parkway (except as noted below)
- Folsom-Auburn Road
- Greenback Lane
- Prairie City Road
- East Bidwell Street - Blue Ravine Road to Highway 50

Four Lanes
- Riley Street
- Glenn Street Extension
- Sibley Street - Glenn Street extension to Blue Ravine Road
- East Bidwell Street (To Blue Ravine Ro
- Oak Avenue Parkway (Blue Ravine to Natoma Connector)

- Connector Road Between Russell Ranch Road and Blue Ravine/East Natoma Intersection
- Sibley Street - Bidwell Street to Glenn Street Extension
- Natoma Street - From City Hall West
- Natoma Connector

Collector Street

- Oak Avenue Parkway - Natoma Street to Natoma Connector (Willow Creek Drive): This street extension is feasible with two lanes, however, a feasibility study will be necessary to determine if four lanes can be constructed.

At buildout of the adopted General Plan, the City can expect 423,500 daily trips, 43,900 trips during the A.M. peak and 51,500 during the P.M. peak. Table 22-1 shows projected traffic volume/capacity ratios and levels of service for the 45 intersections analyzed in the Transportation Study.

TABLE 22-1

GENERAL PLAN LAND USE SCENARIO LEVEL OF SERVICE ANALYSIS
Folsom Area Transportation Study

	Preferred Alternative			
	AM Peak		PM Peak	
Intersection	V/c	LOS	V/C	LOS
1 Blue Ravine/Folsom Blvd	0.74	C	1.06	F
2 Blue Ravine/Praire City	0.74	C	0.75	C
3 Blue Ravine/East Bidwell	0.69	B	0.87	D
4 Blue Ravine/East Natoma	0.66	B	0.74	C
5 Folsom Blvd/US 50 WB	0.71	C	0.57	A
6 Folsom Blvd/US 50 EB	0.70	C	0.65	B
7 Praire City/US 50 WB	0.35	A	0.38	A
8 Praire City/US 50 EB	0.60	B	0.72	C
9 East Bidwell/US 50 WB	0.20	A	0.36	A
10 East Bidwell/US 50 EB	0.34	D	1.11	F
11 East Bidwell/Clarksville	0.59	A	0.79	C
12 Folsom Blvd/Bidwell	0.71	C	0.78	C
13 Folsom Blvd/Natoma	0.76	C	0.68	B
14 Riley/Leidesdorff	0.38	A	0.81	D
15 Riley/Natoma	0.76	C	0.72	C
16 Riley/Bidwell	0.55	A	0.68	B
17 Natoma/Colma	0.52	A	0.64	B
18 Natoma/Prison Road	0.56	A	0.33	A
19 East Natoma/Folsom Dam	0.55	A	0.65	B
20 Folsom/Aurburn/Greenback	1.04	F	1.16	F
21 Folsom Aurburn/Oak Ave	1.25	F	1.00	F
22 Folsom Auburn/Folsom Dam	0.75	C	0.73	C
23 Am River Canyon/Greenback	0.66	B	0.74	C
24 Am River Canyon/Orangevale	0.18	A	0.33	A
25 Am River Canyon/Oak Ave	0.48	A	0.46	C
26 Madison/Greenback/Lake Natoma	0.65	B	0.74	C
27 Oak Ave/East Natoma	1.27	F	1.45	F
28 Oak Ave/Blue Ravine	0.96	E	1.17	F
29 Oak Ave/East Bidwell	1.17	F	1.36	F
30 Praire City/Am Aggregate	0.93	E	0.79	C
31 Oak Ave/Am Aggregate	0.72	C	0.92	E
32 Oak Ave/US 50	0.26	A	0.24	A
33 Russell Ranch/US 50	0.20	A	0.30	A
34 Russell Ranch/Clarksville	0.52	A	0.76	C
35 Folsom Blvd./Amer Agg Exten	0.99	E	0.98	E
36 Riley/Blue Ravine	0.34	A	0.40	A
37 Oak Parkway/Riely	0.72	C	0.97	E
38 Folsom Blvd/New Parallel	0.94	E	0.99	E
39 Sibley/New Parallel	1.03	F	1.01	F
40 Riley/New Parallel	0.25	A	0.23	A
41 Bidwell/New Parallel	0.40	A	0.42	A
42 Oak Parkway/Natoma Connector	1.20	F	1.41	F
43 Bridge Approach/Leidesdorff	0.58	A	0.38	D
44 Russell Ranch Exten/Green Val	0.26	A	0.31	A
45 Russell Ranch Exten/R Ranch	0.23	A	0.34	A

Source: Wilbur Smith Associates; July 1988

As reflected by Policy 17.17, the City has "maintained" a policy of achieving a Level of Service C or better at all intersections. As shown on Table 22-2, the following intersections would not meet this Level of Service objective at buildout of the adopted General Plan.

TABLE 22-2

STREET	LEVEL OF SERVICE	PEAK PERIOD
Blue Ravine - Folsom Boulevard	F	PM Peak
Blue Ravine - East Bidwell	D	PM Peak
East Bidwell - U.S. 50 Eastbound	D-F	AM and PM Peaks
Riley - Leidesdorff	D	PM Peak
Folsom-Auburn - Greenback	F	AM and PM Peaks
Folsom-Auburn - Oak Avenue	F	AM and PM Peaks
Oak Avenue - East Natoma	F	AM and PM Peaks
Oak Avenue - Blue Ravine	E-F	AM and PM Peaks
Oak Avenue - East Bidwell	F	AM and PM Peaks
Oak Avenue - Natoma Connector	F	AM and PM Peaks
Oak Avenue - Riley Road	E	PM Peak
Oak Avenue - American Aggregate	E	PM Peak
New Parallel Road - Folsom Boulevard	E	AM and PM Peaks
New Parallel Road - Sibley Road	F	AM and PM Peaks
Folsom Boulevard - New Bridge Approach	D	PM Peak
Folsom Boulevard - American Aggregate Extension	E	AM and PM Peaks
Prairie City Road - American Aggregate Extension	E	AM Peak

BRIDGES

There is presently one two-lane bridge (Rainbow Bridge) across the American River in Folsom, and an additional part time crossing along Folsom Dam Road. The Traffic Study recommended a need for two new six-lane bridges, one at Oak Avenue Parkway and one connecting Folsom Boulevard with Folsom-Auburn Road, to serve east/west and north/west local and regional traffic respectively. The American River Crossings Alternative Study dated January 1988 provides more information and analysis of other alternative crossings which were studied.

INTERCHANGES

There are presently three interchanges in Folsom along U.S. Highway 50: at Folsom Boulevard, at Prairie City Road, and at East Bidwell Street (Scott Road). To accommodate the expected traffic increase at build-out, the interchanges Folsom Boulevard, at Prairie City Road and East Bidwell Street would have to be upgraded. Two additional interchanges would have to be constructed: one at Oak Avenue Parkway and one at the Sacramento-El Dorado County Line. The Land Use Map indicates the locations of these proposed interchanges.

BICYCLE PATHS

Folsom contains a portion of the American River bikeway, which begins at Discovery Park in Sacramento and ends at Folsom Lake. There are opportunities for the creation of additional bicycle paths or routes along Folsom's other waterways and scenic arterial roads (such as Folsom Boulevard the proposed Humbug/Willow Creek Parkway and Blue Ravine Road). Preparation of a Bicycle Master Plan is currently underway in connection with the preparation of the Parks and Recreation Element of the General Plan. The Bicycle Master Plan will provide facilities necessary to serve those who commute by bicycle to places of employment as well as those who seek recreational enjoyment.

PEDESTRIAN CIRCULATION

There are a number of recreational pedestrian paths along the American River and Folsom

Lake. There is presently no pedestrian pathway system, although an opportunity exists to create such a system in conjunction with designation open spaces. Historic Folsom is predominantly a pedestrian-oriented commercial district. The commercial core along East Bidwell Street is not laid out to encourage pedestrian circulation among the various retail centers.

PUBLIC TRANSIT

Folsom is currently served by a City operated fixed-route bus system, Folsom Stage Line. The system provides scheduled service, six days a week, throughout the City. Connections to Regional Transit are made at the intersection of Main Avenue and Madison Avenue in Orangevale. The City also operates a daily commuter bus to downtown Sacramento. A second bus is planned to be added in the near future. Daily bus service to Sacramento and South Lake Tahoe is also provided by Greyhound Bus Line.

RAIL TRANSIT

Folsom is served by a spur of the Southern Pacific Railroad. The line meanders through the southern portion of the City, with a side line that ends in Folsom's Historic Commercial District. The rail line is not presently in use for regularly scheduled commercial traffic. This line should, at some future time, be linked to Regional Transit's light rail line along Folsom Boulevard (this line currently ends at Butterfield, well short of Folsom but is proposed to be extended to Hazel).

22.2.2 ASSUMPTIONS

FOLSOM AREA TRAFFIC STUDY

The methodology and assumptions utilized in preparing the traffic analysis upon which this Circulation Element is based include:

- Comprehensive survey of 1986 traffic counts on all major roadways within the City.
- Assumed buildout of the land use designations depicted on the adopted General Plan would be in addition to the 1986 baseline traffic information.
- The assumed residential density (du/acre) and commercial/industrial intensity (employees or square footage/acre) at buildout of the adopted General Plan are based on factors contained in the Housing and Land Use Elements of the General Plan.
- Since traffic generation rates are based on "Net" Acres of development, the "gross" acre calculations derived from buildout of the adopted General Plan were reduced by 25 percent for each land use category.
- Traffic generation rates for each land use category are applied based on case studies from the Institute of Traffic Engineer (ITE). Rates used represent the "average" density or intensity of development permitted by each land use category.
- The resulting total trip generation for the community is reduced by a factor of 29 percent to account for naturally occurring traffic ~~reduction~~ REDUCTION and differences in "peaking" characteristics when the specific "project" level data from ITE is applied to the community as a whole.
- The resulting total "corrected" trip generation from buildout of the adopted General Plan is then applied to the roadway system shown on Figure 22-1. Approximately 50 percent of the total generated traffic will have both an origin and destination within the community (internal trips), and the remaining 50 percent of traffic generation will either be external or regional through trips.

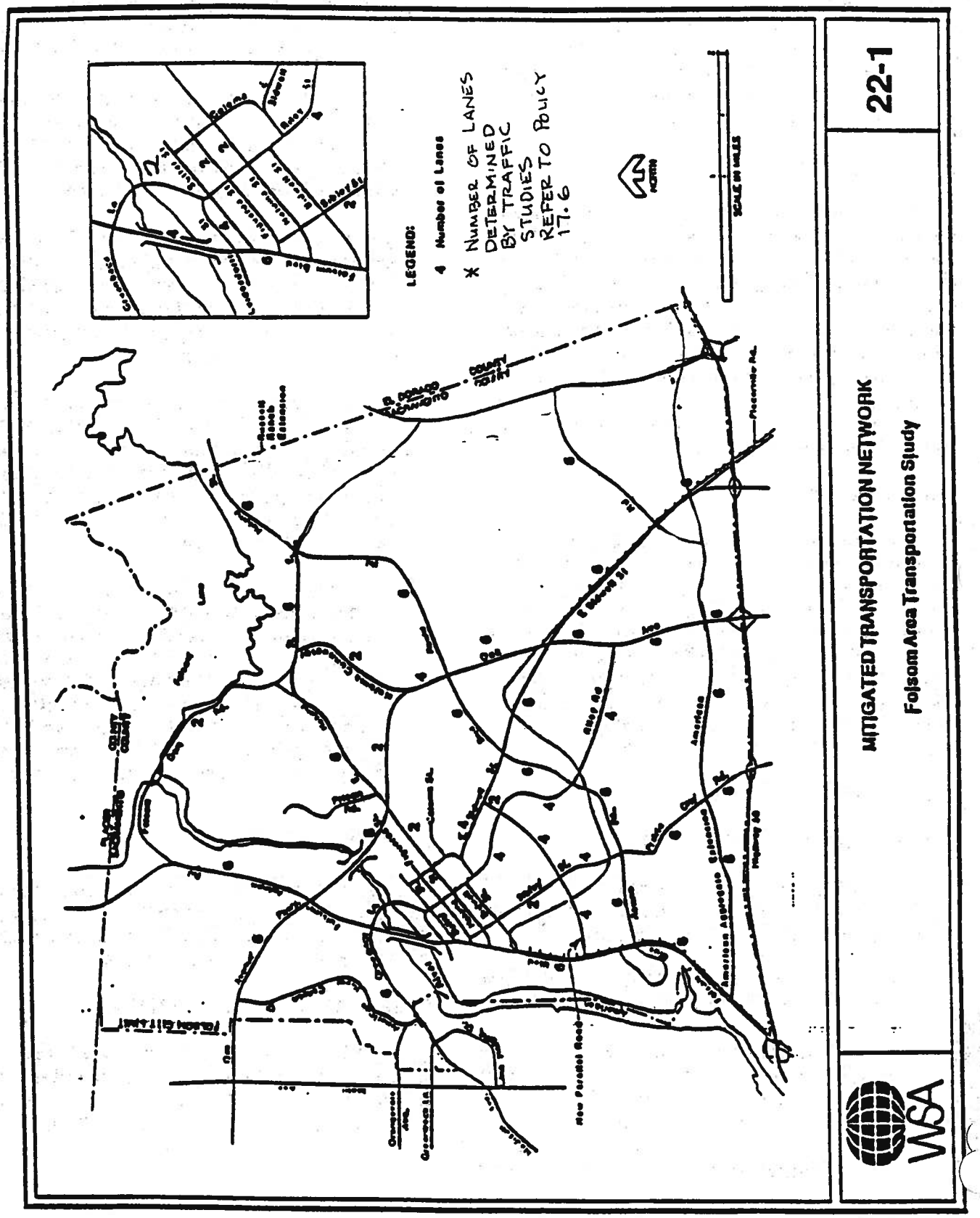
U.S. HIGHWAY 50

The California Department of Transportation will add two lanes to Highway 50 and will approve the interchange upgrades and additions needed to meet projected traffic increases.

EXISTING ARTERIAL ROUTES

Rights-of-way can be acquired and the arterials engineered to accommodate the additional lanes recommended in the Transportation Study (see Figure 22-1).

Figure 22-1


LEGEND:
4 Number of Lanes
* NUMBER OF LANES DETERMINED BY TRAFFIC STUDIES REFER TO POLICY 17.6
MITIGATED TRANSPORTATION NETWORK
Folsom Area Transportation Study
22-1
WSA

NEW ARTERIAL ROUTES

Rights-of-way will be dedicated through the subdivision process to construct the new arterial roads recommended in the Transportation Study (see Figure 22-1).

FINANCING OF ROADS AND OTHER IMPROVEMENTS

A facilities plan and five-year capital improvement program will be adopted to address the financing of needed roadway, bridge, interchange, light rail and public transit improvements.

PUBLIC TRANSIT

Folsom will be served by a level of bus and other public transit services adequate to accommodate the demand created by buildout of the General Plan. The Southern Pacific Railroad right-of-way will be acquired for future public transit or other appropriate use.

BRIDGES

Additional American River crossings can be engineered and necessary rights-of-way and financing acquired.

AREA PLANS

Specific Plans (as defined by State Law) will be prepared for large scale development proposals to link land uses with transportation and circulation improvements consistent with the policies and standards contained within the General Plan and the circulation improvements designated on the Plan Map.

22.2.3 ISSUES

REGIONAL TRAFFIC CONSIDERATIONS

The City Council has gone on record opposing the construction of "any routing of freeway extension which would bisect the City of Folsom" (see Resolution No. 1907, February 18, 1986). This position was expanded by Resolution No. 1955 (August 4, 1986), to oppose proposed "beltway" alignments which would bisect the City. The roadway system proposed by this Circulation Element (see Figure 22-1) contains numerous six lane arterials and two new bridges over the American River which could serve as a "de facto" "beltway" if constructed.

In particular, the philosophy of the City is to not overbuild a transportation system within the community to serve "regional" through traffic, but to route that traffic around the periphery of the community (particularly the older parts of town). As a result, through traffic from 1) South Placer County entering the community by way of Santa Juanita and Folsom-Auburn Roads, and 2) El Dorado County entering by way of Green Valley Road (East Natoma Street) must be given particular attention. The "Policy Decision" posed within the Setting section of this Circulation Element should be addressed before the issue of further bridge crossings of the American River (capacity and location) is resolved and the General Plan adopted.

RECREATIONAL USE OF SENSITIVE HABITATS

Many of the proposed open space corridors could also serve as pedestrian and bicycle recreation areas. However, where sensitive natural habitats exist, bicycle and pedestrian routes must be carefully planned to minimize possible environmental conflicts.

BRIDGE COSTS

The tremendous cost of even modest bridge crossings of the American River will make it difficult for the City to finance such projects. The City may need partial funding from federal, State and County to pay for their construction.

PUBLIC TRANSIT

There is no definite timetable for expansion of bus service or Light Rail Transit to Folsom. There is no guarantee that money will be available to extend the light rail line to Folsom or construct the system within the timeframe of the General Plan.

INTERCHANGES

CALTRANS has not yet formally approved the concept of two additional interchanges in Folsom or the improvements of existing interchanges. The City will have to work with CALTRANS to

ensure these interchanges can meet CALTRANS standards. Current State policies and funding constraints will require that design and construction of the interchange projects be funded by the City or private sector sources.

22.3 TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

GOAL 17

To develop a comprehensive transportation/ circulation system which includes as a minimum:

1. Freeways, highways, and/or expressways designed to route through-traffic away from Folsom's neighborhoods.

2. Arterial roads which provide access among Folsom's neighborhoods, major cross-town links, and links between Folsom and adjacent communities.

3. Additional crossing(s) over the American River.

4. Pathways and designated routes for bicycle and pedestrian traffic.

5. Designated routes for commercial vehicles.

6. The protection of residential neighborhoods from through-traffic.

7. Public transportation routes.

POLICY 17.1

The City shall plan for an integrated circulation system which provides for travel by private vehicles, commercial vehicle routes, a public transportation system, and for pedestrian and bicycle routes.

POLICY 17.2

The City should establish a hierarchy of roads consisting of the following:

1. Freeways or limited access highways. Such roads shall be grade separated at each intersection with another road. The major purpose of such roads is to route traffic around Folsom, with as few interruptions to the surface street system as possible. U. S Highway 50 currently meets the definition of a freeway. The City has made a firm commitment that a new freeway would not bisect the City.

2. Expressways. Allow for moderate- to high-speed travel within the City. The purpose of an expressway is to carry cross-town traffic from other communities or between neighborhoods within the City. An expressway may contain some grade-separated intersections, but this type of road would be mainly a surface street. Expressways should be located to allow for controlled intersections spaced at one-half mile intervals or more. Only arterial and collector roads should intersect with an expressway.

3. Arterial roads (or major streets). Serve to connect neighborhoods within the City and the City with surrounding communities. Arterials would normally define the boundaries of neighborhoods, not provide internal access to a neighborhood.

4. Collector (or secondary) roads. Serve to route traffic from local streets within a neighborhood to an arterial road. Collector streets would not normally serve as "through" roads for more than one area, but would circulate throughout a neighborhood.

5. Local (or tertiary) roads. Serve a portion of a neighborhood only and route traffic to a collector street.

6. Street-ends (cul-de-sacs, dead-end streets, etc.). Limited in length and serve only a few residences.

POLICY 17.3

Arterial roads serving new developments shall be aligned with existing arterial roads whenever possible.

POLICY 17.4

Routes for additional bridge crossings ov the American River shall be designated on t Plan Map. Because the Proposed Oak Avenue

and Folsom-Auburn Road crossings will serve a significant amount of regional through traffic with distinctly different origins and destinations, financing and construction of the bridges should be considered as a package rather than separately.

POLICY 17.5

The City should locate and improve existing arterial roads to provide direct access between a central commercial district, a regional commercial center, and major public institutions (hospital site, community college site, Civic Center).
Policy 17.6

The City should require that new arterial roads or extension widening of existing arterial roads that are need to serve a new development are planned and constructed in accordance with the Plan Map and standards contained herein or traffic studies completed to the satisfaciton of Public Works Department and approved by the City of Folsom. Land must be set aside by dedication for sufficient rights-of-way and landscaping in accordance with standards contained herein, and a planting strip or other buffer shall be required in single famliy developments to ensure that homes do not back directly onto the arterial road. Resolution No. 3798.

POLICY 17.7

The City shall require the establishment of landscape maintenance assessment agreements or districts for new developments adjacent to arterial roads to ensure that planting strips are required and properly maintained.

POLICY 17.8

A five-year Capital Improvement Plan (CIP) for road improvements should be prepared and implemented by the City. The road improvement plan shall be updated at least every other year subsequent to its initial adoption. The road improvements plan shall establish a schedule for needed road repair and construction and identify sources of funding for road improvements. The five-year CIP should be consistent with the Fiscal Element of the General Plan which will be prepared to identify total Citywide public facility funding mechanisms.

As part of this program the City should update the Folsom Area Traffic Study on a regular basis (at least annually) as part of a regular traffic monitoring program to attempt to achieve that at least a traffic Level of Service "C" is achieved throughout the City.

POLICY 17.9

The City should plan for the expansion of future public transit routes (bus and fixed rail service).

1. **Transit routes should coincide with major destinations for employment and shopping, the location of major institutions, concentrations of multifamily housing, and other land uses likely to attract public transit ridership.**

2. **The City should preserve existing railroad rights-of-way for their potential future use as public transit routes. The City should work with Regional Transit to determine other rights-of-way which could be preserved for rail transit use. Proposed light rail alignments and station locations are designated on the Plan Map and dedication of land for the required right-of-way shall be required as part of the approval process for development of adjoining parcels.**

3. **Bus routes should follow major roads with service to residential neighborhoods via collector streets.**

POLICY 17.10

The City should develop and maintain a bikeways and pedestrian master plan that links residential developments with sources of employment, public open spaces, parks, schools, neighborhood shopping areas, the central commercial district, other major recreational destinations, and adjoining communities.

1. **The City should ensure that new residential developments incorporate pedestrian and bicycle paths or routes when there are nearby schools, parks, public open spaces, sources of employment or other destinations for such travel. Such paths or routes should be designed so that schools and parks are accessible to area residents. Pedestrian/ bicycle over- or under-crossings may be provided when necessary to cross arterial roads or expressways.**

2. The existing bicycle and pedestrian paths along the American River shall be preserved.

3. The City should establish and maintain an internal pathway system that links parks sources of employment and public open spaces using rights-of-way and parkways.

4. Where on-street bikeways are not feasible, the City should provide for Class I off-street bikeways.

5. The City should endeavor to provide routes paralleling the major arterial routes for long distance bicycle travel.

6. The City should endeavor to provide routes for recreational travel, providing access to important recreational areas of the City, including Folsom Lake.

POLICY 17.11

Whenever any major repair, alteration, or construction of roads are undertaken, immediate consideration of incorporating and providing bicycle routes and facilities should occur, as designated by the City of Folsom Bikeway Master Plan, and state specifications for bikeways.

POLICY 17.12

The City of Folsom should establish an ongoing public education program on bicycle safety and encourage bicycle safety programs for cyclists and motorists.

POLICY 17.13

The Master Plan includes four typical bike lane cross sections which shall be used where appropriate.

1. Class-1 bikeways, separated bicycle paths will be the preferred bikeway, wherever feasible. This form of bike lane will be encouraged in areas such as the Willow Creek-Humbug Creek Parkway, and along the Lake Natoma frontage, and along major boulevards, such as Folsom Boulevard.

2. Class-2 bike lanes, which include a five foot stripped bike lane on the outside of an eight foot parking lane, will be encouraged in areas where on-street parking is likely to occur. Such areas would be in the vicinity of apartment complexes and condominium complexes.

3. Class 3 & 4 bike lanes, which include four foot and eight foot stripped bike lanes on the edge of pavement, should be utilized on city arterial, collector, and other roads as indicated on the bikeways master plan.

POLICY 17.14

The City shall require facilities for parking bicycles in accordance with the Zoning Code.

POLICY 17.15

The City shall review parking requirements to ensure that adequate off-street parking can be provided for new development projects.

POLICY 17.16

The City shall designate locations for park and ride lots and adopt standards for their development. Several such lots are designated on the Plan Map and dedication of land for each site shall be required as part of the approval process for development of adjoining parcels.

Policy 17.17

The City should strive to achieve at least a traffic Level of Service "C" throughout the City. During the course of Plan buildout it may occur that temporarily higher Level of Service result where roadway improvements have not been adequately phased as development proceeds. However, this situation will be minimized based on annual traffic studies or project specific traffic studies as approved by the City of Folsom and monitoring programs. Resolution No. 3798.

POLICY 17.18

The City will work with the California Department of Transportation in planning for and funding freeway interchange improvements and additional interchanges along U.S. Highway 50. A specific study should be prepared by the City to determine the required phasing of construction of freeway and interchange improvements based upon buildout of land uses designated on the Plan Map.

POLICY 17.19

Because the Traffic Studies upon which this Circulation Element are based shows various intersections which will not achieve Level of Service "C", the City should adopt a mandatory TSM program that applies to existing as well as future development and will ensure the assumed reduction in peak hour trips. Prior to adoption of the Program by the City, all discretionary development permits issued by the City should require the applicants to participate in the TSM program when enacted. Specific Studies should be conducted to determine the most desirable methods for achieving the required level of trip reduction.

POLICY 17.20

The City shall develop a long range public transit plan for Folsom. Such a Plan shall be developed in coooperation with SACOG and Regional Transit, and shall include a study to determine the feasibility and financing requirements of:

1. Continued City operated intra-community bus service.

2. Continued City operated commuter bus service to downtown Sacramento and/or service to the nearest RT Metro Rail Station.

3. Extending RT Metro service to Folsom and the preservation of future rights-of-way.

POLICY 17.21

Establishment of speed limits for streets within residential areas should include consideration of the potential traffic noise reduction which may be achieved through lower speeds. In some cases it may be appropriate to establish a lower speed limit than may be allowed by roadway design to accomplish the goal of maintaining acceptable traffic noise levels within a neighborhood.

POLICY 17.22

The City shall require a minimum two lanes of arterial roads to be installed adjacent to or in the vicinity of new subdivisions.

22.4 RELATED GOALS AND POLICIES

GOAL 1
- POLICY 1.4
- POLICY 1.5

GOAL 3
- POLICY 3.1

GOAL 7
- POLICY 7.2
- POLICY 7.3
- POLICY 7.4

RELATED LAND USE ELEMENT GOALS AND POLICIES

GOAL 8
- POLICY 8.5
- POLICY 8.7

GOAL 9
- POLICY 9.2

GOAL 11
- POLICY 11.4

GOAL 12
- POLICY 12.3

GOAL 13
- POLICY 13.3
- POLICY 13.4

GOAL 14
- POLICY 14.3

GOAL 15
- POLICY 15.2

GOAL 16
- POLICY 16.3
- POLICY 16.8
- POLICY 16.9
- POLICY 16.10

RELATED HOUSING ELEMENT GOALS AND POLICIES

GOAL 22
- POLICY 22.2

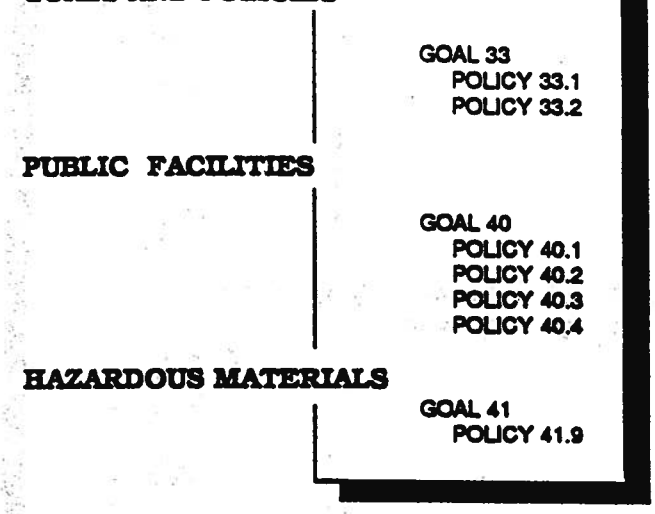
RELATED OPEN SPACE AND CON. ELEMENT GOALS AND POLICIES

GOAL 27
- POLICY 27.1
- POLICY 27.2
- POLICY 27.3

RELATED NOISE ELEMENTS GOALS AND POLICIES

GOAL 30
- POLICY 30.5

RELATED AIR QUALITY ELEMENT GOALS AND POLICIES



22.5 IMPLEMENTATION

PUBLIC TRANSIT PLAN

The City will work with Regional Transit and SACOG to develop a long range public transit program. Public transit will take three forms: commuter lines, which could be served by buses, light rail transit, or a combination of the two; intra-City transit, and special public transit for elderly and handicapped individuals (such as "dial-a-ride").

To implement public transit policies, the City will do the following:

1. Preserve the existing railroads rights-of-way in the City by not permitting development within the right-of-way or seek to create alternative future rights-of-way in conjunction with Regional Transit recommendations.

2. Prepare a study for intra-City public transit to determine the financial feasibility and cost of three alternative: continued City operation of intra-City and shuttle buses to commuter lines, assumption of intra-City service by Regional Transit, and the assumption of intra-City service by a private transit company.

3. Establish standards for turn-outs and bus stops along arterial and collector streets. Developers will be required to construct turn-outs and bus shelters along identified transit routes on arterial streets. The City's street design and development standards will contain standards for the construction of public transit facilities along public right-of-ways. Existing Regional Transit standards will be used as applicable.

4. Work with Regional Transit to identify locations for bus stops and park-and-ride lots. These stops and lots will coincide with major employment and commercial destinations, public institutions public transit corridors, and higher density residential locations.

IMPLEMENTS: GOAL 17 - POLICY 17.9

- Resource Groups/Agencies/Organizations

  Sacramento Regional Transit
  SACOG

- Responsible Agencies

  Community Development Department
  Sacramento Regional Transit
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: October 1989
  Complete: October 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
400/$18,000	$1,000		$19,000	General Fund Regional Transit State/Federal Grants Developer Contributions

PEDESTRIAN AND BICYCLE MASTER PLAN

The City will update its Bicycle Master Plan and include a pedestrian and equestrian components, showing the location and type of route/links to schools and parks, sources of employment and other recreational destinations.

The City's Development Standards will include design standards for pedestrian and bicycle paths, lanes, and routes. Road improvements or extensions shall be designed to include bicycle and pedestrian paths, lanes, or routes where these are indicated in the Master Plan. Bicycle paths, lanes, and routes will be clearly marked. The County of Sacramento will continue to be responsible for maintenance of the American River bicycle, pedestrian, and equestrian trails.

IMPLEMENTS: GOAL 17 - POLICIES 17.10; 17.11; 17.12 AND 17.13

- Resource Groups/Agencies/ Organizations

  Bicycle Clubs
  Equestrian Clubs
  Civic Organizations Interested in Pedestrian, Bicycling and Equestrian Issues

- Responsible Agencies

- Public Works Department
- Community Development Department

- Implementing Agencies

- Public Works Department
- Community Development Department

- Target Dates: Start: October 1989
  Complete: April 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
200/$9,000	$500		$9,500	General Fund State Grants Volunteer Groups

SUBDIVISION STREET STANDARDS

The City shall continue to enforce engineering standards for the development of new streets and the extension of existing roads. Collector or arterial roads in new developments shall be aligned with existing collector or arterial roads that are adjacent to the development. Street standards shall be based on the following considerations:

1. For local streets, right-of-way width that would be necessary to accommodate two lanes of traffic, on-street parking on each side of street, and sidewalks on each side of the street. Exceptions may be granted for street segments that end in cul-de-sacs or that provide access for a few homes only, for developments that will provide designated areas for guest parking (either as part of the street design or off-street), or where alternative pedestrian paths are provided.

2. For collector streets, the minimum right-of-way width needed for a local street plus additional width need for bicycle lanes, planter strips and/or planter median and right/left turn lanes at intersections with other collector streets or with arterial streets.

3. For arterial streets generally, sufficient right-of-way width to accommodate four lanes of moving traffic, bicycle lanes, sidewalks on each side of the street, planter strips and/ or planter medians, and at least one right and left turn lane at major intersections. The City may approve variations from this general profile of an arterial street or require additional lanes based on the amount of traffic the street is expected to accommodate at build out.

Plans for streets and circulation, including connections with existing streets, will continue to be required for all development applications. Detailed street design plans will continue to be required as part of a final subdivision map or prior to the issuance of grading permits for street construction.

IMPLEMENTS: GOAL 17 - POLICY 17.2

FOLSOM MUNICIPAL CODE: TITLE 16

- Responsible Agency
- Implementing Agency

- Community Development Department
- Public Works Department

Target Dates: Start: June 1989
Complete: December 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	-	-	$4,500	General Fund

PARKING REQUIREMENTS

Parking requirements will be reviewed in light of actual parking demand for different types of existing or proposed development in Folsom. The City will contact other jurisdictions to obtain information on actual parking demand developed in a manner compatible with surrounding land uses for different types of developments and survey the parking demands of developments in Folsom. Any changes in parking requirements will be included in the revised Zoning Code.

IMPLEMENTS: GOAL 17 - POLICIES 17.6; 17.14; 17.15 AND 17.16

FOLSOM MUNICIPAL CODE: TITLE 1

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	Included in Zoning Code Revision		$3,600	General Plan

TRANSPORTATION SYSTEM MANAGEMENT ORDINANCE

Develop and adopt a transportation systems management ordinance which incorporates the specific policies of the General Plan Transportation and Circulation and Air Quality Elements.

IMPLEMENTS: GOAL 17 - POLICY 17.19 GOAL 31 - POLICIES 31.4 AND 31.5; GOAL 33 - POLICIES 33.1; 33.2 AND 33.3

- Resource Groups/Agencies/Organizations

  State Air Resources Board
  Sacramento County Air Pollution Control District
  Sacramento Regional Transit
  Sacramento Area Council of Governments

- Responsible Agencies

  Public Works Department
  Community Development Department
  City Council

- Implementing Agency

  Community Development Department

- Target Dates: Start: March 1989
  Complete: October 1990

ESTIMATED COSTS PER YEAR

Program Set-Up

Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$5,400	$500	$1,350	$7,250	Development Fees General Fund

BICYCLE AND PEDESTRIAN GUIDE

The City shall develop a guide for pedestrians and bicyclists showing the location and type of trails, paths, lanes, and routes. The guide will also contain guidelines for pedestrian and bicycle use and safety.

IMPLEMENTS: GOAL 17 - POLICIES 17.10; 17.12 AND 17.13

- Resource Groups/Agencies/Organizations

  Community Service Clubs
  Bicycling Clubs

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1990
  Complete: March 1990

ESTIMATED COSTS

Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$500		$2,300	General Fund Proceeds from Sale of Map/Guide

BRIDGE STUDY

The Folsom Area Transportation Study identifies additional crossings needed to accommodate future traffic from new developments. The City will prepare economic and environmental feasibility analysis to determine:

1. The approximate design and construction costs of each of the bridges.

2. Possible engineering problems or design problems.

3. The potential environmental effects, including any grading, cutting, or filling that might be necessary; the alteration of views to and from the American River; the elimination or alteration of important natural habitats or historic sites; and other similar considerations.

4. EIR/EIS and Federal Permits if required.

IMPLEMENTS: GOAL 17 - POLICIES 17.4 AND 17.18

- Responsible Agencies

  Public Works Department
  Community Development Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: On-Going
  Complete: June 1989

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
6,000/$300,000	$5,000		$305,000	General Fund Developer Fees County funds CALTRANS

FINANCING AND CONSTRUCTION OF NEEDED ROAD IMPROVEMENTS

The City will prepare, as part of its municipal facilities plan, a five-year, biennially-updated road improvement plan. This plan will contain a schedule for road repair, widening, and construction. The plan will also contain a schedule for U.S. Highway 50 interchange improvements and additions. The City will plan jointly with CALTRANS for these improvements. The plan will also identify funding sources.

IMPLEMENTS: GOAL 17 - POLICY 17.8

- Responsible Agencies

  Public Works Department
  Community Development Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: January 1989
  Complete: On-Going

ESTIMATED INITIAL COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
250/$11,250	$250		$11,500	General Fund Developer Fees

FUNDING PLAN AND ANNUAL UPDATE FOR TRANSPORTATION IMPROVEMENTS

The City will update its Transportation Study on at least an annual basis to identify in greater detail the costs required for major road improvements. A funding study will also be prepared to apportion developer fees and/or assessment district charges that would be necessary to help pay for the costs of these major road improvements.

IMPLEMENTS: GOAL 17 - POLICIES 17.8; 17.9 AND 17.18

- Responsible Agencies

  Public Works Department
  Community Development Department

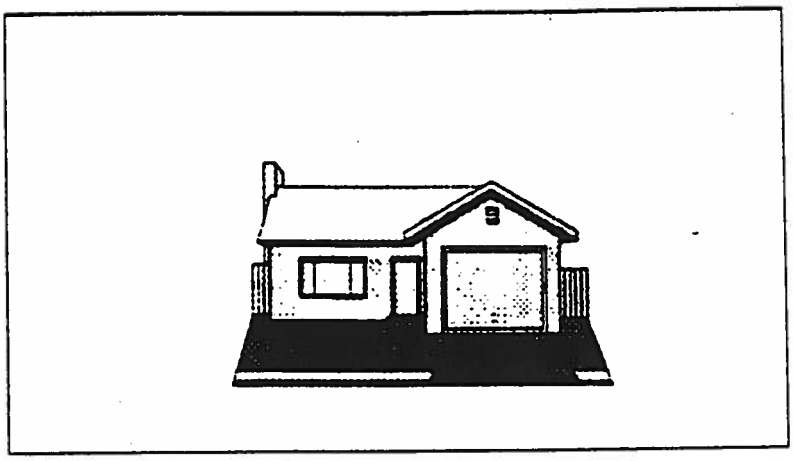
- Implementing Agency

  Public Works Department

- Target Dates: Start: July 1989
  Complete: December 1989

ESTIMATED COST

Person Hours/Printing Dollars	Direct	Total	Funding
500/$22,000	$500	$22,500	General Fund (For Study) Developer Fees (For Road Improvements) Assessment District Fees (For Road Improvements) CALTRANS (For U.S. Highway 50 Improvements)



23.0

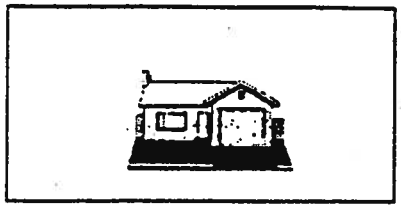
HOUSING ELEMENT

Prepared For The City of Folsom
Community Development Department

By

Connerly & Associates, Inc.

August 25, 1992



HOUSING

TABLE OF CONTENTS

23.1 INTRODUCTION 23- 5

Consistency With Other General Plan Elements 23- 5
State Law Requirements 23- 6
How the Requirements Relate to the City of Folsom 23- 7
Data Sources 23- 7
Regional Nature 23- 8
Contents 23- 8
Summary 23- 9
Historical Context 23- 10
Public Participation 23- 11
Quantified Objectives 23- 12

23.2 HOUSING NEEDS ASSESSMENT 23- 14

Population Characteristics 23- 14
Projected Needs 23- 19
Existing Needs 23- 23
Median Income 23- 23
Incidence of Overpayment 23- 23
Housing Response to Market Demand 23- 26
Housing Age and Condition 23- 32
Special Housing Needs 23- 32

23.3 RESOURCES INVENTORY 23- 38

Housing Stock Characteristics 23- 38
Housing Type and Tenure 23- 38
Vacancy Status 23- 38
Condition of Housing Stock 23- 40
Residential Lands Inventory 23- 40
Land Use Inventory 23- 41
Analysis of Zoning 23- 44
Analysis of Public Facilities and Services 23- 46
Additional Uses 23- 47

Areas With Residential Potential 23- 47
Potential Loss of Units 23- 47
Assisted (At Risk) Units 23- 47
Demolitions 23- 50

23.4 HOUSING CONSTRAINTS 23- 50

Environmental Considerations 23- 50
Municipal Facilities Constraints 23- 51
Infrastructure 23- 51
Water/Sewer 23- 51
Economic Factors 23- 54
Land Costs 23- 54
Building Costs 23- 54
Financing 23- 54
Governmental Constraints 23- 55
Residential Development Fees 23- 55
Development Standards 23- 56
Building Codes 23- 57
Open Space and Park Requirements 23- 57
The Planning and Permit Process 23- 57
Permit Processing Times 23- 58

23.5 ENERGY CONSERVATION 23- 59

State Regulations 23- 59
Local Guidelines 23- 59
Opportunities for Energy Conservation 23- 59

23.6 EQUAL HOUSING OPPORTUNITY 23- 60

23.7 REVIEW OF PREVIOUS HOUSING ELEMENT 23- 61

New Housing Production 23- 61
Provision of Public Services 23- 64
Revise General Plan 23- 65
Housing Rehabilitation 23- 66
Economic Feasibility of Afford. Housing 23- 67
Preserve Mobilehome Parks 23- 68
Mortgage Revenue Bonds 23- 69
Condominium Conversion Ordinance 23- 70
Housing Assistance Program Referrals 23- 70
Fair Housing Program 23- 70
Urban Development Policies 23- 70
Monitor Employment Growth 23- 70
Annual Review of Housing Element 23- 71
Second Units 23- 71

Permit Review Process 23- 71
Locations for Emergency Shelters 23- 71

23.8 DEFINITIONS 23- 72

23.9 GOALS POLICIES AND PROGRAMS 23- 73

Goals and Policies 23- 74
Housing Programs 23- 76
Program 1 - Provide Adequate Sites for Housing 23- 76
Program 2 - Site for Multifamily Rental Housing 23- 77
Program 4 - Sites for Special Group Housing 23- 79
Program 5 - Housing for Older Adults 23- 80
Program 6 - Housing for Single Parents with Children 23- 80
Program 7 - Density Bonus and Other Incentives 23- 81
Program 8 - Density Bonuses for Moderate-Income Housing 23- 81
Program 9 - Pursue Funding Under State and Federal Programs 23- 82
Program 10 - Tax Exempt Bond Financing 23- 83
Program 11 - Community Reinvestment Act 23- 84
Program 12 - Permit and Development Fee Reductions 23- 85
Program 13 - Second Units in Single Family Neighborhoods 23- 85
Program 14 - Voter Authorization for Specified Rental Housing 23- 86
Program 15 - Inspection Program 23- 86
Program 16 - Code Enforcement and Abatement 23- 86
Program 17 - Rehabilitation of Substandard Dwelling Units 23- 87
Program 18 - Relocation Assistance 23- 87
Program 19 - Housing Demolition Mitigation 23- 88
Program 20 - Maintenance of Housing Condition Data Base 23- 88
Program 21 - Zoning Flexibility for Housing Rehabilitation 23- 88
Program 22 - Preservation of Subsidized Housing Units 23- 88
Program 23 - Manufactured Housing on Single-Family Lots 23- 88
Program 24 - Preservation of Mobilehome Parks 23- 89
Program 25 - Homeless Services 23- 89
Program 26 - Fair Housing Program 23- 90
Program 27 - Implement State Energy Conservation Standards 23- 90
Program 28 - Site Development Standards 23- 90
Program 29 - Energy Conservation Assistance for Low-Income HH . 23- 91
Program 30 - Preservation of Historic Residences 23- 91
Program 31 - Redevelopment Housing Set-Aside Plan 23- 92

PROGRAM SUMMARY AND PRIORITY LIST 23- 93

APPENDIX 23- 94

LIST OF TABLES

Table 23- 1	POPULATION AND HOUSEHOLD FIGURES (1990)	23- 14
Table 23- 2	POPULATION GROWTH RATES	23- 15
Table 23- 3	AGE CHARACTERISTICS	23- 16
Table 23- 4	SCHOOL ENROLLMENT CHARACTERISTICS	23- 17
Table 23- 5	ETHNICITY	23- 18
Table 23- 6	SACOG RHNAP FAIR SHARE ALLOCATIONS	23- 21
Table 23- 7	BASIC CONSTRUCTION NEED	23- 22
Table 23 8	BASIC CONSTRUCTION NEED BY INCOME CATEGORY	23- 22
Table 23- 9	INCOME LEVELS AND MAXIMUM HOUSING PAYMENTS FOR SACRAMENTO COUNTY AREA	23- 24
Table 23-10	MONTHLY PAYMENTS - PURCHASE HOUSING	23- 25
Table 23-11	MAXIMUM HOUSING PAYMENTS FOR AVERAGE HHOLD	23- 25
Table 23-12	MAXIMUM HOME PURCHASE PRICE BY INCOME	23- 26
Table 23-13	NEW HOME CHARACTERISTICS	23- 27
Table 23-14	SINGLE FAMILY OWNER-OCCUPIED HOME VALUES	23- 28
Table 23-15	CONTRACT RENTS FOR THE CITY OF FOLSOM	23- 29
Table 23-16	AFFORDABLE HOUSING UNITS BY INCOME CATEGORY	23- 31
Table 23-17	HOUSING AFFORDABILITY	23- 32
Table 23-18	GENERAL HOUSEHOLD CHARACTERISTICS	23- 33
Table 23-19	NUMBER OF PERSONS BY TENURE	23- 34
Table 23-20	NUMBER OF ROOMS BY HOUSING UNITS	23- 35
Table 23-21	TENURE BY PERSONS PER ROOM	23- 37
Table 23-22	HOUSING STOCK CHARACTERISTICS	23- 39
Table 23-23	DENSITIES OF PROJECTS APPROVED AND UNDER CONSTRUCTION	23- 41
Table 23-24	RESIDENTIAL LAND INVENTORY	23- 42
Table 23-25	ASSISTED UNITS IN THE FOLSOM AREA	23- 48
Table 23-26	MONTHLY SUBSIDIES REQUIRED TO MAINTAIN AFFORDABILITY OF AT RISK UNITS	23- 49
Table 23-27	WATER USAGE DATA	23- 52
Table 23-28	WATER CONSUMPTION FACTORS	23- 53
Table 23-29	RESIDENTIAL FEE COMPARISONS	23- 56
Table 23-30	HOUSING UNITS CONSTRUCTED FROM 1985 TO 1990	23- 62
Table 23-31	MULTIFAMILY UNITS BUILT SINCE 1986- RENTAL RATE SURVEY	23- 63

HOUSING

23.1 INTRODUCTION

23.1.1 Relation and Consistency with General Plan and other Elements

The Folsom General Plan is the City's comprehensive statement describing how lands should be developed and serviced, how citizens and workers will be able to travel throughout the City, how open spaces and natural resources will be conserved, how citizens and workers will be protected from excessive noise and natural hazards, and how adequate housing will be provided to meet the City's current and future needs.

This chapter is the housing portion, or Housing Element, of the Folsom General Plan. The Housing Element is a vital part of the General Plan because it addresses housing as one of the three basic human needs. As such, the City's Housing Element defines the current and future housing needs of Folsom residents, identifies areas for future housing development, contains policies to preserve the existing housing stock, seeks to ensure that no one is denied access to housing based on arbitrary factors, and contains programs to address the housing needs of Folsom's very low-, low-. and moderate-income residents.

For the General Plan to be a workable document, the elements of the plan must be consistent with one another. The internal consistency of the General Plan elements means that policies support and do not contradict one another, that no one element takes precedence over any other element, and that any subsequent amendment to a General Plan element must also be consistent with the other elements.

The City of Folsom has determined that the Housing Element is consistent with the other General Plan elements in the following way:

Land Use Element. The Land Use Element identifies the existing and proposed uses of land for housing, business; industry, and open space. This includes land used for agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The amount of land zoned for residential use, and the densities at which housing can be constructed under the various General Plan categories, should be sufficient to accommodate the range of housing types necessary to meet the City's regional share of housing need under the housing allocation plan prepared by the Sacramento Area Council of Governments. (See Tables 23-29.)

Circulation. This Element identifies the proposed thoroughfares and the circulation network that will be implemented along with uses outlined in the Land Use Element. The City has adopted policies to ensure that adequate circulation can be provided at the densities and land uses proposed in the Land Use Element. The City will also pursue policies to mitigate the financial impact of required transportation improvements on affordable housing developments that contribute to the City's low- and moderate-income housing supply.

Open Space, Conservation, and Recreation Element. This Element contains policies for the preservation of important open spaces, the conservation of environmentally sensitive plants and animals, the conservation of important natural resources, and the designation of present and future park lands. but these policies would not create a barrier to production of housing. In consideration of the amount of land designated for open space. the City has determined that the amount of land and the land use densities allocated to residential use will be sufficient to meet the

City's regional housing needs. (See Tables 28 and 29.)

Safety Element. The Safety Element contains policies for the protection of the community from natural and human hazards, including fire, flood, toxic or hazardous materials, earthquake, and landslides. City policy is to direct intense development, particularly residential development, away from those areas with the highest hazards. No natural hazards were identified that would represent barriers to the supply of housing.

Noise Element. This Element contains policies to protect noise sensitive land uses, such as residences, from excessive exterior and interior noise. Existing and future noise is and will be primarily from surface traffic. There should be little impact of noise attenuation policies on the City's ability to accommodate its regional share of housing as the City has few sources of noise that impact residentially-designated areas of the City.

Public Facilities and Services Element. This Element addresses the facilities and services needs of new development. The City has prepared community facilities plans and established community facilities districts to finance needed infrastructure and services for new residential development. Although the financing of required services and facilities will have a substantial overall impact on the cost of housing in Folsom, the City has adopted policies to mitigate the effect of these costs on housing developments for lower-income households.

23.1.2 State Law Requirements

The California Legislature adopted requirements in 1980 for the contents of Housing Elements. Among these legislative requirements is the mandate that:

"The Housing Element shall consist of an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing...The Housing Element shall make adequate provision for the existing and projected needs of all economic segments of the community."

This Housing Element serves two main purposes which are based on the legislative requirements mentioned above. First, it contains information describing the City's residents and their homes in sufficient detail to evaluate current and future housing needs. Second, the Element contains recommended policies and programs aimed at meeting the identified housing needs.

Specifically, the element must contain:

(a) An assessment of housing needs and an inventory of resources and constraints relevant to the meeting of these needs, including:

1) Analysis of population and employment trends;

2) Analysis and documentation of household/housing characteristics;

3) Inventory of land suitable for residential development;

4) Analysis of potential and actual government constraints;

5) Analysis of potential and actual non-governmental constraints;

6) Analysis of special housing needs (including Homeless^Ineeds);

7) Analysis of opportunities for energy conservation; and

8) The preservation or replacement of dwelling units in subsidized housing projects which are affordable to low-income households and which may convert to market-rate rents.

(b) A statement of the community's goals, quantified objectives, and policies relative to the maintenance, improvement, and development of housing. The total housing needs identified in (a) may exceed the available resources and the community's ability to satisfy those needs.

(c) A program which sets forth a five-year schedule of actions the local government is undertaking or intends to undertake to implement the policies and achieve the goals and objectives of the housing element, including:

1) Identification of adequate sites that will be made available;

2) Assisting in the development of housing affordable to low-income (80% or less of median) and moderate-income (80-120% of median) households;

3) Addressing, and where possible, removing governmental constraints;

4) Conservation of and improvement in the condition of existing affordable housing stock; and

5) Promotion of housing opportunities for all persons (fair housing program).

23.1.3 How the Requirements of State Law Relate to Folsom's Most Critical Housing Issues

Among the provisions of California Housing Element Law are requirements that:

- the City adopt, as a minimum goal, a share of the projected regional growth in low- and moderate-income households as determined by the Council of Governments operating within the region (Sacramento Area Council of Governments [SACOG] for Sacramento County);
- financial resources be identified that can make the construction of low- and moderate-income feasible; and
- existing housing affordable to low- and moderate-income households be conserved, especially federally or state subsidized housing that may convert to market-rate housing within the timeframe of the housing element.

These requirements of state law will likely be the most challenging ones for Folsom to meet. They address the most critical effects of the public actions that the City is pursuing.

To date, Folsom has pursued a market-based strategy to meeting its residents' housing needs. The City has designated lands for various types of housing at several density levels, including land for multifamily housing which could meet a portion of the low- and moderate-income housing need. The City does not require developers to construct housing at the maximum allowed density, however. Nor does the City dictate whether multifamily-zoned land will used exclusively for housing affordable to low- or moderate-income households or whether single family-zoned land should include affordable housing.

Market decisions made by individual developers determine timing and types of housing constructed. Folsom would cooperate with developers, private and/or non-profit, interested in building affordable housing projects, and help them identify economic incentives and government subsidies which could be used. However, the City does not dictate that any particular development contain specified percentage of low- and moderate-income households.

23.1.4 Regional Nature

The provision of adequate housing is a regional problem, and Folsom cannot implement a housing program without recognizing how land use and transportation decisions made by other

jurisdictions will affect Folsom's regional share of the area-wide housing needs. Conversely, land use actions taken by the City of Folsom may also have extra-territorial effects which should be recognized. Because of the regional nature of housing needs in the greater Sacramento area, the City's housing program will require coordination with Sacramento, El Dorado, and Placer counties; with the Sacramento Housing and Redevelopment Agency; and with the Sacramento Area Council of Governments.

23.1.5 Data Sources

As required by state law (Government Code Section 65584), the principal source of information used to determine future housing need is the Regional Housing Needs Allocation Plan (RHNAP) adopted by the Sacramento Area Council of Governments (SACOG). The most recent version of this report was adopted by SACOG in November, 1990.

A majority of the information used in the analysis of Folsom's population and existing housing stock was taken from Summary Tape File 1 of the 1990 Federal Census, which was released in June, 1991. 1990 Census data on household income had not been released at the time this Housing Element was prepared. The only current available information on income levels in the Folsom area are the California Department of Housing and Community Development estimates of Sacramento County median income levels. These estimates are based on Federal Department of Housing and Urban Development figures.

Additional sources of information include the City of Folsom Building and Community Development Departments, the City of Folsom Housing and Population Capacity Analysis report. the Folsom Chamber of Commerce. Folsom Prison. State Department of Rehabilitation, local special needs service agencies. developers. consultants. and property owners. Every attempt was made to collect the most current and accurate information available.

23.1.6 Contents

This Housing Element is divided into the following parts:

I **Introduction.** An introduction into the Housing Element's relation to the General Plan, state housing law requirements, General Plan consistency, regional nature of housing, and pertinent data sources used for the report. This section also includes a summary of element, a historical background of the City of Folsom, definitions used throughout the element, and guidelines for public participation in adoption of the element. This section also summarizes the City's goals, policies, and quantified objectives.

II **Housing Needs Assessment.** A detailed discussion of population characteristics, projected future housing needs, and existing housing needs.

III **Resource Inventory.** A discussion of existing housing stock characteristics, an analysis of the condition of the housing stock, an inventory of lands suited for residential uses, a description of additional areas with residential potential, and a discussion of the potential loss of residential units.

IV **Housing Constraints.** Areas of potential housing constraints include environmental concerns, municipal facilities, governmental constraints, and financial constraints.

V **Conservation.** This section analyzes the potential for residential energy and water conservation in the City.

VI **Equal Housing Opportunity.** Attempts made by the City to ensure that all

segments of the population have equal opportunity to find adequate housing.

VII **Review of Previous Housing Element.** This section summarizes the programs, policies, and goals established in the previous Element and discusses the extent to which the City was successful in meeting these standards. Reasons for not obtaining goals are discussed as well as ways to ensure that those goals which still apply are obtained over the next five years.

VIII **Definitions.** These are words with meanings specific to the Housing Element.

IX **Programs.** Programs, policies, and goals for the five year period covered by the Housing Element.

23.1.7 Summary

This section will summarize the major findings of the Housing Element, including the Quantified Objectives.

1. Folsom has met and exceeded its apportioned regional share of housing for the 1985 to 1990 period. The amount of housing construction during the past several years indicates that there is a strong regional housing demand evident in Folsom distinct from local employment growth.

2. The number of multifamily dwelling units represents an increasingly smaller percentage of the total housing stock in Folsom. So long as the private market prefers single family over multifamily dwelling units, and proposes lower density developments on lands zoned for multifamily housing, it will be difficult for the City to maintain an adequate supply of multifamily land. The City recognizes this dilemma and has developed a program to address the problem (see Program 2)."

3. The total number of needed units affordable to lower- and moderate-income residents have not been constructed due to economic factors beyond Folsom's control. As a result of this, the current median average home price in the City was reported by the Census Bureau in 1990 as $210,600.

4. Substantial employment growth is anticipated from commercial and industrial projects approved during the past five years. The City's General Plan would allow for a sufficient number of housing units to meet the demand from this employment growth over the next five years, although it is unlikely that enough units can be constructed that are affordable to workers of lower- or moderate-income persons without some form of government subsidy.

5. Additional employment growth can be expected on commercial and industrial-zoned properties for which development proposals are pending. Depending on the amount and type of development, it is possible that within the next 10 to 15 years there would be insufficient land, at current densities, to provide enough housing units for workers in these projects.

6. Certain constraints make it infeasible for builders to provide a sufficient number of units affordable to all income levels. These constraints include:

   - A limit of Folsom's current water allocation.

   - Land and development costs. The policies and programs contained in this Housing Element, and the higher residential densities allowed under the 1988 General Plan, address land and development cost factors which have historically increased the difficulty of producing affordable housing in Folsom"

7. Folsom can implement certain measures to preserve the existing stock of affordable housing and allow for some new housing affordable to lower- and moderate-income residents. These measures include:

23.1. 8 Historical Context

As late as 1960, Folsom was a small, isolated, semi-rural community, whose character was defined primarily by Folsom Prison, Folsom Dam, and the historic district centered on Sutter Street. At that time, the City was home to just under 4,000 residents. Up until 1960, the City's population varied between 1,000 and 2,000 permanent residents (excluding Folsom Prison). While the City was constantly growing and changing during this period, the changes were relatively small and incremental, and did not substantially alter the City's character.

Up until the 1970s, housing costs were relatively low in Folsom, and the majority of the City's residents earned modest incomes. Most employment was provided by the Prison, local retail and service establishments, and tourist-oriented businesses in the historic business district.

Beginning in the 1970s, the City's character began to change as growth and development accelerated. Between 1970 and 1980, the City's population nearly doubled. Most of the housing that was constructed at this time consisted of single family homes of modest cost affordable to first-time homebuyers, duplexes, and rental apartments affordable to low- and moderate-income households. The growth that Folsom experienced at this time was typical of the other communities experiencing the outward expansion of the Sacramento region into the eastern county and southwest Placer County.

During the 1980s, growth in the City accelerated further, more than doubling the City's population between 1980 and 1990. (Part of the City's growth was due to the doubling of Folsom Prison's capacity, but even after subtracting the prison population from the total population, the City more than doubled in size.) The development that Folsom experienced at this time, however, was significantly different than during the previous decade.

During the 1980s, the City attempted to create a more balanced community in Folsom by attracting more middle- and upper-income residents and commercial development to serve an expanding local and regional population. As a consequence, over 4,300 single family homes were constructed, while just 800 new multifamily housing units were constructed (mostly rental apartments).

During the early part of the decade (1980-84) most of the single family homes constructed were priced for moderate- and middle-income households, particularly first-time home buyers. During the latter part of the 1980s, and to the present time, most of the single family homes were priced for middle- and upper-income households. Typical housing prices ranged from $125,000 to $160,000 between 1985 and 1988. Since 1988, typical housing prices were $150,000 to $250,000, with a substantial number of new homes in the $250,000 and above price range. As the market for homes priced at $200,000 and above weakened beginning in 1990, home builders throughout the Sacramento area sought to alter their plans to construct more homes for first-time homebuyers and middle-income households looking for homes priced in the low- to mid-$100,000 range.

This shift in Folsom's housing market during the 1980s resulted from a combination of City policies to attract more higher-cost housing to the City and from market forces which responded to the intense demand for such housing in suburban locations. Folsom's location at the transition between the valley and foothills, its abundant open spaces and interesting natural habitats, its convenient location adjacent to a major freeway, and City policies to facilitate development created

the favorable conditions necessary to attract such residential development.

Another substantial change during the 1980s was the City's effort, through redevelopment and other policies, to attract new commercial and industrial growth to Folsom. At the same time that the City experienced tremendous housing growth, Folsom also experienced a substantial increase in employment, primarily in service, retail, medical, and assembly related jobs. Folsom Prison more than doubled its capacity during the 1980s, increasing employment in prison-related positions, as well.

As a result of the City's growth during the 1980s, land values rose dramatically, and public facilities had to be expanded to accommodate the new growth. These and other factors greatly increased single family lot costs in the City. Because of higher development costs, City policies favoring single family development, and the housing market's natural propensity in Folsom to concentrate on single family housing, very little housing was constructed that could be afforded by low- and moderate-income households (who represent a substantial percentage of the newly employed workers in the City).

The high rate of growth also caused increasing concerns among the citizenry about the ability of the City to sustain this growth, the quality of development occurring in Folsom, traffic congestion and school overcrowding, and other side-effects that typically accompany rapid expansion. Over the past year, the City has received some reprieve from the rapid pace of development, owing to an economic recession which has substantially decreased building activity. This period has provided the City with an opportunity to ponder its future with respect to the amount and type of development it wishes to attract, the ultimate character of the City that Folsom residents desire to achieve, and the balance between commercial and residential development.

This Housing Element has been prepared in the context of Folsom's growth and development over the past decade. The most important issues that the City will face over the period covered by this Element (1991 to 1996) are:

- The ability of the City to sustain a reasonable rate of growth, yet maintain the high level of environmental quality that has attracted so many to the City.

- The relative balance between non-residential and residential development. The pace of commercial and industrial development has fallen below City expectations, and some landowners holding commercially-zoned properties have requested City approval for residential development.

- The ability of the City to provide for a reasonable share of housing affordable to low- and moderate-income households attracted to the newly created jobs in Folsom.

23.1.9 Public Participation

The public participation program adopted by City included a Public Workshop on June 3 and 17, 1992, a Planning Commission Hearing on July 22, 1992, and a City Council Hearing on August 25, 1992. The hearings and workshops were advertised through the newspaper, notices posted in public places, and notices mailed to community groups with an interest in the housing element. The notices and advertisements were be intended to encourage public participation and involvement in the adoption process, and specifically attempted reach organizations serving low-income and special housing needs groups.

SUMMARY OF CITY HOUSING OBJECTIVES

	SACOG Share 1989 - 1996	Units Produced 1989 - 1991*	Remaining Share 1991 - 1996	Objectives 1991 - 1996	Total Need Met	Percent
New Construction						
Very Low	1,905	0	1,905	265	265	(14%)
Low	1,257	335	922	840	1,175	(93%)
Moderate	1,544	409	1,135	1,050	1,459	(94%)
Above Moderate	2,853	2,143	710	2,517	4,660	(163%)
TOTAL	**7,559**	**2,887**	**4,672**	**4,672**	**7,559**	
Rehabilitation						
Very Low	N/A	N/A	N/A	35		
Low	N/A	N/A	N/A	15		
Conservation - At Risk Units						
Very Low	N/A	N/A	N/A	110		
Conservation - Mobilehomes						
Very Low	N/A	N/A	N/A	230		
Low	N/A	N/A	N/A	285		
Moderate/ Above Moderate	N/A	N/A	N/A	285		

* Based on the following: 2,143 single family dwelling units produced. 100% affordable to above moderate-income households: 744 multifamily dwelling units produced. 45% affordable to low-income households and 55% to moderate-income households (see page 78 for documentation).

The City believes that the programs and objectives described in this section represent the maximum effort the City can make to accommodate housing for all income groups. In developing these quantified objectives, the City has considered:

1) development costs for market-rate housing and how the City can reduce these costs, still provide necessary public services and facilities, and maintain a minimum acceptable standard of development quality;

2) the zoning densities which are appropriate to accommodate lower-income housing yet which are still sensitive to the City's environmental character and existing residential neighborhoods;

3) available local financial and staff resources to implement the City's housing program (the City does not anticipate having sufficient funding to provide more than one-half staff position to support the City's housing program);

4) available state and federal sources of funding for affordable housing developments; and

5) the ability of the private sector to assist the City in implementing proposed housing programs. Folsom does not anticipate that it will be financially feasible, given the incentives it can provide, to include affordable housing in every housing development. The housing program makes a conservative estimate, therefore, of the number of market rate and government-assisted housing units affordable to very low-, low- and moderate-income households that could be provided from the programs described above.

The quantified objectives shown above assume that the needs of very low-, low-, and many moderate-income households in Folsom can only be met through various types of multifamily housing (rental apartments, condominiums, townhouses, and duplex units). Land, land development, and construction costs documented in this Housing Element have lead the City to conclude that governmental subsidies and regulatory incentives will be necessary to stimulate the production of housing affordable to very low-income households and most low-income households.

Home builders may be able to produce attached single family dwelling units or detached units on small lots that are affordable to some moderate-income households, if such units are priced at less than $150,000. There are several types of regulatory and financial incentives, discussed in this document, the City could use to allow home builders to provide single family housing within this price range. All multifamily rental housing produced in Folsom, to-date, has been affordable to moderate-income households and is assumed to remain so in the future.

Folsom does not anticipate that home builders will be able to provide very low-income housing without deep public subsidies and/or the participation of a non-profit housing corporation. The new construction objectives established for very low-, low-, and moderate-income housing represent the maximum number of dwelling units the City believes could be produced under programs 7 and 8 (density bonuses), 9 (use of state and federal subsidies), 10 (mortgage bonds), and 13 (second units). Specific numerical objectives have been assigned to each of these programs, as explained in the "Expected Results" section for each program.

In addition to the low- and moderate-income new construction objectives shown in these programs, the City estimates that 150 market-rate (unsubsidized) rental units can be produced by the private sector which are affordable to low-income households, and 400 market-rate rental and/or ownership units can be produced that are affordable to moderate-income households. It is possible that 100% of the remaining low- and moderate-income need could be met if the programs proposed in this Element are successful in stimulating homebuilders to produce more multifamily housing.

23.2 . HOUSING NEEDS ASSESSMENT

23.2.1 Population Characteristics

The City of Folsom presents an appealing residential environment, due, in part, to its historic background, location on the American River, varied topography, semirural characteristics, and sense of community. The high level of growth experienced in the City since 1980 has caused substantial changes in the characteristic makeup of the population. This section of the Housing Element identifies some of the demographic changes which have taken place in Folsom over the past ten years.

In 1990, the total population in the City of Folsom was 29,802 persons. Of this total, 23,082 persons, or 77.45% of the population, were members of households. In the County, the percent of population that are also members of households was 97.87%, or 1,019,079 persons. The table below shows population and household statistics for the City of Folsom.

Table 23-1
POPULATION AND HOUSEHOLD FIGURES (1990)

	Folsom		Sacramento County	
	1990	1992	1990	1992
Population	29,802	36,507	1,041,219	1,099,058
Households	8,757	10,731	394,530	411,848
Household Population	23,082	28,990	1,019,079	1,075,904
Persons per HH	2.64	2.70	2.58	2.61
Persons in Group Quarters*				
Folsom Prison	6,609	6,619		
Nursing Homes	105	*****		
Other	6	*****		
Total	6,720	7,517		

* These figures are included in the Total Population figure.
Sources: U.S. Census, 1990; Cal. Dept. of Finance. 1992; Folsom Prison.

As the table shows, a small percentage of the population within the City is due to the prison inmates at the City of Folsom State Prison facility. The prison was recently expanded (1986), increasing the maximum number of inmates from approximately 3,000 to well over 6,000 persons. In 1985, the total persons in the prison (including both inmates and prison personnel) exceeded 3,800 persons; by June of 1991 the total persons in the prison had increased to 7,131, and then declined to 6,619 by May 1992.

The prison does not expect an increase in prison capacity in the near future and the current facility is presently filled to maximum capacity. The percent of the population therefore represented by the prison will become increasingly smaller over the next five years as the City continues to grow.

Because the majority of prison inmates are males between the age of 18 and 35, the total number of inmates could potentially represent a large share of the City population between the ages of 21 and 35 which has increased dramatically since 1980. The statewide average of prison inmates is 29, and officials at the Folsom State Prison feel that this age is very representative of the average Folsom inmate.

The annual average growth rate in the City of Folsom has increased significantly in the 30-year time period since 1960. In 1970, the total population of the City increased by 48.02% since 1960 with an average annual growth rate of 4.00%.

Table 23-2
POPULATION GROWTH RATES

Year	Ave Annual Population	Ave Annual Increase	Growth Rate	Time Period
1960	3,925			
1970	5.810	189	4.00%	1960-1970
1980	11.003	519	6.59%	1970-1980
1990	29,802	1.879	10.48%	1980-1990
1992	36,507	3.352	22.49%	1900-1992

Sources: U.S. Census Bureau 1960, 1970, 1980, 1990;
California Department of Finance, 1992.

In the ten year period 1970-1980.the total population increased by 89.38% with an average annual growth rate of 6.59%. The greatest total and annual change, however, occurred during the ten year period 1980-1990, with a total population increase of 170.85% and average annual growth rate of 10.48%. During this last decade the population in the City more than doubled for the first time in the City's history. These statistics are shown in the table above.

The California Department of Finance reported 36,507 persons in the City of Folsom in 1992 (January 1). This is an increase of 6,705 persons from the 1990 Census and represents a population percentage increase of 22.5%. The large increase in population reported by DOF is based in its assumption regarding the occupancy of dwelling units completed during 1990. With the substantial reduction in construction during 1991, the Department's 1992 population will likely show a much smaller increase.

DOF also reported a total of 1.099.058 persons in Sacramento County in 1992. DOF reported a City-wide vacancy rate of 4.59% and 2.70 persons per household. The DOF reported a vacancy rate of 5.30% and 2.61 persons per household in Sacramento County.

The following table indicates an almost across the board increase in the percentage of persons younger than forty-four years of age and a decrease in the percentage of persons above the age of forty-five. The only exception is a decrease in the percentage of persons in the fifteen to nineteen year age group. The greatest change was in the persons in the 25-34 age group (7.79% increase since 1980) and the 35-44 age group (6.32% increase since 1980). These two age groups together combined for almost half of the population (46.23) in 1990, a significant increase from 1980 when these two groups combined for approximately only one third (32.11%) of the population.

Table 23-3
AGE CHARACTERISTICS

	1980		1990		Percent
	Number	Percent	Number	Percent	Change
Age					
0 to 4	610	5.54	1.961	6.58	+ 1.04
5 to 14	1,195	10.86	3.527	11.83	+ 0.97
15 to 19	740	6.73	1,346	4.52	- 2.21
20 to 24	707	6.43	2.079	6.98	+ 0.55
25 to 34	2,018	18.34	7,787	26.13	+ 7.79
35 to 44	1,515	13.77	5,991	20.10	+ 6.32
45 to 54	1,247	11.33	2,779	9.32	- 2.01
55 to 64	1,305	11.86	1,742	5.85	- 6.01
65 to 74	1.078	9.79	1.555	5.22	- 4.57
75 +	588	5.34	1,035	3.47	- 1.87
Total	**11,003**	**100.00**	**29,802**	**100.00**	

* These figures include Folsom Prison population figures.
Source: U.S. Census Bureau. 1980. 1990.

This statistic, combined with the dramatic increase in total persons in the City and the decreasing older persons in the City could signify a substantial increase in working age adults, with and without families. However, as mentioned above, this change could also represent an increase in the number of inmates at Folsom prison during that same period in the 25-34 age group. The table above shows age characteristics in the City during the last ten years.

An increase in working families would also be reflected in a changing City school enrollment profile. In the 1991-92 school year, the Folsom-Cordova Unified School District reported a total of 4,584 students enrolled in the City of Folsom.

This number is more than twice as many children as enrolled in the 1985-86 school year, when there were 2,180 students. A certain percentage of this increase in the first six grades is due in part to the addition of three elementary schools in the City after the 1985-86 school year. The number of students in each grade are shown in the table below.

Table 23-4
SCHOOL DISTRICT ENROLLMENT CHARACTERISTICS

	1985-86		1991-92	
Kindergarten	158	7.3%	358	7.8%
First Grade	174	8.0%	418	9.1%
Second Grade	171	7.8%	375	8.2%
Third Grade	188	8.6%	399	8.8%
Fourth Grade	141	6.5%	352	7.7%
Fifth Grade	135	6.3%	384	8.4%
Sixth Grade	141	6.6%	392	8.5%
Seventh Grade	131	6.0%	356	7.7%
Eighth Grade	145	6.6%	368	8.0%
Ninth Grade	181	8.3%	342	7.5%
Tenth Grade	225	10.3%	303	6.6%
Eleventh Grade	192	8.8%	298	6.5%
Twelfth Grade	195	8.9%	239	5.2%
TOTAL	**2,180**	**100.0%**	**4,584**	**100.0%**

Source: Folsom-Cordova Unified School District, 1991; enrollment characteristics based on October 9 of the 1985-86 and 1991-92 school years.

Ethnic Characteristics

In 1980 persons of white ethnic background represented almost 96% of the population (95.9%). In 1990 this number had decreased to 84.0%, indicating a slight diversification of persons within the city. Significant changes also occurred among the percentage of hispanic and Black persons. The table below shows the ethnicity statistics for the City in both 1980 and 1990.

Table 23-5
ETHNICITY

Year	White	Black	RACE (%) Am.Ind.	[1]Asian	[2]Other	Hispanic[3]
1980	95.9	0.2	1.2	1.1	1.6	5.9
1990	84.0	9.9	0.7	3.4	2.0	10.9
	(89.4)	(1.6)	----------(6.2)[4]----------			(4.0)
% Change	-11.9	+9.7	-0.5	+2.3	+0.4	+5.0

[1] Includes American Indian, Eskimo, and Aleut
[2] Includes Japanese, Chinese, Filipino, Korean, Asian-Indian, Vietnamese, Hawaiian, Guamanian, Cambodian, Hmong, Laotian, Thai, and Samoan
[3] These figures also included in racial categories.
[4] Includes American Indian, Asian, and Other categories.

Source: U.S. Census Bureau, 1980, 1990.

It should be noted that the age and ethnic characteristics of the Folsom Prison population skews the Census Bureau report on the City as a whole. The numbers in parentheses in Table 5 represent the percent of the City's population in each ethnic category after subtracting the Folsom Prison population. The adjusted figures in parentheses more accurately reflect the composition of the City's year-round household population.

Employment Characteristics

The City of Folsom has traditionally been a net exporter of workers to other parts of Sacramento County and the region. The City has served as a residential suburb and historic commercial center. The chief "industry" in Folsom for many years was the state prison.

As late as 1980, only one of every four Folsom residents worked within the City limits, of a total labor force of 3,662 workers. Another 400-600 workers had jobs in the surrounding communities, based on their reported travel time. Most workers commuted to Sacramento or other distant locations to work, however. Fifty-eight per cent of those workers reported a 20-minute or longer commute time.

As Folsom has developed new commercial and industrial land uses, the ratio of jobs to housing has increased, although population growth has still far outpaced employment growth in the City.

Employment in 1980. The employment distribution in Folsom has been integrally linked to regional trends. In 1980, 27% of City was employed in the government and education sector. 23% were employed in the services/finance sector, and approximately 22% were employed in the wholesale/retail sector. Overall, wholesale and retail trade, services and finance, and government/education accounted for about 3/4 of the Folsom work force in 1980, about the same

county-wide. Only 9% of the workforce was involved in manufacturing industries.

Employment Trends 1980-1985. The California Employment Development Department (EDD), in its 1986 Annual Planning Information report, estimated Sacramento County's total employment in 1985 at 378,600, an increase of 12% since 1980. According to EDD, employment growth since 1980 has occurred primarily in government, private services, and wholesale and retail trade. These employment sectors accounted for 83% of Sacramento area jobs in 1985. Manufacturing jobs actually declined by about 1,000, while construction employment declined by about 1,500 jobs. The county-wide trend, then, is for office and service sector employment to continue to expand.

The employment trends in Folsom, however, will be somewhat different. In the early 1980s, Folsom began an effort to plan for services and municipal facilities for large commercial and industrial parks that were anticipated to develop in Folsom. A number of Bay Area firms and other large, national corporations, especially those involved in the research, development, and manufacturing of electronics components, expressed an interest in locating regional offices and manufacturing facilities in Folsom.

23.2.2 Projected Needs

Economic Development and Employment Characteristics

The commercial and industrial development expected to occur in the Folsom area over the next five years will have a significant impact on the extent to which people working in Folsom are able to find affordable housing in Folsom. If future jobs in the Folsom area are relatively low-paying positions, an increasing number of workers will be forced to commute to their jobs from surrounding communities. Possible results include higher traffic and commuting levels, increased pollution, and a diminished overall quality of life.

It appears that the majority of jobs to be created by the commercial and industrial development proposed for Folsom will be retail and assembly-type positions. Preparation for the development of a regional mall, for example, is in progress. If this project is completed, a substantial number of low- and moderate-paying retail jobs will be created. In addition, several new retail/commercial centers have been completed or are under construction since 1986.

The Intel Corporation, which employs 2,500 persons, plans to expand to 10,000 employees by the year 2010. If this expansion takes place linearly over the next twenty years, an estimated 1,975 jobs will be created over the life of the Housing Element. Although it is likely that these new employees will have a wide range of salary levels, many of them will be assembly-type workers in relatively low-paying positions.
One of the unknowns, since only part of the 1990 Census results has been released, is the proportion of households with two workers or more. This information is important in evaluating the balance of jobs to housing for two reasons:

1) To the extent that a higher percentage of households have two or more workers, the number of dwelling units needed to meet the housing demand from new workers would be lower; and

2) The higher the percentage of two-income households, the greater the number of households that can afford housing in Folsom, even among lower-paid employees. Low-paying jobs do not necessarily translate, one-for-one, into low-income households if a substantial number of households have two or more workers.

Because the general trend over the past twenty years has been for an increasing number of households to have two workers, it would be a gross miscalculation to assume that each new job created causes a demand for a new dwelling unit, and that each new low- and moderate-income job created will automatically create a demand for a

dwelling unit affordable to a low- or moderate-income household.

In addition, there is a substantial capacity for the existing population within Folsom and in the nearby unincorporated area to fill new job positions. There will always be a substantial percentage of the existing population that is unemployed and looking for work or that would fill new job positions if they became available. Taking into account these factors, the number of dwelling units needed to accommodate job growth will be substantially less than the number of jobs created.

Jobs/Housing. Information regarding the jobs/housing balance in the City is not available. However, if the 6,073 housing units which are currently under construction or approved for construction are completed over the next five years, it is unlikely that there will be an imbalance of housing in relation to employment growth. The major shortcoming of the jobs/housing analysis is that it does not take into account housing affordability. As stated in the previous section, until more of the 1990 Census results are available, it will not be possible to analyze the relationship between housing cost, housing availability, job creation, and income from new jobs.

Of the units currently under construction, ready to begin construction in 1992, or planned for construction between 1991 and 1996, it is unlikely that more than a small percentage of these units (probably less than 10%) would be affordable to low-income households. About 15% to 20% of these units would be rental apartments, and less than half of these units are projected to be affordable, at market rates, to low-income households.

A model which measures commute distances, such as the Commute Shed Model established by Sacramento County, could supplement the 1990 Census in providing information on commuting patterns of Folsom residents.

Folsom's Housing Needs Allocations. The following tables were adopted by the Sacramento Area Council Of Governments (SACOG) in 1990 as part of its Regional Housing Needs Allocation Plan (RHNAP). Table 6 provides estimates of existing and projected households by income group. Each jurisdiction is required by state law (Government Code Section 65584) to use the Regional Housing Needs Allocations as a basis for determining future housing need. The following steps were taken to determine the number of units which need to be constructed for each income group between 1991 and 1996.

1) The SACOG RHNAP identifies the increase in households by income category in Folsom between 1989 and 1996 and the corresponding percentage of increase in households for each income category (see Table 5).

2) The Basic Construction Need is calculated using the methodology provided by SACOG and 1990 Census data figures for total housing units (Table 6).

3) Total Basic Construction Need by Income Group is calculated by applying the percentage of increase in households by income category (Table 5) to the basic construction need figure calculated in Table 6.

The amount of housing which must be constructed over the period covered by the Housing Element in order to provide for household growth, required vacancy rates, and expected housing unit removals is defined by the Total Basic Construction Need, a figure which is provided in SACOG's Regional Housing Needs Allocation Plan.

Table 8 summarizes the remaining housing need for each income group for the period 1991 to 1996. The remaining need was calculated by subtracting from the total need for the 1989-1996 period the number of dwelling units constructed or approved for construction between 1989 and 1991.

In distributing these dwelling units by income groups, the City has determined that approximately 50 percent of rental apartments constructed during this period are affordable to low-income households, and approximately 50 percent are affordable to moderate-income households. In addition, it is assumed that approximately 25 percent of dwelling units constructed in medium-density multifamily zones during this period are affordable to moderate-income households (based on cost information collected for these units).

Table 23-6
SACOG RHNAP FAIR SHARE ALLOCATIONS

Income Categories	Est. 1989 Households	% of Total	Proj. 1996 Households	% of Total	Increase 1989-1996	Basic New Constr Need
Very Low	1,985	26.7	3,735	26.0	1,905	1,905
Low	1,189	16.0	2,344	16.3	1,155	1,257
Moderate	1,420	19.1	2,838	19.7	1,418	1,544
Above Mod.	2,854	38.3	5,475	38.0	2,621	2,853
Total	7,448	100.0	14,392	100.0	6,944	7,559

Source: SACOG Regional Housing Needs Allocation Plan.

Table 23-7
BASIC CONSTRUCTION NEED

Projected Households - 1991	14,392
Vacant for Sale - 1996	199
Vacant for Rent - 1996	+294
Subtotal	**14,885**
Vacant Not for Sale or Rent (1.8%)	+266
Total Units Needed - 1996	**15,151**
Plus replacement units needed	172
Less total 1989 Housing Units	-7,764
Total Basic Construction Need (1989-1996)	**7,559**
Housing unit count--1991	10,236
Less 1989 housing unit count	-7,764
Equals housing units added 1989-1991	**2,472**
1989-1996 Basic Construction Need	7,559
Less housing units added 1989-1991	-2,887
Equals remaining need--1991-1996	**4,672**

Sources: SACOG RHNAP, 1990, Department of Finance, 1991.

Table 23-8
BASIC CONSTRUCTION NEED BY INCOME CATEGORY
(1991 - 1996)

Income Category	1989-1996 Constr Need	Est Units Built (89-91)	Remaining Need (91-96)
Very Low	1,905	0	1,905
Low	1,257	335	922
Moderate	1,544	409	1,135
Above Moderate	2,853	2,143	710
TOTAL	**7,559**	**2,887**	**4,672**

23.2.3 Existing Needs

Median Income. Household income levels are generally expressed in terms of percentage of median income for the County in which a community is located. The definitions used by HCD are as follows:

Income Category	Definition
Very Low-Income	Less than 50% of median area income
Low-Income	50% to 80% of median area income
Moderate-Income	80% to 120% of median area income
Above Moderate-Income	over 120% of median area income

The most current income information available for Folsom is the 1991 HCD median income figures for the Sacramento County area. It is unlikely that these figures are as accurate as 1990 Census data, but since the Census Bureau is not expected to release income data until late 1992, the HCD figures will be used to calculate maximum housing payment affordability levels.

Incidence of Overpayment. The California State Department of Housing and Community Development (HCD) has determined that, in general, housing costs in excess of 30 percent of household income cause an undue financial burden on a household. Households spending in excess of 30 percent of the household income are considered to be overpaying.

Since it is impossible to determine who is living in which housing unit, the extent of overpayment cannot be determined. However, the results of this comparison provide an idea of the parity between housing costs and ability to pay. The following methodology provides a comparison between housing costs and income levels.

1) Maximum affordable housing payments are calculated by multiplying the income level for each household size and income group by 30 percent.

2) Maximum housing payments for the average size household at each income level are calculated at 30% of income.

3) Maximum housing payments are compared with 1990 Census data on housing costs to determine the percentage of the City's housing units which are affordable to each income category.

4) The percentage of units affordable to each income category is multiplied by the 1990 Census estimate of the total number of housing units to determine the number of units affordable to each income group.

5) The number of households in each income group is calculated by multiplying the 1989 SACOG estimates of percentage of households at each income level by 1990 Census household count.

6) The number of affordable units in each income group is compared to the number of households in each income group.

Using 1990 Census data and 1990 SACOG information in the manner prescribed above, it can be calculated that 2,564 households in Folsom spend more than 30 percent of their incomes on

housing costs. This represents 29.2 percent of Folsom's households. The following tables contain the information used to make these calculations.

Table 9 provides income levels and maximum housing payments for households of different sizes based on the above definitions and median income figures provided by HCD for the Sacramento County area. Table 10 identifies the payments required for loans of varying amounts at varying interest rates.

Because the Census information is not yet available on housing price by size of the house, and the housing payment affordability levels in Table 10 are based on the size of the household, the average size household and its maximum affordable rent must be compared to housing costs. Table 11 provides the maximum housing payments for the average size household (2.64 persons per household, as determined by the 1990 Census).

Table 23-9

INCOME LEVELS AND MAXIMUM HOUSING PAYMENTS FOR SACRAMENTO COUNTY AREA

	VERY LOW		LOW		MEDIAN		MODERATE	
HH Size	Income	Payment	Income	Payment	Income	Payment	Income	Payment
One	$13,900	$350	$22,250	$555	$27,800	$695	$33,350	$835
Two	15,900	400	25,400	635	31,750	795	38,100	950
Three	17,850	445	28,600	715	35,750	895	42,900	1,070
Four	19,850	495	31,750	795	39,700	990	47,650	1,190
Five	21,450	535	34,300	855	42,850	1,070	51,400	1,285
Six	23,050	575	36,850	920	46,100	1,150	55,300	1,380
Seven	24,600	615	39,400	985	49,250	1,230	59,100	1,480
Eight	26,200	655	41,900	1,045	52,400	1,310	62,850	1,570

Source: Median income figures provided by the California State Department of Finance (1991).

Maximum affordable housing payments calculated as 30% of monthly household income, rounded to the nearest $10.

Table 23-10
MONTHLY PAYMENTS - PURCHASE HOUSING

Loan Amount	8%	9%	10%	11%	12%
$20,000	$148	$162	$177	$192	$207
40,000	296	324	354	383	414
60,000	440	483	527	571	617
80,000	587	644	702	762	803
100,000	734	804	878	952	1,028
120,000	880	961	1,053	1,143	1,234
150,000	1,100	1,207	1,316	1,428	1,543
200,000	1,467	1,609	1,755	1,905	2,057

Source: Connerly & Associates, Inc., 1991.

Table 23-11
MAXIMUM HOUSING PAYMENTS FOR THE AVERAGE SIZE HOUSEHOLD

HH Size	VERY LOW Income	Payment	LOW Income	Payment	MEDIAN Income	Payment	MODERATE Income	Payment
2.64*	$16.184	$ 404	$25,920	$ 648	$32,400	$ 811	$38.880	$ 972

* 1990 Census determined that the average household size in Folsom is 2.64.

Based on the maximum average housing payments for the average size household and certain assumptions (10% down, 9% APR), a very low-income household can only afford a housing unit with a value $55.625. Under these same guidelines, a low-income household can afford a maximum value of $88,889,and a moderate-income household can afford a maximum value of $121.341.

These estimates indicate that many of the housing units in the City are not affordable to certain income groups. The table below shows the maximum purchase price for very low-, low-, and moderate-income households.

Table 23-12
MAXIMUM HOME PURCHASE PRICE BY INCOME CATEGORY

VERY LOW	LOW	MODERATE
$55.625	$88.889	$121,341

Assumptions: 10 percent down payment.
9.0 percent a.p.r. financing.
2.64 persons per household.

Market Response to Housing Demand. There are currently many new homes being completed and under construction in the City of Folsom. Much of this new construction is in the area of Folsom referred to as Natoma Station. Although the size of the subdivisions vary, most range between 80 to 100 lots with most home prices well into the $200.000 range. A number of the new subdivisions are also located in the Lexington Hills area, south of Folsom Lake in the City.

The average home size in these new subdivisions has a minimum of four bedrooms and many times the homes have as many as five bedrooms. Of the listed home sellers below, none offer a three bedroom unit and very few have any models that are available under $200.000. This average price creates affordability constraints on the homebuyer. The table below shows some of the new developments in the City and the range of prices and home sizes each project offers.

Table 23-13
NEW HOME CHARACTERISTICS

PROJECT NAME	SIZE	PRICE	DESCRIPTION
Ashby Parke	---	$257,000-	3 bdrm/2 bath
[Citation Homes]	2,812-	$283,000	5 bdrm/3 bath
	3,000	$307,000	5 bdrm/4 bath
Briggs Ranch	1,733-	$206,900-	3 bdrm/2 bath
[Winncrest Homes]	2,278	$248,900	4 bdrm/3 bath
Bryncliff		$225,200	
[Morrison Homes]		$297,709	
Carson Hill	1.667-	$185,450-	3 bdrm/2 bath
[Carson Homes]	2,729	$285,950	5 bdrm/3 bath
California Hills	2,260-	$241,950	3 bdrm/2 bath
	2,680	$286,950	5 bdrm/3 bath
Cascades	1,910-	$214,400-	3 bdrm/3 bath
[Elliot Homes]	2,435	$252,950	4 bdrm/3 bath
Goldridge	1,845-	$209,950-	4 bdrm/2 bath
[Lexington Homes]	2,690	$264,950	5 bdrm/3 bath
Lakeridge	1,675-	$169,950-	3 bdrm/2 bath
[Lexington Homes]	2,690	$255,950	5 bdrm/3 bath
Orofino	1.987-	$234.950-	4 bdrm/2 bath
[Patrick Developt.]	2,952	$297,950	5 bdrm/2 bath
Prospect Pointe	1,675-	$182.950-	3 bdrm/2 bath
[Lexington Homes]	2.561	$239,950	5 bdrm/3 bath
Silvertrace	2,008-	$206,490-	4 bdrm/2 bath
[Richmond American]	3.268	$271,990	5 bdrm/4 bath
Twin Rocks		$174,950-	
		$209-950	

Source: Marketing brochures from Folsom area developments. 1991, 1992.

The information presented in Table 13 includes only those prices for homes actually available for sale at the time of the survey and is not, therefore, a complete listing of homes sold in Folsom during 1991 and 1992. Many of the home builders listed in Table 13 have produced smaller single family homes selling between $130,000 and $160,000. These homes tend to be sold very quickly, however, and none were available for sale at the time of the 1991 or 1992 surveys. As a consequence, the information shown in Table 13 tends to overstate the average selling prices of new single family homes for sale in Folsom.

The Census reported a median home value of $210,600 in the City of Folsom in 1990. The Census report, which categorizes single family owner-occupied homes, indicates that over half of the homes surveyed are valued at more than $200,000 (55.4%). Only 6.2% of the homes are valued at less than $100,000, and the remaining housing units are valued between $100,000 and $200,000. The Census figures are consistent with the asking home prices in new subdivisions in both Natoma Station and Lexington Hills, which both offer homes well into the $200,000 range. The table below shows the distribution of owner-occupied homes in the City by home value.

The Census reported a median contract rent of $555 in the City in 1990. Table 15 shows the rents received by rental bracket group.

Table 23-14
SINGLE FAMILY OWNER-OCCUPIED HOME VALUES

Value	# of Homes	Percent
Less than $15,000	1	--
$15,000 to $19,999	3	--
$20,000 to $29,999	6	0.1%
$30,000 to $39,999	5	0.1%
$40,000 to $49,999	9	0.2%
$50,000 to $59,999	12	0.3%
$60,000 to $74,999	68	1.2%
$75,000 to $99,999	234	4.3%
$100,000 to $124,999	401	7.4%
$125,000 to $149,999	385	7.1%
$150,000 to $174,999	584	10.8%
$175,000 to $199,999	705	13.1%
$200,000 to $249,999	1,361	25.2%
$250,000 to $299,999	855	15.8%
$300,000 to $399,999	514	9.6%
$400,000 to $499,999	157	2.9%
$500,000 or more	104	1.9%
Total	**5,404**	**100.0%**
Median Home Value:	$210,600	

NOTE: Excludes condominiums Source: U.S. Census Bureau, 1990.

Table 23-15
CONTRACT RENTS FOR THE CITY OF FOLSOM

Rents	# of Units	% of Units
Less than $100	8	0.4%
$100 to $149	12	0.5%
$150 to $199	75	3.3%
$200 to $249	64	2.9%
$250 to $299	63	2.8%
$300 to $349	126	5.6%
$350 to $399	214	9.5%
$400 to $449	191	8.5%
$450 to $499	144	6.4%
$500 to $549	173	7.7%
$550 to $599	289	12.9%
$600 to $649	218	9.7%
$650 to $699	131	5.8%
$700 to $749	113	5.0%
$750 to $999	269	12.0%
$1,000 or more	111	4.9%
No cash rent	42	1.9%
TOTAL	**2,243**	
Median rent:	$ 555	

Source: U.S. Census Bureau, 1990.

An important consideration in analyzing housing prices and rental payments is to determine the degree of overpayment by low- and very low-income households. Unfortunately this information will not be available from the 1990 Census until after the adoption of this element. Therefore, the only accurate analysis of household overpayment in the City is from the 1980 Census report.

At the time of the 1980 Census. there were about 400 rental units available at $170 or less, equal to 25% of a very low-income household's monthly earnings. In 1980, there were 638 very low-income households in the City of Folsom.

Many of these households, approximately 200, were homeowners. There were about 450 owners whose monthly housing expenses (excluding utilities) were $170 per month or less.

There were approximately 530 rental units affordable to lower-income Folsom residents, units renting for between $170-$274. There were 300 homeowners who paid $170-$274 in housing expenses (excluding utilities) in 1980. In 1980, there were 518 lower-income households and 160 of these were owner-occupants.

It appears that Folsom's housing market. then. was roughly in balance in 1980, with sufficient rental or ownership units at housing costs affordable to very low- and lower-income

households. It is obvious, though, from the Census data on housing costs as a percentage of income that most very low- and lower-income households did not actually reside in these lower-cost units. Two reasons are likely:

1) Very low- and lower-income households often compete for the same lower-cost units as moderate- and some above-moderate households.

2) Lower-cost housing units are most likely to be studio, one- or two- bedroom homes, which may not be suitable to lower-income families, especially large families.

Since 1980, Folsom has evolved into a "dual" housing market, with a sizeable stock of older, lower-cost housing and newer units affordable mainly to moderate- and above moderate-income residents. Some evidence of this duality existed in 1980. The Census showed the median cost of housing varied significantly with the age of a home.

Homes constructed the year prior to the Census had a median price of $130,000, whereas homes constructed prior to 1960 had estimated median values of $50,000 to $60,000. In between were homes constructed during 1970-1978. These homes had estimated median values of $80,000-$100.000 in 1980.

Changes in housing costs in Folsom since 1980 reflect four underlying factors:

3) Regional housing demand pressures which have caused property values and rents to rise,

4) The price mix of new housing units built,

5) The growing desirability of Folsom as a residential environment, and

6) Increased costs of construction, including land prices and development costs, and facilities that serve new residences.

The following table uses information on the maximum housing payments for the average size household and the housing cost information presented in the above tables to estimate the number of housing units affordable to each income group.

Table 17 shows SACOG's estimate of housing affordability by household income level throughout the City in 1990. Based on these estimates, only 34.3% of the units are affordable to very low-income households. Each of the remaining income levels have a higher percentage of affordability with moderate-income households being the next most in demand of affordable housing at 60.3%.

Table 23-16
AFFORDABLE HOUSING UNITS BY INCOME CATEGORY*

Type	Very Low	Low	Moderate	Abv. Mod.	Total
Rental	619	991	371	262	2,243
Owner-Occupied	31	73	446	4,854	5,404
Totals	**650**	**1,064**	**817**	**5,116**	**7,647**
Percentage					
By Category	**8.5%**	**13.9%**	**10.7%**	**66.9%**	**100%**
Cumulative	**8.5%**	**22.4%**	**33.1%**	**100.0%**	

* Based on 2.64 persons per household, does not include 100% of the City's housing stock.
Source: U.S. Census Bureau, 1990.

Table 23-17
HOUSING AFFORDABILITY

Income Group	1989 SACOG Projection	1990* HH Est	% of Units Affordable***	Total Units 1990*	Aff Units / Total HHs***
Very Low	26.7%	2,338	8.5%	801	34.3 %
Low	16.0	1,401	13.9	1,309	93.4
Moderate	19.0	1,671	10.7	1,008	60.3
Above Mod.	38.3	3,354	66.9	6,301	188.0
Total	100.0%	8,754	100.0%	9,418	

* U.S. Census Bureau.
** From Table 14.
*** Ratio of affordable units to households for each income level.

Housing Age and Condition. In 1987, over half (58%) of Folsom's housing was constructed since 1975 and over 80% since 1960. Less than 6% of the City's housing predates 1940, and these numbers have only become greater in the five years since.

Given the relative newness of Folsom's housing, one should not expect to find a significant problem of substandard housing. In fact, an exterior housing conditions survey conducted in 1991 identified only 88 housing units in need of rehabilitation.

The exterior conditions survey did not include several homes which were in the process of being repaired by their owners. It should be noted that the survey was not an extensive "walk through" inspection of each unit; therefore, it is possible that many of these units may be in need of internal repairs.

Also, it is highly likely that other homes are substandard internally, although the outward appearance might not show a need for substantial home repairs. Details of the housing conditions survey are discussed later in this document.

Special Housing Needs. This section will identify the housing needs of special population groups such as the elderly and mobility impaired. The table below summarizes 1990 Census data for householders over the age of 65, female householders, large families, and overcrowded households.

Table 23-18
GENERAL HOUSEHOLD CHARACTERISTICS

	# of Households	% of Total
Householders 65+ yrs.	1,619	
Renters	334	20.6%
Owners	1,285	79.4%
Female Householders	1,8542	1.2%
single, no children	1,0611	2.1%
single, with children	429	5.0%
non-single, no children	227	3.0%
non-family	137	1.6%
Household size		
1 person	1,740	19.9%
2 persons	3,0843	5.2%
3 persons	1,617	18.5%
4 persons	1,5611	7.8%
5 persons	551	6.3%
6 persons	143	1.6%
7 or more persons	61	0.7%
Large Families (5 or more in HH)	755	8.6%
Overcrowded Households (more than one person/room)		
Owner Occupied	84	1.0%
Renter Occupied	124	1.4%
Total	208	2.4%

Source: U.S. Census Bureau, 1990.

Residents 65 Years of Age or Older. The 1990 Census determined that there were 2,590 persons over the age of 65, and 1,619 households with a head of household 65 or older, in the City of Folsom. Although the actual number of persons within this age group has increased, the proportion of the total population 65 years and older has decreased by more than six percentage points.

Nearly four in five (79.4%) of Folsom's older households own their homes. Most of these households do not have trouble meeting their basic housing costs because the mortgage has been paid in full. However, other housing costs, particularly utilities and maintenance, continue to increase, making it increasingly difficult for those households who depend primarily on Social Security and income from pensions to meet these

costs. As these older homeowners find they do not have the necessary funds to maintain their homes, they defer maintenance. When this occurs over a period of years, many homes become dilapidated and no longer provide a safe or healthy living environment.

Only one of five (20.6%) households 65 years or older rents its unit. These households face a much more difficult housing situation, however, regarding unit availability and affordability. There is no readily available data which can identify the number of older renters in need of housing assistance. However, these older households are included in the total number of low-income renter households identified as needing housing assistance.

Large Families. There were 755 large families (five or more members) living in Folsom in 1990. Information is not yet available from the 1990 Census regarding the income levels of these families. To keep from being overcrowded, these families need housing units with five or more rooms.

There are 7,094 housing units in the City with five or more rooms (1990 Census), but the Census does not identify the housing costs associated with these housing units.

Based on the available information, it is assumed that the housing needs of above moderate-income and most moderate-income large families are being met. Given the small supply of rental units, particularly rental apartments, with three or four bedrooms that are affordable to very low- and low-income households, the City would need to expand the supply of such units to meet the needs of lower-income large families.

The extent of this supply imbalance cannot be quantified until 1990 Census data is available to allow a comparison of rental rates by number of bedrooms with household income for large families. The tables below show the total rooms per housing unit and the total household size by household status and tenure.

Table 23-19
NUMBER OF PERSONS BY TENURE

Household Size	Total	Percent
FAMILY HOUSEHOLDS		
2 Persons	2,721	41.3%
3 Persons	1,552	23.7%
4 Persons	1,540	23.4%
5 Persons	545	8.4%
6 Persons	143	2.3%
7 or more	61	0.9%
Total	**6,562**	**100.0%**
NON-FAMILY HOUSEHOLDS		
1 Person	1,740	79.3%
2 Persons	363	16.5%
3 Persons	65	2.9%
4 Persons	21	1.0%
5 Persons	6	0.3%
6 Persons	0	---
7 or more	0	---
Total	**2,195**	**100.0%**

Source: U.S. Census Bureau, 1990.

Table 23-20
NUMBER OF ROOMS BY HOUSING UNIT

Number of Rooms	Total Housing Units	Percent
1 Room	106	1.1%
2 Rooms	205	2.2%
3 Rooms	622	6.6%
4 Rooms	1,391	14.7%
5 Rooms	1,556	16.5%
6 Rooms	1.750	18.6%
7 Rooms	1,538	16.3%
8 Rooms	1.295	13.7%
9 or more Rooms	955	10.1%
TOTAL	**9,418**	**100.0%**

Source: U.S. Census Bureau, 1990.

Mobility Impaired. Persons with physical handicaps that limit their mobility need a housing plan that addresses the problems of accessibility within the handicapped person's private residence. Accessories such as handrails, ramps, wider doorways, and non-skid flooring are necessary for many mobility-impaired persons in order to have maximum use of their home.

The Sacramento Easter Seals Foundation, Sacramento County Social Services, the Association for Retarded Citizens, the State Department of Rehabilitation, and the Alta Regional Center were contacted in order to determine the needs of individuals in Folsom with physical conditions which require special housing design.

The Alta Regional Center, a state-funded non-profit agency which provides services for the developmentally disabled, indicated that they are providing services for 45 persons in the Folsom area. According to the Center, the housing needs of this group are mainly financial assistance needs. The City could provide housing for this group through the implementation of policies and programs aimed at assisting in the development of affordable housing.

Both the Easter Seals Foundation and Placer County Social Services agree that it is very difficult to quantify the physically handicapped population because members of this population do not congregate towards specific programs. However, the 1980 Census data identifies 324 individuals within Folsom as having a disability involving work or public transportation. It is assumed that a large percentage of these individuals are members of low-income households, since their disabilities preclude them from working. It is also assumed that these households require housing assistance, particularly rental assistance.

Financing for disabled accessibility improvements is also available through the City's Community Development Block Grant Program for those homeowners whose family income falls below 80% of the median income. Encouraging investors to add accessibility features to single-family rental units is a difficult proposition, however, as any permanent alteration could affect the units' marketability to non-disabled persons.

Homeless. There are no homeless facilities in Folsom. Furthermore, there is no information which is readily available regarding the nature of the homeless population in Folsom. None of the primary social service agencies that provide homeless services in Sacramento County (Volunteers of America, Catholic Social Services, Traveler's Aid, and the Salvation Army) are aware of any significant number of residents from Folsom, or individuals passing through Folsom, who require emergency shelter. City officials are aware that homeless transients passing through Folsom will occasionally camp at Negro Bar State Park campgrounds temporarily, but they have also concluded that the City's relative distance from central Sacramento, from an operating railroad line, and from Highway 50 would make it unlikely that a significant number of homeless individuals would seek shelter in Folsom.

Female Householders. The 1990 Census determined that 21.2 percent of the households in Folsom (1,854 households) are headed by women. Four hundred twenty-nine of these householders are single and have children. Information regarding the income levels of these households is not available, but it can be assumed that they have income levels below the median area income.

Interviews with the Placer Women's Center indicate that housing affordability is the number one problem concerning female householders. The second major concern is the availability of apartment owners who will rent to single mothers. The Placer Women's Center suggests that increased affordable housing and educational programs for single mothers would help substantially.

Housing programs aimed at increasing the stock of lower-income housing would benefit this group. In addition, multifamily housing with child day-care facilities would benefit female householders with children. A multifamily housing survey could identify complexes with this type of facility.

Incidence of Overcrowding. The Census Bureau defines an overcrowded household as one which has more than one person per room, excluding bathrooms, kitchens, closets, and hallways.

The 1990 Census counted 208 overcrowded households (2.4%) in Folsom, 124 of which (1.4%) were rental households. The table below shows the number of persons per room in the City as reported by the Census. The income levels of these households cannot be determined at this time. Furthermore, it is not clear whether these households are overcrowded because they cannot afford to rent housing with sufficient numbers of rooms, or if there are simply not enough multiple-room rental units in the City. A multifamily housing survey would answer part of this question.

Table 23-21
TENURE BY PERSONS PER ROOM

OWNER OCCUPIED		
0.50 or less	5,003	57.2%
0.51 to 1.00	1,401	16.0%
1.01 to 1.50	65	0.7%
2.01 or more	4	0.1%
RENTER OCCUPIED		
0.50 or less	1,340	15.3%
0.51 to 1.00	805	9.2%
1.01 to 1.50	86	1.0%
1.51 to 2.00	28	0.3%
2.01 or more	10	0.1%
TOTAL	**8,742**	**100.0%**

Source: U.S. Census Bureau, 1990.

Farmworkers. The City of Folsom is not an agricultural community. Since there is no known community of farmworkers in Folsom, there is no identifiable need for farmworker housing or other facilities. However, the 1980 Census reported that 30 individuals were employed in agricultural pursuits.

The Census did not report specifically on whether these 30 individuals were seasonal laborers, ranch-
hands, farm or ranch owner-operators, or "hobby" farmers. It is possible that some or all of these individuals may be employed in agricultural or ranching pursuits in the El Dorado Hills area, in the apple orchards in El Dorado County, in El

Dorado County vineyards, or in agriculture or ranching southeast of Folsom.

Because there are no large agricultural operations nearby that would attract a substantial seasonal farmworkers population, there does not appear to be a need for special farmworker housing in Folsom. If any individuals employed in agriculture in Folsom require housing assistance due to their economic status, their need can be met through other housing assistance programs targeted for lower-income households in general.

23.3 RESOURCE INVENTORY

23.3.1 Housing Stock Characteristics

Housing Type and Tenure

The table below provides 1990 Census data on housing types and vacancy in the City of Folsom. Since 1990, the California Department of Finance reported (January 1992) that the City's housing stock has increased to 11,247 dwelling units, of which 7,973 are single family homes, 492 are dwelling units in buildings of 2 to 4 units, 1,895 are dwelling units in buildings of 5 or more units, and 886 are mobilehomes.

Vacancy Status

There were 645 vacant housing units in 1990, a vacancy rate of 6.8 percent in the City. Of those, 175 units were vacant for rent, and 297 units were vacant and for sale. An additional 86 units were sold or rented and awaiting occupancy, and 87 other units were vacant for other reasons but not available for occupancy.

The effective vacancy rate in the City, therefore, was 5.1 percent in 1990 (4.4% for owner-occupied housing and 7.2% for rental housing). The overall percent of units unoccupied declined from 6.8% in 1990 to 4.6% in 1992.

For a typical community with moderate growth and turnover in housing units, a vacancy of 2% for owner-occupied housing and 5% for rental housing is considered adequate to ensure sufficient choice and movement by households looking for housing.

These vacancy rates indicate that, at the time of the Census, the City of Folsom had adequate vacancy rates, and that, overall, there is no housing shortage in the City. These general statistics do not reveal, however, the relative availability of housing that meets the needs of low- and moderate-income households.

Table 23-22
HOUSING STOCK CHARACTERISTICS

	Total Units	Percent	Occupied Units Owner	Percent	Renter	Percent
Housing Types						
SF Detached	6,533	69.4	5,433	62.0	686	38.0
SF Attached	373	4.0	212	56.8	138	43.2
Subtotal	**6,906**	**73.4**	**5,645**	**81.7**	**824**	**18.3**
Duplex	218	2.3	18	8.3	191	91.7
MF (3 - 49 units)	1,133	12.0	6	0.1	1,008	99.9
MF (50 + units)	238	2.5	0	0.0	166	100.0
Subtotal	**1,589**	**16.8**	**24**	**1.5**	**1,365**	**98.5**
Mobilehomes	886	9.4	809	91.3	55	8.7
Other	37	0.4	10	27.0	25	73.0
Subtotal	**923**	**9.8**	**819**	**90.5**	**77**	**9.5**
Total Units	**9,418**	**100.0**				
Total Occupied Units	**6,488**	**74.1**	**2,269**	**25.9**		
Vacancy Status						
For Rent	175	1.9				
For Sale	297	3.2				
Rented or Sold, not occupied	86	0.9				
Other	87	0.9				
Total	**645**	**6.8**				

Source: U.S. Census Bureau, 1990.

23.3.2 Condition of Housing Stock

A 1986 survey of housing conditions found approximately 100 dwelling units in need of rehabilitation. All of these units were located in the City's redevelopment area, in the central portion of the community developed prior to 1970. A follow-up survey of housing conditions conducted in 1991 found that eighty-eight (88) dwelling units are need of repair. The level of repair needed is summarized below:

- 58 minor repairs
- 30 moderate repairs
- 0 substantial repairs
- 0 are dilapidated (not feasible to repair)

The decrease in the level of units in need of rehabilitation was primarily due to the City's housing rehabilitation program, in operation since 1988.

23.3.3 Residential Lands Inventory

The purpose of the Residential Lands Inventory is to summarize the City's total residential holding potential. The resulting number of potential units can then be compared with expected growth patterns to determine if it is possible to construct housing in sufficient quantities for households of all income levels.

To compute the total number of residential dwelling units which could realistically be built, the report first totaled the units which are either under construction, have been approved, or for which proposals have been submitted. This number was added to the total number of units which could potentially be built in the remaining undeveloped residential areas under a medium-density development assumption (this density level is the most likely considering current City policies).

The total residential potential under this assumption is then adjusted to reflect the extent to which recent residential development (projects which are either under construction or have been approved) has taken advantage of densities allowable under the medium density scenario. Table 18 calculates a construction ratio by dividing the projected number of units allowed at the "midpoint" density level into the actual units approved and under construction. For example, single family housing developments are currently being constructed at approximately 108 percent of allowable densities under the Medium Density scenario.

The majority of the information used in this analysis was taken from the City's Housing and Population Capacity Analysis report. This report defines three scenarios for potential growth according to different density levels; low, medium, and high. These density levels represent ranges established in the City's General Plan. The density ranges were applied to housing types as follows:

Housing Type	Low	Medium	High
Single Family Low	2.0	3.0	3.9
Single Family High	4.0	5.5	6.9
Multi Family Low	7.0	9.5	11.9
Multi Family Medium	12.0	15.5	17.9
Multi Family High	18.0	21.5	25.0*

* Could only be achieved with a density bonus.

Land Inventory

A land use inventory was updated for the City in October 1991. The survey shows that about half the City's land has already been developed or is under development.

The results of the survey are shown below. The first table shows the developed land in the City and the second table shows the undeveloped land in the City.

Table 23-23
LAND INVENTORY
Developed By Use Land Designation

General Plan Designation	Acres	Percent
Single Family Residential	3,999.26	26.36%
Single Family High Density	795.90	25.25%
Multifamily Low Density	495.90	53.27%
Multifamily Medium Density	23.46	0.15%
Multifamily High Density	0.00	--
Neighborhood Commercial	14.35	0.09%
General Commercial	15.59	0.10%
Community Commercial	108.40	0.72%
Central Commercial	150.83	0.99%
Regional Commercial	20.27	0.13%
Specialty Commercial	265.08	1.75%
Industrial	201.33	1.33%
Public Lands	1,203.80	97.94%
Open Space Lands	--	--
Schools	100.77	0.66%
Water	--	--
TOTAL	7,392.10	48.76%

Source: City of Folsom Community Development Department, 1991.

Table 23-24
LAND INVENTORY
Not Yet Developed Land Designation

General Plan Designation	Acres	Percent	Dwelling Units-	Income Group
Single Family	922.17	6.08%	1,844- 3,596	Above Mod
Single Family High	165.97	1.09%	663- 1,145	Mod*/Above
Multifamily Low	182.05	1.20%	1,277- 2,171	Low*/Moder
Multifamily Medium	139.80	0.92%	1,677- 2,502	Very L*/Low
Multifamily High	59.64	0.39%	1,073- 1,491	Very L*/Low
Neighborhood Commer	36.67	0.24%	N/A	
General Commer	7.19	0.05%	N/A	
Community Commercial	62.06	0.41%	N/A	
Central Commercial	85.53	0.56%	N/A	
Regional Commercial	60.57	0.40%	N/A	
Specialty Commercial	266.67	1.76%	N/A	
Industrial	1,313.54	8.66%	N/A	
Public Land	15.57	0.10%	N/A	
Open Space	2,680.27	17.67%	N/A	
Schools	175.60	1.16%	N/A	
Water	1,601.24	10.56%	N/A	
TOTAL	**7,774.59**	**51.19%**	**6,534- 10,905**	

* Potentially affordable to this income group at the allowed density range only with local regulatory incentives and/or financial subsidies.

NOTE: This Table shows land use designations as included in the General Plan at the time of adoption of the Housing Element. A proposal is pending to redesignate industrial land in the East Area to residential use.

Source: City of Folsom Community Development Department, 1991.

Table 29 indicates that the City could accommodate its remaining regional share of housing for all income groups based on existing General Plan densities if it adopts programs to stimulate the production of affordable housing (see Goals, Policies, and Programs). Folsom's remaining SACOG regional housing share between 1991 and 1996 is 1,905 dwelling units affordable to very-low income households, 922 dwelling units affordable to low-income households. 1,135 dwelling units affordable to moderate-income households, and 710 dwelling units affordable to above moderate-income households. There is more than sufficient land designated for single family development to meet the remaining above moderate-income housing need (710 dwelling units), even if all such development occurred at the bottom of the density range. To meet low-

and moderate-income housing needs, many multifamily developments would have to occur at the mid-point or higher density range. To meet very low-income housing needs, multifamily developments would need to occur at the upper end of the density range in the medium and high density multifamily categories.

It is not necessary that every development on multifamily-zoned land will occur at the highest density allowed and include only low- and moderate-income housing to meet the City's lower- and moderate-income housing needs. There is sufficient capacity within the three multifamily categories to ensure that enough developments could be accommodated to meet these needs in projects containing a mixture of dwelling units for all income groups.

The City is presently revising its zoning code to reflect the 1988 General Plan categories. The zoning code revision is a high priority and should be completed by July, 1993. Pending the zoning code revision, the City is allowing developments that reflect the current General Plan density ranges, and does not anticipate that the lack of an updated zoning code will represent a constraint to development during the updating period.

The types of dwelling units that could potentially be constructed in each land use category are based on the density ranges shown on page 44. These densities are established by the Land Use Element (see Table 21-4). For the purpose of projecting the total number of dwelling units and population, public facilities, and community services needs, the City has assumed that development, on the average, will occur at the mid-range of the allowed densities, although the highest density is allowed for projects which incorporate low- and moderate-income housing.

Section 21.2.4 of the Land Use Element contains policies used by the City for judging whether densities above the minimum should be allowed. The low end of the density range for each residential land use category is allowed by right. The higher end of the range is allowed if a development incorporates "special benefits", such as additional park or open space, on-site recreational facilities, additional trees or landscaping, or transit facilities or services. The City can also permit higher densities for other "special benefits" which are not specifically named in the General Plan. One of these other benefits for which the City allows developments at the higher density is the provision of senior, low- or moderate-income housing.

The City does not use the special benefits policy to discourage higher density projects, but to assure that developments with higher densities contain offsetting benefits that address the impacts of those higher densities. In fact, it is not difficult for developers to qualify for the higher densities, and several developments have been approved at densities higher than the mid-range density since the General Plan was adopted in 1988.

Because the City will allow developments which include low- and/or moderate-income housing to qualify for the highest density within the applicable residential category, the General Plan has a built-in density bonus program. The "bonus", in this case, is the ability to develop at the high end of the density range in exchange for providing at least 10% very low-income housing, 20% low-income housing, 25% moderate-income housing, or senior housing (see Programs 7 and 8 for details). The effect is to provide a density "bonus" of between 39% to 70% over the minimum density allowed, depending on the residential category. This is more generous than the 25% density bonus required by state law. Program 8 contains conditions on the moderate-income density bonus to ensure that it does not discourage very low- and low-income housing proposals.

A review of the average development densities of projects approved since 1988 indicates that most were proposed at the mid-point density range or less. The lower densities reflect market conditions, the desire of home builders to

construct mostly single family dwelling units (although townhouses have been proposed and two apartment developments have been completed recently). The City has not discouraged higher density housing, but the local housing market, as perceived by homebuilders active in Folsom, does not seem to support substantial multifamily development at the present time.

Several home builders have produced smaller, single family dwelling units priced at less than $150,000 for first-time home buyers and moderate-income households. More such homes are proposed as these units sell quickly. An evaluation of proposed building plans indicates that most include three- or more-bedroom single family homes priced at more than $150,000, however. This trend could change as builders try to address the large, unmet demand for low- and moderate-income housing, which represents a potentially larger market at the present time than the "move-up" single family home market.

City land use policies favoring a variety of housing types is a necessary condition for the production of affordable housing. Favorable City land use policies can not guarantee, however, that builders can and will respond to low- and moderate-income housing needs if there is a strong local market for other types of housing. The City cannot control, and has no desire to dictate, how home builders respond to the needs of the housing market.

The City can use General Plan policies, regulatory incentives, and financial incentives to encourage home builders to propose a wider variety of housing types. The City can also cooperate with other governmental entities and non-profit housing corporations to produce housing for low- and moderate-income households. Folsom does not believe, however, that the City's role should include the adoption of mandatory "inclusionary" housing policies which require home builders to produce a specified percentage of low- and moderate-income housing.

Because the City cannot "control" the decisions of homebuilders, and does not consider a mandatory inclusionary housing program appropriate, the Housing Element includes a program (see Program 2) to monitor development proposals on multifamily-designated land and to determine, annually, if any changes in land use policy are necessary to encourage more proposals for housing affordable to low- and moderate-income households.

Analysis of Zoning

It is generally agreed upon that densities in excess of 20 units per acre are required for new multifamily units to be affordable to lower-income households, particularly in high-cost areas. The "realistic potential" number of units in land use category MF High (Multifamily High Density) in the above table is based on the midpoint density level of 21.5 units per acre. This is the most likely scenario for average density levels (as calculated in Housing and Population Capacity Analysis for the City of Folsom, California study conducted by the City of Folsom), not a maximum allowable density. The maximum allowable density for this land use category is 25 units per acre. However, builders seeking approval of projects in excess of midpoint density levels must prove that the project offers substantial benefit to the City. The provision of affordable housing would be one benefit that would induce the City to offer a density bonus so that the 25-units-per-acre density could be achieved.

The City provides additional housing opportunities by allowing elderly housing in medical commercial zones. Two elderly housing proposals are pending before the City include a combination of congregate care facilities and individual apartments.

If it is assumed that densities of 21.5 units per acre are sufficient, in conjunction with other City incentives and government subsidies, to accommodate affordable housing for lower-income households, then it can be concluded that the

1,793 potential multifamily high density units are sufficient to meet the needs of the 1,445 very low-income households expected to reside in Folsom by 1996. This leaves a surplus of 348 multifamily high-density units which can be used by low-income households.

According to this analysis, zoning should not be a constraint to the production of affordable housing for very low- and low-income residents over the next five years, provided that other factors which affect the financial feasibility of constructing affordable housing are addressed (such as infrastructure requirement and development fees, construction costs, financing costs, etc.).

The City recognizes, however, that zoning density is just one, albeit an important, factor that determines the cost of housing. Higher residential densities, by themselves, will not guarantee the financial feasibility of affordable housing, although they are the primary determinant of whether the City could accommodate such housing. The City believes that its present zoning will not hinder the construction of such housing if other cost factors that affect the financial feasibility of providing housing for very low-income households can be addressed.

SACOG projects that 952 additional low-income households would need to be accommodated in Folsom by 1996. If 348 of these households are able to find housing in the MHD land use category, and the balance of 604 households are able to find housing in the MMD land use category, then it can be concluded that there is a sufficient amount of appropriately zoned land available to accommodate the 2,397 very low- and low-income households expected to reside in Folsom by 1996. The mid-range density for the MMD category, 15.5
dwelling units per acre, is typical for garden apartments and condominiums.

An informal survey conducted of the apartments constructed since 1986 concluded that 45 percent of the units, most of which are medium-density projects, are affordable to low-income households. This suggests that incentives and governmental subsidies would be necessary in addition to higher densities to provide affordable housing.

Should the City find that the present multifamily densities, governmental incentives and subsidies are insufficient to reduce the cost of providing rental housing affordable to low-income households, the City will re-evaluate its maximum densities to determine if higher densities would increase the financial feasibility of providing such housing.

Zoning, however, could present development constraints to mobilehome park proposals within the City. The City of Folsom defines mobilehome parks in its Title 17 chapter, Zoning, as follows:

Mobilehome parks as used in this part, means any tract of land where space is rented or held out for rent to one or more owners of mobilehomes. Mobilehome parks shall be located in residential mobilehome zones known as RMH Zones and shall be subject to issuance of a Use Permit. (Ord. 262 Sec. 1, 1970: Ord. 258 Sec. 2 (part), 1970).

There are only a few mobilehome parks in the City of Folsom, due in part to zoning regulations and identified sites. Among the regulations are:

1) A minimum of two 10 feet by 20 feet parking spaces for each mobilehome.

2) A minimum entrance of at least 36 feet.

3) All roadways within the mobilehome park will be paved with asphalt or concrete and have adequate curbs and/or gutters.

4) Each mobilehome park will provide a minimum recreation area or areas within the park of not less than two hundred square feet per mobilehome site.

5) Where mobilehome units are situated adjacent to public roadways, they shall be set back a minimum of 25 feet.

6) Mobilehome sites shall be so situated that no mobilehome shall be closer than 10 feet from another mobilehome or permanent structure.

Analysis of Public Facilities and Services

Most vacant areas of Folsom do not currently have roads and municipal facilities in place. This is a primary concern in evaluating the development potential of these vacant lands during the five-year time period of this Housing Element. The city of Folsom relies on area facilities fees and development funding mechanisms to provide municipal facilities that benefit new residential development. The lack of most facilities is not a growth constraint, so long as the City and developers can agree on the timetable for installing required improvements. Since very little of the City's vacant land contains "development-ready" facilities, these must be installed as development proceeds.

There are several long-term concerns regarding the ability of the City to accommodate new development. These include sources of drinking water, the capacity of the regional sewer plant, and the capacity of the City's traffic circulation system, especially the bridges. None of these concerns should be serious enough to limit development over the next five years, but solutions to these concerns must be identified during this period so that they can be implemented over the next 10 to 20 years.

These factors, as well as other constraints such as the fixed size of the City limits and the City's Sphere of Influence, are important in projecting the amount of development the City will allow during the next five years. One of the primary effects of the City's fixed Sphere of Influence is that it is very difficult for the City to annex land. and, therefore, the City must maximize its use of existing land.

The major constraint to future development in Folsom is the availability of water. The 1988 Folsom General Plan EIR estimated that existing water supplies should support 11,600 households and a total population of approximately 32,000. Since SACOG projects a total of 14,392 households in Folsom by 1996 (nearly 38,000 residents at the present average household size), it is obvious that water is a constraint to housing development. The City is trying to procure additional water supplies through the federal bureau of Reclamation and other sources.

All of the South Area Assessment District is already served by, and the East Area Specific Plan can be connected to (by the end of 1995), major off-site public facilities needed prior to development, including sewer, water, and roads. Internal roads and facilities would have to be provided by the developer.

A financial constraint to housing development exists due to the relative lack of existing infrastructure in the undeveloped portions of the City. The majority of undeveloped residential land in Folsom does not have the infrastructure needed for development.

The streets, sewer lines, power, and drainage facilities are generally developed as needed in the newer areas of the City. The financing of internal as well as regional facilities required for new development is generally accomplished through assessment districts and developer fees. The costs associated with these improvements are then passed along to the homeowner or renter, thereby causing higher housing costs than would be experienced in areas with existing infrastructure.

Given the reality of municipal financing under the present property tax system, there is no practical method for the City to issue general obligation bonds or use current tax revenues to pay for the expansion of needed infrastructure in

developing areas of the City. Infrastructure costs must be paid, therefore, either by the developer (who would pass these costs along up-front to the consumer) or through an assessment district (in which case new homeowners would pay additional taxes to cover the assessments and renters would pay higher rents to cover the rental owner's added tax cost).

Since water lines, sewer lines, drainage, roads, and other municipal services must be provided regardless of the type of housing developed, the City cannot waive these requirements for affordable housing projects. The City could reduce the financial impact of these necessary facilities and services, however, by adopting alternative standards for affordable housing, reducing or waiving certain impact fees, and providing partial subsidies.

Additional Uses

Aside from single-family and multifamily owner-occupied and rental housing, the residential lands mentioned in the vacant lands table above can be used for factory-built housing, mobilehomes, emergency shelters, and transitional housing, as needed, to meet the City's housing goals and needs.

23.3.4 Areas with Residential Potential

The City of Folsom has very little flexibility in its use of land due to the fact that the city limits and the Sphere of Influence are essentially one and the same. Because these limits are synonymous, the City cannot annex land from outside its city limit. Therefore, land with residential potential must be located on the undeveloped land within the city. The Willow Springs subdivision converted land designated as industrial in the City of Folsom General Plan to residential, but there are very few additional opportunities for the City to convert land uses previously designated non-residential.

23.3.5 Potential Loss of Units

Assisted (At-Risk) Units

"Assisted" dwelling units are subsidized multifamily rental dwelling units which are under contract with either local, state or federal agencies to provide housing at below market rates. State law requires local jurisdictions to identify and determine the status of federally subsidized units; at-risk units are those assisted units which will be eligible to terminate their use restrictions over the next ten years. The following table identifies the assisted units in Folsom.

Table 23-25
ASSISTED UNITS IN FOLSOM

Complex Name And Address	Total Units	Elderly Units	Earliest Termination	Government Program
Bidwell Gardens 1201-1212 Bidwell	14	-0-	6/16/90	Section 8
Folsom Gardens I 613 Stafford Street	48	8	1/14/91	FHA Section 236 (J)(1)
Folsom Gardens 613 Stafford Street	48	16	9/19/93	FHA Section 236 (J)(1)

Source: 1990 Updated Inventory of Federally Subsidized Low-Income Units at-Risk of Conversion.

Table 30 indicates that there are 110 low-income housing units in Folsom which are in danger of being converted to market-rate housing over the next five years. The 14 at-risk units in the Bidwell Gardens complex are currently being assisted by the Section 8 program. The complex owner intends to keep the units at the below-market rate indefinitely by renewing the Section 8 contract in 1995. The contract would be renewed automatically in 1995 unless the owner chooses to opt out of the contract at least one year in advance of the expiration date. This development could be at-risk in the future, however, if the owner decides to voluntarily terminate the contract or if the federal government does not provide sufficient appropriations to renew all expiring Section contracts.

Folsom Gardens Apartments I and II are owned and managed by FPI Real Estate Group in Sacramento. In December 1990, FPI filed a Notice of Intent to Prepay Mortgage. FPI states that it would like the units to remain affordable to lower-income households and has contacted the City of Folsom about purchasing the units. The City's current position on the matter is that property management and ownership is better accomplished in the private sector. The City has not made any plans to purchase the properties. Rural California Housing Corporation, a nonprofit organization, has shown interest in purchasing the properties and will pursue the matter further when the Department of Housing and Urban Development establishes guidelines for prepayment.

The proposed sale of Folsom Gardens I is proceeding under the requirements of the Low-Income Housing Preservation and Resident Homeownership Act of 1990, which contains a number of procedural requirements relating to public notice, right of first refusal by a qualified public agency or non-profit, and other requirements that must be met before a sale can occur on the open market. CDBG funds may be used a source of funds to preserve the affordability of the dwelling units.

Replacement cost for these units can be approximated by the cost to build a similar multifamily complex. Interviews with the developer of a recently completed multifamily apartment complex in Folsom indicated that the total development cost was approximately $80,000 per unit. If these units were replaced with other rental units developed with governmental financial incentives, the cost per unit would potentially be decreased to as little as $68,000, for a total replacement cost of between $7,480,000 and $8,800,000.

The cost of maintaining the affordability of these units can also be determined by comparing the subsidized rental rates with market rental rates. The difference between these two figures represents the subsidy needed to maintain affordability.

The proposed sale of Folsom Gardens I is proceeding under the requirements of the Low-Income Housing Preservation and Resident Homeownership Act of 1990, which contains a number of procedural requirements relating to public notice, right of first refusal by a qualified public agency or non-profit, and other requirements that must be met before a sale can occur on the open market. CDBG funds may be used a source to preserve the affordability of the dwelling units."

Rancho Cordova-based Affordable Homes for Americans has applied for a "bridge" loan from the Sacramento Housing and Redevelopment Agency to purchase these at-risk developments. Folsom has submitted letters of support to SHRA.

Table 31 summarizes the total subsidies required to maintain the affordability of the units.

Table 23-26
MONTHLY SUBSIDIES REQUIRED TO MAINTAIN AFFORDABILITY OF AT-RISK RENTAL DWELLING UNITS

Complex Name	Market Rate	Subsidized Rate	Difference (Subsidy)	# of Units	Total
Bidwell Gardens	$ 450	$ 424	$ 26	14	$ 364
Folsom Gardens I	$ 290 (1BR)	$ 200 *	$ 90	16	$ 1,440
	$ 330 (2BR)	$ 200 *	$ 130	32	$ 4,160
Folsom Gardens II	$ 296 (1BR)	$ 200 *	$ 96	16	$ 1,536
	$ 347 (2BR)	$ 200 *	$ 147	32	$ 4,704
Total Monthly Subsidy					**$ 12,204**
Total Yearly Subsidy					**$ 146,448**

* Subsidized rate varies according to tenant's income. These figures were provided by the complex manager as estimated averages.

Demolitions

The loss of housing units due to demolition has not been a problem in Folsom. Over the last five years, the City estimates that no more than three units have been demolished.

23.4 HOUSING CONSTRAINTS

Previous chapters have identified development trends and housing needs in the City of Folsom. This chapter describes potential impediments to the production of affordable housing in Folsom. There are several factors which can affect the level and cost of housing production. These factors can be grouped into four categories.

1) Environmental characteristics of land which affect the cost and suitability of the land for residential development.

2) The capacity of municipal facilities and services to accommodate new residential development.

3) Economic factors affecting the level and cost of housing production.

4) Government policies, plans, programs, and regulations affecting housing.

While these factors may not always have substantial negative impacts on the level of housing production in Folsom, they can influence housing cost and availability to certain population groups.

23.4.1 Environmental Considerations

A number of environmental considerations must be addressed in the development process in Folsom. Some of the environmentally-related development standards imposed by the City are in direct response to state and federal requirements to protect wetlands, endangered species, and other environmental assets located with the City. Other standards reflect purely local environmental concerns. While these environmental considerations do not always represent as constraint on the number of housing units which can be built, they can affect the configuration and placement of dwelling units on a site.

More importantly, these requirements may add incidental costs to the total cost of development. These incidental costs, while not significant by themselves, could become a significant factor in conjunction with other development costs in the financial feasibility of affordable housing.

To mitigate the possible negative effects of these costs, the City would need to evaluate how its development standards affect affordable housing development costs on a case-by-case basis and make a policy decision in each case of whether to allow alternative standards that are less costly.

Environmental considerations addressed by the City's development standards include the protection of creeks and other waterways, the preservation of significant trees, the protection of hillsides and hillside views, and the use of landscaping for shading and to screen residential developments. With careful site planning, a developer can meet these environmental design guidelines without reducing the number of housing units allowed under the General Plan, except perhaps in steep, hilly terrain.

Sensitivity to these factors has been an essential component of the attempt to retain a quality living environment and to avoid the negative effects of development. Of particular concern is the water runoff from development. The majority of the General Plan area's runoff flows into Lake Natoma, which has been identified by the State Department of Fish and Game as a unique wildlife and fisheries habitat.

23.4.2 Municipal Facilities Constraints

Infrastructure

Most vacant areas of Folsom do not currently have roads and municipal facilities in place. The City of Folsom relies on facilities fees and other developer funding mechanisms to provide municipal facilities for new residential development.

The City of Folsom adopted an Urban Development Policy in 1983 to implement its General Plan. According to Section VI (Municipal Services and Facilities), the City will require developers to provide facilities (streets, storm drains, sewer lines, water lines, etc.) and equipment that serve their developments. Folsom has also adopted a municipal facilities fees schedule to cover the costs of many off-site improvements and has established the Folsom South Area Assessment District to finance the installation of municipal facilities in most of South Folsom between Folsom Boulevard and East Bidwell Street.

Folsom has set forth a procedure in its Urban Development Policy for preparing area facilities plans in other parts of the City. Such plans must identify municipal service and facility needs of the area covered by the plan, provide a cost estimate of the improvements, propose a procedure for apportioning costs among the benefitted properties, and set up the administrative funding mechanism.

As long as the City and developers can agree on the timetable for installing required improvements, the lack of facilities is not a growth constraint. Since very little of the City's vacant land contains "development-ready" facilities, these facilities must be installed as development proceeds. Due to the cost of infrastructure development, new residential development in areas without infrastructure will be more expensive than areas with infrastructure. A majority of these costs are likely to be passed on to the homebuyer.

Water/Sewer

Water Facilities. The water supply for most of the City of Folsom comes exclusively from Folsom Lake via the Bureau of Reclamation pipeline to City-owned facilities. Water is treated at the City's filtration plant and is then fed into the distribution system. The City is currently divided into three separate pressure zones.

The design capacity of the water treatment plant has been expanded from 10 to 20 million gallons per day (mgd). The actual capacity of the expanded plan may prove to be up to 50% greater than the design capacity due to the reasonable conservative surface loading rate that has been used for design. The plan must be fully tested in operations before the actual maximum capacity can be established. The plan has been planned for another 10 mgd (design capacity) expansion increment, when ultimately required.

The City of Folsom's water entitlement from Folsom Lake limits the City to 22,000 acre-feet per year. The city is currently attempting to increase this water entitlement, but competition for additional water entitlements is great from throughout Central California, and there is no guarantee that the City will be able to contract for additional water.

The city has contracted to supply up to 5 million gallons per day of raw water to Aerojet in addition to supplying up to 3 million gallons per day of treated water to Aerojet through facilities constructed as part of the Folsom South Assessment District and the Nimbus Water Assessment District. The contract with Aerojet will remain in effect until December 31, 2036.

Recent water usage data for the City through the year 1985 is presented in Table 32.

Water usage projections for ultimate buildout within the study area (undeveloped portions of the City, excluding 1,000 acres annexed in 1984) have been developed using "per-acre" usage factors

based on the type of usage and density of development. These factors were generally abstracted from a report prepared by City staff dated November 1983 and were updated for consistency with anticipated use types in this area. These water consumption factors, shown in the table below, are thought to be realistic for the Sacramento and Folsom areas.

Note that the following restrictions currently exist on water supply:

1) Maximum annual usage = 22,000 acre-feet.

2) Maximum treatment = 20 mgd. with current expansion complete.

3) Ultimate treatment = 30 mgd (to 45 mgd), with planned "ultimate" expansion. This expansion of treatment capacity may not be possible at the existing site.

Table 23-27
WATER USAGE DATA

Year	Yearly* Consumption Treated Water (Acre-Feet)	Treated** Water Maximum Day (mgd)	Raw Water (Acre-Feet) (Including Aerojet)	Yearly Usage Total (Acre-Feet)
1981	3,500	7.8	5,000+	8,500
1982	3,500	7.8	6,500***	10,000
1983	2,600	5.8	6,500***	9,100
1984	2,750	6.1	6,500***	9,250
1985	3,165	---	-----	------

* Based on metered water production at water treatment plant.
** Estimate based on assumed peaking factors.
*** Rough estimate of current usage.

Source: Yearly consumption of treated water based on City of Folsom records.

Note: The treated water consumption declined in 1983 because a portion of the system (Ashland) was served by other sources (San Juan Suburban Water District) as of late 1992.

Table 23-28
WATER CONSUMPTION FACTORS

Land Use	Density	Water Duty (Acre-Feet/Year)
Residential		
Low Density	2 units/acre	2.8
Medium-Low Density	3 units/acre	3.0
Medium Density	4-6 units/acre	3.8
Medium Density	7-10 units/acre	4.1
Multi	10-15 units/acre	4.5
Multi	16-25 units/acre	6.0
Commercial		
Industrial		
Light		2.5
Heavy		2.5
Office Park (Heavy Landscape)		4.5
Parks		3.0

Source: City of Folsom Staff Report, Water Supply and Disposal. November 1983 (as revised).

Folsom's present water allocation is sufficient to serve the area within the former City limits (prior to the annexation in 1984 of 3,689 acres) at the current General Plan land use densities. The City has sought an increased allocation from the Bureau of Reclamation of 22.000 to 25.000 acre feet as well as opened negotiations with San Juan suburban water district for additional participation in their system.

Sewerage Facilities. The City of Folsom and Folsom Prison are served by a series of City and regional interceptor sewers which transport wastewater to Sacramento County's Regional Wastewater Treatment Plant. Collection, lateral, and certain interceptor sewers which feed from various areas of the City into the regional facilities are owned by the City of Folsom.

The collector sewer capacity is, in itself, a relatively minor concern to the overall issue of Folsom's development capacity because sufficient sewer capacity can be financed through the regional sewer district to meet the City's future housing needs.

The capacity of individual segments of the City's various interceptor lines is an important consideration in planning for new development, however. These capacities range from 3 million gallons per day to 12.5 million gallons per day. The peak dry weather flow for the entire community in 1984 was 3.6 million gallons per day as measured by the City's metering station, and the peak wet weather flow was 6.5 million gallons per day.

The City has recently upgraded its pump station capacity to 12.5 million gallons per day (average daily flow). This capacity would be sufficient to handle Folsom's sewerage needs under the current General Plan land use designations.

In sum, if the City works closely with Sacramento County to plan for sewerage flow increases, any acute capacity shortage and delays of development approval can be avoided. Developers will be required to provide adequate sewer lines to serve their developments and contribute to the improvement of interceptor lines.

23.4.3 Economic Factors

Land Costs

Precise information regarding land and improvement cost differences between Folsom and surrounding cities is not readily available. However, interviews with local developers have yielded the following estimated costs for a 6,000 square foot "finished" lot.

City	Estimated Cost
Folsom	$ 60 - 65,000
Roseville	$ 45 - 50,000
Sacramento (Laguna Area)	$ 37 - 42,000

In 1991, a custom home, "construction ready" lot (12 thousand square feet) in the City may sell for approximately $78,000.

Sacramento Title Company reported on the characteristics of sixty four vacant residential lots located throughout the City were reported. The majority of these lots were zoned single-family residential and have been transferred or sold during 1991. The lots, originally assessed from $6,100 to $171,965, sold from $50,000 to upwards of two and a half million. The majority of the subdivision lots, originally assessed at $40,219, were selling from $77,000 to $103,500.

The above information suggests that single family lot costs are higher in Folsom than in other developing parts of Sacramento and south Placer County and that the cost of land in Folsom could be an impediment to the production of ownership housing affordable to moderate- or middle-income households. The effects of land costs on the ability of homebuilders to provide rental housing affordable to low- and moderate-income households will depend primarily on the density allowed by the City and whether substantial amounts of non-residentially zoned land is rezoned for residential use.

Building Costs

Interviews with local developers suggest that there is no noticeable difference between building costs in Folsom, and the building costs in surrounding communities. The construction cost of housing in Folsom, therefore, would depend on the square footage of, and types of amenities included in, new housing units.

Financing

Interviews with several developers in the Folsom area have indicated that financing is a constraint to development regardless of the community in which the project is located. There do not appear to be any particular areas in Folsom, or types of projects, for which financing is less readily available than in other parts of the region. The availability of financing for housing development tends to be cyclical and follow the general economic cycle. While many developers are facing difficulties in finding financing for their projects, as the economy improves, financing should become more readily available.

Structural changes in federal laws governing financial institutions (as a result of the recent crisis in the savings and loan industry) will likely create some long-term problems with the availability of

development financing, but many homebuilders are seeking to overcome this problem by searching for alternative sources of capital, particularly from lenders in foreign countries.

The cost of money to finance housing developments is as important to the feasibility of housing construction as is the supply of financing. Affordable housing projects are particularly hard hit by the high financing rates that have characterized real estate lending throughout much of the 1980s.

Interest rates have declined dramatically since the early 1980s; typical interest rates for real estate loans to homeowners have varied between 8.25% and 8.75% between Fall of 1991 and Spring of 1992 for fixed, thirty year loans, and even lower for fifteen-year and variable-rate loans. These are the lowest rates since the mid-1970s. It does not appear that interest rates will decline to the lower levels that characterized the 1960s and early 1970s, but if they remain relatively stable at just under 9%, a substantial number of additional households will be able to afford home purchases. Even though interest rates have declined, they remain at a level which can present an impediment to the construction of affordable housing for lower-income households. Interest rate subsidies of two to four percentage points are often necessary to make a low-income housing project "pencil out".

Although the City of Folsom cannot control interest rates, it can help to reduce the financial impact of interest rates on affordable housing projects by using its powers to issue tax-exempt bonds or providing interest-rate subsidies from Redevelopment Agency housing set-aside funds.

23.4.4 Governmental Constraints

It is difficult if not impossible, to disassociate the market "cost" of housing production from the effects of government policies, exactions, and fees. A substantial portion of the development cost of housing cited in the previous sections relates directly to fees for, or the required installation of, such facilities as roads, sewers, drainage systems, schools, and parks. These are essential requirements for the health, safety, and welfare of Folsom residents. Additional City requirements relate to landscaping and the design of housing.

Residential Development Fees

The information provided in Table 34 below indicates that fees imposed on new residential development in Folsom are moderate in comparison to other communities, but nonetheless substantial as a percentage of the cost of new single family home or rental apartment. The effect of these fees on the financial feasibility of affordable housing will depend on the type of project.

For a typical multifamily rental housing project, these fees can represent between 10 percent and 20 percent of the final cost of rental housing. It would undoubtedly be in the interest of a developer of low-income housing to avoid this additional cost, but the City faces the dilemma of having to provide for the financing of necessary facilities and services while not precluding the construction of affordable housing. Some of the fees cited below are charged by other public agencies not under the control of the City. Three ways in which the City can address this dilemma are to:

1) evaluate changes in development requirements that might reduce the costs of providing needed infrastructure.

2) find sources of financing to partially subsidize these development costs, and

3) find sources of revenue or provide other incentives that can reduce other aspects of the development cost to offset the increased cost from infrastructure requirements.

Table 23-29
RESIDENTIAL FEE COMPARISONS

	West Sac	Davis	Rocklin	Roseville	Sac Co	Folsom
Value	$103,608	$116,460	$128,637	$128,637	$128,637	$128,637
Type of Fee						
Bldg Permit	652	474	1,544	389	741	741
Plan Check	424	308	0	318	722	722
Water Fees	1,357	719	3,543	1,918	1,831	1,730
Sewer Fees	3,318	1,257	3,540	1,158	2,600	1,033
Drainage	0	566	0	647	0	540
Park Fees	1,607	2,942	1,304	500	1,968	1,600
Construc/ Cap Impr	0	2,844	1,351	0	932	400
Traffic	0	3,069	1,635	559	2,122	1,800
School	2,700	0	0	2,844	3,745	2,844
Other	3,989	2,022	903	0	2,061	535
Credits	(1,708)					
Total	**$13,975**	**$12,493**	**$13,820**	**$8,333**	**$16,772**	**$11,945**

Source: Economic & Planning Systems, Inc., "Fee, Assessment, and Special Tax Comparisons Within the Sacramento Region, prepared for the Southport Planning Group, October 12, 1990.

NOTE: The fee comparisons shown above do not account for all costs imposed on new developments to pay for public services and facilities. This table does not show, for example, dedication requirements, subdivision improvement requirements, or special assessments paid by homeowners bi-annually with their other property taxes.

Development Standards

Construction activity in Folsom is subject to development standards adopted by the City in 1985. These standards address residential development requirements for landscaping, street lighting, fences and walls, solar energy use, and parking. The City adopted these standards to ensure that minimum levels of design and construction quality are maintained and adequate levels of street and facility improvements are provided.

The City does not believe that its development standards exceed the level necessary to ensure adequate circulation and

parking. drainage. environmental protection. and protection from potential visual nuisances. The City's standards are summarized below. The standards included in this summary are those with the greatest potential to affect housing costs.

Fences and Walls. Materials should be textured solid surface compatible with architecture of building. Property owner(s) should be responsible for maintenance of perimeter fences and walls.

Landscaping. Street trees (minimum ten-gallon size) are required. One or two trees per lot frontage should be used in residential areas. Existing significant trees should be preserved. Folsom's climate should be considered in the selection of landscaping materials.

Parking Lots. Parking lots serving residential uses should have one major exit/entrance point. Parking areas should be screened by an earth mound landscape, a low decorative wall, or by lowering the grade of the parking area.

Residential Streets. Street patterns should be indirect and should minimize through traffic. Greenbelts or landscaped setbacks maintained by homeowner associations are encouraged. Street width reductions will be considered on private streets where adequate access for emergency vehicles and off-street parking can be shown.

Building Codes

The City of Folsom follows the requirements of the Uniform Building Code (UBC) and the additions to that Code adopted by the State of California. Folsom has not amended UBC requirements nor added its own requirements.

One could argue that the minimum requirements of the UBC and other model codes have, over the past thirty years, added substantially to the cost of housing. Governmental agencies at all levels, as well as organizations representing building officials, have decided, however, that these changes are necessary to achieve a minimum level of health and safety. Few would disagree that dwelling units built today offer health and safety features that are real improvements over homes built a generation ago. As the accepted standards of "health and safety" have changed over the years, however, the cost of these changes has not been evaluated for its impact on the ability of homebuilders to produce affordable housing.

Open Space and Park Requirements

Folsom follows Quimby Act requirements (Government Code Section 664477 et. seq.) for park land dedications in new subdivisions. The City does not believe that the amount of open space set aside in the General Plan nor the City's park dedication requirements represent excessive constraints on residential development. These requirements would not impede the City's ability to meet is overall share of the region's housing needs. In conjunction with other development requirements, however, there is a land or dollar cost involved. This cost can be mitigated for affordable housing developments if the City were to allow additional dwelling units to compensate for units that cannot be built on land dedicated for park use.

The Planning and Permit Process

While local government can have little impact on market-oriented constraints and obstacles, such as the cost of materials, cost of labor and consumer preferences, it can respond to those constraints over which it has direct control, such as codes and ordinances affecting project design and processing procedures.

Over the past several years, the City of Folsom's planning processes have been streamlined as much as possible under the constraints of CEQA review period requirements. Occasional delays have been experienced in preliminary review phases, particularly when the workloads are heavy in relation to available staffing levels. This situation could be a

significant problem in the future if the rate of submission of new development proposals increases. Any additional staff would have to be supported by application fees.

The City's General Plan land use policies are viewed by some to be a constraint in providing more affordable units. The City's General Plan, revised in 1988, provides residential development densities for a population of about 69,000. It is the City's decision-makers' position that approval of increased densities cannot be given without proof that the project will provide "special community benefits". The development of additional water sources would also allow for the development of additional dwelling units, which could either be accomplished by increased residential or an increase in the amount of land developed for residential use, or both.

The 1988 General Plan revision contained several substantial residential land use changes. Most significantly, the total number of acres designated for residential uses decreased from 7,393 acres to 6,132 acres, although the overall density of residential uses increased, such that 23 percent more homes could be built. Multi-family use densities were increased, and the total number of multi-family units that could be built increased by about 20 percent.

Despite the increases in densities allowed under the 1988 General Plan, builders still express concerns that City land use policies and allowable residential densities adversely affect the cost of housing. The approach taken by the City is to balance the concern of housing affordability with other concerns, such as environmental quality, energy conservation, and the provision of adequate services.

The amount of land available for residential development would be less of a concern if a substantial amount of land presently zoned for commercial use is rezoned for residential use. The City has approved just such a rezone for the Willow Springs and would be receptive to other rezone requests if land owners can show that the demand for commercial land is less than the amount of land zoned for such use. There are several such requests pending. The City will decide whether to rezone parcels for residential use based on its evaluation of the demand for commercial development.

Permit Processing Times

The City of Folsom makes every effort to meet the permit processing deadlines specified under Government Code Section 65950. Development proposals are approved or denied within the six-month (for Negative Declaration) or one year periods (for EIR preparation) required by State Law.

Once a development is approved, the City expedites building permit applications so that construction is not unreasonably delayed. The City often completes application reviews and approves development projects in less time than required under the California Permit Streamlining Act. Because the City meets state-set deadlines in virtually every case, the time required for development approval is not considered a constraint to development. To further reduce total development review time, the City will evaluate, as part of its zoning code update, whether some presently discretionary decisions can be made by the Community Development Director as ministerial decisions.

Folsom contains a number of unique natural habitats, including riparian habitats and vernal pools. These areas often contain plants and animals recognized as "endangered species" by the State of California or the federal government, such as the long-horned elderberry beetle and the tri-colored blackbird. If such species are present within an area proposed for development, environmental review and mitigation may cause a delay in development approval and additional expense to mitigate the habitat loss. The City cannot avoid this problem since it must follow the requirements of state and federal law.

Folsom can, however, mitigate the potentially negative impact on the production of affordable housing by using specific plans to identify such areas prior to development, by allowing planned development proposals that cluster development at higher densities in more suitable areas, and by using master environmental assessments for the entire City as part of the General Plan to balance environmental and affordable housing concerns. In fact, Folsom has used all of these approaches.

23.5 ENERGY CONSERVATION

Since the time of the petroleum shortages of the early 1970s, Californians have become increasingly aware of the benefits of energy conservation. Despite the recent, short-term tumble of oil prices, the overall trend in energy prices has been one of steady increases and sometimes sharp changes in prices. Energy "awareness" has been ingrained in our collective conscious and institutionalized in government practices. This awareness of the need to conserve energy has important implications for homebuilders as consumers increasingly demand energy conservation features in new homes.

23.5.1 State Requirements

The provision of energy conservation features in new homes has been reinforced by State laws for minimum levels of energy efficiency. In 1975, the Warren-Alquist Act took effect and created the California Energy Commission.

The Commission's task was to develop and implement cost-effective energy-saving requirements that would reduce Californians' energy consumption yet minimize the cost of the additional construction requirements. The Energy Commission adopted its first set of energy conservation standards in 1977; these were revised in 1982 and again in 1985.

The standards differ for each of 16 "climate zones" identified in the state. Folsom is located in Climate Zone 12, the requirements of which are influenced by the characteristic Sacramento area climate of cool, wet winters and warm, dry summers with cool evening breezes.

Builders can comply with the energy conservation standards in one of two ways: by complying with a list of prescriptive requirements or by meeting a specified point score (or energy budget) which would achieve the same level of energy conservation as the prescriptive requirements. Local governments are required to enforce the State's standards.

23.5.2 Local Guidelines

The City of Folsom adopted guidelines in 1985 for developers to follow in meeting City requirements for landscaping, walls and fences, streets, signs, and other aspects of development. These guidelines included solar energy standards. The City encourages the use of solar energy devices and requires that new developments be designed so that access for passive or active solar energy measures can be maintained for individual homes in a development.

23.5.3 Opportunities for Energy Conservation

Of the 9,418 housing units in the City of Folsom, approximately 3,500 (37.1%) were constructed prior to the year state requirements for energy conservation took effect. Of these units, about 1,200 are more than 25 years old and could potentially benefit from an energy conservation retrofit program. This is not to suggest that all 1,200 units are in need of repair, but many otherwise sound older units can benefit from minor alterations such as weatherization and insulation of the home and appliances.

In July, 1986, a housing conditions survey determined that approximately 100 units were in need of some sort of rehabilitation. Based on

some obvious external signs of inadequate weather protection, about two-thirds of the housing units in that survey could benefit from some form of energy conservation retrofitting.

Additional information on the need for energy conservation can be obtained from the 1980 Census, which reported on home energy expenditures as a percentage of income. The majority of Folsom residents had no difficulty managing the energy costs in 1980, according to the Census. The majority of all renters (60%) and homeowners (74%) paid less than 5% of their income for energy costs. Another 24% (268 households) of the rents and 16% (401 households) of the homeowners paid between 5% and 9% of their income for energy.

Of most concern from the 1980 Census data, however, are the 185 renters (16% of all renters) and 243 homeowners (10% of all homeowners) who devoted 10% or more of their income for energy costs in 1980. These households might be special targets of a program to assist lower-income residents in making energy conservation improvements to their homes. Unfortunately, similar income and payment data will not be available from the 1990 Census until after the adoption of this element.

Another indication of the need for energy efficiency improvements is the type of heating system used in Folsom's homes. According to the 1980 Census, 117 Folsom houses did not have a permanent heating system, and another 370 homes used wall-mounted or room heaters as the primary method of heating.

The City routinely enforces the residential and nonresidential energy standards set forth by the California Energy Commission as part of its duties to enforce the UBC. In addition, the development standards adopted by the City include solar energy standards. These standards encourage the use of solar energy devices and also require that new developments be designed so that access for passive or active solar energy measures can be maintained for individual homes in a development.

Pacific Gas and Electric provides gas services and the Sacramento Municipal Utility District (SMUD) provides electricity services for the City of Folsom. The energy conservation programs offered by PG&E and SMUD are available in the Folsom area.

Weatherization

The availability of low-cost or free weatherization services is especially important to low-income and elderly households who would not otherwise obtain these services. Currently, the Community Development Block Grant program and non-profit housing corporation, known as "Project Go", provide basic weatherization services to low-income households as long as state funding is available. PG&E has developed programs to educate homeowners about conserving energy, to perform weatherization services in communities receiving gas or electric services from PG&E and, in some instances, install wall heaters and water heaters in low-income households.

23.6 EQUAL HOUSING OPPORTUNITY

The City of Folsom acts as a referral agency for persons seeking to file equal housing opportunity complaints. Anyone seeking information about housing discrimination or related housing matters is referred to the appropriate public service agency. Some of the local agencies available to assist in this area are: Legal Services of Northern California; Housing and Urban Development's Sacramento Service Office; California State Department of Fair Employment and Housing; and the U.S. Civil Rights Commission.

23.7 REVIEW OF PREVIOUS HOUSING ELEMENT

The Housing Element adopted by the City in 1987 established a set of action plans to be used in an attempt to meet the goals set forth by the Element. This section summarizes the extent to which these action plans were completed, discusses possible reasons for failures, and suggests ways in which these plans might be completed in the future. Throughout the following discussion, the goal topics are numbered as they were in the previous Element, and a synopsis of each goal or plan is presented in bold type.

23.7.1 New Housing Production

Plan for the construction of approximately 7,800 homes between 1987 and 1991.

This goal was established based on the number of development proposals approved by and pending before the City in 1987. Based on the SACOG allocation for this period, as pro-rated (the 1983 SACOG allocation for Folsom was for a seven-year period), the City's housing construction need between 1985 and 1990 was 1,182 units. The Housing and Population Capacity Analysis For the City of Folsom, California estimated that a total of 3,869 housing units were constructed over this period. The breakdown by type of unit and the estimated units constructed over the life of the previous Housing Element is provided in the following table.

Although the City did plan for the construction of 7,800 dwelling units, the slow-down in housing construction between 1989 and 1991 resulted in substantially fewer dwelling units being constructed during this period.

The number of units constructed, however, was still three times the number allocated to Folsom as its regional share during this period.

The affordability of housing constructed since the previous Housing Element was adopted in 1987 can be approximated using information about housing which was constructed during the period 1985 to 1990.

For-Sale Housing

Because of the typical market prices of new homes in Folsom, very low- and low-income households are not capable of purchasing homes in Folsom. Moderate-income households may be able to afford a small amount of the for-sale housing in Folsom. The 121 single- family high-density homes (in general, these homes will be less expensive than the single-family low density homes) built between 1987 and 1991 were affordable to moderate-income households earning between 100% and 120% of median income. The 1990 Census determined that 81.7 percent of the single family homes in Folsom are owner-occupied. If this percentage were applied to the number of single family units constructed in the high-density category, then ninety-nine single family purchase homes were built from 1987 to 1991 and were affordable to moderate-income households.

Rental Housing

The City collected information on rental rates charged for 941 multifamily units at four apartment complexes which were built between 1986 and 1991. The results of this survey are shown below.

Table 23-30
HOUSING UNITS CONSTRUCTED FROM 1985 TO 1990

Type of Unit	1985	1990	1985-1990	Yearly	1987-1991
SF Low	3,434	5,916	2,482	496.6	1,986
SF High	297	248	151	30.2	121
MF Low	443	923	480	96.0	384
MF Med/High	361	1,114	753	150.6	602
Mobilehomes	666	669	3	0.0	0
Total	4,535	9,070	3,869	773.4	3,094

Source: Housing and Population Capacity Analysis For the City of Folsom, California.

Table 23-31

MULTIFAMILY UNITS BUILT SINCE 1986 - RENTAL RATE SURVEY

Apt. Size	Ave. Rate	# of Units	Affordable to (income group)
1 Bedroom	$528	52	low-income
	634	116	mod-income
	555	34	low-income
	575	33	low-income
	575	60	low-income
	610	60	mod-income
2 Bedroom	$590	61	low-income
	603	77	low-income
	714	120	mod-income
	814	108	mod-income
	655	34	low-income
	675	35	low-income
	710	15	mod-income
	730	16	mod-income
	670	40	low-income
	700	72	mod-income
	710	80	mod-income
Total		**941**	
Affordable to Low- and Moderate-Income		**426 (45%)**	
Affordable to Moderate-Income Only		**515 (55%)**	

Notes: Affordability is based on two persons per 1-bedroom apartment and three persons per 2-bedroom apartment.

Maximum affordable rents are taken from Table 9.

Using the results outlined above, the following conclusions can be drawn regarding the affordability of multifamily units built in Folsom from 1987 to 1991.

1) No multifamily units were built which are affordable to very low-income households.

2) Forty-five percent of the units surveyed are affordable to low-income households. Table 23 indicates that 986 multifamily units were built between 1987 and 1991. Thus. 444 multifamily units built between 1987 and 1991 are affordable to low-income households (.45 x 986 = 444).

3) Fifty-five percent of the units surveyed are affordable to moderate-income households. Of the multifamily units built between 1987 and 1991.

542 are affordable to moderate income households (.55 x 986 = 542).

23.7.2 Provision of Public Services

Plan for the provision of public services and facilities to serve 5,870 housing units between 1986 and 1990. [NOTE: The difference in the number of dwelling units referred to in this objective and objective number 1 is due to the difference in time frames for these two objectives.]

a. Pursuit of additional water allocation from the Bureau of Reclamation.

The City recently requested an additional 50.000 acre feet of water from the Federal Bureau of Reclamation to be used in two 25,000 acre feet increments over the next twenty years. The Bureau of Reclamation has not yet responded to the request for 50,000 acre-feet, but is in the process of approving an additional 7,000 acre feet for the City. According to City staff involved in acquiring the additional water, it appears likely that the City will receive this additional 7,000 acre feet. The City is also negotiating for additional water from other water purveyors. Although Folsom is pursuing options to guarantee long-term sources of water, the City does not anticipate any shortage of water supply through 1996.

b. Establishment of facilities plans funded through collection of fees.

The East Area Facilities Plan is the only facilities plan which has not been completed, and it is scheduled for completion by the end of 1992. The City has, therefore, successfully responded to the need to create funding mechanisms for infrastructure to allow for development to proceed.

c. Collection of development fees to pay for essential off-site improvements benefitting new development, including temporary school facilities.

The City continues to charge fees on all new development. The Folsom-Cordova School District collects school fees which can be used for temporary school facilities. and the County regional sewer agency assesses fees for regional sewer facilities. The City has been successful in ensuring that the fees it collects are adequate to meet the public facilities needs of new development. but the added cost to new housing does pose an affordability barrier to low-income households. The City would need to find ways of partially subsidizing these costs and looking at alternative requirements to mitigate the cost impact of necessary infrastructure on affordable housing. A blue-ribbon committee headed by Folsom Councilman Holderness has been established to investigate alternatives to developer fees.

Continued enforcement of development standards addressing internal improvements in new development.

The City continues to enforce its development standards, which have substantially improved the quality of development in Folsom. Although these standards are necessary to carry out important environmental and aesthetic goals, the standards can be implemented in a way that allows for some flexibility for affordable housing developments.

Coordination with Sacramento County to ensure that additional wastewater collector capacity is constructed in an adequate fashion. to serve Folsom.

The facilities plans outline the manner in which the City will coordinate with the County in an effort to ensure that there is sufficient collector capacity for new development. To date. the City does not anticipate any difficulties in meeting the sewer system demands imposed by new development in the City.

Establishment of a finance program for needed bridge expansion.

The Environmental Impact Report for this program is in the draft stage. Once the City Council adopts the EIR, staff will prepare the actual finance plan. The impact of such a finance plan on new development has yet to be determined.

23.7.3 Revise General Plan

In October, 1988, the City adopted a revised General Plan, which made substantial changes in land use designations in order to reflect changes in anticipated housing, commercial, and industrial land use demands. Specifically, residential densities were increased across the board to allow for increased affordable housing opportunities. The previous Housing Element suggested the following changes.

Designate areas that are appropriate for higher density residential development.

Maximum residential densities in all areas of the City were increased as a result of the General Plan Update.

Listed below are the densities allowed under the previous General Plan and under the current General Plan.

Designate enough sites between 1986 and 1990 at sufficient densities to allow private builders to provide 636 additional units of housing affordable to lower-income households.

As previously identified, 444 multifamily housing units affordable to lower-income households were constructed between 1987 and 1991. It was also assumed that there were not any single-family homes built during the same period that were affordable to lower-income households.

If the current General Plan Residential densities were in place over the entire period, it is possible that 636 affordable units would have been constructed. In fact, it is likely that projects built up to two years after the General Plan was adopted reflect densities prescribed by the previous Plan. However, it is more likely that other reasons for the shortfall of affordable units exists. The primary reason was the difficulty of financing multifamily rental developments after changes in federal tax policies took effect in 1987.

Land Use	Previous G.P.	Current G.P.
SF Very Low	1 unit/20 acres	N/A
SF Low	2 units/acre	2.0-3.9 units/acre
SF Low	3-5 units/acre	N/A
SF Medium	5 units/acre	N/A
SF High	N/A	4.0-6.9 units/acre
MF	12 units/acre	N/A
MF Low		7.0-11.9 units/acre
MF Medium	N/A	12.0-17.9 units/acre
MF High	N/A	18.0-25.0 units/acre

As another example, although the maximum number of units per acre in multifamily high density areas is twenty-five, although the number of units which will be constructed is only eighteen typical maximum density has, historically, been twelve dwelling units per acre. Considering this fact, the City may need to encourage higher density development in the multifamily high density zone to accommodate very low-income households.

Several programs have been proposed by the City (see Goals, Policies, and Programs) to encourage multifamily developments at 18-25 dwelling units per acre.The City's inability to produce a sufficient amount of affordable housing is largely a result of factors discussed throughout this section. To be able to meet it lower-income housing goals through 1996, the City would need to consider how it can improve the financial feasibility of affordable housing through higher densities and other development incentives. A range of 18 to 25 dwelling units per acre would give developers of affordable housing greater options for proposing financial feasible projects.

Specific areas of the City that would be studied for higher residential densities are: the City's redevelopment area; the residential areas between Blue Ravine Road, the Southern Pacific Railroad line, Sibley Street, and Bidwell Street; three parcels of land north and east of the proposed community college site; and residential lands between the SPRR lines on the north and Highway 50 on the south.

As mentioned above, maximum residential densities have been increased throughout the City as a result of the General Plan Update process.

23.7.4 Housing Rehabilitation

Establish a housing repair and rehabilitation program in cooperation with the Sacramento Housing and Redevelopment Agency to conserve Folsom's stock of affordable housing. Repair the fifty single-family homes, forty apartment units, and six duplex units identified in the housing conditions survey by 1990, and retrofit up to thirty to fifty homes per year to increase their accessibility to disabled individuals. To accomplish this, the City will undertake the following six specific programs.

Although the lack of proper record-keeping procedures precludes the possibility of determining if the above goals have been met, it is likely that the City has fallen substantially short. The objective set for this program was unrealistic in light of the amount of city and Sacramento Redevelopment Agency funding available between 1986 and 1991.

However, the City's Redevelopment Agency is beginning to accumulate a substantial amount of 20 percent set aside funds which can be used for housing rehabilitation. This source of funding will allow the City to sustain its present rate of residential rehabilitation in the future, which appears to be sufficient to meet the demand. The City should continue to set goals for rehabilitation and will devote more effort to its rehabilitation program.

a. Housing repair and rehabilitation program for low-income homeowners City-wide.

Folsom has been receiving CDBG entitlement funds from the Sacramento Housing and Redevelopment Agency for residential rehabilitation purposes since at least 1987. This program requires recipients to be lower-income households. In 1990, the City spent about $70,000 of CDBG entitlement funds on residential rehabilitation, the total amount available from SHRA.

b. Housing maintenance and minor repair program for low-income homeowners.

There is no specific program aimed at housing maintenance and minor repair for low-income households because CDBG funds are available for this purpose. This activity should be covered

under the city's overall housing rehabilitation program, so that it is not necessary to designate minor repair as a separate program.

c. Emergency home repair program.

No specific program has been adopted for this purpose because emergency health and safety repairs are covered under the City's housing rehabilitation program. There is no need for a separate program for emergency repairs.

d. Housing retrofit program.

No specific energy conservation retrofit program has been adopted because this type of home improvement is covered under the City's housing rehabilitation program. There is no need for a separate program for emergency repairs.

e. Low interest loan housing repair program.

(See above CDBG program description.)

f. Rental housing rehabilitation program.

Since 1987, the City's Redevelopment Agency has provided financial assistance for the rehabilitation of fourteen multifamily housing units. These units are affordable to low-income households. Because this program provides a vital source of financing for rental housing in need of rehabilitation, this activity should be continued (see discussion of CDBG rehabilitation).

23.7.5 Economic Feasibility of Affordable Housing

Between 1987 and 1991, increase the supply of units affordable to very low-income households by 200 units, lower-income households by 575 units, and moderate-income households by 1,400 units.

There were no housing units constructed between 1987 and 1991 which were affordable to very low-income households. Between 1987 and 1991, as previously mentioned, 444 rental units affordable to low-income households were constructed and 542 multifamily rental units were constructed which were affordable to moderate-income households. One hundred twenty-one (121) single family homes were built between 1987 and 1991 which were affordable to moderate-income households. There are three primary reasons that no housing affordable to very low-income households was constructed:

1) Even with density bonuses and regulatory incentives, new rental housing requires governmental subsidies to be affordable to very-low income households, either in the form of lower interest rates, partial subsidy of development cost, or direct subsidy to the very low-income renter.

2) Because of staff limitations, the City could not devote sufficient staff time to identifying governmental subsidies that could be used in Folsom, applying for those subsidies, and seeking an interested developer to construct rental units affordable to very-low income households. Part of this work has been accomplished, however, with the preparation of a report by the Community Development Department on multifamily housing, submitted to the City Council in 1989. This report investigated options for increasing the supply of affordable housing and whether or not those options could work in Folsom to implement the 1988 General Plan.

3) Because of the intense demand for single-family housing and because of land development costs in Folsom, it was unlikely that home builders would propose rental housing projects affordable to very low-income households without strong encouragement and active participation by the City.

To overcome these obstacles in the future, Folsom would need to assign staff time to

researching appropriate subsidies for very low-income housing, seeking a committed developer (for-profit or non-profit), and making available local incentives to improve the financial feasibility of developing such housing.

The most practical method for the City to increase the supply of very low- and low-income housing is to work with developers to use government financing and regulatory incentives to include a percentage of such units in new multifamily rental projects. Such an approach would stop short of a mandatory requirement ("inclusionary zoning") but would use a negotiated process to strongly seek commitments from home builders. By mixing low-, moderate-, and middle-income housing in new rental projects, the financial feasibility of supplying affordable housing increases and the over-concentration of low-income housing is avoided.

Substantial governmental subsidies would still be required, however, to make housing affordable to the poorest residents of Folsom.

In setting future objectives for affordable rental housing, the City should account for the financial "gap" that makes affordable housing infeasible in Folsom without substantial financial incentives.

a. Institute a density bonus program.

The City has not formally adopted a density-bonus ordinance but follows the requirements of state law. The City has, historically, considered density bonus requests on a case-by-case basis. Developer interest in a density bonus program was not high between 1986 and 1991, however, and there have not been any requests for density bonuses. The housing market has undergone some important changes since the late 1980s, however, and developer interest in density bonuses may warrant the adoption of an ordinance within the next year. The lack of interest by the development community can be attributed to homebuilders' focus on the upper end, "move-up" segment of the single-family market between 1987 and 1991. For the predominant type of housing constructed during this period, density bonuses were not of concern.

The interest in affordable housing for which density bonuses would be requested may be on the increase, however, as the upper end of the market becomes saturated and home builders look for other opportunities. The housing recession, which began in 1990, has forced many builders to reorient their product to the first-time homebuyer. To sell such units, builders must emphasize affordability, and density bonuses may become an important consideration in reducing housing development costs.

The City could also become more aggressive in searching out interested home builders to construct affordable rental housing. The City should not, therefore, abandon the concept of adopting a density bonus program tailored to its own needs.

b. Coordinate the issuance of tax-exempt bonds.

The City has not issued tax-exempt bonds due to the lack of available City staff time to coordinate the necessary tasks preceding the issuance of bonds and the absence of specific development projects for which the bonds could be used. Tax-exempt financing represents an attractive alternative for home builders interested in affordable housing, and so the City should not abandon this option. To increase the likelihood of success in the future, the City should first identify one or more builders interested in using tax-exempt financing for affordable housing projects, apply for an allocation to issue bonds, and then determine the most feasible approach to the use of that allocation (i.e., issuing bonds through a City-sponsored program only, forming a joint powers agreement with another jurisdiction to share costs and expertise, or issuing mortgage credit certificates in place of bonds).

c. Actively seek builder participation in California Housing Finance Agency (CHFA) programs.

The City has not aggressively pursued the use of CHFA loans because the purchase cost of housing in Folsom is substantially higher than the maximum home purchase price currently allowed for CHFA loans in Sacramento County ($126,200). If the purchase price of homes in Folsom begins to approach the CHFA limits, the City will reevaluate the CHFA possibilities. One method of improving the possibility of using CHFA programs is to seek home builder commitments for less costly forms of ownership housing, such as townhouses, condominiums, and small lot single family homes.

d. Actively seek builder or nonprofit agency participation in state/federal programs for elderly and family affordable rental housing.

The City has not done this because of the lack of available City staff time and the absence of interested developers to construct such housing. The probability of constructing affordable rental housing for elderly persons and families could increase if the City were to take a more aggressive posture in its development negotiations and offer regulatory and financial incentives to increase the financial feasibility of producing such housing. However, the success of such an approach will depend on the interest of home builders and whether there are other home building opportunities that can avoid the complications of developing affordable housing.

One such developer, FPI Real Estate, has expressed an interest in developing an elderly housing project in Folsom, but will require City support in making use available local, state, and/or federal resources to help finance such a project.

e. Seek the participation of one or more large corporate employers to provide low-cost financing and/or a land-buy-down subsidy for the development of housing affordable to lower- and moderate-income residents.

City staff recently contacted the Intel Corporation to investigate the possibility of enlisting the company's assistance in providing affordable housing for their employees. Intel responded positively, but no specific plans have been developed. A substantial amount of City staff time would need to be allocated to this project to achieve an agreement with Intel. This program should be continued, as there is a strong possibility that the City could successfully negotiate some form of participation by Intel and other large corporate employers in Folsom in the production of housing affordable to its workers.

23.7 6. Preserve Mobilehome Parks

Maintain the existing zoning/General Plan mobilehome park designations and provide technical assistance to interested mobilehome park owners who wish to convert to cooperative ownership.

The General Plan adopted in 1988 maintained the land use designation allowing for mobilehomes (designated as Single Family High Density/Mobilehomes). Since the City staff does not have to expertise to assist mobilehome park residents who wish to convert to cooperative ownership, these residents are referred to special interest groups that are actively involved in this area.

23.7.7 Mortgage Revenue Bonds

Participate in future County issues of single-family mortgage revenue bonds.

The City passes a resolution each year declaring that the City will participate in this program. However, staff has been unable to ascertain whether or not the County has made any Mortgage Revenue Bond funds available in the

Folsom area. To increase the probability that such funds would be used in Folsom, the City could enter into a joint-powers agreement with Sacramento County to apply for an allocation and to issue bonds or mortgage credit certificates. The City is not in a position, at present, to issue bonds on its own for affordable housing, but may be able to jointly issue bonds with one or more other agencies. The implement this program, the City would need to recruit interested builders before the bonds are issued.

23.7.8 Condominium Conversion Ordinance

Prepare an ordinance governing the conversion of apartment buildings to condominium units.

The City's General Plan contains a policy regarding condominium conversions, and the City has not adopted an ordinance to implement this policy. There have not been any requests to convert apartments to condominiums, however.

23.7.9 Housing Assistance Program Referrals

Continue to provide interested individuals with information and referrals on housing assistance programs.

The City has, historically, relied on the Sacramento Housing and Redevelopment Agency and other community organizations in Folsom to make information available on Section 8 assistance, federally assisted below-market-rate rental units, weatherization programs, and housing rehabilitation programs. For the housing rehabilitation program managed by the City, the Folsom has made information available directly to the public. Because of Folsom's distance from the Housing Authority offices, the City could better serve its residents if made information from the Housing Authority available at City Hall.

23.7.10 Fair Housing Law Compliance

Maintain information on fair housing laws, refer housing discrimination complaints to the Sacramento County Human Rights and Fair Housing Commission or the California Fair Employment and Housing Department, and organize a fair housing workshop.

The City refers housing discrimination complaints to the appropriate agencies, but the City has not organized a fair housing workshop. Interviews with several City employees indicate that there have not been any housing discrimination complaints made to the City since 1986. For this reason, the City has not made the availability of housing discrimination information at City Hall a high priority. If housing discrimination becomes a problem in the future, City staff will take action to organize a workshop. The need for such a workshop is questionable at this time, however. The City could provide information to interested individuals on fair housing laws. To do so, it could rely on information available from the Sacramento County Housing and Redevelopment Agency, or from community-based housing organizations that specialize handling discrimination complaints.

23.7.11 Urban Development Policies

Continue to implement Folsom's urban development policies and standards.

The City continuously enforces these standards as part of the development review process. The City has been successful in increasing the quality of project designs and the environmental sensitivity of development proposals through its policies and standards.

23.7.12 Monitor Employment Growth

Report to the Planning Commission and City Council at least every two years.

A report was made to the Planning Commission and City Council 1988 in the form of the General Plan Update, in 1990 in the form of a report entitled Housing and Population Capacity Analysis For the City of Folsom, and in July 1991. Each of these reports addressed the subject of employment growth and the population growth and housing demand that could be expected as a result of job creation. The City should continued to periodically evaluate the relationship between jobs and housing as part of the Housing Element review.

23.7.13 Annual Review of Housing Element

Review the Housing Element annually to monitor the City's progress in implementing its housing programs and report to the Planning Commission and City Council.

The City did not implement this action in the past, mainly due to the lack of available City staff time, but is now monitoring its progress annually as required by state law. To carry out this review, the City will need to allocate staff time to this activity and make the Housing Element evaluation a higher priority.

23.7.14 Second Unit Ordinance

Adopt an ordinance allowing second units in single-family zones subject to specific criteria.

The City's General Plan contains a policy regarding second units, but the City has not adopted an ordinance for second units, per se. The City's Zoning Code allows accessory structures without kitchens designed for human occupancy. There have not been any requests to build second units. The City will adopt an ordinance if there is a request, but the lack of City staff time needed to prepare an ordinance precludes this from being completed until it actually becomes an issue. At the present time, therefore, the standards set forth in state law would regulate the construction of second units in the City.

23.7.15 Permit Review Process

Study the City's planning and building permit process to determine if there are process changes that could be made to improve the handling of development applications.

This is an ongoing process. Over the past several years, the following improvements have been made in the Community Development and Building departments:

1) development of informational materials for public use to help speed up the process;

2) concurrent processing (Building and Community Development departments can process applications concurrently) has been implemented;

3) the building permit process has been computerized;

4) a "fee committee" was established to ensure compliance (facilitates project completion for larger projects); and

5) development fees are reviewed regularly to ensure that they reflect actual costs incurred by the City.

With these improvements in the development review process, the City is able to handle a higher volume of development proposals more efficiently. The City will continue to monitor its development review processes to evaluate if further changes are warranted.

23.7. 16 Identification of Possible Locations for Emergency Housing Shelters

The section of this Element which addresses the homeless population discusses the reasons why Folsom does not currently need emergency housing shelters for the homeless. Local service agencies who deal with homeless issues do not believe that there is a significant homeless population in Folsom. For this reason, the City

has not made the identification of sites for homeless facilities are high priority. Until such a need is evident, the City will not attempt to designate any particular locations for homeless facilities. The City will, however, review its zoning requirements to ensure that a homeless facility could be sited within the City should the need arise.

23.8 DEFINITIONS

23.8.1 Affordability

Homeowner Households

For households purchasing their units, maximum housing costs should not exceed the maximum percentage of gross income allowed by mortgage lenders in qualifying home buyers. This is estimated to be in the 30 percent to 35 percent range. For the purposes of this Element, 30 percent is used as the maximum amount.

Renter Household

Very low- and low-income households should not spend more than 30% of their gross income on housing costs. This figure has been adopted by the federal and state governments and is being implemented in their housing programs.

It has been determined that moderate- and above moderate-income households do not require rental housing assistance and should pay whatever they decide is appropriate for rent.

23.8.2 Housing Costs and Responsibilities

Home Ownership

Housing costs include principal, interest, taxes, and insurance payments paid by the homeowner. In evaluating the affordability of ownership housing, however, one should also consider the income tax savings that homeowners realize from the deduction of mortgage interest and property taxes from the calculation of taxable income.

Renter

Housing costs include payments for rent and utilities.

23.8.3 Housing Types

Single-family Detached

One housing unit per lot, serving the needs of one family.

Single-family Attached

One housing unit per lot, serving the needs of one family, but sharing a common wall with a single-family attached home on an adjacent lot.

Duplex

Two single family-attached homes on one lot.

Multi-family

Housing complexes consisting of more than three units per lot.

23.8.4 Income Categories

Very Low

Household income is 50% or less of the median income for households of similar size.

Low

Household income is between 50% and 80% of median income for households of similar size.

Moderate

Household income is between 80% and 120% of median income for households of similar size.

Above Moderate

Household income is greater than 120% of median income for households of similar size.

23.8.5 Median Income

Median income, the most commonly used measure for federal and state housing programs, is that level of income at which 50% of the households earn more and 50% earn below the annual dollar amount determined to be the median. The Housing Element uses federal Department of Housing and Urban Development (HUD) income figures (as published by the state Department of Housing and Community Development) for the Sacramento Metropolitan Area to determine median income levels for Folsom. The HUD figures are updated approximately every 18 months.

23.9 HOUSING GOALS, POLICIES, AND PROGRAMS

This section of the Housing Element contains the City's goals, policies, and proposed programs implement the City's housing program. The goals and policies reflect the needs identified previously in the Element. Each proposed implementation program contains a description of the intended action, an explanation of the agency responsible for administering the program, possible sources of funding (if applicable), the timeframe during which the program would take effect, and anticipated results. Whenever possible, the anticipated results have been expressed in quantified terms.

The programs contained in this Element are based on the philosophy that the City's proper role is one of facilitator of the private sector and non-profit housing corporations. When necessary to meet low- and moderate-income housing needs, Folsom will use its redevelopment tax increment housing set-aside funds, provide regulatory incentives, and use available state and federal programs. In the past, the City's role has been severely limited by a lack of local staffing and financial resources to accomplish its housing agenda.

During the period covered by the prior Housing Element the City had available only a small amount of redevelopment tax increment funds for housing program. The small amount of money available was directed to housing rehabilitation in the blighted area identified in Redevelopment Plan (the Montrose-Talisman area). A number of duplexes and small apartment buildings have been rehabilitated in this area.

Beginning with the 1992-93 fiscal year, the City will be able to institute a formal housing program by dedicating staff time on an on-going basis to housing programs and by expanding the use of local redevelopment funds. The availability of staff time for housing program implementation will allow the City to take advantage of state and federal programs and other housing strategies which were formerly beyond the City's capabilities.

23.9.1 Assumptions

1) The proposed policies and programs are based upon the assumption that Folsom's proper role in the development of housing is one of facilitator in the development of housing.

2) The City will pursue a planning role for housing construction which provides a favorable regulatory environment for housing.

3) Financial assistance from state and federal agencies will be pursued.

4) The City will use redevelopment housing set aside funds to support affordable housing programs.

5) The City will encourage interested builders to work with the City on alternative housing developments that will promote affordability for low- and moderate-income households.

6) Whether or not appropriate amounts and types of housing are constructed, however, will depend primarily on the decisions of home builders and non-profit housing corporations. The City, itself, is not in the business of building housing.

7) In developing its proposed housing strategy, the City has decided not to pursue a mandatory inclusionary housing program, required land dedications for affordable housing, or required contributions to a housing trust fund in lieu of building affordable housing. The City's reasons are as follows:

a. Folsom does not believe it is in a position to dictate builders' responses to the housing demand.

b. Given the reduced level of state and federal subsidies to support affordable housing development, the City does not want affordable housing units in an inclusionary program to be subsidized by higher prices/costs on market-rate units. This internal development subsidy could substantially affect the availability of housing affordable to moderate- and middle-income households.

c. The City does not want builders to offset the costs associated with land dedications or contributions to a housing trust fund by raising their prices on market-rate housing.

d. Given the great variation in financial, environmental, and locational considerations among residential development proposals, the City does not believe it is appropriate or desirable to require a fixed percentage of affordable housing in all new residential developments.

e. The City believes that in the long run, it can achieve a reasonable balance between the needs of its low- and moderate-income residents and the ability and willingness of the private market to respond to those needs through voluntary approaches.

For a full discussion of the advantages and disadvantages of voluntary versus mandatory approaches to providing affordable housing, see the Appendix, "SUMMARY OF APPROACHES TO AFFORDABLE HOUSING REQUIREMENTS FOR NEW DEVELOPMENT". As Folsom monitors its progress annually in meeting its quantified objectives, it may re-examine the costs and benefits of mandatory affordable housing programs.

23.9.2 HOUSING ELEMENT GOALS AND POLICIES

GOAL 18

To provide for the City's regional share of new housing for all income groups.

POLICY 18.1

Maintain sufficient land zoned at a range of residential densities to accommodate the City regional share of housing.

POLICY 18.2

Identify sites that are suitable for multifamily housing and residential redevelopment.

POLICY 18.3

To encourage home builders to use multifamily-designated land for the highest allowed density housing consistent with the City low- and moderate-income housing needs.

GOAL 19

To encourage the provision of affordable housing.

POLICY 19.1

The City will make use of state and federal programs for which it would be the applicant and work with non-profit and for-profit developers to make use of those programs for which the developer must be the applicant. As one of its first implementation actions, the City will identify available, funded programs, determine which of those programs could be used in Folsom (based on the purpose and eligibility requirements for each program), and determine the most appropriate public agency or private entity to take primary responsibility for applying for funding.

POLICY 19.2

The City will also investigate the feasibility of issuing tax-exempt bonds or mortgage credit certificates to provide low-interest financing for affordable housing.

POLICY 19.3

The City will provide density bonuses to home builders proposing to include at least 10% very low-income housing or 20% low-income housing in their residential developments.

POLICY 19.4

The City will work with non-profit organizations, to identify potential projects and sources of funding to develop low- and moderate-income housing.

POLICY 19.5

The City will identify surplus government property that could be used for construction of housing affordable to low- and moderate-income households and encourage interested developers to make use of such land.

POLICY 19.6

The City will develop a plan for the use of redevelopment tax increment funds set-aside for the construction and rehabilitation of housing for low- and moderate-income households.

GOAL 20

To improve the existing supply of housing

POLICY 20.1

Provide property owners with assistance to inspect and identify code violations in residential buildings.

POLICY 20.2

Continue to apply for state and federal assistance for housing rehabilitation for low-income households. Rental housing that is repaired with government assistance shall remain affordable to low-income households for a specified period of time.

POLICY 20.3

Require the abatement or demolition of substandard housing that is not economically feasible to repair and which represents a health and safety threat.

POLICY 20.4

Seek, through code enforcement, the private rehabilitation of substandard dwelling units and provide financial assistance, when available, to owners of dwelling units occupied by low-income households. In applying this policy, the City shall seek to avoid the displacement of low-income households.

POLICY 20.5

Periodically survey housing conditions in the to maintain a current data base on housing repair needs.

POLICY 20.6

Allocate a portion of the City's redevelopment tax increment set-aside funds for preserving substandard housing occupied by lower-income households.

GOAL 21

To ensure equal housing opportunity

POLICY 21.1

The City will provide information and referral to individuals with fair housing complaints.

GOAL 22

To promote energy conservation

POLICY 22.1

Continue to implement state energy-efficient standards.

POLICY 22.2

Include energy conservation guidelines as part of the development standards for the specific plan area.

POLICY 22.3

Provide weatherization assistance to low-income households.

GOAL 22-A

To promote the preservation of historic residences

POLICY 22-A.1

The City will encourage the preservation of residential buildings with historic or architectural value.

GOAL 22-B

To develop a plan for the use of redevelopment housing set aside funds.

POLICY 22-B.1

The City will prepare a plan to guide the use of redevelopment tax-increment funds set-aside to support low- and moderate-income housing programs.

23.9.3 PROGRAMS

PROGRAM 1 Provide Adequate Sites for Housing

Description. The City will continue its planning programs to accommodate new housing development as expeditiously as possible. Given the financial constraints discussed above over which the City has no control, and little ability to mitigate, it is unlikely that 100% of the needs of lower-income households can be met, even with a concerted effort by the City to work with for-profit and non-profit housing developers to use a number of techniques to supply affordable housing. The City's quantified objectives for low- and moderate-income housing are discussed in the following section.

The City will accomplish this program through an annual review of the composition of the housing stock, the types of dwelling units under

construction or expected to be under construction during the following year, and the anticipated mix, based on development proposals approved, or under review, by the City of housing to be developed during the remainder of the period covered by the Housing Element. This analysis will be compared to the City's remaining "fair share" housing need to determine if any changes in land use policy are warranted.

The City contains approximately 1,088 acres of undeveloped land designated for single-family residential use and 322 acres of for multifamily see (excluding approved development projects and projects presently under construction).

Folsom's allocation between 1989 and 1996 is 7,559 dwelling units, of which 2,572 units were constructed between 1989 and 1991 (see Table 8). The remaining need through 1996 is 1,905 very low-income dwelling units, 1,038 low-income dwelling units, 924 moderate-income dwelling units, and 1,220 above moderate-income dwelling units. Folsom has adequate vacant land (including land in developments presently under construction) to accommodate 100% of its SACOG regional housing needs (see Tables 23-26).

The City believes that its General Plan and zoning densities are sufficient, in combination with density bonuses, to provide adequate densities for housing for all income groups. Adequate zoning densities will not, by themselves, guarantee the economic feasibility of producing affordable housing, however.

There may be financial constraints that would prohibit home builders from being able to address the needs of low- and moderate-income households, even with the residential densities permitted by the City. For example, the ability of the private sector to provide housing affordable to these groups could be substantially affected by interest rates, federal tax-policies and incentives for lower-income housing, the availability of state and federal housing development and operation subsidies, and housing development costs. With the exception of housing development costs, the City has no control over these other factors that affect the ability of home builders to deliver housing affordable to low- and moderate-income households.

The City can affect housing development costs, in part, through its zoning policies, its development permit procedures, its subdivision and development standards, its requirements for public services and facilities for new development, and the methods it adopts to finance those services and facilities. These aspects of the City's influence on development costs were discussed in Chapter IV, Housing Constraints.

Administration/Funding. Community Development Department and City Council.

Timeframe. Current and ongoing.

Expected Results. Periodic updating of the City's vacant land use inventory with an annual comparison of needed units by income/density category and remaining vacant land by General Plan/zoning category. This regular updating and comparison may lead to a periodic refinement of City's land use regulations to reflect changes in housing need.

PROGRAM 2. Sites for Multifamily Rental Housing

Description. Although the City cannot control the market conditions conducive to the production of multifamily housing, the City can, through its General Plan policies and development permit procedures, ensure that land designated for multifamily use is not prematurely committed to single-family development and that the total development potential for affordable housing is maintained. Should a developer propose single-family housing on multifamily-designated land, the City will undertake one or more of the following actions to mitigate the loss of that land for

potential use for housing affordable to low- and moderate-income households:

1) Determine whether there is sufficient remaining multifamily-zoned land to meet the City's low- and moderate-income housing needs and, if so, allow the project for single family use (the burden would be on the applicant to document the sufficiency of remaining multifamily-zoned land);

2) Find that the project will have negative implications for the supply of land for affordable housing, and request the project proponent to include affordable housing in the development plan;

3) Find that the project will have negative implications for the supply of land for affordable housing, and request the project proponent to work with the City in developing affordable housing on another site;

4) Instigate a rezone to multifamily use of undeveloped single family-zoned or other land elsewhere in the City to offset the loss of multifamily land; or

5) Seek to ensure that developers of other multifamily-zoned sites submit proposals with densities that are closer to the maximum allowed under the General Plan to assure that the total number of potentially affordable multifamily units to be developed can be maintained.

One of the most critical needs in the City, as identified in a staff report to the City Council (see Multifamily Housing Report prepared for the City of Folsom in 1990 by Loretta McMaster), is for affordable multifamily rental housing and large family housing. This includes both rental apartments for lower-income households and ownership housing for moderate-income households. Nearly 60% of the City's remaining housing needs between 1991 and 1996, according to the SACOG housing allocation plan, is for housing affordable to low-income households. Most of these low-income households cannot afford, are not expected to be able to purchase, single family homes or condominiums, even with the programs included in this Element which seek to reduce housing costs.

The provision of adequate sites for multifamily rental housing is included in this Element as a separate program from sites in general because state housing law imposes an affirmative obligation on local governments to designate sufficient land to meet their housing needs, including sites for multifamily rental housing.

The City should make the most effective use of these sites it has designated for multifamily use to promote the construction of housing affordable to low- and moderate-income households.
The documentation of the sufficiency of remaining land to meet the City's housing needs would be based on the City's annual review of its Housing Element objectives, as updated by information provided by an applicant for a rezone.

Multifamily rental housing does not typically provide dwelling units for large families, and so the City will encourage that a percentage of new multifamily dwelling units contain three and four bedrooms. The City will require the provision of three- and four-bedroom units in family housing projects that it participates in through state and federal funding.

Administration/Funding. The Community Development Department will carry out this program as part of its on-going planning activities.

Timeframe. July 1991 to June 1996.

Expected Results. Designation of sufficient land to accommodate 3,962 units of multifamily housing, including rental apartments, townhouses, condominiums, and single family attached dwelling units. The City will monitor the remaining vacant land annually to determine Folsom's ongoing ability to meet is housing needs and whether any changes in land use are

warranted. It is expected that at market rates, 150 units could be developed at costs that are affordable to low-income households and 400 units would be affordable to moderate-income households. Whether or not the full 3,962 dwelling units can be developed will depend on market factors beyond the City's control. The City monitor the availability of multifamily-designated land through its annual Housing Element review.

PROGRAM 3. Provision of Public Services

Description. The City will continue to plan for and develop financing plans to finance the provision of public services and facilities that are needed to serve new residential development. These include streets, intersection and interchange improvements, a new bridge across the American River, water and sewer facilities, additional water allocations, drainage facilities, emergency services, educational services and facilities, recreational services and facilities, and general municipal governmental services.

The City has employed, and will continue to employ, a number of methods for identifying needed services and facilities. These include the preparation of specific plans to govern the development of large areas of land designated for a mixture of uses, the preparation of financing plans to accompany the public facilities and service components of specific plans, the preparation and periodic updating of a city-wide Capital Improvements Plan. In establishing minimum standards for public services and facilities, the City will seek to balance the need for assuring that residents of new development enjoy a high quality of public services and facilities with the need to mitigate the cost-effects of public service and facility requirements on the ability of home builders to provide affordable housing.

To finance needed services and facilities, the City will seek to reduce the up-front housing costs impacts as much as possible by charging development fees only for the cost of those services and facilities which must be in place prior to, or shortly after, the completion of a development and for which long-term financing options are unavailable. Whenever possible, the City will seek financing solutions that allow costs to be stretched over a period of ten or more years. Among the long-term financing options are the creation of special assessment districts with the power to issue bonds that would be repaid by annual assessments levied on properties in the district based on the level of benefit received from the services and facilities. Mechanisms that allow the costs of needed infrastructure to be financed at lower municipal borrowing rates, rather than at the home loan interest rate, will ultimately reduce the cost to the consumer.

Administration/Funding. Community Development Department and Public Works Department will be responsible for identifying needed services and facilities. Finance Department and City Manager's Office would be responsible for coordinating any City participation in the financing (issuing bonds, conducting elections to establish an assessment district, etc.).

Timeframe. July 1991 to June 1996.

Expected Results. Provision of adequate services and facilities to accommodate City's regional share of housing needs.

PROGRAM 4. Sites for Special Group Housing

Description. There are a number of special population groups which the state has identified as in need of a residential living environment for their proper physical and mental fulfillment. These groups include mobility, developmentally, and mentally impaired individuals; elderly residents in need of 24-hour care; persons with mental illnesses; and individuals recovering from substance abuse. Group homes of six individuals serving these and other special population groups

will be allowed as a residential use in any residential zone in the City.

Administration/Funding. The Community Development Department will review applications for such homes as part of its development permit processing responsibility. The purpose of the review is to assure that proposed group homes meet state and federal criteria for siting. The City will continue to apply a conditional use permit process for group homes of more than six persons.

Timeframe. July 1991 to June 1996, and on-going.

Expected Results. No quantifiable estimate is available, as the number of individuals benefitted will depend on the interest by public agencies or non-profit groups operating such facilities. In qualitative terms, a more enriched living environment will be provided to these special population groups.

PROGRAM 5. Housing for Older Adults

Description: The City will cooperate with non-profit and for-profit housing developers who propose to construct housing for older adults by providing assistance in applying for governmental funding and offering density bonuses and other local incentives (see affordable housing programs under Goal Two). There are a number of types of housing which could meet the needs of older adults, including rental housing apartments designed specifically for seniors, group homes, congregate care facilities, and mobilehome park/manufactured housing subdivision with recreational facilities for older adults.

The City currently allows housing development which is specifically designed for the lifestyle, physical, and medical needs of older adults in multifamily zones. There is a need for additional housing to meet the needs of this age group, particularly those who are low-income. The number of City residents most likely to need special housing accommodations because of age-related physical and economic conditions has nearly doubled since 1980 and is projected to increase further during the 1990s.

Administration/Funding. The Community Development Department will be responsible for project review and consistency with development standards.

Timeframe. July 1991 to June 1996.

Expected Results. Depends on development proposals submitted to City.

PROGRAM 6. Housing for Single Parents With Children

Description. In its participation in housing programs, the City will investigate state and federal programs, and activities by non-profit housing sponsors, that can address the affordable housing requirements of single mothers as well as their child care needs. This program includes two specific actions:

1) Encouragement of development proposals that integrate affordable housing and child care services.

2) Review of the City's Zoning Code to ensure that City requirements do not overly restrict the location of child care services.Single parents with children have difficulty in arranging child care that is conveniently located with respect to work and their place of residence.

Single mothers, in particular, have the greatest difficulty in affording housing and child care because the majority of single mother are low-income (this group also has the highest incidence of impoverishment).

Administration/Funding. The Community Development Department will be responsible for Zoning Code and development review. Although

the City will not impose a requirement that a developer construct a child care facility, it will request that developers include in their proposals spaces in proposed buildings or sites on which such facilities could be developed or leased by a child care operator.

Timeframe. Cooperate in the development of one or more projects which integrate affordable housing and child care services between 1993 and 1996.

Expected Results. Increase in affordable housing and child care services and options for single mothers.

PROGRAM 7. Density Bonuses and Other Incentives

Description. Density bonuses provide a developer with additional dwelling units in exchange for the provision of housing affordable to lower-income households and specified senior citizen developments. State law provides that if a developer proposes to include at least 20% of the dwelling units in a project at rents/prices that are affordable to low-income households (households earning 50%-80% of median income) or 10% of the dwelling units in a project at rents/prices that are affordable to very low-income households (50% or less of median income), the local jurisdiction must permit a 25% density bonus and offer other development incentives.

In addition, the City must offer at least one economic or regulatory incentive that will help to reduce the development cost of the affordable housing project. Examples of incentives are financial contributions to development costs. development permit or fee waivers or reductions. expedited permit processing, allowance of cost-saving alternative development standards. application on a developer's behalf for state or federal subsidies. and the issuance of tax-exempt bonds to provide low-cost financing.

The City will offer a 25% density bonus for any project in which at least 20% of the units are affordable to low-income households and/or at least 10% of the units are affordable to very low-income households. In addition, the City will offer one or more of the following incentives to projects meeting the above criteria:

1) fee reductions, the amount of the reduction depending on the financial need of the project to maintain the affordability of dwelling units.

2) priority permit processing,

3) low-interest financing (if available as a result of a successful tax-exempt bond issue),

4) a contribution from the City's redevelopment fund consistent with a plan for the use of such funding,

5) the use of alternative subdivision standards that will result in cost savings to be passed on to the occupants of a new development, provided such alternative standards can achieve a similar level of design and service performance as standard subdivision requirements, or

6) the enlisting of financing from private lenders under the federal Community Reinvestment Act.

PROGRAM 8. Density Bonuses for Moderate-Income Housing.

Description. If a developer proposes to provide at least 25% of the dwelling units in a project at costs affordable to moderate-income households (80% to 120% of median income), the City would consider a 25% density bonus. This is an option the City would grant on a case-by-case basis based on the need for moderate-income housing. and is not required by state law.

Affordable density bonus units granted under this program must contain affordable guarantees.

The City will adopt an ordinance setting forth affordability requirements for density bonus units.

For Programs 7 and 8:

Administration/Funding. The Community Development Department will implement the provisions of program 7 and 8 as part of its planning and development permit processing responsibilities. Financial and regulatory incentives will be approved by the City Council and the Redevelopment Agency on a case-by-case basis.

Timeframe. Approve density bonuses on an on-going basis. Adopt density bonus ordinance by January 1993.

Expected Results. Development of 250 moderate-income, 350 low-income, and 105 very low-income density bonus units. Units to be provided in conjunction with other programs that provide financial incentives or subsidies for affordable housing. Although the City did not have a density bonus ordinance in place between 1988 and 1992, the General Plan policies for approving the high end of the density range for senior, low-, and moderate-income housing functions as the equivalent of a density bonus, and is more generous than the 25% density bonus required by state law.

PROGRAM 9. Pursue Funding Under State and Federal Programs

Description. There are a number of state and federal programs which provide low-cost financing or subsidies for the production of low- and moderate-income housing, although funding levels have decreased substantially over the past decade. Certain programs require an application and participation by a local public agency; other programs are for use by non-profit housing corporations and housing authorities, and the remaining programs require application and direct participation by a private developer.

9(a) Folsom will provide assistance to non-profit and private housing developers to make use of other programs which require their application and participation. The use of the programs listed below is predicated upon reaching agreements with interested non-profit or private developers to construct low- and/or moderate-income housing.

Programs which the City or the Redevelopment Agency may pursue directly are:

a. State Predevelopment Loan Program

b. State Rental Housing Construction Program

c. Development Assistance Program

d. Community Development Block Grant Program

e. Federal loan guarantees for senior and handicapped housing developments

f. Federal loan guarantees for low-income family housing developments

g. HOME program (a new federal program)

These are the most readily available programs at the present time. Should the City identify other state or federal programs for which it is eligible, these other sources of funds will be considered as well.

9(b) There are a number of other programs which provide direct subsidies, mortgage insurance, or low-interest loans to non-profit housing sponsors. Agencies providing this assistance include the California Department of Housing and Community Development, the California Housing Finance Agency, the U. S. Department of Housing and Urban Development, and the U. S. Farmers Home Administration. Included in these programs are:

1) Technical assistance grants for project feasibility and development

2) Subsidies for shared housing for seniors. congregate housing, senior housing, self-help housing, transitional housing for homeless individuals, and other targeted groups

3) Mobilehome park purchase and rehabilitation

4) Project loans and loan insurance

5) Federal funds for the acquisition, conversion, rehabilitation, or construction of publicly owned or managed housing (funding is extremely limited)

9(c) The City will encourage interested non-profit and private developers, and other private entities to make use of these other programs. These other private entities could include major employers in Folsom who are interested in working with developers to finance affordable housing development for their workers.

The City will also cooperate with for-profit or non-profit developers by lending City support to, or local assistance in preparing funding applications, grant density bonuses, and apply for complementary programs that can help reduce land or site development costs for such projects. providing that development proposals are consistent with Housing Element.

Administration/Funding. The Community Development Department and the Redevelopment Agency will coordinate their efforts to make use of available state and federal programs. and to solicit participation by non-profit and private developers. The City will also cooperate with the Sacramento Housing and Redevelopment Agency for identifying suitable sites in Folsom for at least one small. scattered-site public housing development should additional funding be available from the federal government.

Timeframe. July 1991 and on-going.

Expected Results. Provision of 125 very low-income dwelling units, 250 low-income dwelling units. and 250 moderate-income dwelling units. These objectives are based on the following assumptions:

1) That the City can successfully apply for state or federal funding (HCD or HUD) for two rental housing development projects that will include at least 10% of the dwelling units affordable to very low-income households, at least 25% of the units affordable to low-income households, and at least 25% of the units affordable to moderate-income households.

2) That the City will be successful in soliciting participation by developers in at least four CHFA-financed development projects (two ownership and two multifamily rental) in which a percentage of the units will be affordable to very low-, low-, and moderate-income households.

3) That the City will be successful in working with a non-profit housing developer to develop at least two small scattered-site rental housing projects for low- and moderate-income households.

4) That the City will be able to "piggy-back" financial incentives under its density bonus program and to provide financial assistance under its redevelopment tax-increment set-aside plan.

PROGRAM 10. Tax-Exempt Bond Financing

Description. Public agencies can issue revenue bonds. the interest on which is exempt from income taxation. Because the bonds are issued through a public agency, the investors pay no income tax on the interest earned. and the bonds carry a lower interest rate than would otherwise be available to the borrower. Housing financed through tax-exempt bonds can be of two types:

1) Ownership housing, typically single-family homes, in which income qualified first-time home buyers receive a discounted mortgage interest rate.

2) Multifamily rental housing, in which the project owner receives below-market-interest-rate financing in exchange for reserving a specified percentage of dwelling units for low- and/or moderate-income households.

To use this program, a public agency must first locate an interested developer, apply for and receive an allocation from the State Mortgage Revenue Bond Allocation Committee, and locate a bond underwriter to assist in the issuance of the bonds. The process typically takes one year to 18 months from the initial application to the availability of funds for project development/financing.

The City will pursue applications for the authority to issue two tax-exempt bonds. In the event the City determines that it would be infeasible to issue bonds, it will pursue the alternative option of mortgage credit certificates, which may be issued to qualified borrowers. Mortgage credit certificates provide tax credits to borrowers, which have the equivalent effect of low-interest-rate financing. One requirement of the program is that the applicant make a deposit of 1/2 of one percent of the bond allocation being requested.

The City will seek an interested developer to take advantage of the mortgage revenue bond program and explore the cost and feasibility of issuing tax-exempt bonds. Because the size of a likely project would be small, it may not be financially feasible for the City to issue tax exempt bonds individually. In such a case, the City would look for one or more other interested public agencies to form a joint powers authority to issue bonds jointly.

Administration/Funding. The Community Development Department would work with the Folsom Redevelopment Agency in applying for a bond allocation. The Community Development Department would take the lead in locating an interested developer. The City Manager and City Attorney would take the lead in setting up necessary legal mechanisms to issue and administer the bonds. Funding for the required deposit would have to be provided by the developer, and administrative costs of issuing the bonds could be covered through arbitrage (the difference between the interest rate paid to bond holders and the interest rate charged to the developer or home buyers).

Timeframe. Determine feasibility and locate interested developer(s), if any, for potential bond issues in 1993 and 1995. Develop affordable housing projects in 1994 and 1996. (The City would not pursue this program until one or more interested developers can be identified).

Expected Results. Finance at least two projects with tax-exempt bonds, or provide mortgage credit certificates for borrowers in at least one project. The City will specify a minimum percentage of dwelling units to be affordable to low- and/or moderate-income households. Objective is for 25 very low-income, and 75 low-income, and 150 moderate-income housing units.

PROGRAM 11. Community Reinvestment Act

Description. Folsom will identify financial institutions operating in the City that fall under the requirements of this act and request that these institutions develop specific programs for providing financing for low- and moderate-income housing.

The Community Reinvestment Act directs federal regulatory and deposit insurance agencies to encourage the institutions they regulate or insure to assist in meeting the credit needs of their communities, including low- and moderate-income needs. Federal agencies are supposed to evaluate compliance with the intent of this act when reviewing applications by financial

institutions for charters, new branches, mergers, relocations, and other regulated transactions. Until recently, the provisions of this act were not widely implemented.

Administration/Funding. The Community Development Department will be responsible for assisting public agencies, non-profit organizations, and private developers seeking commitments from financial institutions willing to assist in the financing of affordable housing projects.

Timeframe. January 1, 1993 and ongoing.

Expected Results. Financing of one or more affordable housing project(s) at favorable terms. Objectives for this program are included in programs 1-4 above.

PROGRAM 12. Permit and Development Fee Reductions

Description. Development and building permit fees represent a substantial portion of the cost of housing. The City will decide, on a case-by-case basis, to waive or reduce fees for affordable housing projects. This decision will be based, in part, on the availability of alternatives means of financing the services or facilities for which the fees are being charged, and the ability of the City to absorb the revenue loss from fee waivers or reductions. The City will also request waivers or reductions from other agencies which have independent authority to charge fees.

Administration/Funding. The Community Development Department will recommend to the City Council fee waivers or reductions on a case-by-case basis. The Council will be responsible for approving fee waivers or reductions for those fees over which it has jurisdiction.

Timeframe. On going, and reviewed on a case by case basis.

Expected Results: Cost savings for affordable housing projects.

PROGRAM 13. Second Units in Single-Family Neighborhoods.

Description. The City will permit second units in single-family neighborhoods according to the requirements of state law. The City will implement the second unit standards in state law until it adopts it own second unit ordinance.

This program is designed to allow additional affordable housing opportunities in neighborhoods in which lot and dwelling unit sizes are sufficiently large to permit the creation of small second unit. City standards for the location and design of such units will ensure that homes with second units are not readily distinguishable from other homes in a single-family neighborhood.

The adoption of a second unit ordinance will encourage the creation of second units in two ways: 1) it will provide an established process with standards by which interested residents can construct such units, and 2) it will provide a process by which units created prior to the adoption of an ordinance. without the proper permits, can be brought into compliance with City standards.

Administration/Funding. Community Development Department and Building Department to review applications and ensure compliance with City standards.

Timeframe. Implementation of state standards current and on-going. City will adopt second unit ordinance by July 1, 1993.

Expected Results. Creation of 25 dwelling units, 10 affordable to very low- and 15 affordable to low-income households.

PROGRAM 14. Voter Authorization for Specified Rental Housing Programs

Description. The City will request Folsom residents to authorize the use of local, state, and federal funds for a sufficient number and types of dwelling units to meet that portion of its very low- and low-income quantified objectives that can only be met by government funded programs that are covered by the state constitutional requirement for voter approval.

The State Constitution requires that local voters authorize the use of public funds for certain publicly-subsidized rental housing developments. Voter approval is not required for specific developments, but a local jurisdiction must have voter authorization to use public funds for a specified number of dwelling units, the general types and locations of which must also be approved.

Administration/Funding. City Council will approve ballot measure to be submitted to local voters. Community Department will prepare recommendation regarding the number, types of units, and general locations within the City for which voter approval should be sought.

Timeframe. City Council to approve submission to voters in time for first election after January 1, 1993.

Expected Results. Voter approval of the use of public funds for a sufficient number of dwelling units that will allow the City to pursue those state and federal programs which require voter authorization.

PROGRAM 15. Inspection Program.

Description. The City of Folsom will, on a request basis, arrange for an inspection of residential properties building code violations which should be corrected. A more comprehensive voluntary building code inspection would be performed by the Building Department for an inspection fee that covers the cost of this service.

Administration/Funding. The Building Department will administer the code inspection program, to be funded from inspection fees.

Timeframe. July 1992 to June 1996.

Anticipated Results. Depends on the number inspection requested.

PROGRAM 16. Code Enforcement and Abatement

Description. Upon request of a property owner or occupant, the City will identify dwelling units that are unsafe to occupy and initiate appropriate action to have those units brought into compliance with building code standards or removed.

This action would be taken only in the most extreme cases in which the owner of the dwelling units is unable or unwilling to make necessary repairs, in which repairs are not feasible, or in which the dwelling unit has been abandoned.

A 1991 housing conditions survey did not locate any dwelling units in a state of disrepair requiring demolition.

Administration/Funding. The Building Department will enforce code requirements and order unsafe units to be vacated (and demolished, if necessary).

Timeframe. July 1991 to June 1996.

Anticipated Results. Repair of dwelling units which are feasible to rehabilitate and removal of dwelling units, if any, which may be infeasible to repair.

PROGRAM 17. Rehabilitation of Substandard Dwelling Units

Description: To encourage private rehabilitation efforts, the City will apply for and/or assist eligible households in applying for various private, state and federal sources of funding for housing rehabilitation and home repairs, which would include the correction of health and safety hazards, weatherization, and the addition of space to alleviate overcrowding. The City will also allocate a portion of its redevelopment tax-increment funds for housing rehabilitation.

The City has identified 88 dwelling units in need of immediate rehabilitation based on the exterior deterioration of these units. Based on the number of dwelling units constructed prior to 1960 (about 900), it is reasonable to assume that in addition to the 88 dwelling units with obvious exterior repair needs, there are a number of other dwelling units with interior deficiencies or which could require rehabilitation within the next two to five years if not property maintained (patching of stucco, repainting, roof patching, etc.). The survey results did not include dilapidated mobilehomes located in mobilehome parks at Folsom Boulevard and Natoma Street and on Sibley Street (the Sibley Street park has been upgraded since the survey was completed).

Most of these substandard dwelling units are occupied by low-income households. Most low-income owner-occupants lack sufficient financial resources to obtain private funding for home repairs. Owners of rental units occupied by low-income households often cannot financially support repairs to dwelling units from the rents they can charge.

Administration/Funding. The City will apply annually, or as frequently is needed, based on housing rehabilitation demand, for funding under the Community Development Block Grant Program, and the California Housing Rehabilitation Program. In addition, the City will provide information to, and assist owners of, rental properties in applying for funding under the California Housing Rehabilitation Program, from the California Housing Finance Agency, and from the U. S. Department of Housing and Urban Development.

In some cases, several of the above-mentioned programs will be combined to undertake home repairs. Owners of rental properties who are assisted in financing the rehabilitation of their dwelling units will be required to rent the units to low-income households and to sign a rent limitation agreement.

Timeframe. Current and on-going program.

Expected Results. Rehabilitate 75 dwelling units between 1991 and 1996.

PROGRAM 18. Relocation Assistance

Description. The City of Folsom will require owners of rental property to pay for the relocation expenses of low-income residents displaced as a result of the condemnation or required vacation of dwelling units due to code violations. The City will require that displaced residents be given the right of first refusal to return to the dwelling units upon their repair.

Administration/Funding. The Building Department will administer this program as funds permit. City Council will adopt an ordinance to implement this program.

Timeframe. Adopt ordinance by January 1, 1993; implement thereafter and ongoing.

Expected Results. Provide relocation assistance to the estimated households displaced by the code enforcement and abatement program.

PROGRAM 19. Housing Demolition Mitigation

Description. State law requires that all dwelling units occupied by lower-income households which are demolished or converted by public actions in a redevelopment area be replaced, and 75% of the replacement units must be available at comparable cost to the units removed. The City will follow the requirements of state law regarding the demolition or conversion of dwelling units occupied by lower-income households in the City's redevelopment area. At the present time, the City has not identified any specific dwelling units to be demolished or converted.

Administration/Funding. The Redevelopment Agency is responsible for implementing the requirements of state law.

Timeframe. Ongoing program.

Expected Results. Provision of replacement dwelling units within the redevelopment area. At present, no dwelling units have been demolished in the City's redevelopment area nor are there any plans for the demolition of dwelling units.

PROGRAM 20. Maintenance of Housing Condition Data Base

Description. The City will continue to maintain current information on the condition of dwelling units by periodically updating its housing conditions data base. Approximately every 2-3 years, the City will resurvey housing conditions to ensure the currency of its housing conditions information.

Administration/Funding. The Community Development Department will direct these surveys.

Timeframe. Conduct surveys in 1991 and 1994.

Expected Results. One survey update completed in 1991 and one survey update in 1994.

PROGRAM 21. Zoning Flexibility For Housing Rehabilitation.

Description. To avoid discouraging rehabilitation efforts, the City will allow non-conforming dwelling units to be rehabilitated so long as the rehabilitated dwelling units meets the Folsom Zoning Code requirements for non-conforming structures.

Many dwelling units in need of rehabilitation were constructed prior to adoption of current zoning standards. As a consequence, some of these dwelling units are non-conforming as to lot size, set-backs, yard requirement, location, and other zoning requirements.

Administration/Funding. The Community Development Department will determine the zoning status of dwelling units to be rehabilitated based on inspection information provided by the Building Department. The staff time required for the determination of zoning status will be included in any permit fees, except that the City may waive any extra charges for low-income households.

Timeframe. Current and on-going.

Expected Results. Zoning status to be determined for properties rehabilitated under Programs One through Four.

PROGRAM 22. Preservation of Subsidized Housing Units.

Description. (a) The City will work with interested private entities a non-profit housing corporation with the capacity to manage and maintain the dwelling units.

b) The City will assist the interested entity in applying for available state or federal assistance to purchase the properties and to continue their

operation as low-income housing. If state or federal funds are insufficient to offset acquisition costs, the City may consider using redevelopment tax-increment funds to provide a low-interest or deferred loan to cover the financing "gap".

There are two federally subsidized (no state or local) rental housing developments whose owners could prepay their federal loans and convert their units to market-rate housing between 1991 and 1996. There is, in addition, one rental housing development with a Section 8 contract which expires in 1995. The owner of one development containing 48 dwelling units has already issued a notice of intent to prepay. Under such circumstances, the owner must give a public or non-profit entity the right of first refusal to acquire the units for continued operation as low-income housing. The total potential loss of affordable housing is 110 dwelling units.

Administration/Funding. Either Community Development Department to seek interested non-profit or private entities or Redevelopment Agency to provide partial financing if needed and if funds are available at the anticipated time of sale.

Timeframe. Current and ongoing as needed.

Estimated Results. Preservation of 110 dwelling units as affordable housing.

PROGRAM 23. Manufactured Housing on Single-Family Lots

Description. State law requires local governments to allow manufactured homes on land zoned for residential use, subject to the same development standards as site-built housing. The City will continue to implement the requirements of state law.

Administration/Funding. Community Development Department and Building Department will process applications.

Timeframe. Current and ongoing.

Expected Results. Increase in opportunities for manufactured housing constructed to HUD code as a lower-cost alternative to site-built housing. It is anticipated that not more than five applications will be received for manufactured housing.

PROGRAM 24. Preservation of Mobilehome Parks.

Description. The City will seek to preserve mobilehomes in mobilehome parks which have the potential to provide sound housing. Of the nearly 900 mobilehomes in mobilehomes parks in Folsom approximately 10% were constructed prior to 1974 HUD standards and have been determined by the City to be dilapidated. The City will not, however, seek to preserve those mobilehomes which do not have the potential to provide safe and sound housing. Rather, the City will assist these owners in finding suitable replacement and, if necessary, provide low-interest loans to purchase replacements.

Administration/Funding. Community Development Department to identify dilapidated mobilehomes with the assistance of the Building Department. Redevelopment Agency to provide relocation assistance.

Timeframe. Beginning July 1, 1992, assist approximately 90 low-income residents in finding suitable replacement mobilehomes as current homes become uninhabitable.

Expected Results. Assist 90 residents in finding replacement mobilehomes. Preserve approximately 800 mobilehomes.

PROGRAM 25. Homeless Services

Description. The City of Folsom will continue to cooperate with regional homeless shelter providers and meet the needs of individuals and

families without permanent housing. At present, there is no identified need for a permanent homeless or transitional housing facility in the City. Should such a need arise in the future, the City would identify appropriate locations for homeless or transitional housing facilities according to the City's Zoning Code. Homeless/transitional housing facilities are presently allowed in multifamily high density and commercial zones.

Administration/Funding. The Community Development Department will be responsible for reviewing compliance with City zoning requirements.

Timeframe. Timeframe for homeless or transitional housing facility depends on the timing of proposals presented to the City.

Expected Results. Increased capacity to serve homeless persons and creation of housing opportunities to return homeless persons to permanent housing.

PROGRAM 26. Fair Housing Program

Description. The City will seek information from state and county agencies, and community organizations which have produced information on state and federal fair housing requirements. The City will make such information available at a designated office in City Hall. The City will also assist individuals with complaints in contacting the appropriate agency and filing a complaint.

Administration/Funding. The Community Development Department will disseminate information on fair housing laws and assist individuals in filing complaints.

Timeframe. Current and ongoing.

Expected Results. Resolution or referral of fair housing complaints.

PROGRAM 27. Implement State Energy Conservation Standards.

Description. Applicants for building permits must show compliance with the state's energy conservation requirements at the time building plans are submitted.

The State of California has adopted a number of energy conservation requirements for residential dwelling units. These conservation standards apply to all newly constructed dwelling units and additions to existing dwelling units. Conservation requirements address insulation; the amount and orientation of glazing; shading by landscaping, mechanical, and architectural devices; heating and cooling system efficiency; the amount and placement of thermal mass (materials that absorb heat during the daytime and release heat at night); and other aspects of building energy efficiency.

Administration/Funding. The City Building Department is responsible for implementing the state's energy conservation standards. This includes the checking of building plans and other written documentation showing compliance and the inspection of construction to ensure that dwelling units are constructed according to those plans. The cost of enforcement is paid for from fees paid at the time plans are submitted.

Timeframe. Current and on-going.

Expected Results. Checking of all building plans for compliance with state energy conservation requirements. Increase in energy efficiency will save an unspecified amount of energy and natural resources.

PROGRAM 28. Site Development Standards

Description. The City will implement the requirements of the California Subdivision Map Act regarding design solar access, landscaping to reduce energy use, appropriate orientation and

configuration of buildings on a site, and other site design factors affecting energy use.

The state energy conservation requirements address energy conservation in the construction of dwelling units. Additional energy conservation can be obtained from development patterns which encourage conservation.

Administration/Funding. Community Development Department.

Timeframe. To be implemented at the time of review of tentative subdivision maps.

Expected Results. Improved energy conservation in new residential developments. Energy savings cannot be estimated at this time.

PROGRAM 29. Energy Conservation Assistance for Low-Income Households

Description. The City will provide information to homeowners seeking financial assistance in retrofitting their homes for energy conservation.

Substantial energy conservation, and reduced utility payments, can be realized from weatherizing and insulating older dwelling units. Many low-income households and owners of rental units lack the financial resources. however, to undertake such home improvements. There are several programs that can provide financial assistance to low-income homeowners and rental unit owners whose tenants are low income: Community Development Block Grant Program, California Housing Rehabilitation Program, Pacific Gas & Electric, SMUD, Special Circumstances Grants (specified homeowners on Social Security only), and "Project Go".

Administration/Funding. The Community Development Department will include weatherization and energy conservation as eligible activities under CDBG and CHRP programs which it administers. The Agency will provide information and refer eligible property owners to other programs.

Timeframe. Current and on-going.

Expected Results. Weatherization and insulation of 100 dwelling units between 1991 and 1996.

PROGRAM 30. Preservation of Historic Residences

Description. To preserve historically and architecturally significant buildings, the City will undertake the following actions:

1) When considering development or rehabilitation activities, the City will evaluate the potential impact of such activities on historic properties. Higher priority in funding decisions for CDBG, redevelopment, or other state or federal funds will be given to eligible projects whose objectives include the preservation of properties identified as historic by a federal, state, or local agency.

2) The City will continue to designate certain areas as historic districts and may adopt guidelines for historic structures. The City has established on such historic district (see the Historic District Specific Plan).

3) Property owners who wish to alter or convert historic structures on local, state, or federal lists will be required to follow state historic preservation guidelines. The demolition of such structures will not be allowed unless the property owner has first offered the property for sale to a public or private organization to preserve the property, and there has been no willing buyer; or unless the property represents an immediate threat to public health and safety.

4) In public meetings and hearings on proposed activities involving the use of public funds for development or rehabilitation, the City

will invite the public to comment on the potential impact of such activities on historically significant sites. Notices of such meeting and hearings will include language inviting such public comment.

The City may exempt property owners from specific historic preservation requirements, to the extent it has the authority to do so, if such requirements would conflict with handicapped access, energy conservation, seismic safety retro-fitting, or if the strict application of historic preservation requirements would impose an unreasonable economic hardship on the property owner. Any such
decision would be made on case-by-case basis.

Administration/Funding. The Community Development Department will review applications.

Timeframe. Adopt historic preservation requirements by July 1993. Implement thereafter as part of the City's permit process.

Expected Results. Preservation of residential buildings with historic or architectural value.

PROGRAM 31. Redevelopment Housing Set-Aside Plan

Description. The City will prepare a plan which shows how the City intends to meet the requirements of redevelopment law concerning the percentage of newly constructed or rehabilitated dwelling units within the redevelopment area that must be affordable to low- and moderate-income households. The plan will also contain a strategy for the use of the City's tax-increment housing set-aside funds to assist low- and moderate-income households.

The City had approximately $300,000 accumulated in its housing set-aside fund as of July 1992, and anticipates that $1.5 million in additional housing set-aside funds will be generated between 1992 and 1997.

Administration/Funding. Folsom Redevelopment Agency, assisted by the Community Development Department.

Timeframe. Redevelopment Agency to adopt plan by January 1993.

Expected Results. Improvement in City's ability to prioritize the expenditure of its redevelopment housing set-aside funds.

PROGRAM SUMMARY AND PRIORITY LIST

Prgrm #	Description	Timeframe	Recommended Priority	Timeframe Change Rec
1	Provide Adequate Sites for Housing	ongoing	1	
2	Sites for Multifamily Rental Housing	7/91-6/96	1	
3	Provision of Public Services	7/91-6/96	1	
4	Sites for Special Group Housing	7/91-6/96	2	
5	Housing for Older Adults	7/91-6/96	1	
6	Housing for Single Parents With Children	1993-1996	2	
7	Density Bonuses and Other Incentives (ordinance)	12/93	1	1/93
8	Density Bonuses for Moderate-Income Housing (ordinance)	12/93	1	1/93
9	Pursue Funding Under State and Federal Programs	7/91-ongoing	1	
10	Tax-Exempt Bond Financing	1993-1996	2	
11	Community Reinvestment Act	1/93-ongoing	2	
12	Permit and Development Fee Reductions	ongoing	1	
13	Second Units in Single-Family Neighborhoods (ordinance)	7/93	3	
14	Voter Authorization for Specified Rental Housing	After 1/93	1	
15	Inspection Program	7/92-6/96	3	
16	Code Enforcement and Abatement	7/91-6/96	3	
17	Rehabilitation of Substandard Dwelling Units	ongoing	1	
18	Relocation Assistance (ordinance)	1/93-ongoing	2	7/93
19	Housing Demolition Mitigation	ongoing	2	
20	Maintenance of Housing Condition Data Base	1991/1994	2	
21	Zoning Flexibility For Housing Rehabilitation	ongoing	2	
22	Preservation of Subsidized Housing Units	ongoing	1	
23	Manufactured Housing on Single-Family Lots	ongoing	3	
24	Preservation of Mobilehome Parks	7/92-ongoing	1	
25	Homeless Services	none	3	
26	Fair Housing Program	ongoing	1	
27	Implement State Energy Conservation Standards	ongoing	3	
28	Site Development Standards	ongoing	2	
29	Energy Conservation Assistance for Low-Income HH	ongoing	1	
30	Preservation of Historic Residences	7/93-ongoing	3	
31	Redevelopment Housing Set-Aside Plan	1/93-ongoing	1	

NOTE: The level of priority recommended for the programs above is based on the urgency of program implementation to meet low- and moderate-income housing objectives.

23.10 APPENDIX

Summary of Approaches to Affordable Housing Requirements For Development

There are three general approaches to affordable housing requirements for new residential developments:

1) the traditional mandatory approach (often referred to as "inclusionary zoning"),

2) the negotiated development approach, and

3) the strictly voluntary approach.

23.10.1 Mandatory Approach

Under a mandatory approach to affordable housing, often called "inclusionary zoning", a city or county requires that a specified percentage of housing be set aside for low- and moderate-income households. The percentage set aside and the income group for whom affordable units must be set aside typically varies depending on the type of housing project (for example, multifamily rental versus single-family ownership). "Affordability" is defined as a percentage of income, usually 30%, and the low- and moderate-income groups are usually defined based on the state definition (very low-income = 50% or less of median, low-income = 50-80% of median, and moderate-income = 80-120% of median).

Cities and counties that have adopted mandatory approaches to affordable housing requirements usually set up administrative procedures for monitoring compliance. These include:

1) rent restrictions on the affordable rental units to ensure that rents stay within certain limits for a specified period of time (this is typically accomplished through a recorded rent limitation agreement),

2) occupant screening to ensure that households benefitting from the program are from the targeted income group.

3) sales price restrictions on the affordable for-sale units to ensure that prices are within the range affordable to the designated income group, and

4) resale controls, to ensure the continued affordability of the for-sale units (resale controls are not imposed in most programs).

In addition, some programs have recapture requirements on for-sale housing to recover a portion of any governmental subsidy provided to a homeowner. This is not a universal practice, however.

Affordability is determined by calculating the appropriate percentage of income that should be devoted for housing expenses (usually 30%) and subtracting an allowance for utility costs (and property taxes and homeowner's insurance for ownership housing). The affordable housing price determined on for-sale housing is calculated according to the monthly mortgage which a low- or moderate-income household could afford (after subtracting other housing expenses), and estimating, at the prevailing interest rate, the maximum loan for which such a household could qualify.

Mandatory affordable housing programs often provide exemptions for small projects, allow developers to pay in-lieu fees to an affordable housing fund, or donate land in-lieu of building housing. These exemptions are usually made on the basis of the feasibility or desirability of providing the affordable housing in a specific project.

To assist developers in providing affordable housing, some cities and counties provide financial and regulatory incentives, such as density bonuses, low-cost financing, fee reductions, expedited permit processing, and

assistance in applying for state or federal subsidies. Most communities, however, still require a developer to meet the affordable housing goals regardless of the availability of such incentives.

23.10.2 Negotiated Development

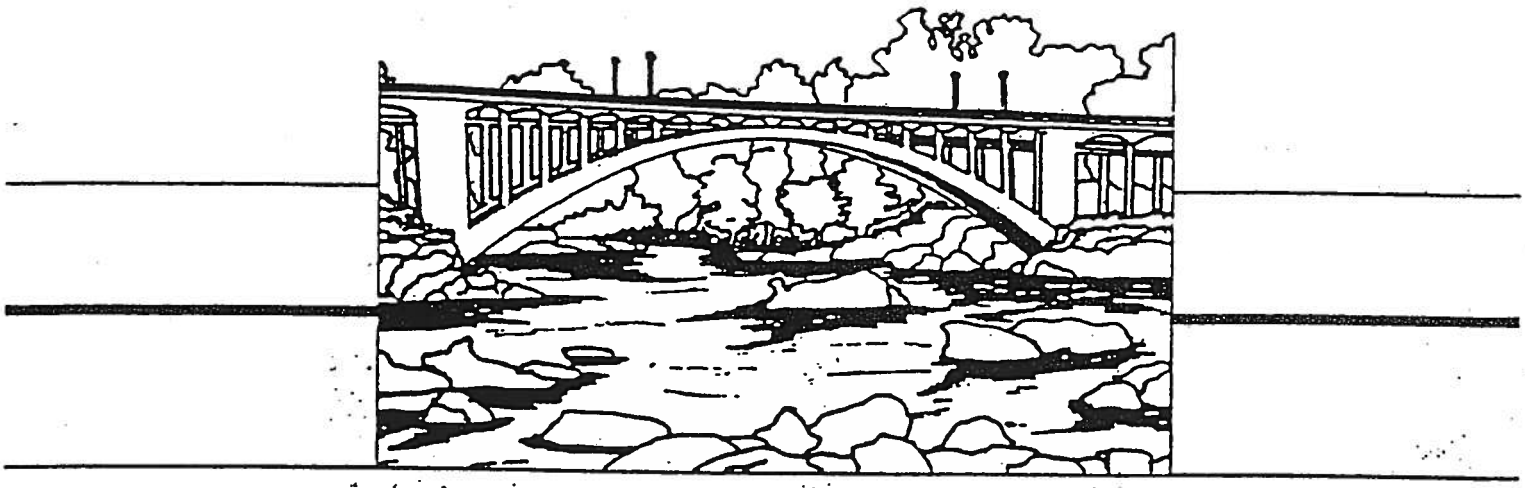
Under a negotiated development process, cities and counties set affordable housing goals on a case-by-case basis depending on project size, characteristics, location, and other factors. The features of negotiated development programs are very similar to mandatory inclusionary programs, except that there is no absolute percentage of affordable housing specified in advance for which all development must provide.

The implementation techniques for negotiated development programs are also similar to mandatory programs. Some communities require affordability guarantees through rent limitation agreements or sales price restrictions, and occupants may be screened for income eligibility.

The responsible party for screening households varies: some communities perform the screening themselves, others require the developer or property manager to screen households, while still others delegate this responsibility to another entity, such as a housing authority or a community-based non-profit housing corporation. Specific development and regulatory incentives are also negotiated for each project.

23.10.3 Voluntary Approach

A voluntary approach to affordable housing production allows the developer to choose whether or not to include a specified percentage of affordable housing in a residential development. The jurisdiction would strongly encourage home builder participation in its affordable housing program, and offer regulatory and financial incentives to interested home builders in providing affordable housing within their new developments. A voluntary approach, as the term suggests, cannot compel home builders to participate in an affordable housing program, however.

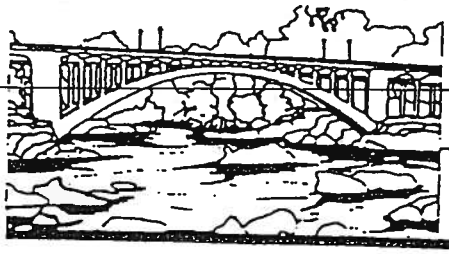


24.0 OPEN SPACE AND CONSERVATION ELEMENT

Prepared For The City of Folsom
Community Development Department

By
QUAD Consultants

October 31, 1988



OPEN SPACE & CONSERVATION

TABLE OF CONTENTS

PAGE

24.1 INTRODUCTION 2

24.1.1 State Policy and Authorization 2
24.1.2 Related State and Federal Regulation 3

California Surface Mining and Reclamation Act 3
California Endangered Species Act 3
California Environmental Quality Act 3
Federal Clean Water Act 3
Federal Endangered Species Act 4

24.1.3 Relationship to the General Plan 4

24.2 SETTING/ASSUMPTIONS/ISSUES 4
24.2.1 Setting 4
24.2.2 Assumptions 5
24.2.3 Issues 5

24.3 OPEN SPACE AND CONSERVATION ELEMENT GOALS AND POLICIES 6

24.4 RELATED GOALS AND POLICIES 6

24.5 IMPLEMENTATION 10

OPEN SPACE & CONSERVATION

24.1 INTRODUCTION

Because of the close relationship between conservation of the City's resources and maintenance of open space, these two State required Elements are combined into a single Element, the Open Space and Conservation Element.

The conservation segment of the Element identifies the community's resources and establishes policy for their conservation, development and/or utilization.

The open space segment of the Element identifies the community's open space resources and establishes policy for their preservation, maintenance and/or use.

24.1.1 STATE POLICY AND AUTHORIZATION

Government Code Section 65302(d) requires a Conservation Element for the conservation, development, and utilization of a community's natural and manmade resources. The Conservation Element is required to address the following:

1. The reclamation of land and waters.
2. Flood control.
3. Prevention and control of the pollution of streams and other waters.
4. Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
5. Prevention, control and correction of the erosion of soils, beaches and shores.
6. Protection of watersheds.
7. The location, quantity and quality of rock, sand and gravel resources.

Government Code Section 65560 requires the adoption of an Open Space Element. Open space land is any parcel or area of land or water which is essentially unimproved and devoted to an open space use and which is designated on a local, regional or State open space plan as any of the following:

1. Open space for the preservation of natural resources.
2. Open space used for the managed production of resources.
3. Open space for outdoor recreation.
4. Open space for public health and safety.

The State has found:

1. That the preservation of open space land, is necessary not only for the maintenance of the economy of the State, but also for the assurance of the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation and for the use of natural resources.

2. That discouraging premature and unnecessary conversion of open space land to urban uses is a matter of public interest and will be of benefit to urban dwellers because it will discourage noncontiguous development patterns which unnecessarily increase the costs of community services to community residents.

3. That the anticipated increase in the population of the State demands that Cities, Counties and the State, at the earliest possible date, make definite plans for the preservation of valuable open space land and take positive action to carry out such plans by the adoption and strict administration of laws, ordinances, rules and regulations as authorized by this chapter or by other appropriate methods.

4. That in order to assure that the interests of all its people are met in the orderly growth and development of the State and the preservation and conservation of its resources, it is necessary to provide for the development by the State, regional agencies, Counties and Cities, including charter Cities, of Statewide coordinated plans for the conservation and preservation of open space lands.

24.1.2 RELATED STATE AND FEDERAL REGULATIONS

CALIFORNIA SURFACE MINING AND RECLAMATION ACT[1]

The Surface Mining and Reclamation Act (SMARA) was enacted to ensure that:

1. Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition.

2. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

3. Residual hazards to the public health and safety are eliminated.

CALIFORNIA ENDANGERED SPECIES ACT

The State of California has adopted the California Endangered Species Act (CESA) as a mechanism to insure and/or encourage consultation with the California State Department of Fish and Game (DFG) when and where proposed projects may potentially affect State listed threatened or endangered species. Project sponsors or lead agencies other than a State lead agency may informally consult with DFG on any project. However, where a State agency is acting as the lead agency pursuant to the California Environmental Quality Act (CEQA), CESA requires the DFG to issue written findings regarding the effects of the proposed project, whether habitat destruction, taking of, or jeopardy to any threatened or endangered species may occur. CESA further requires State lead agencies to adopt reasonable and prudent alternatives, or if those are found infeasible, reasonable mitigation and enhancement measures for projects which would minimize adverse impacts to the listed species or its habitat.

To the extent that State listed threatened or endangered species, or their habitats, as now exist or are determined to exist within the Folsom General Plan Area, the provisions of this act will apply.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The adoption of a General Plan, Element or amendment constitutes a project under the CEQA and the State EIR Guidelines. If it is determined from the initial study that any aspect of the proposed General Plan document or amendment either individually or cumulatively, may significantly affect the environment, the City must prepare an EIR.

FEDERAL CLEAN WATER ACT

The U.S. Clean Water Act was derived through the 1977 addition of certain amendments to the Federal Water Pollution Control Act. The stated objectives of this combined legislation is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. As an implementation effort of the amended act, Congress adopted Sections 402 and 404. Section 402 provides for an administrative review and permit procedure for the discharge of any pollutant or combination of pollutants, into the Nation's waters. Section 404 provides for a review and permit procedure for the discharge of dredged or fill material into the Nation's navigable waterways. Through the adoption of administrative codes by the Army Corp of Engineers and the combined influences of several separate litigations, Clean Water Act Section 404 permits are now required for the placement of fill and/or dredged material in the Nation's navigable waterways and their associated wetlands.

Wetlands, although variously definable by scientists and resource managers, are presently determined by the Army Corp of Engineers for the purposes of asserting Section 404 permit authority by using the following combined criteria: frequency of inundation, soil type, character and chemistry, and vegetation. Unfortunately, many wetlands areas have not been formally reviewed under these criteria. In fact, determinations are not routinely made by the Army Corp of Engineers unless a specific request is made.

Therefore, to the extent that wetlands do now exist or are determined to exist in the Folsom General Plan Area, a Section 404 permit issued by the Army Corp of Engineers will be a prerequi-

[1]Public Resources Code Section 2712.

site for construction of any project which proposes to place fill or dredged material in waterways of their associated wetlands.

FEDERAL ENDANGERED SPECIAL ACT

The U.S. Endangered Species Act (as amended in 1982) states as its purpose "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes to the treaties and conventions set forth in Subsection 1 of this section". To achieve this goal, the act, pursuant to Section 9 as contained therein, it is unlawful for any person subject to the jurisdiction of the United States to:

1. Import any such species into, or export any such species from the United States.

2. Take any such species within the United States or the territorial sea thereof.

3. Possess, sell, deliver, carry, transport, or ship, by any means whatsoever any such species taken in violation thereof.

In this regard, the term to "take" is specifically defined as follows:

Section 3(19). The term "take" means to harass, harm, pursue, hunt, shoot, wound, trap, capture, or attempt to engage in any such conduct.

Further, administrative interpretations of harass or harm have extended statutory protection to the habitats of threatened or endangered species. Violations of the act may result in criminal or civil penalties or both.

To the extent that federally listed threatened or endangered species, or their habitats, do now exist or may be shown to exist within the Folsom General Plan Area, the provisions of this act will apply.

24.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Open Space and Conservation Element of the General Plan directly effects the Land Use Element, Parks and Recreation Element and indirectly effects the Safety Element.

24.2 SETTING/ASSUMPTIONS/ISSUES

24.2.1 SETTING

Volume III, Chapter 82.0 of the General Plan and the Master Environmental Assessment (MEA) describe the setting of the Folsom area and the data base upon which the General Plan has been prepared. This section briefly summarizes the community setting and highlights those resources and open spaces identified for preservation, maintenance and conservation.

Resources identified as requiring preservation, management and/or enhancement in the City of Folsom are:

1. The quality and quantity of ground water.

2. The quality and quantity of surface water including Folsom Lake, the American River, Humbug Creek, Blue Ravine Creek and Willow Creek and other known wetland areas.

3. Woodland vegetation, including Valley Oaks and Blue Oaks.

4. Sensitive habitats including but not limited to: riparian vegetation, including that found along Humbug Creek; Blue Ravine Creek, Willow Creek, Hinkle Creek, and the American River; vernal pools and potential pool habitats including but not limited to those found in the lower Mormon Island Marsh Area; and remnant Valley Bunch Grasslands such as those known to occur near the confluence of Humbug and Blue Ravine Creeks.

5. Wildlife, including such sensitive species as the Valley Elderberry Longhorn Beetle, Swainson's Hawk, Tricolored Blackbird and Tiger Salamander.

6. Fisheries, including Folsom Lake, Lake Natoma, the American River, Humbug Creek, Blue Ravine Creek and Willow Creek.

7. Minerals identified by the State Division of Mines and Geology, including lode gold, placer gold, copper and zinc.

8. Rock and gravel.

9. Energy, electricity and natural gas.

10. Air (see Chapter 32, Air Quality Element).

11. Historic and cultural resources, including the Folsom Historic District, Coloma Road/ Pony Express route, Old Folsom Power House, Folsom Gold Mining District, Prairie City, Cohn House, Folsom Depot, First California Passenger Railroad (Sacramento Valley - Placerville), and other sites as identified by the California Archaeological Inventory dated June 1, 1987.

Those open space's identified as requiring preservation are:

1. American River Corridor
2. Humbug Creek
3. Blue Ravine Creek
4. Hinckle Creek
5. Willow Creek
6. Lake Natoma
7. Folsom Lake
8. Willow Hill Reservoir, if feasible

24.2.2 ASSUMPTIONS

QUALITY OF LIFE

Folsom's quality of life is characterized by:

1. The diverse natural setting, including the American River, tributary streams, natural vegetation, topography, native wildlife, and other unique features of the landscape.

2. Developed parks and open space.

3. The Historic District and other historic places throughout the community.

4. The State Prison site, which provides a large, visual open area in the City.

5. The physical form of Folsom's neighborhoods.

6. Ease of movement.

7. Access to pedestrian and bicycle trails.

WILDLIFE

Wildlife to be protected include, but are not limited to the following sensitive species:

1. Tricolored blackbird
2. Swainson's Hawk
3. Tiger Salamander
4. Valley Elderberry Longhorn Beetle (Federally Listed as Endangered)

HABITATS

Sensitive habitats to be protected include but are not limited to:

1. Northern Hardpan Vernal Pools
2. Valley Bunch Grasslands
3. Freshwater Marshlands
4. Riparian Forests and Woodlands
5. Oak Savannah and Woodlands
6. Permanent and Seasonal Wetlands

RECREATIONAL LANDS

Recreational amenities such as rivers, streams, lakes, undisturbed clusters of trees, wildlife habitats and the passive and active recreational opportunities they represent are, if protected and managed, a resource to be enjoyed by future generations. Reasonable public visual and physical access to these resources is essential.

PUBLIC SHALL BENEFIT

When trade offs are made between the preservation of identified resources/open spaces and development, the City and the public shall cumulatively receive the greater short term and long term benefits of such trade.

24.2.3 ISSUES

Issues identified during the preparation of the Open Space and Conservation Element include but are not limited to:

LOSS OF RESOURCES

As development of the City proceeds, natural resources and open space as identified in Section 24.2.2 may be substantially reduced, or in a worst case, be eliminated.

COST OF PROTECTION

How does the City pay for acquisition, rehabilitation, enhancement, maintenance and operation of its resources and open spaces.

PRIVATE DEVELOPMENT/PUBLIC NEED BALANCE

If land is preserved for the protection of resources and open space, this limits the ability of property owners to develop their land. Development incentives may be required to make the preservation of the City's resources viable to the property owner.

24.3 OPEN SPACE AND CONSERVATION ELEMENT GOALS AND POLICIES

GOAL 23

To preserve existing heritage trees through a City Ordinance.

POLICY 23.1

The City shall continue to enforce the Tree Preservation/Landscape Ordinance and identify heritage trees to be preserved. Site designs shall consider building and parking configurations which will preserve as many heritage trees as possible.

POLICY 23.2

Replacement trees shall be required whenever existing trees are removed.

POLICY 23.3

The City may allow proposed development to be concentrated on a portion of a site and include taller buildings or smaller lot sizes to preserve a greater number of existing trees.

GOAL 24

To ensure that projects contain landscaping and trees that compliment the City's natural character.

POLICY 24.1

Development projects shall contain landscaping of common or public areas, surface parking areas, and streets bordering the project.

POLICY 24.2

Prior to the granting of a building permit, a project must have an approved landscaping plan showing the location, type, and proposed maintenance of landscaping.

POLICY 24.3

The developer or property owners shall be responsible for maintaining landscaping required as part of the project approval for residential developments where there are common areas, and for all commercial and industrial developments. The City will require the establishment of a landscaping maintenance district or other legally binding maintenance agreement and will reserve the power to enforce the maintenance agreement through appropriate means.

POLICY 24.4

The City shall adopt a landscaping ordinance with standards for:

1. Preferred types of plants and materials.
2. Agreements to ensure the continued maintenance of landscaped areas.
3. Minimum size of trees upon planting.
4. Amount of landscaping area.

GOAL 25

Wherever feasible, to preserve, acquire, rehabilitate, enhance and maintain the identified resources for the use and enjoyment of present and future generations. The identified

resources include, but are not limited to:

1. Northern Hardpan Vernal Pools and Associated Sensitive Flora
2. Valley Bunch Grasslands and Associated Sensitive Flora
3. Freshwater Marshlands and Associated Sensitive Flora
4. Riparian Forests and Woodlands and Associated Sensitive Flora
5. Oak Savannah and Woodlands and Associated Sensitive Flora
6. Permanent and Seasonal Wetlands and Associated Sensitive Flora
7. American River Corridor
8. Humbug Creek
9. Blue Ravine Creek
10. Hinkle Creek
11. Willow Creek
12. Lake Natoma
13. Folsom Lake
14. Willow Hill Reservoir, if feasible
15. Tricolored Blackbird
16. Swainson's Hawk
17. Tiger Salamander
18. Valley Elderberry Longhorn Beetle
19. Folsom Boulevard Scenic Corridor, from Highway 50 to Sutter Street
20. Greenback Lane Scenic Corridor, from the Folsom City Limits to Riley Street
21. East Natoma Street Scenic Corridor, from Oak Avenue Parkway to the El Dorado County Line
22. Folsom-Auburn Road Scenic Corridor, from the Folsom City Limit or to Greenback Lane

POLICY 25.1

The surface and groundwater quality of Folsom shall not be degraded from City standards.

POLICY 25.2

The City may obtain fee title or protective easements of identified resources.

POLICY 25.3

Sensitive habitat areas and open space shall have their borders defined by public access ways, and/or shall have views from adjacent buildings oriented toward the areas.

POLICY 25.4

The City shall require that a qualified biologist conduct a vegetative/wildlife field survey, and analysis prior to consideration of development applications for projects within or adjacent to sensitive habitat areas and potential habitats for sensitive wildlife and floral species.

POLICY 25.5

The City shall adopt standards for the designation, enhancement and maintenance of identified sensitive habitat areas.

POLICY 25.6

The City shall establish a vegetation preservation ordinance which:

1. Specifies native or "naturalized" vegetation which should be given highest priority for preservation.

2. Requires an applicant to show the approximate location of existing priority vegetation.

3. Specifies the quantity and manner of vegetation which must be planted for replacement.

POLICY 25.7

Trees and other vegetation comprising riparian or other special habitats targeted for preservation should be preserved regardless of whether they are heritage trees.

GOAL 26

The City shall actively encourage the restoration and maintenance of historic buildings or sites.

POLICY 26.1

Identification and publication of available federal, state and private funding sources and incentive programs.

POLICY 26.2

The City should adopt consistent standards for development, public improvements, alley utilization, and frontage improvements for the original 50' x 140' lots situated within the original town boundaries, including the area generally bounded by Bidwell Street, Riverway, Stafford Street and Folsom Boulevard.

GOAL 27

To preserve, acquire, rehabilitate, enhance and maintain the City's identified open spaces for passive and active recreational uses.

POLICY 27.1

The City shall encourage the improvement of public access to recreational facilities and open spaces through:

1. The publication of a trails and recreation guide which maps the trails, open spaces, and parks within the City of Folsom and shows the interconnection with trails and facilities in adjoining communities. The guide shall describe the facilities and hours of operation.

2. The City should require the new parks and open spaces shall be easily accessible to the public, including the mobility impaired.

POLICY 27.2

The City shall develop parkway plans for each identified sensitive habitat area and should include:

1. Provision for pedestrian, bike and/or equestrian trail(s) with connections to adjacent trail systems.

2. Provision for trailhead/parking areas spaced along parkways.

3. Consideration of the development of interpretive centers or trails within parkways.

POLICY 27.3

The City shall adopt a Scenic Corridor Plan for the identified scenic corridors including but not limited to:

1. Folsom Boulevard Scenic Corridor, from Highway 50 to Sutter Street.

2. Greenback Lane Scenic Corridor, from the City Limits to Riley Street.

3. East Natoma Street Scenic Corridor, from the proposed Oak Avenue Parkway to the El Dorado County Line.

4. Folsom-Auburn Road Scenic Corridor, from the City Limits to Greenback Lane.

POLICY 27.4

The City shall encourage land owners to consolidate identified habitats, open space and park lands between separately owned development projects and individually owned properties where feasible.

GOAL 28

To provide for the production of natural resources when compatible with the goals and policies of this General Plan.

POLICY 28.1

The City should adopt water conservation measures which reduce water consumption, by user type.

POLICY 28.2

The quality and quantity of surface water runoff from a property shall not exceed existing flows or existing quality or shall comply with City standards for off-site drainage. The City shall implement a surface-runoff water quality monitoring program to insure compliance with City standards.

POLICY 28.3

The City should maintain existing and develop new sources of water to ensure adequate, long term and high quality water supplies.

POLICY 28.4

The City shall when feasible require new development on dredge tailings to reclaim the tailings in conformance with the guidelines and regulations of the California Division of Mines and Geology.

POLICY 28.5

Where feasible, the City shall protect existing or future mining and/or gravel extraction sites from encroachment of non-compatible uses through phasing of development and performance standards. The City recognizes that, as a practical matter, the prospects for mining and/or gravel extraction are extremely unlikely in view of the restrictions upon the issuance of surface mining permits imposed by Ordinance No. 613 adopted in response to an initiative measure.

POLICY 28.6

The City shall encourage community wide recycling in an effort to conserve natural resources and reduce solid waste disposal. This may be established through the development of recycling programs promoted and sponsored by the City with non-profit groups. These programs could include but not be limited to curbside recycling programs, siting of a recycling center or drop off collection centers.

24.4 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

- GOAL 1
  - POLICY 1.1
  - POLICY 1.2
  - POLICY 1.3
  - POLICY 1.6
  - POLICY 1.7
  - POLICY 1.8
  - POLICY 1.9
  - POLICY 1.10
- GOAL 2
  - POLICY 2.1
  - POLICY 2.2
  - POLICY 2.3
  - POLICY 2.4
- GOAL 3
  - POLICY 3.1
  - POLICY 3.2
- GOAL 4
  - POLICY 4.4

RELATED GENERAL GOALS AND POLICIES CONT.

- GOAL 5
  - POLICY 5.1
  - POLICY 5.2
  - POLICY 5.3
- GOAL 6
  - POLICY 6.1
- GOAL 7
  - POLICY 7.4

RELATED LAND USE ELEMENT GOALS AND POLICIES

- GOAL 8
  - POLICY 8.1
  - POLICY 8.2
  - POLICY 8.3
  - POLICY 8.4
  - POLICY 8.7
- GOAL 9
  - POLICY 9.2
  - POLICY 9.3
- GOAL 10
  - POLICY 10.1
  - POLICY 10.2
  - POLICY 10.3
  - POLICY 10.5
- GOAL 11
  - POLICY 11.2
  - POLICY 11.5
  - POLICY 11.6
  - POLICY 11.7
  - POLICY 11.8
- GOAL 12
  - POLICY 12.4
- GOAL 14
  - POLICY 14.1
  - POLICY 14.3
- GOAL 16
  - POLICY 16.2
  - POLICY 16.3
  - POLICY 16.8

RELATED TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

- GOAL 17
  - POLICY 17.6
  - POLICY 17.7
  - POLICY 17.10
  - POLICY 17.11

RELATED PARKS AND RECREATION ELEMENT GOALS AND POLICIES

GOAL 35
- POLICY 35.1
- POLICY 35.4
- POLICY 35.5
- POLICY 35.8
- POLICY 35.9
- POLICY 35.10
- POLICY 35.11
- POLICY 35.12

RELATED PARKS AND RECREATION ELEMENT GOALS AND POLICIES

GOAL 36
- Policy 36.1
- Policy 36.2
- Policy 36.3
- Policy 36.5
- Policy 36.6
- Policy 36.7

GOAL 37
- Policy 37.1
- Policy 37.2

GOAL 38
- Policy 38.3

GOAL 39
- Policy 39.1

24.4 RELATED GOALS AND POLICIES

24.5 IMPLEMENTATION

PARKS AND RECREATION ELEMENT UPDATE

Update the Parks and Recreation Element to include applicable goals and policies of the Open Space and Conservation Element and to exclude specific development standards which are to be contained in the Parks, Recreation and Open Space Master Plan (see program 5.2.1).

IMPLEMENTS: GOAL 27

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State of California Department of Parks and Recreation
  California State University at Sacramento
  University of California at Davis
  Local Community Colleges

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agencies

  Community Development Department
  Public Works Department
  Planning Commission
  City Council

- Target Dates: Start: June 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$6,000	$200	$500	$6,700	General Fund Developer Fees

PARKS, RECREATION AND OPEN SPACE MASTER PLAN

A Master Plan for Parks, Recreation and Open Space shall be prepared which contains specific requirements and criteria for development, access, use and maintenance of parks, open space and natural areas within the City including:

1. Provision for improving public access to recreation areas and open space with guidelines and standards for the design of access ways making provision for access by all segments of the community including the mobility impaired.

2. Guidelines and standards for the improvement of parks and open space areas which define the appropriate level of maintenance, access, and improvements in sensitive habitat and open space areas.

3. Guidelines for incorporating educational activities and interpretive centers into the open space and sensitive habitat areas.

4. A plan for consolidation of identified open space, natural habitat areas and park l

5. Landscape requirements for parks and open space including design standards for improvements (trails, fences) in open space areas.

6. In order to preserve special habitats develop management plans for identified sensitive/special habitat areas.

IMPLEMENTS: GOAL 27 - POLICIES 27.1; AND 27.2; GOAL 25 - POLICIES 25.5; 25.6; AND 25.7

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State California Department of Parks and Recreation
  California State University at Sacramento
  University of California at Davis
  Community College
  Department of Fish and Game

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: July 1989
  Complete: May 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
200/$10,000	$1,000	$2,500	$13,500	Developer Fees, User Fees

PARKS AND RECREATION ORDINANCE

Update the Parks Ordinance with respect to the Goals and Policies of the Parks and Recreation Element and amend as necessary.

IMPLEMENTS: GOAL 27

- Folsom Municipal Code: Title 4

- Resource Group/Agency/Organization

  State Division of Parks and Recreation

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$250	$300	$2,350	User Fees

WATER CONSERVATION

Review the existing Uniform Building Code requirements for water conservation measures and revise as necessary to reduce water consumption where feasible.

IMPLEMENTS: GOAL 28 - POLICY 28.1

- Resource Groups/Agencies/Organizations

  University Cooperative Extension
  State Department of Water Resources

- Responsible and Implementing Agency

  Building Inspect Department

- Target Dates: Start: October 1989
  Complete: March 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$200	$200	$2,200	Developer Fees

GRADING ORDINANCE - WATER QUALITY

The Grading Ordinance is to be modified to require quantity of surface water runoff from a property to not exceed existing flows or quality will not be degraded below existing City standards.

IMPLEMENTS: GOAL 25 - POLICY 25.1; GOAL 28 - POLICY 28.2

- Folsom Municipal Code: Title 14
- Resource Groups/Agencies/Organizations

  Regional Water Quality Control Board, Central Valley Region
  USDA Soil Conservation Service

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: January 1989
  Complete: June 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$100	$300	$2,200	Permit Fees, Developer Fees

INCENTIVE PROGRAMS - TITLE 17

Include in the Subdivision Ordinance incentives to property owners (density bonuses, height bonuses etc.) to facilitate consolidation of identified habitat areas, open space and park lands.

IMPLEMENTS: GOAL 25 - POLICY 25.6; AND 25.7; GOAL 27 - POLICIES 27.4

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 16
- Resource Groups/Agencies/Organizations

  Developers
  Realtors
  Banks

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: June 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

REFERENCE DEVELOPMENT STANDARDS

Update the Zoning and Grading Ordinances as necessary to reference development standards for quality and quantity of surface water runoff from a property subject to a development permit.

IMPLEMENTS: GOAL 25 - POLICY 25.1; GOAL 28 - POLICY 28.2

- Folsom Municipal Code: Title 17

  Cross Referenced To: Title 14

- Resource Groups/Agencies/Organizations

  USDA Soil Conservation Service
  Regional Water Quality Control Board, Central Valley Region

- Responsible Agencies

  Community Development Department
  Public Works Department
  Building Inspection Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$100	$200	$2,100	General Fund

PROJECT APPLICATION REQUIREMENTS

Modify the Code to require a qualified biologist conduct a vegetative/wildlife survey, analysis, and if applicable a mitigation program to be submitted with development applications for projects within or adjacent to sensitive habitat areas and potential habitats for sensitive wildlife and floral species.

- Implements: Goal 25 - Policies 25.4; 25.6
- Folsom Municipal Code: Title 17
- Resource Groups/Agencies/Organizations

  State Department of Fish and Game
  US Department of Fish and Wildlife
  US Army Corps of Engineers

- Responsible Agencies

  Community Development Department
  City Council

- Implementing Agency

  Community Development Department

- Target Dates: Start: March 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$200	$200	$2,200	Application Fees

USE PERMITS

Develop a special use permit procedure as part of the Zoning Code to allow natural resource production within the City Limits. Develop standards for noise control, dust control, air quality maintenance, and safety to be made conditions of approval.

IMPLEMENTS: GOAL 28 - POLICIES 28.4 AND 28.5

- Folsom Municipal Code: Title 17
- Resource Groups/Agencies/Organizations

  State Department of Resources, Division of Mines and Geology
  State Office of Noise Control
  Air Pollution Control District
  Department of Public Services

- Responsible Agencies

  Community Development Department
  Building Inspection Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: August 1989
  Complete: March 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

INCENTIVE PROGRAMS

Include the Zoning Code incentives to property owners (density bonuses, height bonuses etc.) to facilitate consolidation of identified habitat areas, open space and park lands.

IMPLEMENTS: GOAL 8 - POLICY8.7- GOAL 25 - POLICY 25.7 - GOAL 27 - POLICY 27.4

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 16
- Resource Groups/Agencies/Organizations

  Conservancy
  State Office of Planning and Research

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

UPDATE LANDSCAPE ORDINANCE.

Adopt a Landscape Ordinance which includes:

1. Tree Preservation Ordinance (existing Tree Preservation Ordinance to be evaluated and modified as necessary to comply with General Plan Goals and Policies) including but not limited to:

A. Requirements for replacement of trees removed from a site (size, type, number of trees to be replaced).

B. Allowance for concentration of development on a site in order to preserve trees in accordance with adopted guidelines and standards. Require specific plans for development under this provision on sites of five acres or more.

2. Landscape plans for new developments shall comply with adopted guidelines and standards (to be referenced in the ordinance) including but not limited to:

A. Standards and guidelines for landscaping of common and public areas, surface parking areas, and streets.

B. Guidelines and standards for sizes, quantities and types of landscaping materials which compliment the City's natural character and are suitable to the Folsom area.

C. Method of irrigation and maintenance.

D. Bonding mechanisms and agreements to assure the installation and long term maintenance of landscape areas.

IMPLEMENTS: GOAL 23 - POLICIES 23.1; 23.2; 23.3 - GOAL 24 - POLICIES 24.1; 24.2; 24.3; AND 24.4

- Folsom Municipal Code: Titles 12, 16 and 17
- Resource Groups/Agencies/Organizations

  Local Chapter of California Native Plant Society
  University of California at Davis, School of Landscape and Architecture

- Responsible Agencies

  Community Development Department
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: August 1989
  Complete: January 199(

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
300/$12,000	$3,000	$3,000	$18,000	Developer Fees

LANDSCAPE STANDARDS AND GUIDELINES

Develop and adopt Landscape Standards which include:

1. Tree preservation guidelines (existing Tree Preservation Ordinance to be evaluated and modified as necessary to comply with General Plan Goals and Policies) including but not limited to:

A. Guidelines for replacement of trees removed from a site (size, type, number of trees to be replaced).

B. Guidelines and standards to allow the concentration of uses on a site in order to preserve trees.

C. Water conservation practices in landscape irrigation practices, irrigation systems and landscape materials which are low water consumers.

2. Criteria for evaluation of landscape plans including but not limited to:

A. Standards and guidelines for landscaping of common and public areas, surface parking areas and streets.

B. Guidelines and standards for sizes, quantities and types of landscaping materials which compliment the City's natural character and are suitable to the Folsom area.

C. Method of irrigation and maintenance.

IMPLEMENTS: GOAL 23 - POLICIES 23.1; 23.2; AND 23.3 - GOAL 24 - POLICIES 24.1; 24.2; 24.3; AND 24.4 - GOAL 28 - POLICY 28.1

- Folsom Municipal Code: Titles 12.16 and 17
- Resource Groups/Agencies/Organizations

  Local Chapter of California Native Plant Society
  University of California at Davis, School of Landscape and Architecture

- Responsible Agencies

  Community Development Department
  ~~Public Works Department~~

- Implementing Agency

  Community Development Department

- Target Dates: Start: August 1989
  Complete: January 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
300/$12,000	$3,000	$3,000	$18,000	Developer Fees

GUIDELINES FOR WATER QUALITY MAINTENANCE

City to establish guidelines and standards for development and construction practices which will ensure the maintenance of water quality. Quantity shall not exceed existing flows and existing quality shall not be degraded or compliance with City standards for off site drainage. Evaluate present City standards for adequacy. A water surface runoff water quality monitoring program shall be established.

IMPLEMENTS: GOAL 25 - POLICY 25.1 - GOAL 28 - POLICY 28.2

- Folsom Municipal Code: Title 14
- Resource Groups/Agencies/Organizations

  Regional Water Quality Control Board, Central Valley Region
  USDA Soil Conservation Service

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$200	$200	$2,200	General Fund

)EVELOPMENT ADJACENT TO OPEN SPACE

Adopt development standards for properties adjacent to sensitive habitat areas and open pace areas which require orientation of the ievelopment away from the open space area or ıordering the open space area with public access ways.

MPLEMENTS: GOAL 25 - POLICY 25.3

- Cross Referenced To: Title 17 - Zoning
- Resource Groups/Agencies/Organizations

  Local Chapter of California Native Plant Society
  University of California at Davis, School of Landscape and Architecture

- Responsible and Implementing Agency

  Community Development Department

Target Dates: Start: January 1989
Complete: June 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$5,400	$400	$600	$6,400	Developer Fees

'RAILS, RECREATION AND SAFETY GUIDE

A Subcommittee to the Parks and Recreaion Commission will oversee the publication of a rails, recreation and safety guide for the use and njoyment of parks and open space within the :ity of Folsom. Publication of the Guide may be ccomplished in coordination with local civic groups or a local college or university as a student project.

IMPLEMENTS: GOAL 27 - POLICY 27.1A - GOAL 29 - POLICY 29.6

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State of California Department of Parks and Recreation
  California State University at Sacramento
  University of California at Davis
  Local Community Colleges
  US Army Corps of Engineers
  US Bureau of Reclamation
  State Reclamation Board
  State Department of Resources, Division of Mines and Geology
  Sacramento County General Services

- Responsible Agencies

  Community Development Department
  Public Works Department
  City Fire Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: August 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$2,000	$1,500	$8,000	Developer Fees, Grant Funds

LANDSCAPE MAINTENANCE AND PLANTING GUIDE

Develop a landscape planting and maintenance guide for general distribution to City residents, including information on water conservation practices in landscape irrigation and use of landscape materials.

IMPLEMENTS: GOAL 23 - GOAL 24 - GOAL 28 - POLICY 28.1

- Resource Groups/Agencies/Organizations

  Local Chapter of California Native Plant Society
  University of California at Davis, School of Landscape and Architecture
  Bicycling Clubs
  Sierra Club
  Service Clubs

- Responsible and Implementing Agency

  Community Development Department

- Target Dates: Start: July 1989
  Complete: January 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$2,000	$1,500	$8,000	General Fund

HISTORIC PRESERVATION PROGRAM - PUBLIC INFORMATION

Make available information on historic preservation including funding sources to the general public.

IMPLEMENTS: GOAL 26 - POLICY 26.1

- Resource Groups/Agencies/Organizations

  American Institute of Architects
  State Historic Preservation Office
  Local Historic Societies

- Responsible Agencies

  City Council
  Community Development Department
  Building Inspection Department

- Implementing Agency

  Building Inspection Department

- Target Dates: Start: July 1989
  Complete: July 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
20/$900	$500	$250	$1,650	General Fund, Grant Funds

HISTORIC PRESERVATION PROGRAM - STANDARDS

Adopt standards for development in the historic downtown including the following: standards for development, public improvements, alley utilization, and frontage improvements for the original 50' x 140' lots situated within the original town boundaries, including the area generally bounded by Bidwell Street, River Way, Stafford Street and Folsom Boulevard.

IMPLEMENTS: GOAL 26 - POLICY 26.2

- Resource Groups/Agencies/Organizations

  American Institute of Architects
  State Historic Preservation Office
  Local Historic Societies

- Responsible Agencies

  City Council
  Community Development Department
  Building Inspection Department

- Implementing Agency

  Building Inspection Department

- Target Dates: Start: July 1989
  Complete: February 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
25/$1,125	$50	$250	$1,425	General Fund

WATER CONSERVATION EDUCATION PROGRAM

Develop a Citywide water conservation program which includes public education encouraging water saving practices and awareness.

IMPLEMENTS: GOAL 28 - POLICY 28.1

- Resource Groups/Agencies/Organizations

  California State University, at Sacramento
  University of California at Davis
  University Cooperative Extension
  State Department of Water Resources

- Responsible Agencies

  Public Works Department
  Building Inspection Department

- Implementing Agency

  Building Inspection Department

- Target Dates: Start: October 1989
  Complete: March 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$350	$400	$2,550	Developer Fees

EGETATION PRESERVATION ORDINANCE

Establish a vegetation preservation ordinance which:

1. Specifies native or "naturalized" vegetation which should be given highest priority for preservation.

2. Requires an applicant to show the approximate location of existing priority vegetation and methods proposed to retain the identified priority vegetation.

3. Specifies the quantity, manner, and maintenance of vegetation which must be planted for replacement.

IMPLEMENTS: GOAL 25 - POLICIES 25.6; AND 25.7

- Resource Groups/Agencies/Organizations

  Local Chapter of California Native Plant Society
  University of California at Davis, School of Landscape and Architecture
  California Chapter Nature Conservancy
  California Department of Fish and Game

- Responsible and Implementing Agency

  Community Development Department

- Target Dates: Start: February 1989
  Complete: August 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
300/$12,000	$3,000	$3,000	$18,000	Developer Fees

OPEN SPACE PRESERVATION

1. The City shall investigate methods of preserving open space including the formation of a City Open Space District, the formation of a local land holding trust, or the use of existing conservation organizations. Methods of preservation shall be evaluated using the following factors:

A. Match the preservation needs of each identified area with a suitable preservation method.

B. Determine which mechanisms of holding land (fee title, easements etc.) will be mutually acceptable to the property owner and the City.

C. Identify funding mechanisms and determine the financial feasibility for each preservation method.

2. In evaluating potential conservator organizations to hold open space the City should consider the following factors:

A. Each group's criteria for accepting land, match the preservation needs of each identified area with a suitable conservator group.

B. Which mechanisms of holding land will be mutually suitable to the property owner, City and conservator group.

C. The financial feasibility for placing each area in a conservancy program and possible funding mechanisms.

IMPLEMENTS: GOAL 25 - POLICIES 25.2; AND 25.6

- Resource Groups/Agencies/Organizations

  Public Trust for Land
  People for Open Space
  Nature Conservancy
  State Department of Fish and Game

- Responsible and Implementing Agency

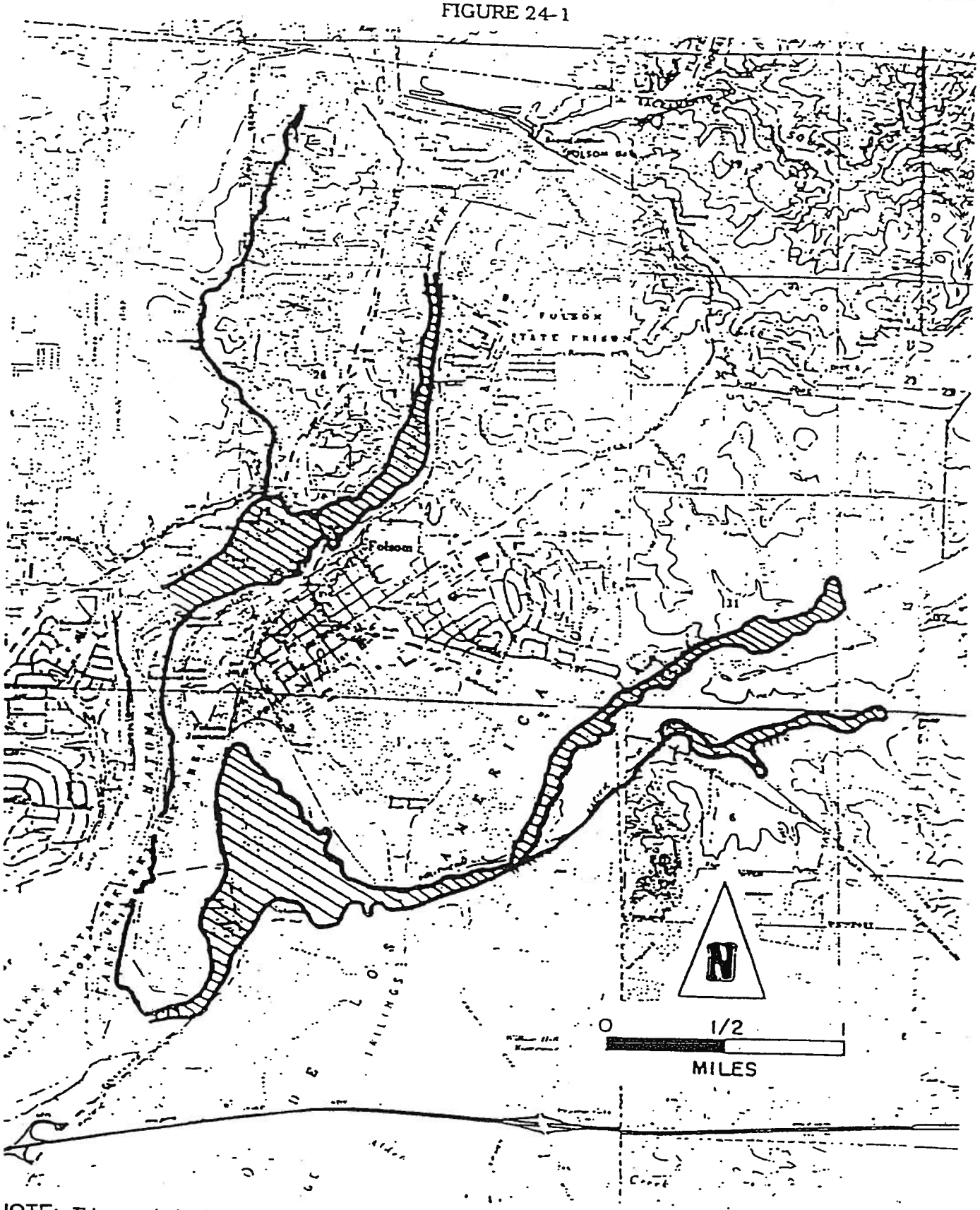
  Community Development Department

- Target Dates: Start: March 1989
  Complete: March 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
200/$9,000	$225	$2,000	$11,225	Grant Funds

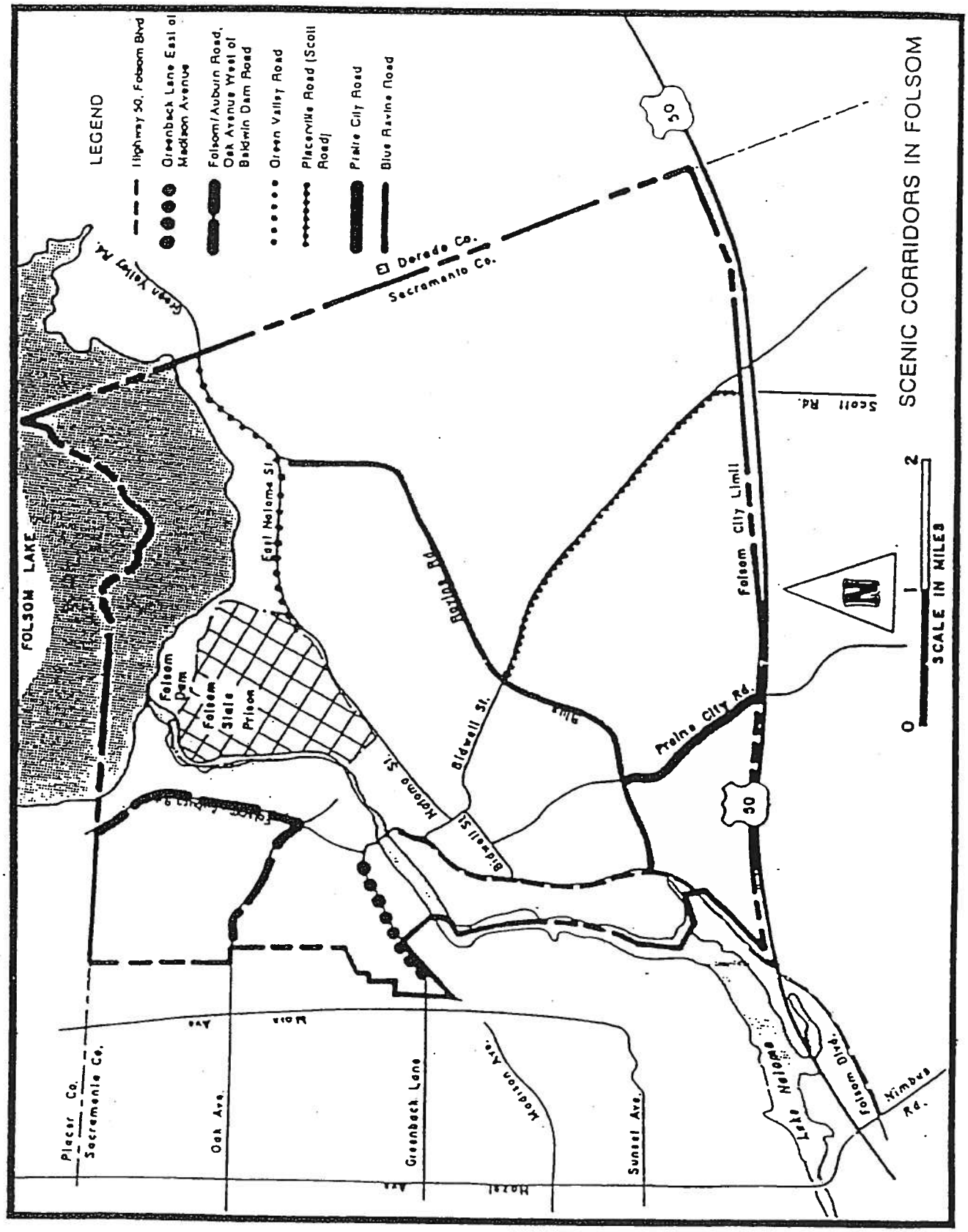
FIGURE 24-1

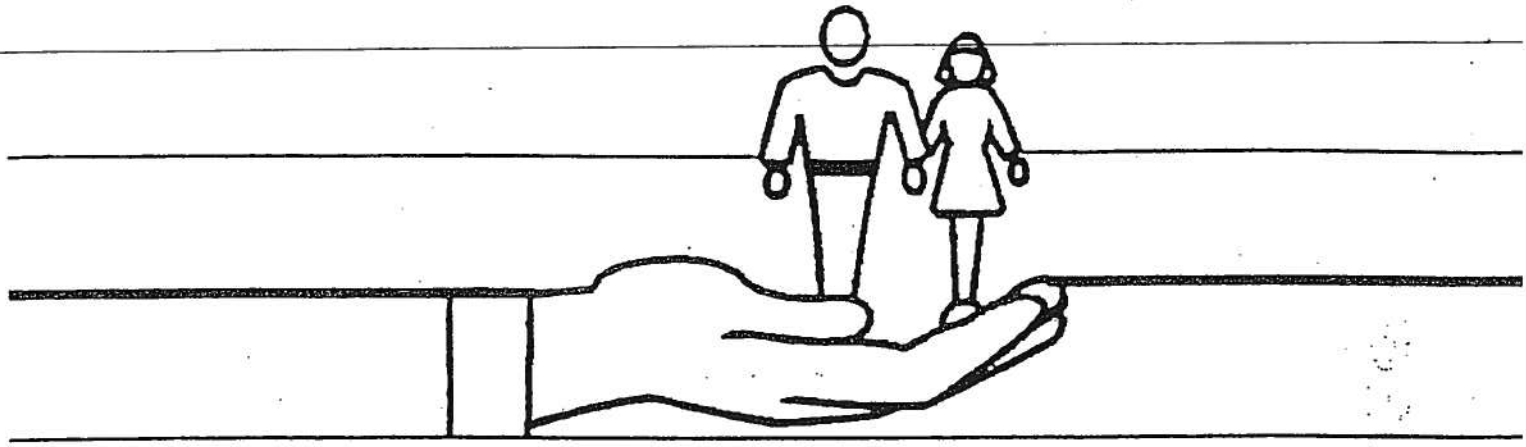


NOTE: This map is for information ONLY. See FEMA maps (on file with the City) for accurate boundaries.

FLOOD HAZARD ZONES — CITY OF FOLSOM

FIGURE 24-2


SCENIC CORRIDORS IN FOLSOM
LEGEND
Highway 50, Folsom Blvd
Greenback Lane East of Madison Avenue
Folsom/Auburn Road, Oak Avenue West of Baldwin Dam Road
Green Valley Road
Placerville Road (Scott Road)
Prairie City Road
Blue Ravine Road
El Dorado Co.
Sacramento Co.
FOLSOM LAKE
Folsom Dam
Folsom State Prison
East Natoma St.
Natoma St.
Bidwell St.
Bidwell St.
Prairie City Rd.
Folsom City Limit
Scott Rd.
Placer Co.
Sacramento Co.
Oak Ave.
Greenback Lane
Madison Ave.
Sunset Ave.
Lake Natoma
Folsom Blvd.
Nimbus Rd.
50
50
N
0
1
2
SCALE IN MILES

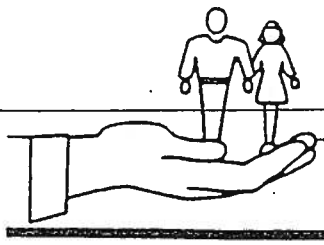


25.0 SAFETY ELEMENT

Prepared For The City of Folsom
Community Development Department

By
Connerly and Associates

October 31, 1988



SAFETY ELEMENTS

TABLE OF CONTENTS

PAGE

25.1 INTRODUCTION 2

25.1.1 State Policy and Authorization 2
25.1.2 Related State and Federal Regulations 2
25.1.3 Relationship to the General Plan 2

25.2 SETTING/ASSUMPTION/ISSUES 2

25.2.1 Setting 2
25.2.2 Assumptions 3
25.2.3 Issues 3

25.3 SAFETY ELEMENT GOALS AND POLICIES 3

25.4 RELATED GOALS AND POLICIES 3

25.5 IMPLEMENTATION 5

SAFETY ELEMENTS

25.1 INTRODUCTION

The Safety Element of the City of Folsom aims at reducing death, injuries, damage to property and economic and social dislocation resulting from fire, flood and geological hazards. Chapters 2, 3 and 4 of the MEA provide background data on the City's geological, soils and hydrological resources. These chapters also identify, through text and illustrations, the City's seismic, geological and flooding hazards and are incorporated herein by reference.

Hazardous wastes and toxics are addressed in the Hazardous Materials Element, Chapter 34.

25.1.1 STATE POLICY AND AUTHORIZATION

The Safety Element is a mandatory element of the General Plan under Section 65302(i) of the Government Code. The Element is required to address the protection of the community from fires and geological hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearances around structures and geological hazard mapping areas of known geological hazards.

25.1.2 RELATED STATE AND FEDERAL REGULATIONS

CALIFORNIA SURFACE MINING AND RECLAMATION ACT[1]

The Surface Mining and Reclamation Act SMARA) was enacted to ensure that:

1. Adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition.

2. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed, wildlife, range and forage, and aesthetic enjoyment.

3. Residual hazards to the public health and safety are eliminated.

The Alquist-Priolo Special Studies Zones Act requires Cities and Counties containing designated fault zones to include policies and standards in their General Plans for new development withhin the fault zones.

25.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Safety Element of the General Plan is directly related to the Land Use Element and Conservation and Open Space Element.

25.2 SETTING/ASSUMPTIONS/ISSUES

25.2.1 SETTING

The Folsom Planning Area is located east of the City of Sacramento in the lower foothills on the eastern edge of the Sacramento Valley, adjacent to the American River Canyon. The setting provides for a number of safety issues to be addressed.

The City of Folsom is adjacent to Folsom Lake and several dams which are fed by the American River, therefore the threat of flooding is present. Earthquake faults are located within the region along the Sierra Foothill Range and subsequent seismic shaking could affect areas of Folsom. The State Department of Mines places Folsom in Zone 1 (low severity) on its Earthquake Intensity Map and low in the Landslide category. Some housing areas are located adjacent to open range land; wildfire could be a threat. Downtown Folsom contains some older commercial areas which are not constructed in accordance with contemporary fire codes and some land uses contain hazardous or flammable materials. Folsom is a growing and expansive area and the City must provide adequate emergency services. Since the City of Folsom is located adjacent to the American River Canyon, there is limited outside access for emergency services through the canyon. Evacuation plans and the movement of emergency equipment and materials need to be coordinated with surrounding agencies and communities.

[1]Public Resources Code Section 2712.

25.2.2 ASSUMPTIONS

Some of the hazards and problems concerning safety are:

1. Dam failure and subsequent flooding.
2. Flooding of the American River and Folsom Lake.
3. Earthquakes and damage following seismic shaking.
4. The destruction of older downtown commercial areas by fire.
5. The destruction of housing areas adjacent to open range land.
6. The lack of proper emergency services for an expanding community.
7. Diminished evacuation capacities during an emergency.

25.2.3 ISSUES

1. Providing adequate fire protection for all areas considering the potential hazards that exist.

2. How does the City plan for the threat of floods and the subsequent damage that might arise?

3. What are the evacuation plans and procedures that need to be initiated within and outside the community to ensure a successful evacuation in the event of a disaster?

4. What is the level of emergency services needed to keep pace with an expanding community and will the City keep pace?

25.3 SAFETY ELEMENT GOALS AND POLICIES

GOAL 29

To protect lives and property from unacceptable risks resulting from natural and man-made hazards.

POLICY 29.1

Fire and Police Department personnel/resident population ratios shall be maintained at adequate levels as defined by the City Council.

POLICY 29.2

The City shall maintain a fire prevention and retention program for buildings.

POLICY 29.3

The City shall develop standards for building within the 100 year floodway to assure that the water flows above stream and downstream from a property will not be altered from existing levels.

POLICY 29.4

The City shall work with the U.S. Army Corp of Engineers in developing standards for development within the inundation boundary resulting from a failure of Folsom Dam or the dikes retaining Folsom Lake.

POLICY 29.5

The City shall prepare, publish and coordinate an emergency response plan which addresses medical care, escape routes, mutual aid agreements, temporary housing and communications.

POLICY 29.6

The City shall encourage the preparation and distribution to the general public of a safety guide for the use and enjoyment of Folsom's resources.

POLICY 29.7

The City shall cooperate with SMUD's efforts in preparing and publishing an emergency evacuation plan for Rancho Seco Nuclear Power Plan.

25.4 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

GOAL 1
POLICY 1.10

GOAL 2
POLICY 2.1
POLICY 2.2
POLICY 2.4

RELATED GENERAL GOALS AND POLICIES (CONT.)

GOAL 5
- POLICY 5.1
- POLICY 5.2
- POLICY 5.3

GOAL 6
- POLICY 6.1
- POLICY 6.2
- POLICY 6.3

GOAL 7
- POLICY 7.1
- POLICY 7.2
- POLICY 7.3
- POLICY 7.4

RELATED LAND USE ELEMENT GOALS AND POLICIES

GOAL 8
- POLICY 8.7

GOAL 9
- POLICY 9.2

GOAL 10
- POLICY 10.2
- POLICY 10.6

GOAL 16
- POLICY 16.1
- POLICY 16.2
- POLICY 16.4

RELATED TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

GOAL 17
- POLICY 17.4
- POLICY 17.9
- POLICY 17.10
- POLICY 17.12
- POLICY 17.14

GOAL 22
- POLICY 22.1
- POLICY 22.2

RELATED OPEN SPACE AND CONSERVATION ELEMENT GOALS AND POLICIES

GOAL 25
- POLICY 25.1

GOAL 28
- POLICY 28.1
- POLICY 28.2
- POLICY 28.3
- POLICY 28.4
- POLICY 28.5
- POLICY 28.6

RELATED NOISE ELEMENT GOALS AND POLICIES

GOAL 30
- POLICY 30.1
- POLICY 30.2
- POLICY 30.3
- POLICY 30.4
- POLICY 30.5
- POLICY 30.6
- POLICY 30.7
- POLICY 30.10
- POLICY 30.11
- POLICY 30.12
- POLICY 30.15

RELATED AIR QUALITY ELEMENT GOALS AND POLICIES

GOAL 31
- POLICY 31.1
- POLICY 31.2
- POLICY 31.3
- POLICY 31.4
- POLICY 31.5

GOAL 32
- POLICY 32.1

RELATED PARKS AND RECREATION ELEMENT GOALS AND POLICIES

GOAL 36
- POLICY 36.4

RELATED PUBLIC FACILITIES ELEMENT GOALS AND POLICIES

GOAL 40
- POLICY 40.1
- POLICY 40.2
- POLICY 40.3
- POLICY 40.4

RELATED HAZARDOUS MATERIALS ELEMENT GOALS AND POLICIES

GOAL 41
- POLICY 41.1
- POLICY 41.2
- POLICY 41.3
- POLICY 41.4
- POLICY 41.5
- POLICY 41.6
- POLICY 41.7
- POLICY 41.8
- POLICY 41.9
- POLICY 41.10
- POLICY 41.11

PUBLIC SAFETY CODE REVIEW

Review existing City Codes with public safety provisions and update codes as necessary to comply with the Goals and Policies of the General Plan as follows:

1. Adopt prescribed ratios of personnel to population for Fire and Police Departments.

2. Adopt a fire prevention program for areas with high fire risk such as the Sutter Street historic area and grasslands and natural habitat areas within the City.

3. Adopt standards for development in the 100-year and 500-year floodways which will ensure that such development will not alter stream flows.

4. In cooperation with the U.S. Army Corps of Engineers, adopt standards for development within areas subject to inundation from a failure of Folsom Dam or the dikes retaining Folsom Lake.

5. Prepare, publish and coordinate an emergency response plan which addresses medical care, escape routes, mutual aid agreements, temporary housing and communications.

IMPLEMENTS: GOAL 29 - POLICIES 29.1; 29.2; 29.3; 29.4; 29.5; AND 29.6

- Folsom Municipal Code: Title 9

- Resource Groups/Agencies/ Organizations:

  U.S. Army Corps of Engineers
  U.S. Bureau of Reclamation
  State Reclamation Board
  State Department of Resources, Division of Mines and Geology
  Sacramento County General Services

- Responsible Agencies

  Fire Department
  Community Development Department
  Public Works Department
  City Council

- Implementing Agency

  Public Works Department

- Target Dates: Start: October 1989
  Complete: June 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
180/$8,100	$200	$1,000	$9,300	General Fund

TRAILS, RECREATION AND SAFETY GUIDE

A Subcommittee to the Parks and Recreation Commission will oversee the publication of a trails, recreation and safety guide for the use and enjoyment of parks and open space within the City of Folsom. Publication of the Guide may be accomplished in coordination with local civic groups or a local college or university as a student project.

IMPLEMENTS: GOAL 27 - POLICY 27.1A; GOAL 29 - POLICY 29.6

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State of California Department of Parks and Recreation
  California State University at Sacramento
  University of California at Davis
  Local Community Colleges
  U.S. Army Corps of Engineers
  U.S. Bureau of Reclamation
  State Reclamation Board
  State Department of Resources, Division of Mines and Geology
  Sacramento County General Services

- Responsible Agencies

  Parks and Recreation Commission

Community Development Department
Public Works Department
Fire Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: August 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollar	Printing	Direct	Total	Funding
100/$4,500	$2,000	$1,500	$8,000	Developer Fees, Grant Funds

EMERGENCY RESPONSE PROCEDURES

Existing emergency response plans shall be reviewed and updated as needed. The emergency response plans shall be published, shall provide for agency coordination and shall address medical care, escape routes, mutual aid agreements and temporary housing and communications in the event of fire, flooding, inundation, earthquake, hazardous materials spill or other emergency situation. The Bureau of Reclamation should be consulted regarding current studies on dam safety and future improvements.

IMPLEMENTS: GOAL 29 - POLICY 29.5; GOAL 41 - POLICIES 41.9; AND 41.10

- Folsom Municipal Code: Title 9

- Resource Groups/Agencies/Organizations

  State Department of Health Services
  Sacramento County Health Department
  Sacramento General Services Department
  California Highway Patrol
  CALTRANS
  U.S. Army Corps of Engineers
  Bureau of Reclamation

- Responsible Agencies

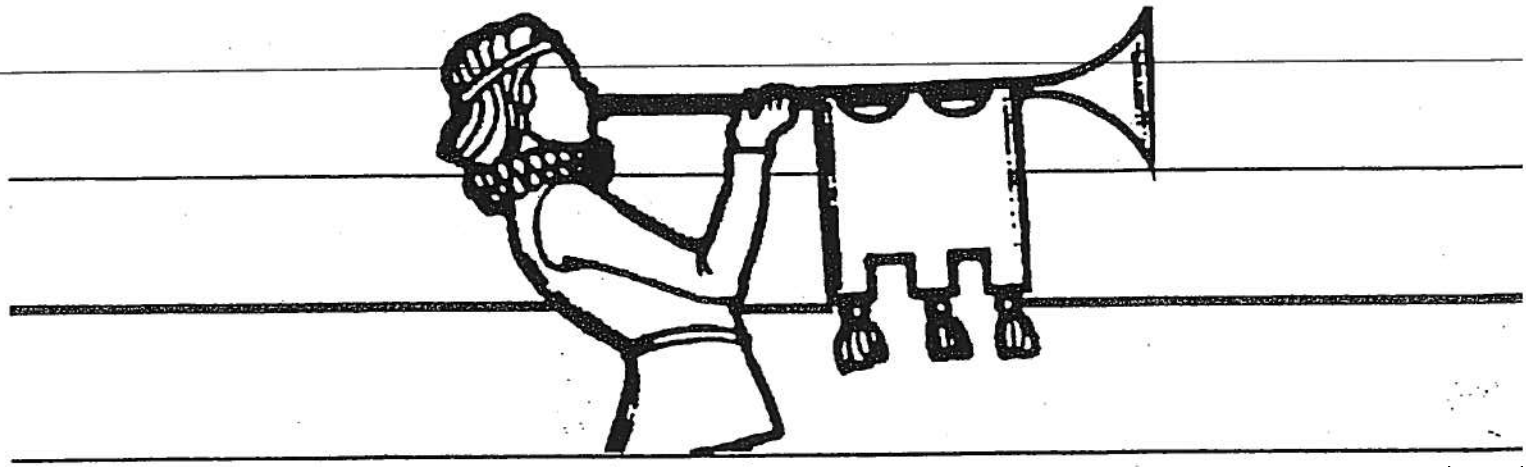
  Public Works Department
  Fire Department
  Police Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: October 1989
  Complete: February 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$100	$200	$2,100	General Fund



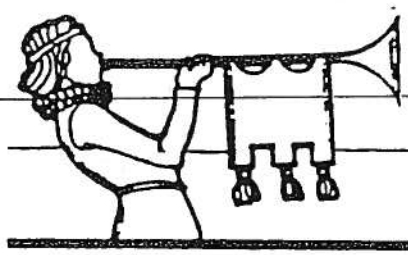
26.0 NOISE ELEMENT

Prepared For The City of Folsom
Community Development Department

By

Brown and Buntin Associates

October 31, 1988



NOISE

TABLE OF CONTENTS

PAGE

26.1 INTRODUCTION 2

26.1.1 State Policy and Authorization 2
26.1.2 Related State Regulations 2
26.1.3 Relationship to the General Plan 3

26.2 SETTING/ASSUMPTIONS/ISSUES 3

26.2.1 Setting 3
26.2.2 Assumptions 3
26.2.3 Issues 9

26.3 NOISE ELEMENT GOALS AND POLICIES 12

26.4 RELATED GOALS AND POLICIES 14

26.5 IMPLEMENTATION PROGRAM 14

26.5.1 Land Use Compatibility Criteria 14
26.5.2 Specific Policies 16

NOISE

26.1 INTRODUCTION

The purpose of the Noise Element is to mitigate noise conflicts where they presently exist and to minimize future noise conflicts by the adoption of policies and implementation measures designed to achieve land use compatibility for proposed development.

The contents of a Noise Element and the methods used in its preparation have been determined by the requirements of Section 65302(f) of the California Government Code and by the "Guidelines for the Preparation and Content of Noise Elements of the General Plan (Reference 1) adopted and published by the California Office of Noise Control (ONC) in 1976. The ONC Guidelines require that certain major noise sources and areas containing noise sensitive land uses be identified and quantified by preparing generalized noise exposure contours for current and projected conditions within the community. Contours may be prepared in terms of either the Community Noise Equivalent Level (CNEL) or the day-night average level (Ldn)[1], which are descriptors of total noise exposure at a given location for an annual average day. It is intended that the noise exposure information developed for the Noise Element be incorporated into the General Plan to serve as a basis for achieving land use compatibility within the community. It is also intended that noise exposure information be used to provide baseline levels for use in the development and enforcement of a local noise control ordinance to address noise produced by non-preempted noise sources.

26.1.1 STATE POLICY AND AUTHORIZATION

Section 65302(f) of the California Government Code mandates that the General Plan for each City contain a Noise Element which is designed to identify and appraise noise problems in the community.

The State Office of Noise Control has established guidelines which require that current and projected noise levels be analyzed and quantified for the following noise sources:

1. Highways and freeways.
2. Primary arterials and major local streets.
3. Passenger and freight on-line railroad operations and ground rapid transit systems.
4. Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.
5. Local industrial plants, including, but not limited to, railroad classification yards.
6. Other ground stationary noise sources identified by local agencies as contributing to the community noise environment.

Noise contours are required for these sources, stated in terms of the CNEL or Ldn, and may be used as a guide for establishing a pattern of land uses that minimizes the exposure of community residents to excessive noise.

26.1.2 RELATED STATE REGULATIONS

Other State Laws and regulations regarding noise control are directed toward aircraft, motor vehicles and noise in general.

California Administrative Code, Title 21, Subchapter 6, establishes noise level criteria for airports in California. These regulations apply to the airport operator, and are enforced by the County in which the airport is located. A Noise Impact Boundary based upon the 65 CNEL contour is established, and measures are specified to attain land use compatibility with respect to aircraft/airport noise.

The California Vehicle Code sets noise emission standards for new vehicles, including autos, trucks, motorcycles and off-road vehicles. Performance standards are also applied to vehicles operated on public streets and roadways. Section 216 of the Streets and Highways Code regulates traffic noise as received at schools near freeways. The Harbors and Navigation Code regulates noise emissions from new motorboats and those operated in or upon inland waters.

[1]For an explanation of terminology used in this report refer to the Glossary.

Title 24 of the California Administrative Code regulated interior noise levels within multiple-occupancy dwellings affected by noise from traffic, aircraft operations, railroads and industrial facilities. The State Penal Code (Section 415) prohibits loud and unusual noise that disturbs the peace, while the Civil Code defines public nuisance which may be caused by noise. The California Environmental Quality Act includes noise as one of the factors in determining environmental impacts.

26.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Noise Element is most related to the Land Use and Circulation Elements of the General Plan. Its relationship to the Land Use Element is direct in that the implementation of either Element has the potential to result in the creation or elimination of a noise conflict between differing land uses. The Land Use Element must be consistent with the Noise Element by preventing the development of incompatible adjacent land uses, preventing impacts upon noise sensitive uses and preventing encroachment upon existing noise-producing facilities.

26.2 SETTING/ASSUMPTIONS/ISSUES

26.2.1 SETTING

Based on discussions with the City of Folsom staff regarding potential major noise sources, it was determined that there are several potentially significant primary sources of community noise within Folsom. These sources include traffic on major roadways and highways, railroad operations, aircraft operations at Mather Air Force Base, and industrial activities.

Analytical noise modeling techniques and noise measurements were used to develop generalized Ldn noise contours for the major roadways, railroads and industrial noise sources of the City of Folsom for existing (1986) and future (2006) conditions.

Analytical noise modeling techniques make use of source-specific data including average levels of activity, hours of operation, seasonal fluctuations, and average levels of noise from source operations. Analytical methods have been developed for a number of environmental noise sources including roadways, railroad line operations, railroad yard operations, industrial plants and aircraft/airport operations. Such methods will produce reliable results as long as data inputs and assumptions are valid for the sources being studied. The analytical methods used in this report closely follow recommendations made by ONC, and were supplemented where appropriate by field-measured noise level data to account for local conditions. It should be noted that the noise exposure contours presented in this report are based upon annual average conditions, and are not intended to be site-specific where local topography, vegetation or intervening structures may significantly affect noise exposure at a particular location.

A community noise survey was conducted to describe existing noise levels in noise-sensitive areas within the City of Folsom so that noise level performance standards could be developed to maintain an acceptable noise environment.

26.2.2 ASSUMPTIONS

ROADWAYS

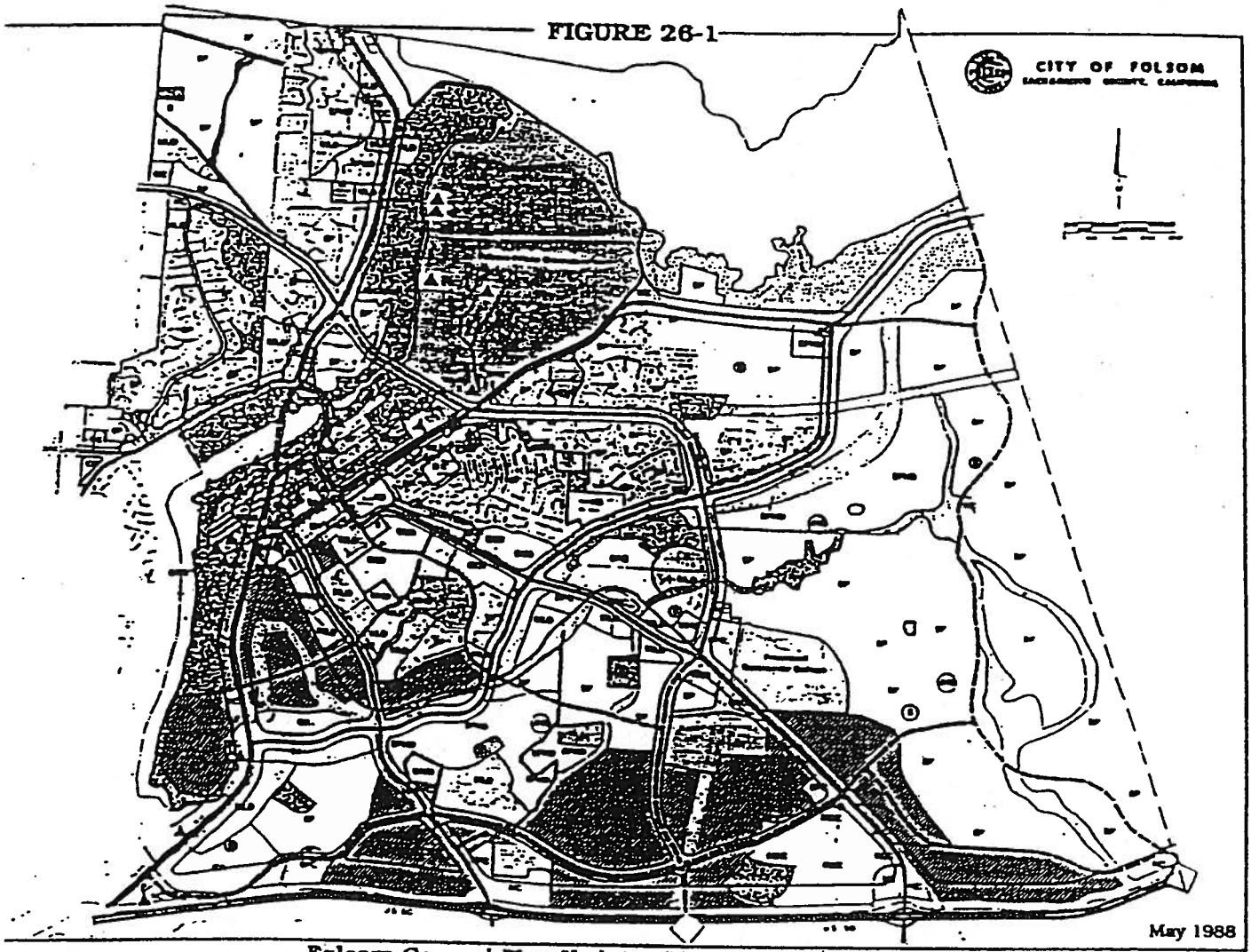
The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) was used to develop Ldn contours for Highway 50 and major roadways in Folsom. The FHWA Model is the analytical method presently favored for traffic noise prediction by most State and local agencies, including CALTRANS. The FHWA Model is based upon reference energy emission levels for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly LEQ values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict Ldn values it is necessary to determine the hourly distribution of traffic for a typical 24-hour day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

Traffic data representing annual average traffic volumes for existing and future conditions were obtained from CALTRANS and Wilbur Smith and Associates as summarized in the General

Plan data base. The day/night distribution of traffic and the truck mix was based upon CALTRANS file data and Brown, Buntin and Associates (BBA) estimates. Using the General Plan data and the FHWA methodology, traffic noise levels as defined by Ldn were calculated for existing (1986) and projected future (2006) traffic volumes. Distances from the center of the roadway to Ldn contour values of 60 and 65 dB are summarized in Table 26-1. Input data are presented in the data base of the General Plan.

It should be noted that since calculations did not take into consideration shielding caused by local buildings or topographical features, the distances reported in Table 26-1 should be considered as worst-case estimates of noise exposure along roadways in the community. Noise contour maps were prepared from the data contained in Table 26-1 to allow implementation of this Noise Element. See Figure 26-1 for noise contours designated on Land Use Map.

FIGURE 26-1



Folsom General Plan Update •PREFERRED ALTERNATIVE

RESIDENTIAL
- SF Single Family (2-3.9/ac.)
- SFHD Single Family High Density/ Mobilehome Park (4-6.9/ac)
- MLD Multi-Family Low Density (7-11.9/ac)
- MMD Multi-Family Medium Density (12-17.9/ac)
- MHD Multi-Family High Density (18-25/ac)

COMMERCIAL
- NC Neighborhood Commercial
- GC General Commercial
- ARC Arterial Commercial
- HC Highway Commercial
- CC Community Commercial
- CCD Central Commercial Mixed Dist.
- RCC Regional Community
- CA Specialty Commercial Dist.
- SHC Sutter St. Historic Commercial
- BPC Business Professional Office

- Industrial/Office Park
- Park
- Proposed Park
- Open Space
- Public
- E Elementary School
- JHS Junior High School
- HS High School
- (E) Proposed Elementary
- (JHS) Proposed Junior High School
- (H) Proposed High School

- 60 dB Ldn Contour
- Freeway (U.S. 50)
- Arterial Road (6 lanes)
- Proposed Arterial Road (6 lanes)
- Community Center Boundry
- Rail Transit Station
- Rail Transit
- Proposed Study Rt/Future Bridge Crossing
- Proposed Intersection
- Proposed Specific Area Boundry
- Points of Historic Interest
- P Park & Ride Lot

TABLE 26-1
NOISE CONTOUR DATA TO Ldn CONTOURS
DISTANCE IN FEET, CENTER LINE OF ROADWAY

SEGMENT NOS.	DESCRIPTION	CURRENT 60 Db	FUTURE 60 Db
Highway 50			
1	Folsom Boulevard to Prairie City Road	524	1,071
2	Prairie City Road to Scott Road	518	991
3	Scott Road to Sacramento County Line	530	947
Folsom Boulevard			
4	Highway 50 to Leidesdorff	194	402
Bidwell Street			
5	Folsom Boulevard to Riley Street	73	57
East Bidwell Street			
6	Coloma to Blue Ravine	63	143
7	Blue Ravine to SP RR Tracks	53	136
Scott Road			
8	SPT RR Tracks to Highway 50	35	252
Riley Street			
9	Leidesdorff to Natoma Street	93	119
10	Natoma Street to East Bidwell	55	83
Sutter Street			
11	Folsom Boulevard to Coloma	15	n/a
Natoma Street			
12	Folsom Boulevard to Folsom Dam Road	57	87
28	Folsom Dam Road to County Line	93	272
Folsom-Auburn Road			
13	Greenback Lane to Oak Avenue Parkway	127	305
14	Oak Avenue Parkway to Folsom Dam Road	114	255
27	Folsom Dam Road to County Line	101	595
Oak Avenue Parkway			
15	Main Avenue to Folsom-Auburn Road	21	
16	Folsom-Auburn to End	20	
American River Canyon Drive			
17	Greenback Lane to Crow Canyon Drive	50	67
18	Crow Canyon Drive to Oak Avenue Parkway	18	41
Greenback Lane			
19	Main Street to Madison Avenue	119	170
20	Madison Avenue to Folsom-Auburn	204	248
Prairie City Road			
21	Highway 50 to Blue Ravine Road	35	217
Sibley Street			
22	Blue Ravine Road to Figueroa Street	39	169
Blue Ravine Road			
23	Folsom Boulevard to East Natoma	39	225
Folsom Dam Road			
24	Folsom-Auburn to East Natoma	20	30
Madison Avenue			
25	Main Street to Greenback Lane	200	145
Leidesdorff Street			
26	Folsom Boulevard to Greenback Lane	92	78

AIRCRAFT OPERATIONS

Aircraft/airport noise exposures typically consist of a number of brief, relatively noisy events punctuated by long periods of relative quiet between aircraft overflights. The annoyance due to aircraft noise exposures is reasonably well predicted by using the CNEL descriptor, which averages the total noise exposure over an annual average day. In California, the 65 dB CNEL contour is defined by the Administrative Code (Title 21) as the Noise Impact Boundary for airport noise exposures, although there is some speculation that a CNEL of 60 dB is a better indicator of adverse public reaction for small general aviation airports.

For the Noise Element, airport noise exposures should be evaluated by comparison to the CNEL contours developed for Mather Air Force Base reported by the Mather Air Force Base Comprehensive Land Use Plan prepared by Sacramento Area Council of Governments (SACOG), or by the latest AICUZ report for Mather Air Force Base. These noise contours have been plotted on a map of the City, and should be considered in evaluating noise impacts in the vicinity of Mather Field.

RAILROADS

The Southern Pacific Transportation Company (SPRR) operates a switch engine locomotive on a twice-weekly scheduled basis between Sacramento and the MCLRR yard in Placerville. Called the "Placerville Local", this train carries a small number of cars between the two Cities, usually on Wednesdays and Saturdays. The cumulative daily noise exposure from this operation is less than 60 dB Ldn at 50 feet from the track centerline, based upon BBA noise measurement data obtained in the Sacramento area. On a single event basis, the maximum noise level during a train passage is about 92 dBA at 50 feet if the horn is used. SPRR line operations do not presently create a significant noise impact in the City of Folsom. No estimates of future operational levels are available from the SPRR.

INDUSTRIAL FACILITIES

The production of noise is an inherent part of many industrial processes, even when the best available noise control technology is applied. Noise production within an industrial facility is controlled indirectly by Federal and State employee health and safety regulations (OSHA and CAL-OSHA), but exterior noise emissions from industrial operations have the potential to exceed locally acceptable standards at noise sensitive land uses.

Industrial noise control issues focus upon two objectives: to prevent the introduction of new noise-producing uses in a noise sensitive area, and to prevent encroachment of noise sensitive uses upon existing industrial facilities. The first objective can be achieved by applying performance standards to proposed new industrial uses. The second objective can be met by requiring that new noise sensitive uses in proximity to existing industrial facilities include mitigation measures to ensure compliance with the same performance standards.

REPRESENTATIVE INDUSTRIAL SOURCES

The following descriptions of existing industrial noise sources in Folsom are intended to be representative of the relative noise impacts of such uses, and to identify specific noise sources which should be considered in the review of development proposals in their environs. The locations of these noise sources are shown by Figure 26-1.

J & M Cabinets: 9477 Greenback Lane: The primary noise source associated with the operation is a fan and cyclone unit used to control sawdust. This equipment operates from 7:30 a.m. to 4:30 p.m. weekdays, and occasionally for four hours of Saturdays. The noise level at the nearest residence is about 51-52 dBA. The estimated location of the 60 dB Ldn contour is shown on the noise contour maps on file at the City of Folsom.

Contact: Tom Barnett, Co-Owner (May 28, 1987)

Fischer Cabinets: 804 Reading Way: The primary noise source associated with this operation is a fan and cyclone unit which operates from 7:30 a.m. to 4:30 or 5:30 p.m. weekdays. The noise level at the nearest residence is about

57-58 dBA. The 60 dBA Ldn contour for this facility lies within 50 feet of the fan and cyclone unit.

Contact: Linda Waller, Office Manager (May 28, 1987)

• Intel Corporation: Prairie City Road at Highway 50: There are no significant noise sources associated with the Intel facility. A large cooling tower located in the southwest portion of the site produces a noise level of about 54-55 dBA at a distance of 400 feet. The 60 dB Ldn contour lies within the property boundaries.

• American River Aggregates: North of Prairie City Road: This operation consists of processing dredge-tailings for rock and asphalt production. An asphalt batch plant and a rock plant are present, each of which is a significant noise source. The facility is typically open 7:00 a.m. to 4:00 p.m., with rock processing beginning as early as 6:00 a.m. Days of operation are usually Monday through Friday, although weekend operations may occur.

According to the Plant Manager, this facility has perhaps two years remaining to operate under the current lease, as the property is proposed to be developed as an industrial park. If development occurs as proposed, the aggregate processing operation would no longer be a significant noise source. If development plans change so that the aggregate plant remains in operation, proposed noise-sensitive land uses in the plant vicinity should be evaluated for potential noise impacts.

Contact: John Kemp, Plant Manager

• Pacific Gas and Electric Substation: South of Scott Road: The noise produced by this electrical substation consists of a steady "hum" producing a constant noise level of 52 DBA at a distance of about 100 feet. The 60 dB Ldn contour for this facility lies within 100 feet of the nearest transformers and fans.

• Bay City Building Materials and Teichert Industries Ready Mix Plant: Levy road: These cement batch plant operations are capable of producing noise due to on-site front loader and heavy truck movements in delivering and arranging cement mix materials. The primary noise sources, however, are cement truck engines, which must be run at relatively high speeds to spin the cement mixing drum as the ready mix materials are loaded from the batch plant. Current operations occur during daytime hours and the Ldn 60 dB contours are located within the site boundaries and the adjacent open space. Noise levels from the cement loading operations would exceed the performance standards of the Noise Element at the property lines, however. Noise sensitive land uses should therefore not be placed in close proximity to these facilities unless an acoustical analysis has been prepared to ensure compliance with the performance standards.

• Aerojet General Corporation: Folsom Boulevard at Aerojet Road: Although located outside the Folsom City Limits, the Aerojet facility conducts noise producing operations which may affect areas within Folsom. Noise sources involved in Aerojet operations include testing of rocket engines, large hovercraft fans and high-pressure fire nozzles. Other engine testing could occur in the future. Noise produced by rocket engine testing typically include a brief loud impulsive noise at ignition, followed by several second of sustained lower noise levels. Fan and nozzle testing may consist of sustained noise levels. Testing is usually conducted during daytime hours.

Because of the variability in the nature of noise-producing Aerojet activities, it is not possible to develop representative noise level contours to address all potential noise impacts. It may be supposed, however, that noise from Aerojet operations would primarily affect the southwest portion of the City, along Highway 50. For this reason, noise sensitive development proposed for the South Folsom Planning Area between Folsom Boulevard and Prairie City Road should be required to include consideration of Aerojet noise impacts in any acoustical analysis prepared to address the noise exposures of Highway 50 and Mather Air Force Base. Aerojet has provided two noise studies to the City that are incorporated into the EIR and should be referenced in appropriate noise studies.

Contact: Ed Meyer (June 19, 1987)

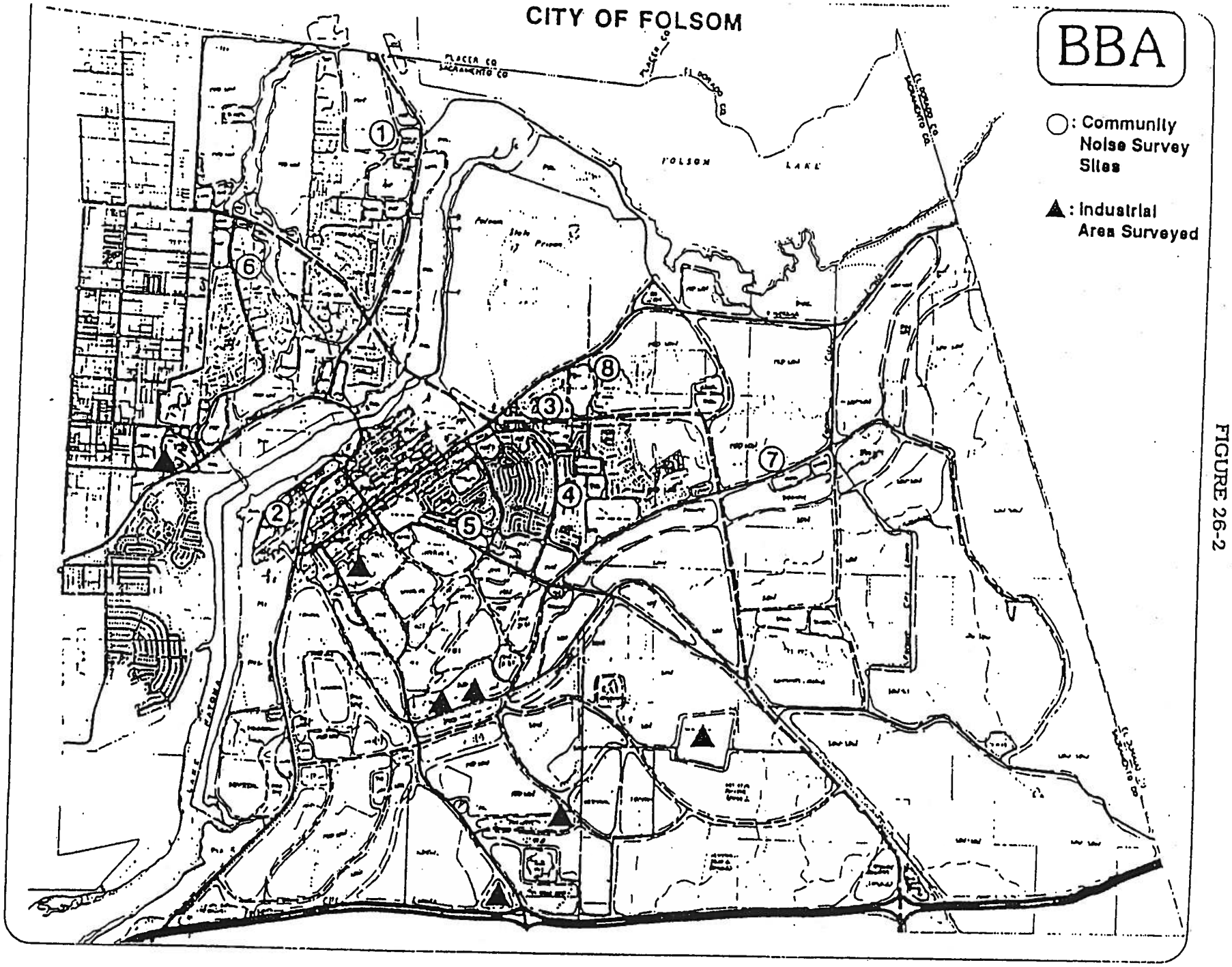

CITY OF FOLSOM
BBA
○: Community Noise Survey Sites
▲: Industrial Area Surveyed
FOLSOM LAKE
PLACER CO
SACRAMENTO CO
EL DORADO CO
1
2
3
4
5
6
7
8

FIGURE 26-2

COMMUNITY NOISE SURVEY

As required by the ONC Guidelines, a community noise survey was conducted to document noise exposure in areas of the community containing noise sensitive land uses. The following noise sensitive land uses were identified within the City of Folsom:

1. All residential uses.
2. Schools.
3. Long-term care medical facilities, such as hospitals, nursing homes, etc.

sion integrating sound level meter fitted with a 1/2 inch microphone, a Larson-Davis Laboratories Model 700 environmental noise analyzer, and a Metrosonics dB 604 environmental noise analyzer. The measurement systems were calibrated in the field prior to use with acoustical calibrators, and comply with all pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (Precision) sound level meters. The community noise survey results indicate that typical noise levels in noise sensitive areas of Folsom are in the range of 45-55 dB Ldn. Noise from traffic on roadways is the controlling factor for background noise levels in the City. In general, the areas of Folsom which

TABLE 26-2

SUMMARY OF MEASURED NOISE LEVELS AND ESTIMATED DAY-NIGHT AVERAGE LEVELS (LDN) IN AREAS CONTAINING NOISE SENSITIVE LAND USES

SITE	DESCRIPTION	LEVEL, dBA LD(1)	LD(2)	ESTIMATED LN	Ldn
1	Lakeside Village Recreation Center	50.2	45.6	36.1	47.7
2	North end of Reading Way	47.7	47.5	46.3	52.9
3	Cimarron and Fausset Courts	43.1	44.9	38.9	46.6
4	Mount Olive Lutheran Church	45.5	48.7	38.0	47.6
5	Theodore Judah School	47.2	44.9	42.5	49.7
6*	110 River Ridge Way	50.1	-	45.4	52.8
7*	125 Mesquite	45.7	-	44.1	50.8
8*	110 Willow Creek	49.3	-	46.5	53.5

*Long-Term Monitoring Site
LD LEQ during day time hours (7:00 a.m. to 10:00 p.m.)
LN LEQ during night time hours (10:00 p.m. to 7:00 a.m.)

Noise monitoring sites were selected to be representative of typical conditions in areas of the community where such uses are located. Short-term noise monitoring was conducted during three periods of the day and night on May 28, and May 29, 1987, so that reasonable estimates of Ldn could be prepared. Three long-term noise monitoring sites were established to establish day night statistical trends during the same period. The data collected included the LEQ and other statistical descriptors. Noise monitoring sites, measured noise levels and estimated Ldn values of each site are summarized in Table 26-2; monitoring sites are shown by Figure 26-2.

Community noise monitoring equipment consisted of a Bruel and Kjaer Type 2230 preci-

contain noise sensitive uses are relatively quiet except along major roadways.

Figures 26-3 and 26-4 illustrate ambient noise levels at the long-term monitoring sites over typical 24-hour weekdays.

26.2.3 ISSUES

NORTHWEST FOLSOM

Light industrial operations on Greenback Lane have the potential to result in noise conflicts at nearby residential receiver locations. Activities at the BLM and Folsom Lake SRA Corporation Yards could affect future residential development in that area. Enforcement of a noise

control ordinance would address most current concerns.

CENTRAL FOLSOM

Light and heavy industrial activities in existing industrial parks have the potential to result in noise conflicts at nearby residential areas. Noise complaints have been received regarding cabinet shops and auto buffers. Enforcement of a noise control ordinance would address most current concerns.

Activities at the Folsom Rodeo grounds have the potential to result in noise conflicts at adjacent residential areas and residential areas located across the American River. City permits for use of this facility should consider the potential noise impacts of loudspeaker systems for rodeos or concerts and other noise-producing activities.

NORTH CENTRAL FOLSOM

Aside from future traffic on major roadways, there are no apparent noise concerns in this area at present, but future developments in the adjoining East Folsom Area could affect residential receivers near Blue Ravine Road. Implementation of the specific policies of the Noise Element will minimize the creation of noise conflicts within this portion of the City.

SOUTH FOLSOM

Future residential ares within this Planning Area may be affected by noise from traffic on major roadways, aircraft operations at Mather Air Force Base, Aerojet activities and future industrial development. Implementation of the specific policies of the Noise Element will minimize the creation of noise conflicts within this portion of the City.

EAST FOLSOM

Future residential areas within this Planning Area may be affected by noise from traffic on major roadways, aircraft operations at Mather Air Force Base, and future industrial developments. Implementation of the specific policies of the Noise Element will minimize the creation of noise conflicts within this portion of the City.

FIGURE 26-3

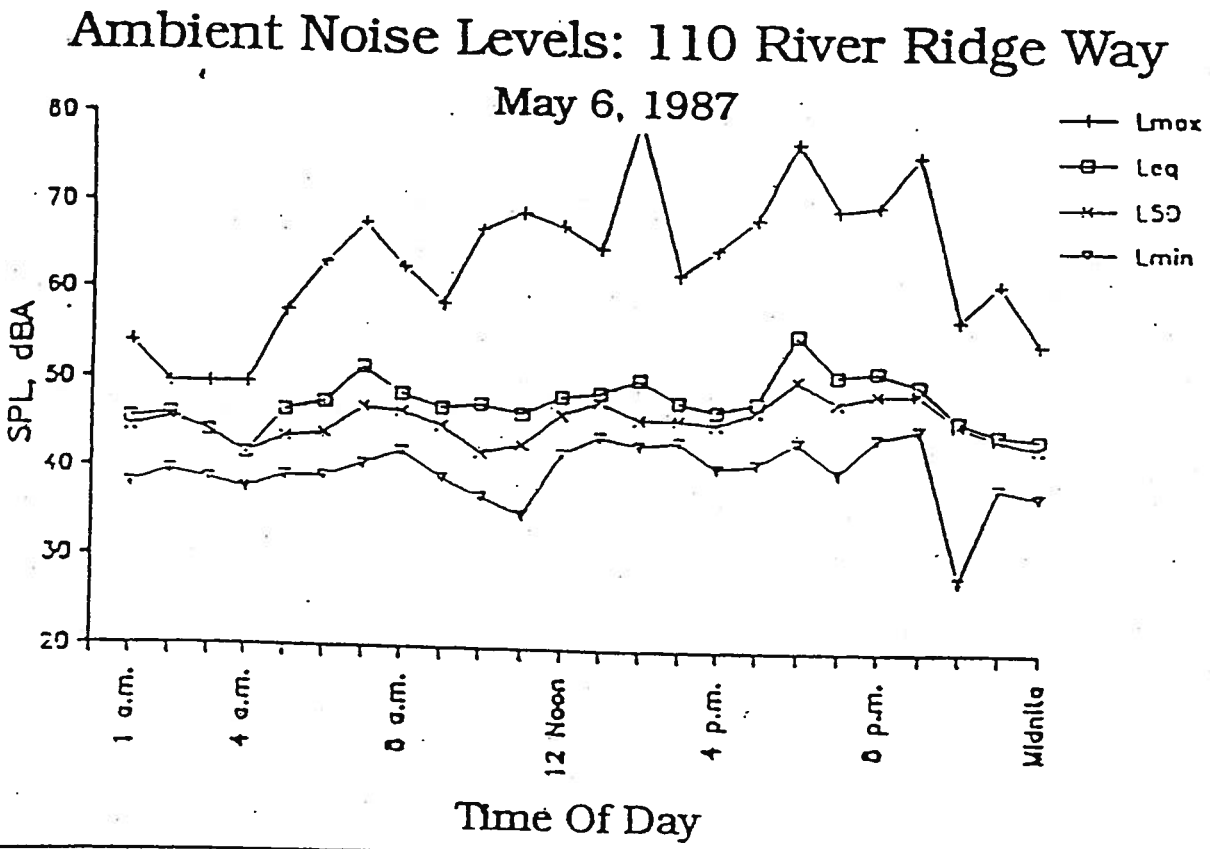


FIGURE 26-3

Ambient Noise Levels: 125 Mequite

May 12, 1987

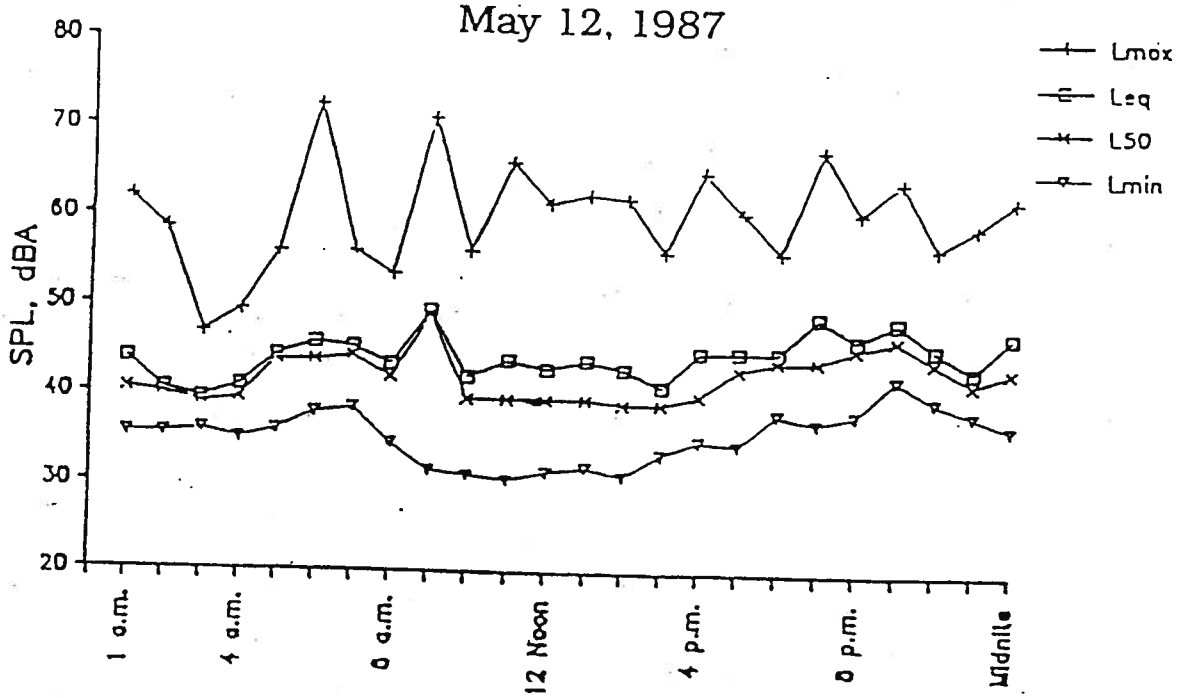
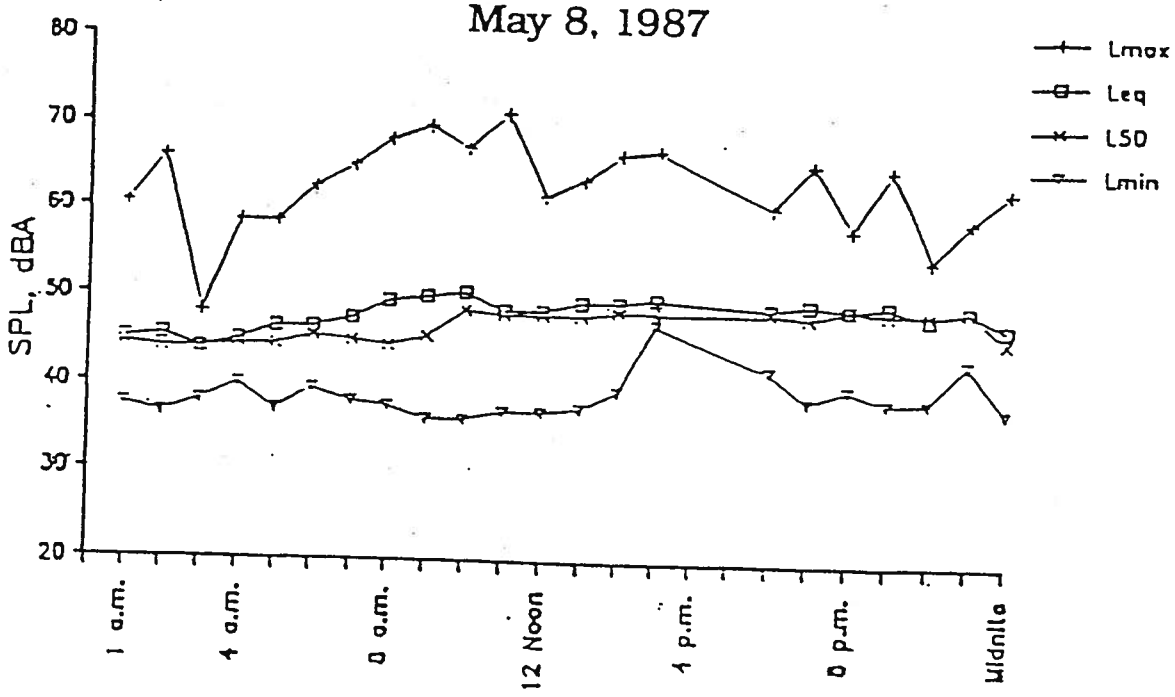


FIGURE 26-4

Ambient Noise Levels: 110 Willow Creek

May 8, 1987



26.3 NOISE ELEMENT GOALS AND POLICIES

GOAL 30

To protect the citizens of Folsom from the harmful effects of exposure to excessive noise and to protect the economic base of Folsom by preventing the encroachment of incompatible land uses within areas affected by existing noise-producing uses.

POLICY 30.1

Provide sufficient noise exposure information in the General Plan data base so that existing and potential noise impacts may be effectively addressed in the land use planning and project review processes.

POLICY 30.2

Develop and implement effective strategies to abate and avoid excessive noise exposures in the City by requiring that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.

POLICY 30.3

Protect areas within the City where the present noise environment is within acceptable limits.

POLICY 30.4

Areas within the City of Folsom shall be designated as noise impacted if exposed to existing or projected exterior noise levels exceeding 60 dB Ldn/CNEL or the performance standards of Table 26-3 of the Noise Element.

Each of the noise level standards specified above shall be reduced by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

Noise from single occurrences such as the passage of locomotives; heavy trucks or aircraft should also be evaluated in terms of single event noise levels. The maximum noise level created by such an event may have the potential to result in activity interference even though the cumulative noise exposure in terms of Ldn is within acceptable limits. The potential for sleep disturbance is usually of primary concern in such cases, and should be evaluated on a case-by-case basis.

TABLE 26-3

NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AND DEVELOPMENTS

Noise created by non-transportation-related noise sources associated with new projects or developments shall be controlled so as not to exceed the noise level standards as set forth below as measured at any affected residentially designated lands or land use situated in either the incorporated or unincorporated areas. New residential development shall not be allowed where the ambient noise level due to non-transportation-related noise sources will exceed the noise level standards as set forth below:

EXTERIOR NOISE LEVEL STANDARDS, DBA

CATEGORY	CUMULATIVE NUMBER OF MINUTES IN ANY ONE-HOUR TIME PERIOD	DAYTIME 7:00 A.M TO 10:00 P.M.	NIGHTTIME 10:00 P.M. TO 7:00 A.M.
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

POLICY 30.5

New development of residential or other noise sensitive land uses will not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to:

1. For noise due to traffic on public roadways, railroad line operations and aircraft: 60 dB Ldn/CNEL or less in outdoor activity areas, and interior noise levels to 45 dB Ldn/CNEL or less. Where it is not possible to reduce exterior noise due to these sources to 60 dB Ldn/CNEL or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dB Ldn/CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB Ldn/CNEL with the windows and doors closed.

2. For non-transportation related noise sources: achieve compliance with the performance standards contained within Table 26-3.

3. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a statement of overriding considerations for the project must be provided.

POLICY 30.6

When industrial, commercial land uses or other uses including non-transportation related noise sources are proposed which would affect areas containing noise sensitive land uses, noise levels generated by the proposed use shall not exceed the performance standards contained within Table 26-3.

POLICY 30.7

Prior to approval of proposed development of residential or other noise-sensitive land uses in a noise impacted area, an Acoustical Analysis may be required. The acoustical analysis shall:

1. Be the responsibility of the applicant.

2. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.

3. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.

4. Include estimated noise levels in terms of Ldn/CNEL and/or the standards of Table 26-3 for existing and projected future (20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.

5. Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.

6. Include estimates of noise exposure after the prescribed mitigation measures have been implemented.

POLICY 30.8

The City of Folsom shall endeavor to develop and employ procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are implemented as part of the project review and building permit processes. The appropriate time for requiring an acoustical analysis would be as early in the project review process as possible so that noise mitigation may be an integral part of the project design.

POLICY 30.9

Noise level criteria applied to land uses other than residential or other noise sensitive uses shall be consistent with the standards in Figure 26-5.

POLICY 30.10

The City of Folsom shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code (UBC). Title 24 requires that an acoustical analysis be prepared for all new developments of multi-family dwellings.

condominiums. hotels and motels proposed for areas within the 60 dB Ldn/CNEL contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn/CNEL or below will be achieved. UBC Chapter 35 requires that common wall and floor/ceiling assemblies within multi-family dwellings comply with minimum standards concerning the transmission of airborne sound and structure-borne impact noise.

POLICY 30.11

The City of Folsom shall adopt a community noise control ordinance to address noise complaints and to provide local industry with performance standards for future development and equipment modifications. The ordinance should be consistent with the model noise control ordinance contained in the data base of the General Plan.

POLICY 30.12

The City of Folsom shall actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

POLICY 30.13

The findings and specific policies of the Noise Element shall be incorporated into the City of Folsom Zoning Code as appropriate.

POLICY 30.14

The City of Folsom shall periodically review and update the Noise Element to ensure that noise exposure information and specific policies are consistent with changing conditions within the community and with noise control regulations enacted after the adoption of this Element.

POLICY 30.15

If noise barriers are required to achieve the noise level standards contained within this Element, the following construction practices are recommended:

1. Noise barriers exceeding six feet in height relative to the roadway should incorporate an earth berm so that the total height of the solid portion of the barrier (such as masonry or concrete) does not exceed six feet.

2. The total height of a noise barrier above roadway elevation should normally be limited to 12 feet.

3. The noise barriers should be designed so that their appearance is consistent with other noise barriers in the project vicinity.

26.4 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

GOAL 1
- Policy 1.10

GOAL 2
- Policy 2.1
- Policy 2.2
- Policy 2.3

RELATED LAND USE ELEMENT GOALS AND POLICIES

GOAL 16
- Policy 16.2
- Policy 16.8
- Policy 16.10

RELATED HOUSING ELEMENT GOALS AND POLICIES

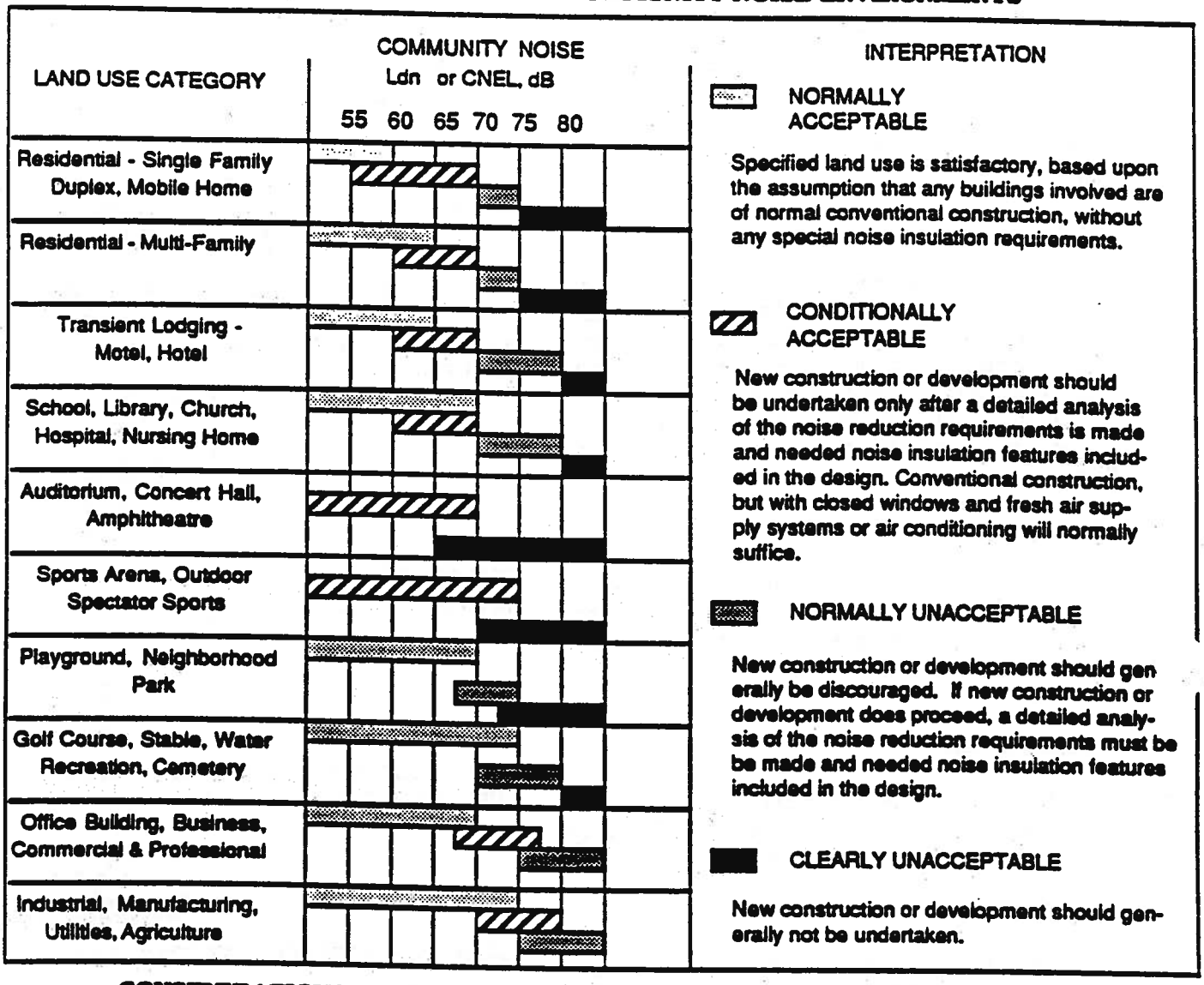
GOAL 20
- Policy 20.5

26.5 IMPLEMENTATION PROGRAM

26.5.1 LAND USE COMPATIBILITY CRITERIA

The ONC "Guidelines for the Preparation and Content of Noise Elements of the General Plan", include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The ONC guidelines contain a land use compatibility table which describes the compatibility of different land uses with a range of environmental noise levels in terms of Ldn or CNEL.

FIGURE 26-5
LAND USE COMPATIBILITY COMMUNITY NOISE ENVIRONMENTS



CONSIDERATIONS IN DETERMINATION OF NOISE - COMPATIBLE LAND USE

A. NORMALIZATION NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitable with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS:

The land use-noise compatibility recommendations should be viewed in relation to specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposes do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which to encourage land compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Community Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB-CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

Source: California Office of Noise Control

Figure 26-5 is provided as a guide concerning the sensitivity of different land uses to their noise environment. It is intended to illustrate the range of noise levels which will allow the full range of activities normally associated with a given land use. For example, exterior noise levels in the range of 50-60 dB Ldn are generally considered acceptable for residential land uses, since these levels will usually allow normal outdoor and indoor activities such as sleep and communication to occur without interruption. Industrial facilities, however, can be relatively insensitive to noise and may often be located in a noise environment of up to 75 dB Ldn without significant adverse effects.

Noise compatibility criteria based upon Ldn values are to be applied to evaluating proposed noise sensitive land uses with respect to established transportation noise sources such as traffic on public roadways, railroads and airports. The applicability of Ldn based criteria for such sources has been well documented in terms of expected public response and legal responsibilities.

The noise standards in Table 26-3 are to be applied as performance standards for proposed industrial and commercial land uses and other land uses involving new locally-regulated noise sources which may affect noise sensitive land uses. Similarly, the noise standards in Table 26-3 are to be applied to determine whether a proposed noise sensitive use is compatible with an existing locally-regulated noise source.

26.5.2 SPECIFIC POLICIES

ANNUAL UPDATE

The City will update all Elements of the General Plan. An annual report will be made to the Planning Commission and City Council on the status of the General Plan Program.

IMPLEMENTS: GOAL 30 - POLICY 30.14

- Resource Groups/Agencies/Organizations

  State Office of Noise Control
  State Office of Planning and Research
  State Office and Housing and Community Development

- Responsible Agency

  Community Development Department

- Implementing Agencies

  Community Development Department
  Planning Commission
  City Council

- Target Dates: Start: November 1989
  Complete: On-Going

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$300	$400	$4,300	General Fund

HOUSING ELEMENT UPDATE

Update the Housing Element to include applicable goals and policies of the General Plan.

IMPLEMENTS: GOAL 30

- Resource Group/Agency/Organization

  California Housing and Community Development Department

- Responsible Agency

  Community Development Department

- Implementing Agency

  Planning Commission
  City Council

- Target Dates: Start: December 1988
  Complete: February 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$1,000	$200	$500	$6,700	General Fund, Developer Fees

NOISE CONTROL

Revise the City's Building Code as necessary to:

1. Require effective noise mitigation measures be incorporated into the design and construction of new noise-generating and new noise-sensitive land uses.

2. Require compliance with mitigation measures identified in acoustical analyses.

3. Enforce Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the UBC.

4. Adopt building standards and guidelines for development in noise impacted areas.

IMPLEMENTS: GOAL 30 - POLICIES 30.2; 30.5; 30.6; 30.8; AND 30.10

- Folsom Municipal Code: Title 14
- Resource Groups/Agencies/Organizations

  Regional Water Quality Control Board, Central Valley Region
  USDA Soil Conservation Service
- Responsible Agency

  Public Works Department
- Implementing Agency

  Building Inspection Department
- Target Dates: Start: January 1989
  Complete: July 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
20/$900	$100	$100	$1,100	General Fund

REFERENCE NOISE ORDINANCE

Revise the Zoning Code to reference the Noise Ordinance where appropriate.

IMPLEMENTS: GOAL 30

- Folsom Municipal Code: Title 17
- Resource Group/Agency/Organization

  State Division of Health
- Responsible Agency

  Community Development Department
- Implementing Agency

  City Council
- Target Dates: Start: January 1989
  Complete: January 1990

ESTIMATED COST

Person Hours/ Dollars	Printing	Direct	Total	Funding
20/$900	$200	$200	$1,300	

NOISE ORDINANCE

Adopt a Noise Ordinance to be consistent with the model noise control ordinance contained in the data base of the General Plan and which implements the specific policies of the Noise Element of the General Plan including the following measures:

1. Procedure for addressing noise complaints.

2. Provide local industry with performance standards for future development and equipment modifications.

3. Require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.

4. Protect areas within the City where the present noise environment is within acceptable limits.

5. Designation of noise impacted areas within the City according to Policy 30.4 of the Noise Element.

6. New development of residential or other noise sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to:

   - Aircraft: 60 dB Ldn/CNEL or less in outdoor activity areas.
   - Interior noise levels to 45 dB Ldn/CNEL or less.

Where it is not possible to reduce exterior noise due to these sources to 60 dB Ldn/CNEL or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dB Ldn/CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dB Ldn/CNEL with the windows and doors closed.

7. Adopt performance standards contained within Table 26-3 of the Noise Element for non-transportation related noise sources.

8. Noise level criteria shall be consistent with the Noise Element Policy 30.9.

Enforcement of the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the UBC. Title 24 requires that an acoustical analysis be prepared for all new developments of multi-family dwellings, condominiums, hotels and motels proposed for areas within the 60 dB Ldn/CNEL contour of a major noise source for the purpose of documenting that an acceptable interior noise level of 45 dB Ldn/CNEL or below will be achieved. UBC Chapter 35 requires that common wall and floor/ceiling assemblies within multi-family dwellings comply with minimum standards concerning the transmission of airborne sound and structure-borne impact noise.

9. Require acoustical analyses in accordance with the above paragraph and prior to consideration of proposed development of residential or other noise-sensitive land uses in a noise-impacted area. An acoustical analysis shall:

   - Be the responsibility of the applicant.
   - Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
   - Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
   - Include estimated noise levels in terms of Ldn/CNEL and/or the standards of Table 26-3 for existing and projected future (20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
   - Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element. Where the noise source in question consists of intermittent single events, the report must address the effects of maximum noise levels in sleeping rooms in terms of possible sleep disturbance.
   - Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a statement of overriding considerations for the project must be provided.

10. New equipment and vehicles purchased by the City of Folsom shall comply with noise level performance standards consistent with the best available noise reduction technology.

IMPLEMENTS: GOAL 30 - POLICIES 30.2; 30.3; 30.4; 30.5; 30.6; 30.7; 30.8; 30.9; 30.10; 30.11; 30.12; 30.13; AND 30.14

- Folsom Municipal Code: New Title
- Resource Groups/Agencies/Organizations

  State Office of Noise Control
  Sacramento County Health Department

- Responsible and Implementing Agency

Community Development Department

- Target Dates: Start: March 1989
  Complete: October 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
140/$6,300	$400	$800	$7,500	General Fund

GENERAL PLAN DATABASE MAINTENANCE

Maintain and update on a regular basis the database prepared for the General Plan, including but not limited to the following areas:

NOISE

Develop and continually update a database as part of the General Plan Program containing noise exposure information for the City so that noise related issues can be addressed in the land use planning process.

GROUND WATER MONITORING

Cooperate with the County of Sacramento in developing a computerized, county-managed database on water quality. Seek funding to provide for a County assisted testing program, to continue to improve information about water quality in the City.

MEDICAL STATISTICS

Cooperate with the Sacramento County Health Department to compile statistics on medical problems potentially related to hazardous materials, and support efforts to gather this information on a statewide basis..

- Resource Groups/Agencies/Organizations

State Department of Health Services
Sacramento County Health Department
State Office of Noise Control

- Responsible and Implementing Agency

Public Works Department

IMPLEMENTS: GOAL 30 - POLICY 30.1; GOAL 41 - POLICY 41.6

- Target Dates: Start: March 1989
  Complete: On-Going

ESTIMATED COSTS OVER SIX MONTHS:				
Person Hours/ Dollars	Printing	Direct	Total	Funding
36/$1,620	$100	$400	$2,120	General Fund, Development Fees EIRs

CALIFORNIA VEHICLE CODE

The City of Folsom shall actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

IMPLEMENTS: GOAL 30 - POLICY 30.12

- Folsom Municipal Code: Title 10

- Resource Groups/Agencies/Organizations

State Motor Vehicle Department
State Air Resources Board
State Office of Noise Control

- Responsible and Implementing Agency

Police Department

- Target Dates: Start: Continuance of Existing Program
  Complete: On-Going

- Estimated Costs Per Year

No additional costs.



31.0
PARKS AND RECREATION ELEMENT

Prepared For The City of Folsom
Community Development Department

By
QUAD Consultants

October 31, 1988



PARKS AND RECREATION

TABLE OF CONTENTS

PAGE

31.1 INTRODUCTION 2

31.1.1 State Policy and Authorization 2
31.1.2 Related State and Federal Regulations 2
31.1.3 Relationship to the General Plan 2
31.1.4 Relationship to Adjacent Jurisdictions 2

31.2 SETTING/ASSUMPTIONS/ISSUES 2

31.2.1 Setting 2
31.2.2 Assumptions 3
31.2.2 Issues .....

31.3 PARKS AND RECREATION ELEMENT GOALS AND POLICIES 5

31.4 RELATED GOALS AND POLICIES 10

31.5 IMPLEMENTATION PROGRAM 11

Parks and Recreation Master Plan 11
Pedestrian and Bicycle Master Plan 12
Title 4 - Parks and Recreation 12
Incentive Programs 13
Trails, Recreation and Safety Guide 13

PARK & RECREATION

31

31.1 INTRODUCTION

Recreation is the self-rewarding voluntary use of leisure time for refreshment, diversion or renewal of the individual.

The Parks and Recreation Element identifies Folsom's diverse recreational facilities and activities and establishes policy for acquisition, development, administration and utilization of Folsom's parks and recreation resources. All park and recreation facilities shall be located, constructed, operated and maintained in accordance with the goals, policies and standards contained herein.

31.1.1 STATE POLICY AND AUTHORIZATION

- Government Code Section 65300

The Park and Recreation Element is an optional element of the Folsom General Plan and has been prepared in accordance with Government Code Section 65300 et. al. Local governments are allowed to adopt "any other elements or address any other subjects which...relate to the physical development of the county or city" (Government Code Section 65303). Optional elements have the same force and effect as mandatory ones, including required consistency of proposed zoning, subdivisions, public works and specific plans. The Land Use Element, the Open Space and Conservation Element, and Circulation Element are required to address issues related to the development and operation of parks and recreation facilities.

31.1.2 RELATED STATE AND FEDERAL REGULATIONS

- Quimby Act (Government Code Section 66477)

The Quimby Act allows local agencies to establish ordinances requiring residential subdivision developers to provide land or in-lieu fees for park and recreation purposes, and specifying acceptable uses or restrictions on the expenditure of such funds. The Act requires that the City adopt a Recreation Element if it is to enact a parkland dedication/fee ordinance.

- California Environmental Quality Act

The adoption or amendment of the general plan and its elements constitutes a project under the California Environmental Quality Act (CEQA) and the State EIR Guidelines. If any aspect of the proposed general plan document or amendment, individually or cumulatively, may significantly affect the environment, the City must prepare an Environmental Impact Report (EIR).

31.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Parks and Recreation Element directly effects the Land Use Element, Open Space and Conservation Element, Circulation Element, Public Facilities Element and indirectly effects the Housing Element and Noise Element.

31.1.4 RELATIONSHIP TO ADJACENT JURISDICTIONS

The following agencies own and/or administer recreation facilities within and/or adjacent to the City of Folsom:

United States - Bureau of Reclamation
State of California - Division of Parks and Recreation
State of California - Division of Fish and Game
State of California - Department of Corrections
County of Sacramento - Parks and Recreation
County of El Dorado - Parks and Recreation
Folsom-Cordova School District
Los Rios Community College District

31.2 SETTING/ASSUMPTIONS/ISSUES

31.2.1 SETTING

Volume III, Chapter 82.0 of the General Plan and the Master Environmental Assessment (MEA) describe the setting of the Folsom area and the data base upon which the General Plan has been prepared. The following tables summarize the recreation facilities of the City of Folsom.

TABLE 31-1
RECREATION FACILITIES

Total Parks (City Owned):		Total ACREAGE (City Owned):	
Mini Parks		Mini Parks	
Developed -	1	Developed -	1
Undeveloped -	6	Undeveloped -	6
		Active -	1
		Passive -	6
		Total -	7
Neighborhood Parks		Neighborhood Parks	
Developed -	1	Developed -	5
Undeveloped -	2	Undeveloped -	31
		Active -	5
		Passive -	16
		Special Use -	15
		Total -	36
Community Parks		Community Parks	
Developed -	2	Developed -	60
Undeveloped -	3	Undeveloped-	141
		Active -	108
		Passive -	78
		Special Use -	15
		Total -	201
School/Parks		School/Parks	
Developed -	0	Developed -	0
Undeveloped -	12	Undeveloped -	117
		Active -	76
		Passive -	41
		Total -	117
Nature Areas/ Parkways	2	Nature Areas/ Parkways	

31.2.2 ASSUMPTIONS

OPEN SPACE AND BIKEWAYS

The open space for preservation of natural resources and the open space for trails are listed in this element for purposes of a complete description of recreation related facilities. Policies affecting open space for preservation are contained in the Open Space and Conservation Element. Policies affecting bikeways and trails are contained in the Transportation and Circulation Element.

JOINT USE AGREEMENTS

The City of Folsom and the Folsom Cordova Unified School District have a Joint Use Facility Agreement which allows the City and the District to share facilities. These agreements are assumed to continue. Approximately sixty percent of all City recreation programs are held at school facilities. Due to scheduling constraints, school facilities are currently at maximum use levels. Joint use with other agencies is encouraged.

INCREASED DEMAND FOR RECREATION

Residents are more health conscious and recognize the benefits of recreational activities. Demands are increasing on recreation facilities and programs because of this awareness. This trend is assumed to continue through the planning period.

LATCH KEY KIDS

There has been an increase in families where both parents work. This has created a demand for youth recreation activities. The State is presently assisting with grants to cover the start-up cost of developing before and after school programs. It is assumed that the number of latch key kids will continue to increase in Folsom.

COMMUNITY SUPPORT

The City receives strong support from the community in developing and maintaining the parks and recreation system. This community support is anticipated to continue.

IMPACTED FACILITIES

The City of Folsom is growing rapidly with a corresponding increase in the demand for recreation services and facilities. The growth has surpassed the availability of present facilities and programs. This growth is assumed to continue.

HUMBUG CREEK/WILLOW CREEK PARKWAY

The State Department of Fish and Game (DFG) is assisting in the preservation of the Humbug Creek/Willow Creek Parkway as an ecological reserve. Standards and policies for this area have been developed, based upon past actions by the City Council and the DFG. It is assumed that Fish and Game will continue to lead the preservation effort.

CITY FOCUS

It is assumed that the City will focus its planning, development and maintenance operations on mini parks, neighborhood parks, school/parks, special use areas and community parks. Within the City boundaries the City will work with the state, Sacramento County and Los Rios Community College District in the development and operation of Regional Parks and open space/parkways.

ACTIVE RECREATION ACREAGE

Active recreation acreage is defined as land which can be developed into high use facilities. High use facilities include, but are not limited to such facilities as, soccer fields, hardball diamonds, softball fields, football fields, gymnasiums, tennis courts, and swimming pools.

PASSIVE RECREATION ACREAGE

Passive recreation acreage is defined as land designed for a low activity level. Passive recreation acreage includes, but is not limited to, picnic barbecues areas, shaded turfed area, tot lots, shaded pavilion areas, walking trails, and nature trails.

CHANGE IN RECREATION NEEDS

It is assumed that as the community grows and diversifies the recreational and leisure needs of the community will change.

31.2.2 ISSUES

Issues identified during the 1988 preparation of the Parks and Recreation Element include but are not limited to:

RESPONDING TO CHANGING RECREATION PROGRAM NEEDS

As new residents settle in Folsom, the City is having to adjust the recreation programs and facilities to meet the communities needs. As an example, more youth now live in Folsom and there is a significant demand on youth activities.

MAINTENANCE AND DEVELOPMENT

The development of new facilities have been delayed because funds may not be available for their ongoing maintenance.

COST OF DEVELOPING PARKLANDS

While the City receives land or fees for parklands, significant parcels of parkland are not developed. Funds are limited for the construction of facilities and therefore dedicated parklands are not being utilized for their intended purpose. It may take years to develop these parklands.

KEEPING PACE WITH GROWTH

The City continues to lag in the development of parks and recreation facilities and staff in relation to its growth in population.

CHANGE IN PROGRAMING, POLICIES AND PROCEDURES

As the demands on the Parks and Recreation staff and facilities increase, the City has had to resort to more elaborate tracking and administrative procedures for organized use of facilities and programs. This increase in paperwork, in order to insure equity, is making it more time consuming and cumbersome for persons and groups to sign up to use facilities. Residents perceive that these procedures less friendly.

COST OF PROGRAMS AND MAINTENANCE

There are limited dollars within the City's general fund for recreation programs and maintenance of parks and recreation facilities. New sources of funding need to be obtained.

31.3 PARKS AND RECREATION ELEMENT GOALS AND POLICIES

A complete listing of Folsom's Goals and Policies listed is in Chapter 13. The Goals and Policies of the Parks and Recreation Element are presented below followed by related goals and policies of the Folsom General Plan.

The first goal of the General Plan establishes the tone and direction of all subsequent goals and policies. Goal 1 is restated here to set the tone of this Parks and Recreation Element.

GOAL 1

To retain and enhance Folsom's quality of life, separate identity and sense of community. Folsom's identity and quality of life are defined by:

1. The diverse natural setting, including the American River, its tributary streams, natural vegetation, topography, native wildlife, and other unique features of the landscape.
2. Developed parks and open space.
3. The historic district and other historic places throughout the community.
4. The State prison site, which provides a large, visual open area in the City.
5. The physical form of Folsom's neighborhoods.
6. Ease of movement.
7. Public access to pedestrian and bicycle trails.

POLICY 1.1

New development shall preserve and/or enhance to the maximum degree feasible, the existing natural vegetation, landscape features and open space, consistent with the Goals and Policies of this Plan.

POLICY 1.2

Existing viewsheds and opportunities for viewsheds shall be incorporated into the design of new developments.

POLICY 1.3

Each residential neighborhood shall be planned with at least one park/ recreational/ school area within one half mile of each residential unit.

POLICY 1.4

Each new residential development shall provide pedestrian and bicycle access to parks or schools located within or near the development.

1-5 Each new residential development shall be designed with a system of local streets, collector streets, and access to an arterial road that protects the residents from through-traffic. Street improvements that would enhance circulation in existing developments shall also be identified.

POLICY 1.6

Folsom's historic district shall be enhanced and maintained through the improvement of public facilities.

POLICY 1.7

Historic buildings or locations shall be preserved or incorporated into the design of new developments whenever possible.

POLICY 1.8

The City shall prepare an inventory of historically and culturally significant buildings and sites. At the conclusion of the inventory, if it is determined that there are buildings or sites of local, state or national significance, the City or other concerned parties (such as the State or the Historical Society) shall be given the first right of refusal for the purchase of the site and/or building in the event that development of the site will result in the demolition or significant alteration of the structure.

POLICIES 1.9

The riparian habitats of the American River, its tributaries, other watercourses, ponds and reservoirs in Folsom, shall be preserved in their natural state and/or in conformance with a Department of Fish and Game approved development and management plan.

POLICY 1.10

When development incentives are requi for the preservation of identified resources a...

open spaces, the City and public shall cumulatively receive the greater short-term and long-term benefits of such incentives.

The goals and policies of the Parks and Recreation Element are:

31

GOAL 35

To achieve and maintain quality parks which provide optimum satisfaction to the leisure and recreation needs of the citizens.

POLICY 35.1

The City shall construct parks with originality and innovation in design that provide challenge and self-renewal to the user and viewer.

POLICY 35.2

The City shall develop a listing of equipment standards and design guidelines for parks and recreation facilities.

POLICY 35.3

The City shall maintain its parks and recreation facilities in accordance with City adopted maintenance standards.

POLICY 35.4

The City shall encourage, where appropriate, the inclusion of bikeways, walkways, and equestrian trails in parks, parkways, and open space acreage.

POLICY 35.5

Where feasible, park sites throughout the City shall be integrated with the Bikeways Master Plan and bicycle trails outside the City such as the American River Bike Path.

POLICY 35.6

The City shall encourage the development of parks with night-use capability.

POLICY 35.7

The City shall encourage construction of shelters, such as pavilions, arbors, lattice canopies, etc. to form shade and shelter for year round use. In conjunction with the shelters, the planting of trees shall be encouraged to increase the shade areas and aesthetics of the parks.

POLICY 35.8

Park sites shall be accepted by the City if judged to be useful for passive and/or active uses. Land constrained by drainage, slopes, and structures which limit the full recreational use of the site shall not be accepted as parkland acreage. Such lands may be accepted as open space or parkway acreage. Credit or partial credit for constrained lands may be allowed if they are found to be useable or can be made useable in compliance with the standards for parkland dedication included in the Parks and Recreation Master Plan and Parkland Dedication Ordinance.

POLICY 35.9

Easements and designated openspace/natural areas shall not be credited as parkland acreage. These areas may be used for parkland but shall not be credited for Parkland pursuant to the parkland dedication ordinance.

These easements, natural areas and designated openspaces are an existing resource within Folsom as identified in the General Plan and that to credit these lands for Parkland would reduce the full potential of open space that the City requires in order to achieve and maintain the desired quality of life.

POLICY 35.10

The City shall actively encourage the protection and preservation of natural habitats identified in the Open space and Conservation Element.

POLICY 35.11

The City shall strive to acquire and develop parklands within existing neighborhoods which comply with the standards of this Element and the General Plan.

POLICY 35.12

The following standards are the minimum acceptable standards for parks, open space and recreation facilities in the City of Folsom:

MINIMUM STANDARDS FOR PARKS AND RECREATION FACILITIES

• **Parkland Acreage Standard**

Five acres per thousand population (5 acres/ 1,000 persons).

• **PARKLAND**

Generalized areas are designated on the Land Use Map of the General Plan for park acreage credit. Those lands which are consistent with the goals and policies of this element and the general plan shall be credited as parkland. Utility easements, floodplains and parkway acreages, those lands already committed to a use shall not be credited as parkland.

• **PARK CATEGORIES**

In order to provide a balance, parks have been categorized in terms of their function and sizes. The acreages listed are approximate desirable sizes. The categories are:

- **Mini Parks** (1 to 2 acres) - Specialized facilities that usually serve a concentrated or limited population or specific group such as tots or senior citizens. Mini parks may feature children's play areas, quiet game areas, landscaping and some sport activities such as multi-purpose courts if space allows. Ideal in close proximity to apartment complexes, townhouses, or elderly housing. May be used to enhance beauty of the city.

- **Neighborhood Parks** (10 to 20 acres) - A recreation area which provides for indoor and outdoor programs and activities. Neighborhood recreation parks should serve one neighborhood, and be centralized within that neighborhood, a park which can be

- **Special Use Areas** (undetermined) - Within the City there are special use areas which do not fit easily in the other categories.

• **Community Parks** (20 to 60 acres) - A recreation area which provides recreational opportunities for several neighborhoods. Community parks should avoid duplication of facilities already provided in neighborhood recreation parks, and where suitable, be cated adjacent to a secondary school. should include such facilities as an aquatic center, provision for evening recreation, indoor facilities, amphitheater, specialized athletic fields, tennis, handball, basketball courts, large and small picnic areas, and barbecue facilities, convenient parking, tot play apparatus and restrooms.

- **Regional Parks** (200 + acres) - A recreation area which provides some remoteness from the urban setting or has features of regional significance including opportunities not possible in other parks within the city park system. This type of park serves a population within a large region - usually those within an hour's travel time. A regional park may be the joint effort of more than one government agency. It should be developed to preserve existing natural areas, areas of great scenic beauty, or areas of historical interest. A regional park could include such facilities as arboretums, camping areas, boating and fishing facilities, bicycling, equestrian and hiking trails, and ot[illegible] special use facilities.

- **Open space/Natural Areas/Parkways** (undetermined) - Natural habitat areas, stream courses, utility easements or other corridors designated in the Open space and Conservation Element and/or Circulation Element for purpose of preservation of natural features or circulation. Open space is clearly distinguished from park acreage and shall not be calculated or credited as parkland acreage. Parkways shall be preserved in their natural state with a network of trails for walking, cycling and horseback riding. Parkways are classified as open space for the preservation of natural resources and shall not be credited as parkland acreage.

SPACE STANDARDS

Park sites and related standards are based on Table 31-2. User distribution, user preference, accessibility, availability, and economic factors are to be individually considered.

TABLE 31-2

PARK ACREAGE STANDARDS

PARK CATEGORY	SERVICE AREA	DESIRABLE SIZE	ACRES/1000 POPULATION	POPULATION
Mini Park	Less than 1/4 mile radius	1-2 acres	.5 to 1 acre	1,000-2,000
Neighborhood Park	1/4-1/2 mile radius	15 acres	2.5 to 3.5	2,000-5,000
Community Park	Several Neighborhoods 1-2 miles	45 acres	2.5 to 3.5	12,000-25,000
Special Use Recreation Area/ Natural Area/ Wildlife Area/ Parkway	Not applicable standard	Variable depending on desired size	Variable	Within community 25,000 - 50,000
Regional	Several communities within one hour driving time radius	200 + acre	5 to 10	Contiguous to or encompassing natural resources

GOAL 36

To acquire and improve land and facilities for recreational use in pace with local needs.

POLICY 36.1

The City shall acquire and develop sufficient lands to meet the recreational needs of the citizens.

POLICY 36.2

The City shall encourage the creation of a series of parks that serve as focal points for surrounding neighborhoods.

POLICY 36.3

The City shall encourage the development of parkways and greenbelts as an integral link between the city-wide park system.

POLICY 36.4

The City shall monitor the condition of all facilities in order to repair and replace equipment as needed, and insure that state safety standards and guidelines are being met.

POLICY 36.5

The City shall develop programs to identify and attain alternative sources of funding for the acquisition and development of parklands and financing of recreation programs.

POLICY36.6

The City shall improve undeveloped and developed parkland as financially feasible.

POLICY 36.7

The City shall develop and maintain a capital improvement program for long term and short term recreation projects.

GOAL37

To achieve and maintain quality recreation activities which provide optimum satisfaction to the leisure and recreation needs of the citizens.

POLICY 37.1

The City shall encourage the provision of programs and activities designed to meet the recreational needs of the residents of Folsom.

POLICY 37.2

The City shall continue to develop facilities and programs for indoor and outdoor activities directed toward the needs of the neighborhoods served.

POLICY 37.3

The City shall encourage the incorporation into parks and recreation planning the needs of all age groups, handicapped, and special interest groups.

POLICY 37.4

The City shall encourage the expansion of services to senior citizens and latch key kids.

POLICY 37.5

The City shall encourage and/or co-sponsor various ethnic programs and activities of local interest.

POLICY 37.6

The City shall encourage that residents of Folsom be given first priority in participation of recreation sponsored programs, activities, and leagues.

POLICY 37.7

The City shall encourage or co-sponsor programs that involve the entire family, e.g. Family Fun Faire, Sports & Field Day, community picnics, and Kite Day.

GOAL 38

To involve and inform the residents, merchants, and visitors of the need for public participation in planning, development, and proper maintenance of recreation facilities.

POLICY 38.1

The City shall strive to implement registration procedures which require minimal paperwork for individuals and groups.

POLICY 38.2

The City shall encourage citizen participation in park and recreation planning through the Park and Recreation Commission.

POLICY 38.3

The City shall encourage neighborhood beautification projects, anti-pollution drives, recycling and other conservation activities that enhance the environment.

POLICY 38.4

The City shall develop a handbook of facility use and maintenance for groups and individuals using City facilities.

POLICY 38.5

The City shall continue to publish and advertise recreation programs, leagues and special events at a minimum of three times per year.

GOAL 39

To effectively use the resources of the City of Folsom and other governmental entities (such as school districts, county , state, and federal agencies) to accomplish coordinated, effective planning of recreation and leisure activities.

POLICY 39-1

The City shall encourage those agencies actively providing recreational programs and activities to continue those programs and activities.

POLICY 39.2

The City shall encourage the use of college interns in all areas of parks and recreation.

POLICY 39.3

The City shall encourage the use of community residents to instruct special interest programs; e.g. fishing, fly-tying, gun safety, dance, etc. The City may serve as coordinator for such programs by providing facilities, public relations, instructors, and by paying instructor fees.

POLICY 39.4

The City shall encourage the aid of State or County park rangers, i.e. Folsom Lake State Recreation Area, to provide leadership in programs that inform the community on topics such as conservation and fire-safety.

POLICY 39.5

The City shall continue the execution of a joint use, and development arrangement with the Folsom Cordova Unified School District and encouraging an agreement with the Los Rios Community College District.

POLICY 39.6

The City shall work cooperatively with the County Department of Parks and Recreation, State Department of Parks and Recreation, State Department of Corrections and State Department of Fish and Game in coordinating facility development and program offerings.

31.4 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

GOAL 1:
- POLICY 1.1
- POLICY 1.2
- POLICY 1.
- POLICY 1.4
- POLICY 1.9
- POLICY 1.10

GOAL 2:
- POLICY 2.1
- POLICY 2.2

RELATED GENERAL GOALS AND POLICIES CONT.

- POLICY 2.3
- POLICY 2.4

GOAL 3
- POLICY 3.1
- POLICY 3.2
- POLICY 3.3

GOAL4
- POLICY 4.4

GOAL 5
- POLICY 5.1
- POLICY 5.2
- POLICY 5.3

RELATED LAND USE GOALS AND POLICIES

GOAL 7
- POLICY 7.1
- POLICY 7.3
- POLICY 7.4

GOAL 8
- POLICY 8.1
- POLICY 8.3
- POLICY 8.4
- POLICY 8.5
- POLICY 8.6
- POLICY 8.7

GOAL 9
- POLICY 9.1
- POLICY 9.2
- POLICY 9.3

GOAL 16
- POLICY 16.3
- POLICY 16.8

RELATED TRANSPORTATION AND CIRCULATION GOALS AND POLICIES

GOAL 17
- POLICY 17.1
- POLICY 17.10
- POLICY 17.11
- POLICY 17.12
- POLICY 17.13
- POLICY 17.14

RELATED HOUSING GOALS AND POLICIES

GOAL 20
- POLICY 20.1

RELATED OPEN SPACE AND CONSERVATION GOALS AND POLICIES

- GOAL 23
  - POLICY 23.1
  - POLICY 23.2
  - POLICY 23.3
- GOAL 24
  - POLICY 24.1
  - POLICY 24.2
  - POLICY 24.3
  - POLICY 24.4
- GOAL 25
  - POLICY 25.2
  - POLICY 25.3
  - POLICY 25.5
  - POLICY 25.6
  - POLICY 25.7
- GOAL 27
  - POLICY 27.1
  - POLICY 27.2
  - POLICY 27.4
- GOAL 28
  - POLICY 28.1
  - POLICY 28.2
  - POLICY 28.4

RELATED SAFETY GOALS AND POLICIES

- GOAL 29
  - POLICY 29.3
  - POLICY 29.6

RELATED NOISE GOALS AND POLICIES

- GOAL 30
  - POLICY 30.2
  - POLICY 30.3
  - POLICY 30.4
  - POLICY 30.5
  - POLICY 30.6
  - POLICY 30.9

RELATED AIR QUALITY GOALS AND POLICIES

- GOAL 31
  - POLICY 31.9
- GOAL 32
  - POLICY 32.1
- GOAL 33
  - POLICY 33.2

RELATED PUBLIC FACILITIES GOALS AND POLICIES

- GOAL 40
  - POLICY 40.1
  - POLICY 40.2
  - POLICY 40.3

31.5 IMPLEMENTATION

PARKS AND RECREATION MASTER PLAN

A Master Plan for Parks and Recreation shall be prepared which contains specific requirements and criteria for development, access, use and maintenance of parks, open space and natural areas within the City including:

1. provision for improving public access to recreation areas and open space with guidelines and standards for the design of access ways making provision for access by all segments of the community including the mobility impaired;
2. guidelines and standards for the improvement of parks and open space areas which define the appropriate level of maintenance, access, and improvements in sensitive habitat and open space areas;
3. guidelines for incorporating educational activities and interpretive centers into the open space and sensitive habitat areas;
4. a plan for consolidation of identified open space, natural habitat areas and park lands;
5. landscape requirements for parks and open space including design standards for improvements (trails, fences) in open space areas;
6. develop management plans for identified sensitive/special habitat areas in order to preserve special habitats.

IMPLEMENTS: GOAL 27 - POLICIES 27.1; AND 27.2 GOAL 25: - POLICY 25.5; 25.6; AND 25.7

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State of California Department of Parks and Recreation
  California State University, Sacramento
  University of California, Davis
  Local Community Colleges
  Department of Fish and Game

- Responsible Agency

  Park and Recreation Commission

- Implementing Agency

  Public Works Department

- Target Dates
  Start: May 1988
  Complete: March 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direc	Total	Funding
100/$9,000	$3,000	$3,000	$15,000	Developer Fees User Fees General Fund

PEDESTRIAN AND BICYCLE MASTER PLAN

The City shall update its bicycle master plan and include a pedestrian and equestrian components, showing the location and type of routes/ links to to schools and parks, and other recreational destinations. The City's Development Standards will include design standards for pedestrian and bicycle paths, lanes, and routes. Road improvements or extensions shall be designed to include bicycle and pedestrian paths, lanes, or routes where these are indicated in the master plan. Bicycle paths, lanes, and routes will be clearly marked. The County of Sacramento will continue to be responsible for maintenance of the American River bicycle, pedestrian, and equestrian trails.

IMPLEMENTS: GOAL 17 - POLICY 17.10

- Funding:

  General Fund
  State Grants
  Volunteer Groups

- Resource Groups

  Bicycle clubs
  Equestrian clubs
  Civic organizations interested in pedestrian, bicycling, and equestrian issues

- Responsible Agency

  Park and Recreation Commission
  Community Development Department

- Implementing Agency

  Public Works Department

- Target Dates Start: July 1988
  Complete: March 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
200/$9,000	$500	$500	$10,000	General Fund, Developer Fees

TITLE 4 - PARKS AND RECREATION

PARKS AND RECREATION ORDINANCE

Update the Parks Ordinance with respect to the Goals and Policies of the Parks and Recreation Element and amend as necessary.

IMPLEMENTS: GOAL 27

- Folsom Municipal Code: Title 4

- Resource Groups/Agencies/Organizations

  State Department of Parks and Recreation

- Responsible Agency

  Park and Recreation Commission

- Implementing Agency

  Public Works Department

- Target Dates Start: October 1988
  Complete:March 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printin	Direct	Total	Funding
40/$1,800	$250	$300	$2,350	User Fees, General Fund

INCENTIVE PROGRAMS

Include incentives to property owners in the zoning Code to facilitate consolidation of identified habitat areas, open space and park lands.

IMPLEMENTS: GOAL 27 - POLICY 27.4
GOAL 8 - POLICY 8.7

- Folsom Municipal Code: Title 17
- Cross Referenced to: Title 16
- Resource Groups/Agencies/Organizations

  Nature Conservancy
  State Office of Planning and Research

- Responsible Agencies

  Community Development Department
  Parks and Recreation Commission
  Public Works Department

- Implementing Agency

  Community Development Department

- Target Dates Start: January 1988
  Complete: January 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
80/$3,600	$1,000	$900	$5,500	Developer Fees

TRAILS, RECREATION AND SAFETY GUIDE

A subcommittee to the Parks and Recreation Commission will oversee the publication of a trails, recreation and safety guide for the use and enjoyment of parks and open space within the City of Folsom. Publication of the Guide may be accomplished in coordination with local civic groups or a local college or university as a student project.

IMPLEMENTS: GOAL 27 - POLICY 27.1A
GOAL 29 - POLICY 29.6

- Resource Groups/Agencies/Organizations

  Sacramento County Department of Parks and Recreation
  State of California Department of Parks and Recreation
  California State University, Sacramento
  University of California, Davis
  Local Community Colleges
  U.S. Army Corps of Engineers
  U.S. Bureau of Reclamation
  State Reclamation Board
  State Department of Resources, Divis of Mines and Geology
  Sacramento County General Services

- Responsible Agencies

  Park and Recreation Commission
  Community Development Department
  Public Works Department
  City Fire Department

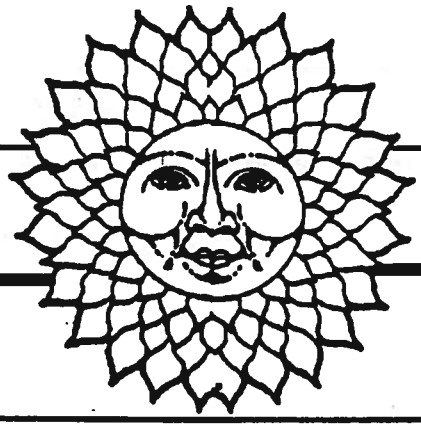
- Implementing Agency

  Park and Recreation Commission

- Target Dates Start: March 1989
  Complete: August 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$2,000	$1,500	$8,000	Developer Fees, Grant Funds



32.0
AIR QUALITY ELEMENT

Prepared For The City of Folsom
Community Development Department

By

Sierra Research

October 31, 1988

AIR QUALITY

TABLE OF CONTENTS

PAGE

32.1 INTRODUCTION 2

32.1.1 State Policy and Authorization 2
32.1.2 Related State and Federal Regulations 2
32.1.3 Relationship to the General Plan 2

32.2 SETTING 2

32.3 NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS .....

32.4 AIR QUALITY ELEMENT GOALS AND POLICIES 8

32.5 RELATED GOALS AND POLICIES 9

32.6 IMPLEMENTATION 10

AIR QUALITY

32

32.1 INTRODUCTION

The Air Quality Element of the General Plan establishes the policies and programs available to the City that are intended to assist in the reduction of emission sources and enhancement of air quality within the City. This Element also emphasizes cooperation among the various jurisdictions involved in regional air quality improvement efforts.

Supporting data can be found in the Technical Appendices.

32.1.1 STATE POLICY AND AUTHORIZATION

The Air Quality Element is an Optional Element of the General Plan.

32.1.2 RELATED STATE AND FEDERAL REGULATIONS

Legislative efforts to control air pollution sources and enhance air quality are present at both federal and state levels. The California Air Resources Board (CARB) was created in 1968, and the Federal Air Quality Act was enacted in 1977. Each has established federal and state air quality standards for a variety of pollutants.

32.1.3 RELATIONSHIP TO THE GENERAL PLAN

The Air Quality Element of the General Plan is most related to the Circulation Element and the Land Use Element. Its relationship to the Circulation and Land Use Elements is direct, in that the implementation of portions of those Elements may directly impact air quality.

32.2 SETTING

Meteorological Setting

This section provides a general description of the climatological and meteorological characteristics of the Folsom/Sacramento area.

The climate of the Sacramento Valley is characterized by hot, dry summers and cool, rainy winters. California is situated on the east side of the prevailing Eastern Pacific high pressure cell which lies over the northeastern Pacific Ocean between Hawaii and the southwestern United States. This high pressure area, characterized by dry, subsiding air and generally fair weather, is strongest during the summer. In the winter, the high pressure cell moves southward and intermittently exerts its influence over California.

Temperatures in the Sacramento/Folsom area exhibit relatively large seasonal and daily variations which are typical of inland locations. Table 32-1 shows mean maximum and minimum temperatures during winter and summer for Sacramento (downtown) and Placerville (no long-term surface temperature data is available for Folsom). As expected, Placerville which lies in the Sierra foothills at an elevation of approximately 2,000 feet, exhibits slightly lower surface temperatures than Sacramento (20 feet). Folsom, which lies between these sites, experiences similar temperatures.

TABLE 32-1
MEAN MINIMUM AND MAXIMUM TEMPERATURES IN THE FOLSOM AREA

	MAXIMUM	MINIMUM
January: Sacramento	54o	40o
Placerville	58o	24o
July: Sacramento	94o	59o
Placerville	92o	55o

SOURCE: California Climatological Data (1985). National Oceanic and Atmospheric Administration, Volume 89.

Due to the winter storm systems, most of the precipitation in the Sacramento/Folsom area occurs during the winter months. Approximately 90 percent of the annual precipitation falls from November through April. Folsom (Represa) receives approximately 21 inches of precipitation annually. West of Folsom, annual

rainfall across the valley floor is quite uniform: Sacramento (downtown) averages nearly 18 inches per year. East of Folsom, the orographic (lifting of air) effects of the Sierras cause annual precipitation amounts to increase with elevation. Placerville experiences mean annual precipitation of 37 inches.

During the summer, the typical trajectory of air in Sacramento County flows northeastward from the Delta, then diverges either eastward into the Sierras or northward up the valley. In the winter, the intrusion of marine air into the valley is not as strong. Airflow throughout the Sacramento/Folsom region is generally directed northward (and slightly westward) toward Marysville and Chico where it converges with air flowing down the valley from the north. Figures 32-1 and 32-2 illustrate the prevailing regional airflow patterns.

During the summer of 1980, the CARB funded a comprehensive study of the origin and fate of air pollutants within the Sacramento Valley (Lehrman, 1981). In this field study, detailed meteorological measurements were taken and pollutant monitoring was conducted in conjunction with the release and tracking of a "tracer" gas. Several tracer releases were made, both in downtown Sacramento and northeast of Sacramento (Auburn Boulevard and Watt Avenue) to determine the fate of Sacramento emissions. These tests showed a variety of trajectories, ranging from eastward to northward. The data clearly indicate that during "typical" summertime conditions, the Sacramento emissions plume can often impact the Folsom area.

In summary, the meteorological conditions that exist in the Sacramento area are conducive to high ozone and carbon monoxide concentrations in Folsom.

During the winter, the combination of cool weather, atmospheric temperature inversions, and low wind speeds can contribute to high carbon monoxide concentrations in the vicinity of congested intersections. In the summer, the high temperatures and prevailing winds maximize the extent to which Folsom experiences high ozone levels caused by emissions occurring in the more heavily populated up-wind areas.

32.3 NATIONAL AND STATE AMBIENT A QUALITY STANDARDS

National and State Ambient Air Quality Standards (NAAQS), have been established for a variety of pollutants. The air quality standards are generally considered the definition of "clean air"; however, there has been considerable debate as to whether the levels of the national air quality standards have been appropriately established.

The "primary" national ambient air quality standards are those which are intended to prevent adverse health effects. For some pollutants, there are also more stringent "secondary" standards which are intended to prevent adverse "welfare" impacts, such as degraded visibility or agricultural damage. There is only one category of state air quality standards, with no distinction between health and welfare impacts. However, some state standards have been adopted exclusively based on health impacts (e.g., carbon monoxide), some exclusively based on "welfare" impacts (e.g., visibility), and some based on both health and welfare impacts (e.g., oxidant).

NAAQS have been established for six pollutants. They are:

- Ozone
- Carbon Monoxide
- Nitrogen Dioxide
- Sulfur Dioxide
- Suspended Particulate Matter
- Lead

In addition to these six pollutants, state air quality standards have also been established for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

All of the state and federal air quality standards are presented in Table 32-2. The maximum allowable concentrations of the various pollutants are listed, along with the specified averaging time over which the concentration is to be measured. As the table shows, the state standards are consistently more stringent than the federal standards.

The Clean Air Act provides that NA cannot be exceeded more than once each y

Areas which exceed the standard for a particular pollutant twice or more during a year are designated as non-attainment areas for that pollutant. (The only exceptions to the one exceedance allowances are standards which are based on an annual average concentration of a pollutant. For annual average standards, and exceedance in a single year's average results in a non-attainment designation.)

The non-attainment designation subjects an area to more stringent planning and control requirements. Once an area has been designated non-attainment for a pollutant, the area must show 12 consecutive calendar quarters without any exceedances in order to be redesignated as an attainment area. (The Folsom area is currently designated as non-attainment for ozone, carbon monoxide and suspended particulate matter.)

NOTES: REF. TABLE 32-2

1. California standards, other than carbon monoxide, sulfur dioxide (one hour), nitrogen dioxide and particulate matter - PM10, are values that are not to be equaled or exceeded. The carbon monoxide, sulfur dioxide (one hour), nitrogen dioxide and particulate matter - PM10 standards are not to be exceeded.

2. National standards, other than ozone and those based on annual averages or annual geometric means, as not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based upon a reference temperature of 25oC and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25oC and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health. Each State must attain the primary standards no later than three years after the State's implementation plan is approved by EPA.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each State must attain the secondary standards within a "reasonable time" after the implementation plan is approved by EPA.

7. Reference method as described by EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by EPA.

8. Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.

9. At locations where the State standards for oxidant and/or suspended particulate matter are violated. National standards apply elsewhere.

10. Measured as ozone.

ARB Fact Sheet 38 (Revised 8/86).

TABLE 32-2

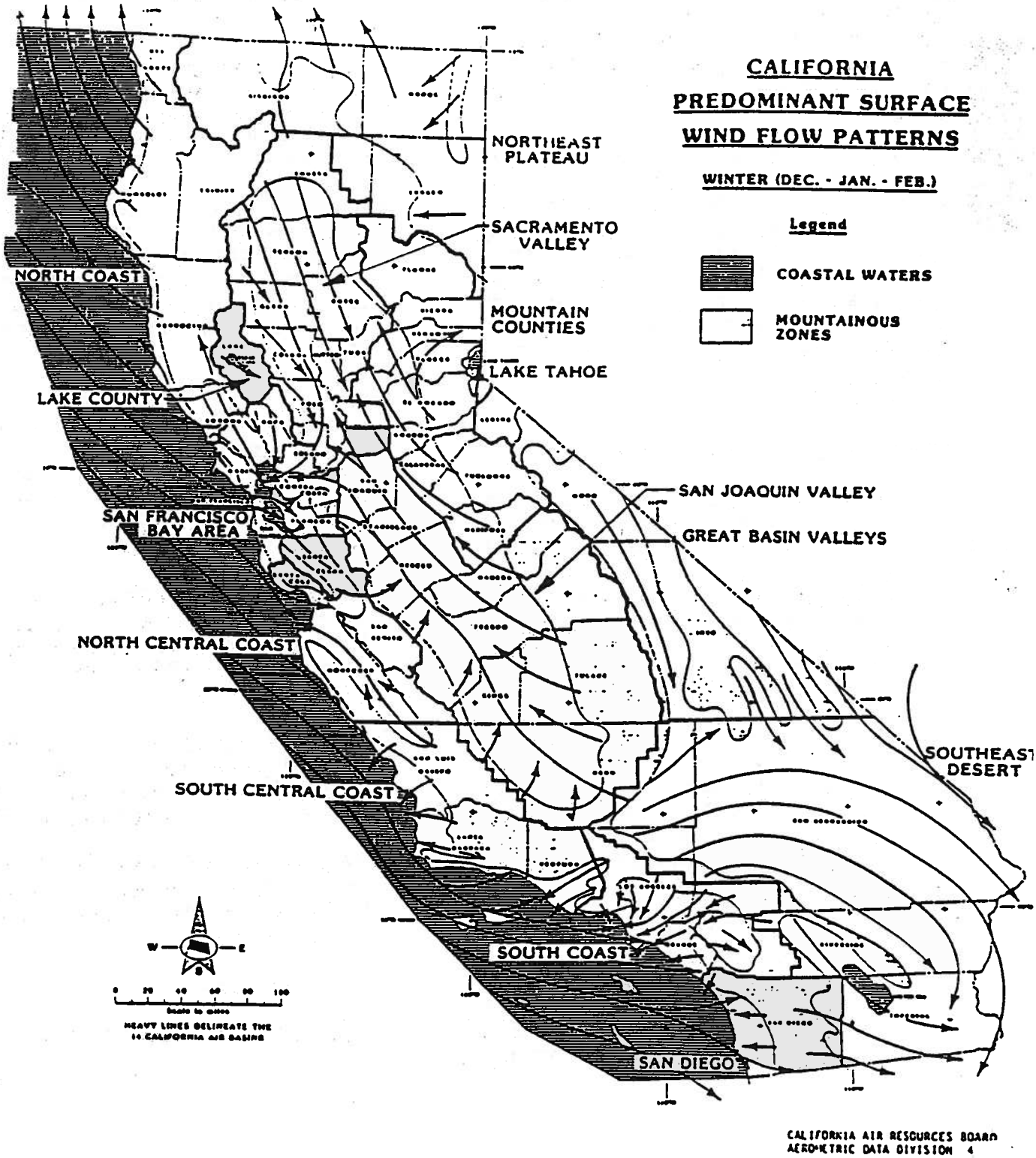

CALIFORNIA
PREDOMINANT SURFACE
WIND FLOW PATTERNS
WINTER (DEC. - JAN. - FEB.)
Legend
COASTAL WATERS
MOUNTAINOUS ZONES
NORTHEAST PLATEAU
SACRAMENTO VALLEY
MOUNTAIN COUNTIES
LAKE TAHOE
NORTH COAST
LAKE COUNTY
SAN FRANCISCO BAY AREA
SAN JOAQUIN VALLEY
GREAT BASIN VALLEYS
NORTH CENTRAL COAST
SOUTHEAST DESERT
SOUTH CENTRAL COAST
SOUTH COAST
SAN DIEGO
HEAVY LINES DELINEATE THE 14 CALIFORNIA AIR BASINS
CALIFORNIA AIR RESOURCES BOARD
AEROMETRIC DATA DIVISION 4

FIGURE 32-1

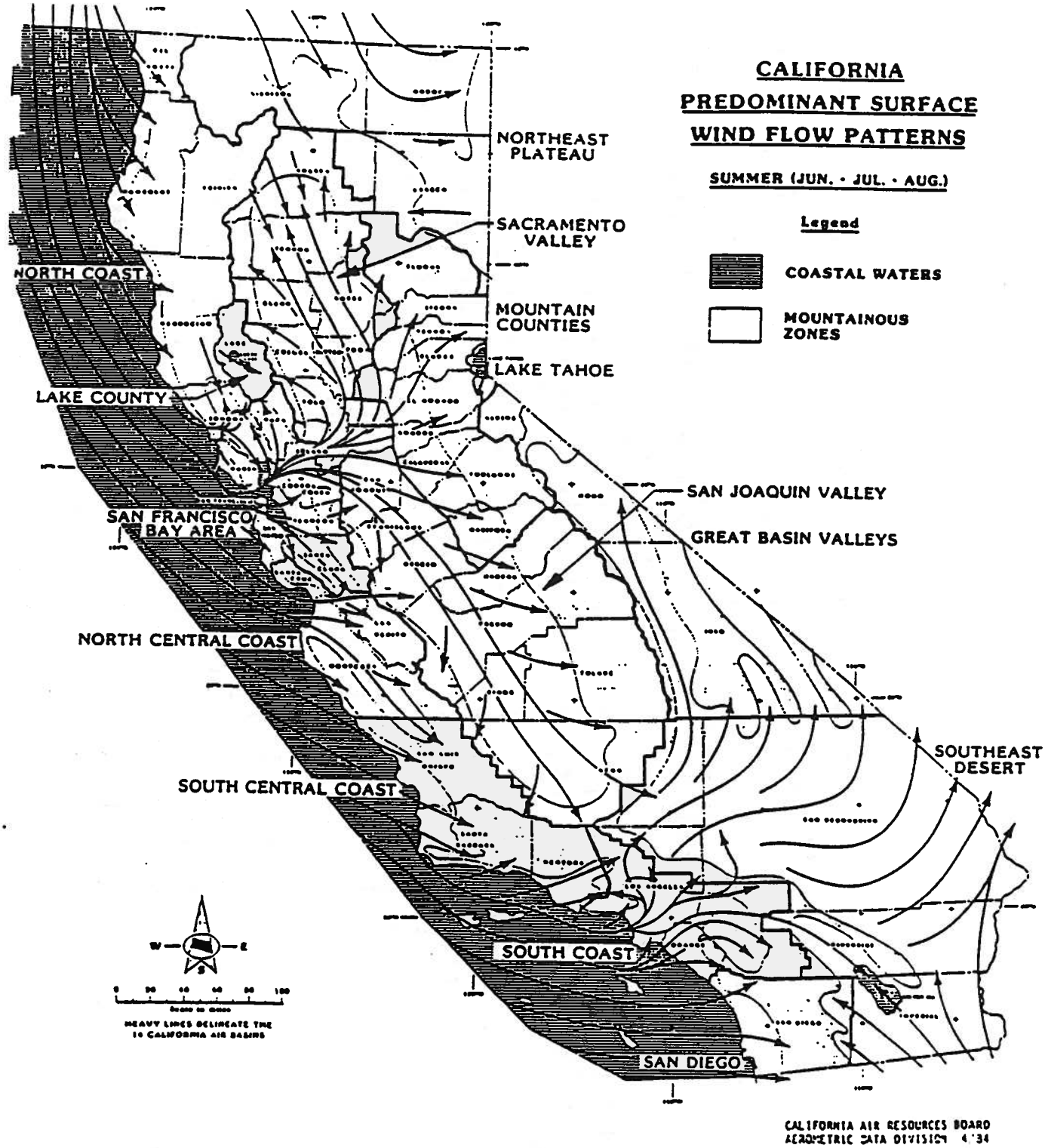

CALIFORNIA
PREDOMINANT SURFACE
WIND FLOW PATTERNS
SUMMER (JUN. · JUL. · AUG.)
Legend
COASTAL WATERS
MOUNTAINOUS ZONES
NORTHEAST PLATEAU
SACRAMENTO VALLEY
NORTH COAST
MOUNTAIN COUNTIES
LAKE TAHOE
LAKE COUNTY
SAN JOAQUIN VALLEY
SAN FRANCISCO BAY AREA
GREAT BASIN VALLEYS
NORTH CENTRAL COAST
SOUTHEAST DESERT
SOUTH CENTRAL COAST
SOUTH COAST
SAN DIEGO
HEAVY LINES DELINEATE THE 14 CALIFORNIA AIR BASINS
CALIFORNIA AIR RESOURCES BOARD
AEROMETRIC DATA DIVISION 4/84

FIGURE 32-2
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[10]	1 Hour	0.10 ppm (200 ug/m3)	Ultraviolet Photometry	-	-	-
Ozone	1 Hour	-	-	0.12 ppm (235 ug/m3)	Same as Primary Std.	Ethylene Chemiluminescence
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m3)	Non-dispersive Infrared Spectroscopy (NDIR)	9.0 ppm (10 mg/m3)	Same as Primary Standards	Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemiluminescence	100 ug/m3 (0.05 ppm)	Same as Primary Std.	Gas Phase Chemiluminescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m3 (0.03 ppm)	-	Pararosaniline
	24 Hour	0.05 ppm (131 ug/m3)		365 ug/m3 (0.14 ppm)	-	
	3 Hour	-		-	1300 ug/m3 (0.5 ppm)	
	1 Hour	0.25 ppm (655 ug/m3)		-	-	
Suspended Particulate Matter (PM_{10})	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler	-	-	-
	24 Hour	50 ug/m3				
Suspended Particulate Matter	Annual Geometric Mean	-	-	75 ug/m3	60 ug/m3	High Volume Sampling
	24 Hour	-		260 ug/m3	150 ug/m3	
Sulfates	24 Hour	25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 day Average	1.5 ug/m3	Atomic Absorpsion	-	-	Atomic Absorpsion
	Calendar Quarter	-		1.5 ug/m3	Same as Primary Std.	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydroxide STRactan	-	-	-
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility[8] to less than 10 miles when the relative humidity is less than 70 %.		-	-	-
Applicable Only in the Lake Tahoe Air Basin						
Carbon Monoxide	8 hour	6 ppm (7 mg/m3)	NDIR	-	-	-
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility[8] to less than 30 miles when the relative humidity is less than 70%.		-	-	-

32.4 AIR QUALITY ELEMENT GOALS AND POLICIES

GOAL 31

To improve the air quality of the City of Folsom including:

1. Achievement and maintenance of ambient air quality standards established by the U.S. Environmental Protection Agency and the California Air Resources Board.

2. Minimizing public exposure to toxic or hazardous air pollutants.

3. Limiting visibility reducing particulate matter in the atmosphere.

4. Minimizing public exposure to air pollutants which create a public nuisance through irritation to the senses or unpleasant odor.

POLICY 31.1

Because the City of Folsom shares the air basin with other jurisdictions, and suffers from poor air quality due to regional ozone violations, the City shall work cooperatively with other members of the Sacramento Area Council of Governments, the Sacramento County Air Pollution Control District, the California Air Resources Board, CALTRANS, and the U.S. Environmental Protection Agency toward the development of a consistent and effective approach to the regional air pollution problem. The City will participate in the updating of the 1982 Air Quality Plan, and incorporate Air Quality Plan update measures into the General Plan.

POLICY 31.2

The City shall use consistent and accurate procedures approved by the California Air Resources Board in the review of projects which may have air quality impacts. Comments on the analysis shall be solicited from the Sacramento County Air Pollution Control District and the Air Resources Board.

POLICY 31.3

The City shall encourage the adoption of more stringent vehicle emission standards and enhancements to the Smog Check program through active participation in hearings held by the State Legislature, the California Air Resources Board and the Bureau of Automotive Repair.

POLICY 31.4

To minimize air quality impacts mitigation measures shall be required for transportation emissions associated with all development estimated to generate 2,000 or more trips per day. Measures may include:

1. Project proponent funding of roadway improvements.

2. Commercial/industrial project proponent sponsorship of van pools or club buses.

3. Project proponent funded transit subsidies sufficient to reduce emissions from transit through the substitution of diesel-fueled buses with buses powered by alternative fuels, such as methanol and electric.

4. Commercial/industrial project sponsored daycare and employee services at the employment site.

5. Park and ride lots.

POLICY 31.5

The City shall work with the Air Resources Board or Sacramento County Air Pollution Control District in establishing a carbon monoxide monitoring program in order to accurately determine the status of carbon monoxide air quality and to quantify the impacts of growth and development in the Folsom area.

POLICY 31.6

Non-retail industrial and non-retail commercial projects which directly emit air pollutants should be located in areas designated for industrial development, and separated from residential mixed use areas.

POLICY 31.7

All employers of 50 or more full time employees per shift shall develop and implement

incentive-based trip reduction programs for their employees. Incentives may include:

1. Provision of reserved and preferentially located parking spaces for the exclusive use of employees who actively participate in ridesharing.

2. Provision of secure bicycle storage facilities.

3. Provision of shower and locker facilities for use by employees who commute by non-motorized means.

4. Distribution by employers of current information regarding the availability, cost and schedules of public transit.

5. Employer provision of economic incentives to maximize the use of transit, ridesharing, van pooling and non-motorized transportation.

POLICY 31.8

The City shall participate in the development of a regionally consistent transportation emissions accounting system so that transportation emission reductions are accounted for, and those responsible receive appropriate credit.

POLICY 31.9

The City should encourage bicycle usage through the development and maintenance of a safe and comprehensive bikeway system which includes:

1. The provision of securely anchored bicycle racks.

2. Sidewalks in residential development with protective curbing and adequate lighting.

POLICY 31.10

The City of Folsom shall develop, as part of its transportation plan and the Transportation and Circulation Element of the General Plan, a transit development plan so that Folsom residents may safely and conveniently use transit for work, school, shopping, recreational and other trips within the City and outside of the City.

GOAL 32

To minimize public exposure to toxic or hazardous air pollutants.

POLICY 32.1

Reference Policy 31.6.

GOAL 33

To minimize visibility-reducing particulate matter in the atmosphere.

POLICY 33.1

Reference Policy 31.7.

POLICY 33.2

Reference Policy 31.9.

GOAL 34

To minimize public exposure to air pollutants which create a public nuisance thro irritation to the senses or unpleasant odor.

32.5 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

GOAL 1
- POLICY 1.5
- POLICY 1.10

GOAL 2
- POLICY 2.1
- POLICY 2.2
- POLICY 2.3

GOAL 3
- POLICY 3.1
- POLICY 3.2
- POLICY 3.3

GOAL 5
- POLICY 5.1
- POLICY 5.2
- POLICY 5.3

GOAL 6
- POLICY 6.1

GOAL 7
- POLICY 7.4

RELATED LAND USE ELEMENT GOALS AND POLICIES

GOAL 9
POLICY 9.4

GOAL 13
POLICY 13.7

RELATED TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

GOAL 17
POLICY 17.1
POLICY 17.2
POLICY 17.5
POLICY 17.9
POLICY 17.10
POLICY 17.11
POLICY 17.14
POLICY 17.16

RELATED HAZARDOUS MATERIALS ELEMENT GOALS AND POLICIES

GOAL 41
POLICY 41.1
POLICY 41.2
POLICY 41.3
POLICY 41.4
POLICY 41.5
POLICY 41.6
POLICY 41.7
POLICY 41.8
POLICY 41.9
POLICY 41.10
POLICY 41.11

32.6 IMPLEMENTATION

AIR AND HAZARDOUS MATERIALS TECHNICAL ADVISORY BOARD

Establish an Air Pollution and Hazardous Materials Technical Advisory Board composed of representatives from all City Departments and the Sacramento County Health Department, which will seek technical information and input from State, local and federal regulating agencies in order to develop the City's hazardous materials management program.

1. The City shall seek a Memorandum of Understanding (MOU) with the State Department of Health Services to obtain authority for the regulation of hazardous waste generators in Folsom. Currently, resource limitations prevent the Department of Health Services from performing all the State's inspection duties. Since these inspections are vital to protecting public health and preventing improper use or disposal of hazardous materials, Folsom should take over this responsibility while seeking supporting funds from the State.

2. Underground storage tank program: Coordinate with the Sacramento County Health Department and the State to increase review of permit applications, and monitoring of tank testing programs and leaking tank clean-ups.

IMPLEMENTS: GOAL 31 - POLICIES 31.1; AND 31.2; GOAL 41 - POLICIES 41.1; 41.3; 41.4; 41.6; 41.7; 41.10; AND 41.11

- Resource Groups/Agencies/Organizations

  State Department of Health Services
  State Department of Food and Agriculture
  U.S. Environmental Protection Agency
  U.S. Occupational Safety and Health Administration
  Sacramento County Sheriff's Department
  California Highway Patrol
  CALTRANS

- Responsible Agencies

  Community Development Department
  Public Works Department
  Fire Department
  Police Department
  Sacramento County Health Department

- Implementing Agency

  Public Works Department

- Target Dates: Start: July 1989
  Complete: On-Going

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
48/$2,160	$50	$500	$2,710	General Fund, Development Fees

LOCAL CONTROL STRATEGIES

Inventory and develop control strategies for toxic air contaminants in Folsom.

Such strategies would include obtaining a carbon monoxide (CO) meter from the Air Resources Board or Sacramento County Air Pollution Control District to be used in a local CO monitoring program.

IMPLEMENTS: GOAL 31 - POLICIES 31.1; 31.2; 31.3; 31.5; 31.6; GOAL 41 - POLICIES 41.8; 41.9; AND 41.10

- Resource Groups/Agencies/Organizations

  State Air Resources Board
  Sacramento County Air Pollution Control District
  Sacramento Regional Transit
  Sacramento Area Council of Governments
  State Department of Health Services
  Sacramento County Health Department

- Responsible Agency

  City Council

- Implementing Agencies

  Community Development Department
  Building Department

- Target Dates: Start: October 1989
  Complete: On-Going

ESTIMATED COSTS OVER SIX MONTHS

Person Hours/ Dollars	Printing	Direct	Total	Funding
48/$2,160	$50	$500	$2,710	Development Fees, User Fees

TRANSPORTATION SYSTEM ORDINANCE

Develop and adopt a transportation systems management ordinance which incorporates the specific policies of the General Plan Air Quality Element.

IMPLEMENTS: GOAL 31 - POLICIES 31.3; 31.4; 31.5; AND 31.7; GOAL 17 - POLICY 17.19

- Resource Groups/Agencies/Organizations

  State Air Resources Board
  Sacramento County Air Pollution Control District
  Sacramento Regional Transit
  Sacramento Area Council of Governments

- Responsible Agencies

  Public Works Department
  Community Development Department

- Implementing Agency

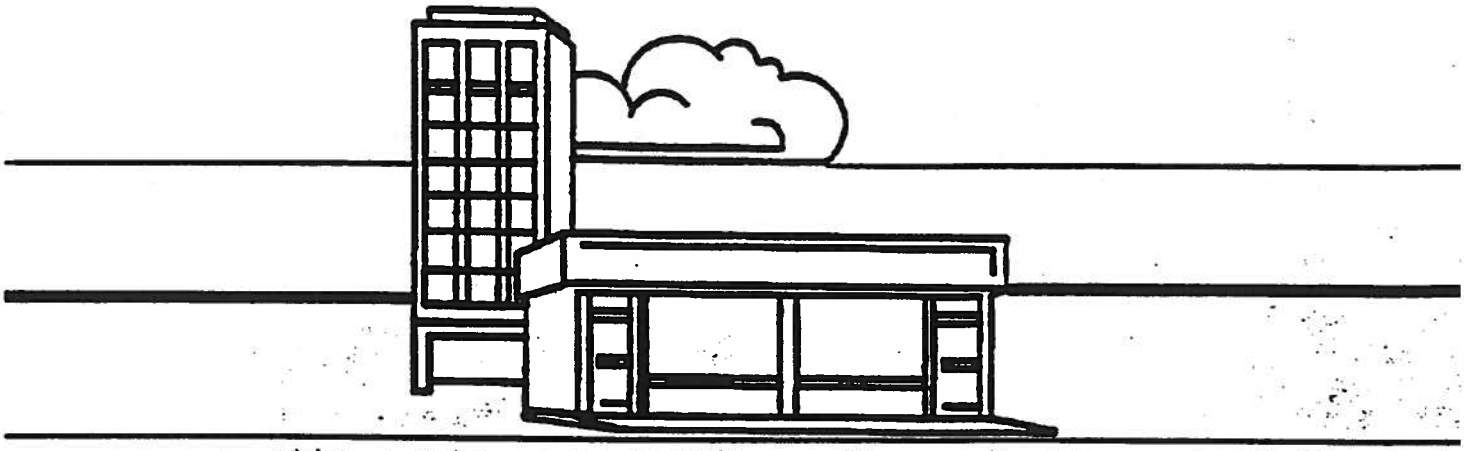
  Community Development Department

- Target Dates: Start: March 1989
  Complete: October 1990

ESTIMATED COSTS PER YEAR

PROGRAMING SET-UP

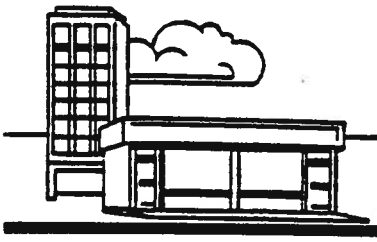
Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$5,400	$500	$1,350	$7,250	Development Fees, General Fund



33.0 PUBLIC FACILITIES ELEMENT

Prepared By The City of Folsom
Community Development Department

October 31, 1988



PUBLIC FACILITIES

TABLE OF CONTENTS

PAGE

33.1 INTRODUCTION 2

33.2 CONTENTS OF AREA FACILITIES PLANS 2

33.3 EXISTING PUBLIC FACILITIES. 3

33.4 POLICIES AND STANDARDS FOR THE PROVISION OF PUBLIC FACILITIES AND SERVICES .....

33.5 PUBLIC FACILITIES ELEMENT GOALS AND POLICIES 6

33.6 IMPLEMENTATION PROGRAM 12

PUBLIC FACILITIES

33.1 INTRODUCTION

The Public Facilities Element is an optional element of the General Plan, as set forth in Section 65303 of the State Planning, Zoning and Development Laws. This Element is prepared to address the public facility needs of the City of Folsom and to provide a plan for the provision of an appropriate level of public facilities and services to existing and newly developing areas within the General Plan area.

33

The major content of the Element are the Area Facilities Plans. Initially, four areas have been identified as needing an Area Facilities Plan as required by the Urban Development Policy of the Folsom General Plan that was adopted on June 6, 1983, by Resolution no. 1616. These areas are Allied North, Folsom South, Rancho Creek and East Folsom, as depicted ont he attached map (list page of this Element). The Allied North area Facilities Plan was adopted in conjunction with the American River Canyon Units 4-9 project on September 15, 1986. The Folsom South Area Facilities Plan was adopted in conjunction with the Folsom South Area Assessment District project on January 10, 1984. A fifth plan the Folsom East Area Facilities Plan was adopted in 1992. These plans are incorporated in this Element by reference. For the Willow Creek Estates, Rancho Diablo, and Willow Creek Estates East subdivisions of the Rancho Creek Area, the subdivision improvement plans were deemed acceptable substitutes for an Area Facilities Plan. This Element may be amended from time to time to require the preparation of Area Facilities Plans for other areas within the City's adopted Sphere of Influence and/or areas newly annexed to the City.

RESO # 3798

As an optional versus mandated Element of the General Plan, this Element may be amended as often as deemed necessary by the City Council to reflect the changing public facilities needs of the community and the specific areas of development. From time to time a suitable substitute to an Area Facilities Plan, as provided for in Section VII of the Urban Development Policy, may be approved and would be included in this document.

33.2 CONTENTS OF AREA FACILITIES PLANS

In addition to the policies contained in Sections VI and VII of the Urban Development Policy, an Area Facilities Plan shall include, but not be limited to, the following topics:

1. Description of the plan area, the basis for selection of the proposed boundaries, and the development potential of the area which is based on a comprehensive land use map.

2. A statement of the plan's consistency with the Folsom General Plan and the City's Urban Development Policy.

3. Identification of the nature and extent of facilities necessary to serve the area and a schedule of estimated time within which facilities must be constructed.

4. Engineer's estimate of the total cost of such improvements (including plan preparation).

5. A plan for the equitable apportionment of costs among benefited properties and adjustments thereof based upon the time such costs are paid.

6. The nature of the obligation of each land owner or developer.

7. Discussion of the options available to finance the improvements, including, but not limited to, construction by developers, an assessment district, fees, or a combination of these and/or other provisions.

8. Provision for amendments to the plan, which may result from changes in the plan area, development patterns, etc.

9. Provisions to refund or reimburse landowners who construct facilities with excess capacity, beyond the ultimate need of their developments.

10. A statement which recognizes that the financial commitments required pursuant to such plans are not in lieu of other municipal service and facilities fees. The financial commitments of landowners/developers shall be taken into account by the City in determining the extent of the imposition of such other municipal service and facilities fees.

11. A statement which recognizes that the Area Facilities Plan is not intended to be responsible for the provision of all possible public facilities that will be needed in the future and that there are or may be additional costs/fees established by the City and other jurisdictions (such as school districts) that may apply to the area. However, the plan must address the need for all public facilities which may reasonably be assumed to be necessary during buildout of the area.

12. Provisions for the administration of the area plan and the collection and distribution of funds.

33.3 EXISTING PUBLIC FACILITIES

The City of Folsom currently provides the following municipal services and resources:

SCHOOLS

The City of Folsom is part of the Folsom Cordova Unified School District. The District currently operates three elementary schools (Grades K through six), one junior high (Grades seven through eight) and one high school (Grades nine through twelve) in the City. Locations of the existing schools are shown in Figure 33-1. For further discussion of the existing and proposed schools in the City, refer to the MEA Chapter 13, pages 13-13 to 13-16.

POLICE PROTECTION

The City of Folsom Police Department is currently headquartered at City Hall in somewhat cramped facilities, including a temporary office trailer. There are currently 22 sworn officers and eight non-sworn personnel in the Department. It is the goal of the Department to achieve a staffing level of two sworn officers per every 1,000 population. Assuming a current population of 14,000 for the City without the Prison, the police force is about six men short. Locations of existing stations are shown in Figure 33-2. For further discussion of the existing and projected needs of the Police Department, refer to the MEA, Chapter 13, page 13.6.

FIRE PROTECTION

The City of Folsom is served by its own Fire Department, headquartered in Station at 48 Natoma Street, next to City Hall. Th... are two other fire stations in operation current... in the City and a third one is under construction. Locations of these stations are shown in Figure 33-2. Refer to the MEA, Chapter 13, pages 13-16 to 13-19 for more discussion on the Fire Department projected needs to serve future City growth.

WATER

Currently, the City of Folsom obtains its water supply primarily from Folsom Lake under an entitlement from the U.S. Bureau of Reclamation for 22,000 acre-feet per year or approximately 19.6 million gallons per day (MGD) on an annual average basis.

In addition to the Folsom Lake water supply, the City also purchases water from the San Juan Suburban Water District (SJSWD) under contract to supply a minimum of 700 acre-feet per year of water to the Ashland area of the City, north of the American River. Figure 33-3 summarizes the quantities of water received by the City during 1984-1986. Refer to the MEA, C... ter 13, pages 13-1 to 13-8 for further discus... of City on water supply and consumption.

SEWER

The City of Folsom is served by separate sanitary sewer (waste water) and drainage (storm water) collection and disposal systems. Figure 33-4 illustrates the existing sewer system of the City. Refer to the MEA, Chapter 13 pages 13-8 to 13-10 for existing and projected demands of the City's sewer sanitary system.

SOLID WASTE

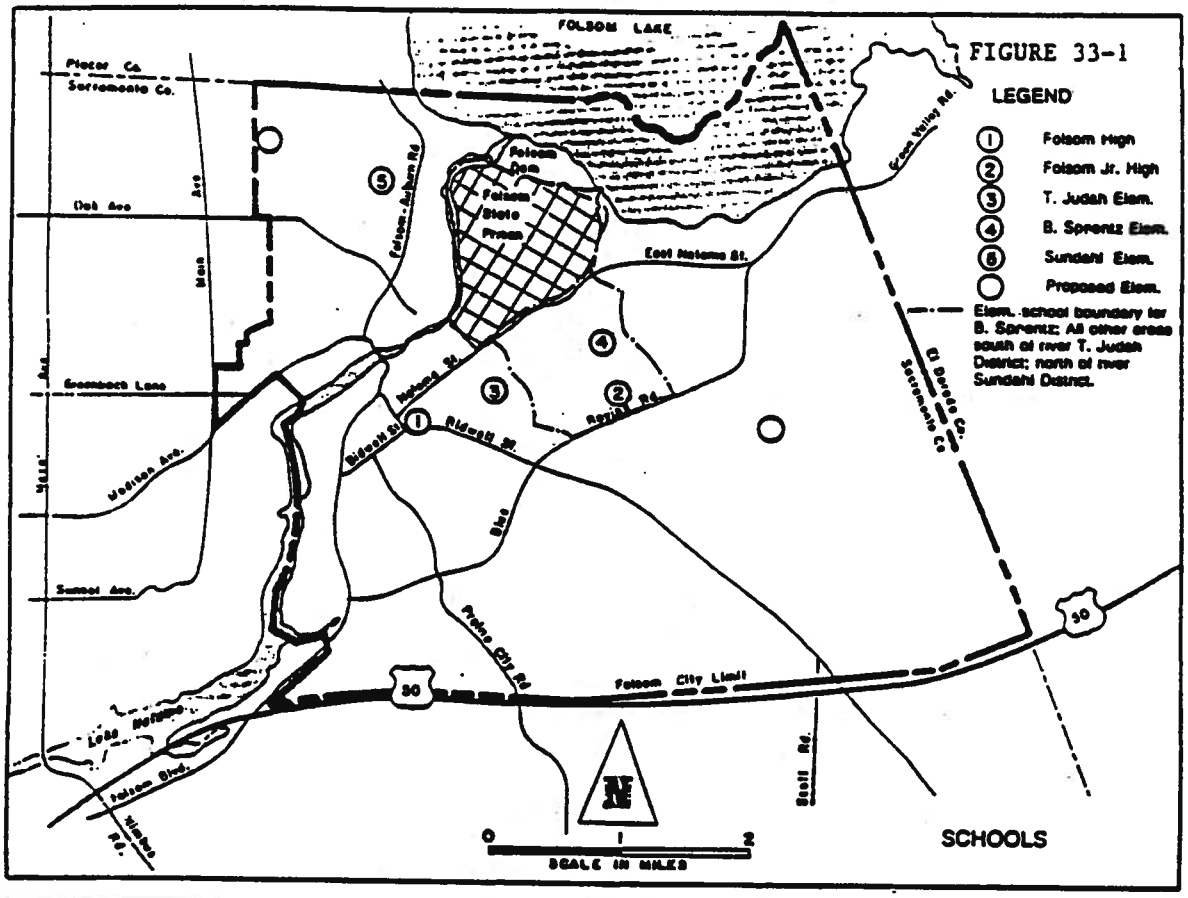
The City has its own solid waste pick-up service. The waste is transported to the County Landfill Site.

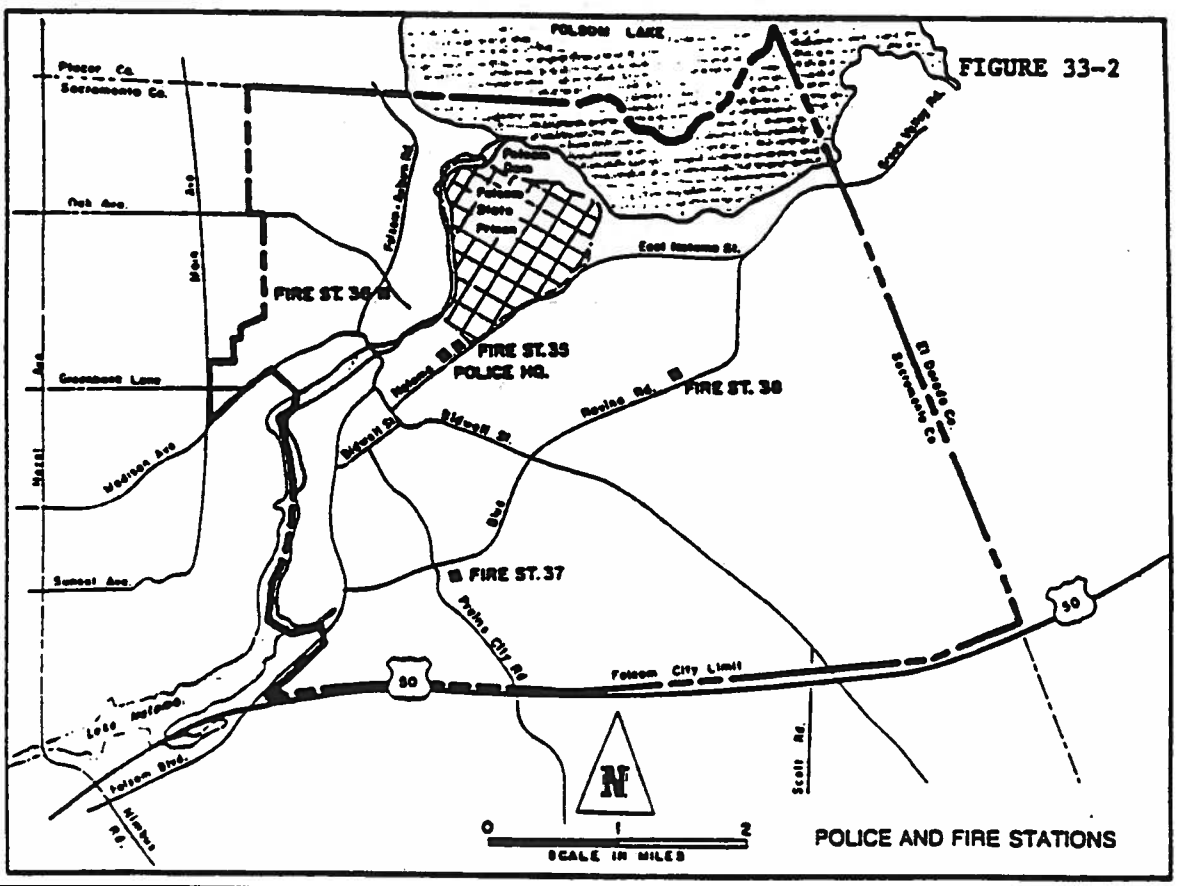
TELEPHONE

Local telephone service is provided by Pacific Bell.

CABLE

The City is served by Sacramento (... e Company.


FOLSOM LAKE
Placer Co.
Sacramento Co.
Folsom Dam
Folsom State Prison
East Natoma St.
Folsom-Auburn Rd.
Folsom Lake Crossing
Oak Ave.
Main St.
Greenback Lane
Madison Ave.
Sunset Ave.
Natoma St.
Bidwell St.
Blue Ravine Rd.
Prairie City Rd.
Folsom City Limit
El Dorado Co.
Sacramento Co.
Scott Rd.
Lake Natoma
Folsom Blvd.
Hwy 50
0 1 2
SCALE IN MILES
FIGURE 33-1
LEGEND
1 Folsom High
2 Folsom Jr. High
3 T. Judah Elem.
4 B. Sprentz Elem.
5 Sundahl Elem.
Proposed Elem.
Elem. school boundary for B. Sprentz; All other areas south of river T. Judah District; north of river Sundahl District.
SCHOOLS


FOLSOM LAKE
Placer Co.
Sacramento Co.
Folsom Dam
Folsom State Prison
East Natoma St.
Folsom-Auburn Rd.
Folsom Lake Crossing
Oak Ave.
Main St.
Greenback Lane
Madison Ave.
Sunset Ave.
Natoma St.
Bidwell St.
Blue Ravine Rd.
Prairie City Rd.
Folsom City Limit
El Dorado Co.
Sacramento Co.
Scott Rd.
Lake Natoma
Folsom Blvd.
Hwy 50
FIRE ST. 36
FIRE ST. 35
POLICE HQ.
FIRE ST. 38
FIRE ST. 37
0 1 2
SCALE IN MILES
FIGURE 33-2
POLICE AND FIRE STATIONS

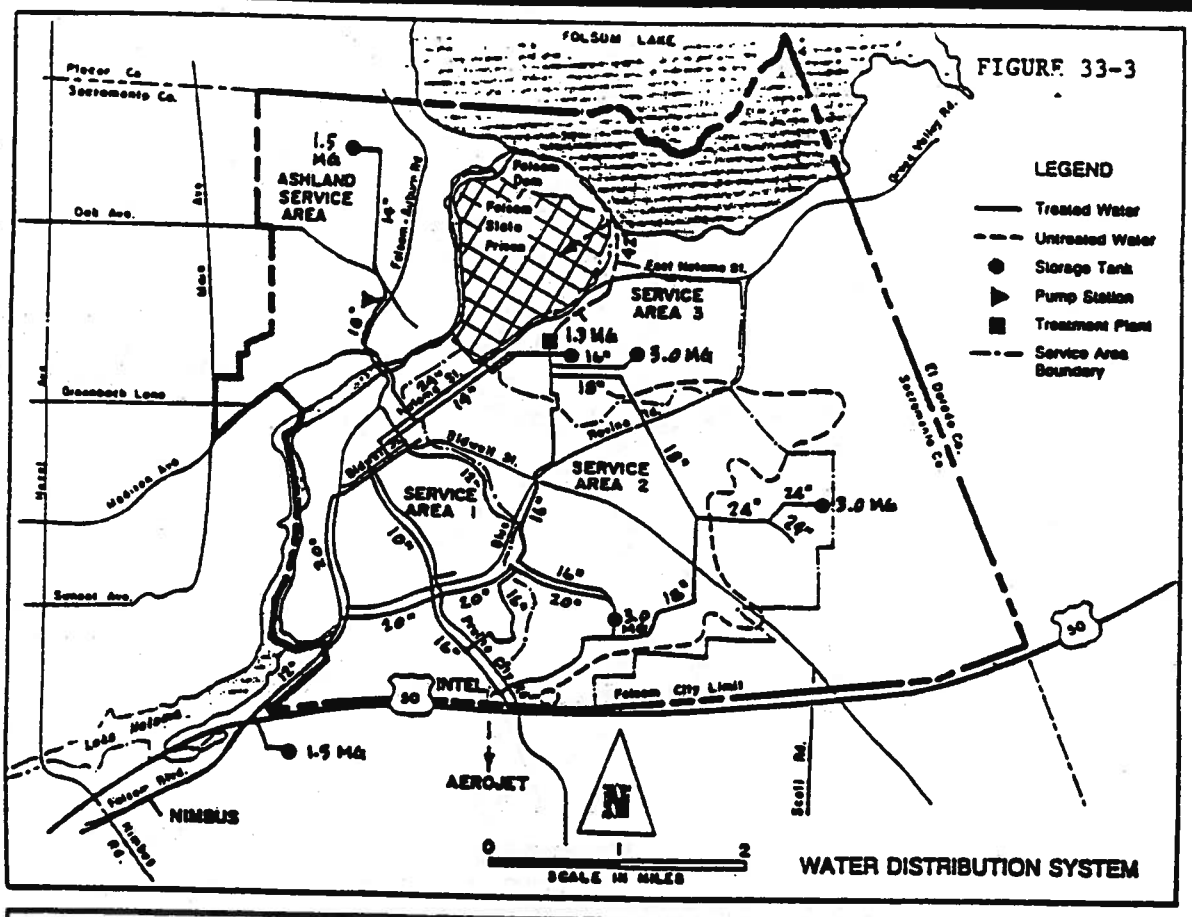


FIGURE 33-3

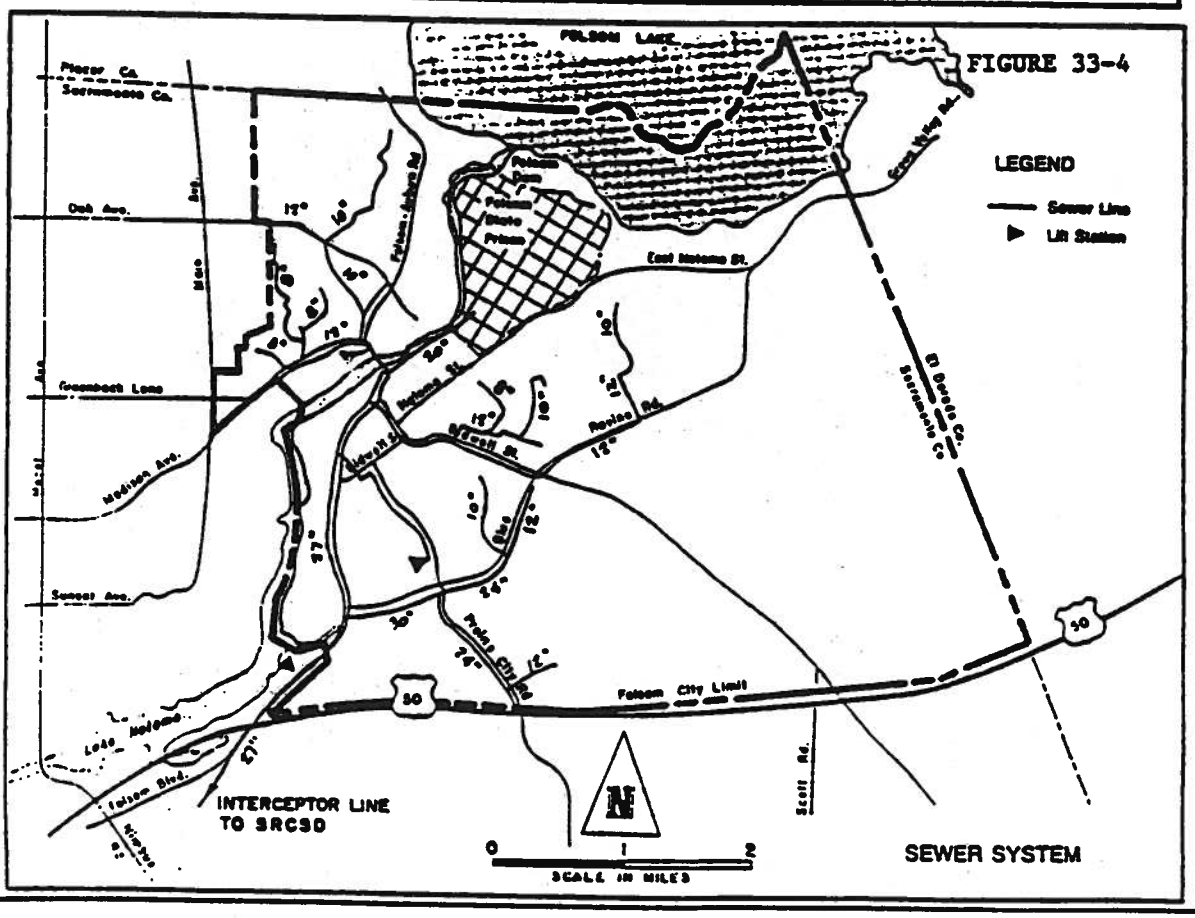


FIGURE 33-4

GAS

The Pacific Gas and Electric Company (PGandE) provides natural gas to the City. The utility company anticipates no major problems in serving newly developing areas in the City.

ELECTRIC

The Sacramento Municipal Utility District (SMUD) provides electric power to the City.

LIBRARY

The City of Folsom is served by the Sacramento City and County Public Library system. A small branch is presently located in a shopping center at 608 East Bidwell Street. With the City's present growth rate, this facility will soon be inadequate; therefore, the City strongly supports construction of a permanent facility to serve the long-term needs of the community. This facility would ideally be located in the central commercial mixed-use district.

33.4 POLICIES AND STANDARDS FOR THE PROVISION OF PUBLIC FACILITIES AND SERVICES.

The following is a brief summary of the current and/or proposed City standards for public facilities and services including water, sewer, fire, police and schools.

WATER

The MEA (Chapter 13.2) and EIR (Section 50.13.2) discuss in detail the City's existing water supply and estimated demands for future water supply. Table 33-1 lists the existing water supply and consumption for the City. Table 33-2 lists the ultimate water demands at buildout based on the Preferred Alternative Land Use Map.

SEWER

The MEA (Chapter 13.2) and the EIR (Section 50.13.3) discuss the sewer capacity at existing and proposed buildout levels. Figure 33-5 presents the existing average flow capacity for the City.

FIRE PROTECTION

Table 33-3 summarizes existing fire fighting staff in the City. The EIR and MEA thoroughly discuss the projected needs for fire protection and staffing. The MEA uses a rough estimate of two firemen per 1,000 population to project the number of firemen required at buildout population.

POLICE PROTECTION

The Police Department for the City of Folsom is currently under staffed. The goal of the department is to have two sworn officers per 1,000 population (see MEA page 13-16). The City with a current population of approximately 14,000 (excluding prison population) is understaffed by six men. For a more detailed explanation of projections for police protection see Section 50.13.6 of the EIR.

SCHOOLS

The MEA and the EIR address the school district needs (see Chapter 13 of each document) in detail. Table 33-4 presents the enrollment and capacity level for the existing schools within the City.

LIBRARY

While the City does not have direct control over the library system, the City encourages and will facilitate the construction of a permanent library in the central commercial mixed use district, to meet the long-term needs of Folsom citizens. If no site in the central business district is feasible, other sites within the city limits may be considered.

33.5 PUBLIC FACILITIES ELEMENT GOALS AND POLICIES

GOAL 40

To set targets for the ultimate build-out of the City, to plan for the provision of public facilities and services to meet this level of development, and to phase development according to the capacity of public facilities and services to meet those targets.

TABLE 33-1

EXISTING WATER SUPPLY AND CONSUMPTION
CITY OF FOLSOM WATER SERVICE AREA

	1984		1985		1986	
	A-F/Y	MGD	A-F/Y	MGD	A-F/Y	MGD
Supply						
U.S. Bureau of Reclamation*	16,178	14.46	15,837	14.07	15,043	13.43
San Juan Suburban Water District**	1,000	0.89	1,089	0.97	1,595	1.42
TOTAL SUPPLY	17,187	15.35	16,483	15.04	16,638	14.86
Consumption						
Aerojet General Raw Water**	13,616	12.16	12,748	11.38	10,711	9.56
Commercial and Industrial*** (Including Intel)	1,071	0.96	1,396	1.21	1,800	1.61
Residential****	2,500	2.23	2,736	2.45	4,125	3.68
TOTAL CONSUMPTION	17,187	15.35	16,843	15.04	16,638	14.86

* Data from USBR, Cecile Leslie, telecon, May 8, 1987.
** Data from Folsom Water Company treatment plant records.
*** Data from Folsom Water Company billing records.

**** Derived from total supply less all other consumption.

TABLE 33-2

ULTIMATE WATER DEMANDS
FUTURE FOLSOM WATER SERVICE AREA

SERVICE AREA	TOTAL ANNUAL AVERAGE DEMAND AC-FT/YR	MGD	TREATED WATER PRODUCTION REQUIREMENTS MGD
Service Area 1			
City of Folsom	4,000	3.6	8.4
Nimbus	2,000	1.8	1.8
	6,000	5.4	10.2
Service Area 2			
City of Folsom	8,700	7.8	18.0
Aerojet	2,240	2.0	2.0
	10,940	9.8	20.0
Service Area 3*	2,240	2.0	4.6
Aerojet**	6,720	6.0	-
TOTAL EXISTING SERVICE AREA	25,900	23.2	34.8
East Annexation Area	10,440	9.3	21.4
Industrial Reserve	3,600	3.2	4.2
TOTAL PROPOSED SERVICE AREA	39,940	35.7	60.4

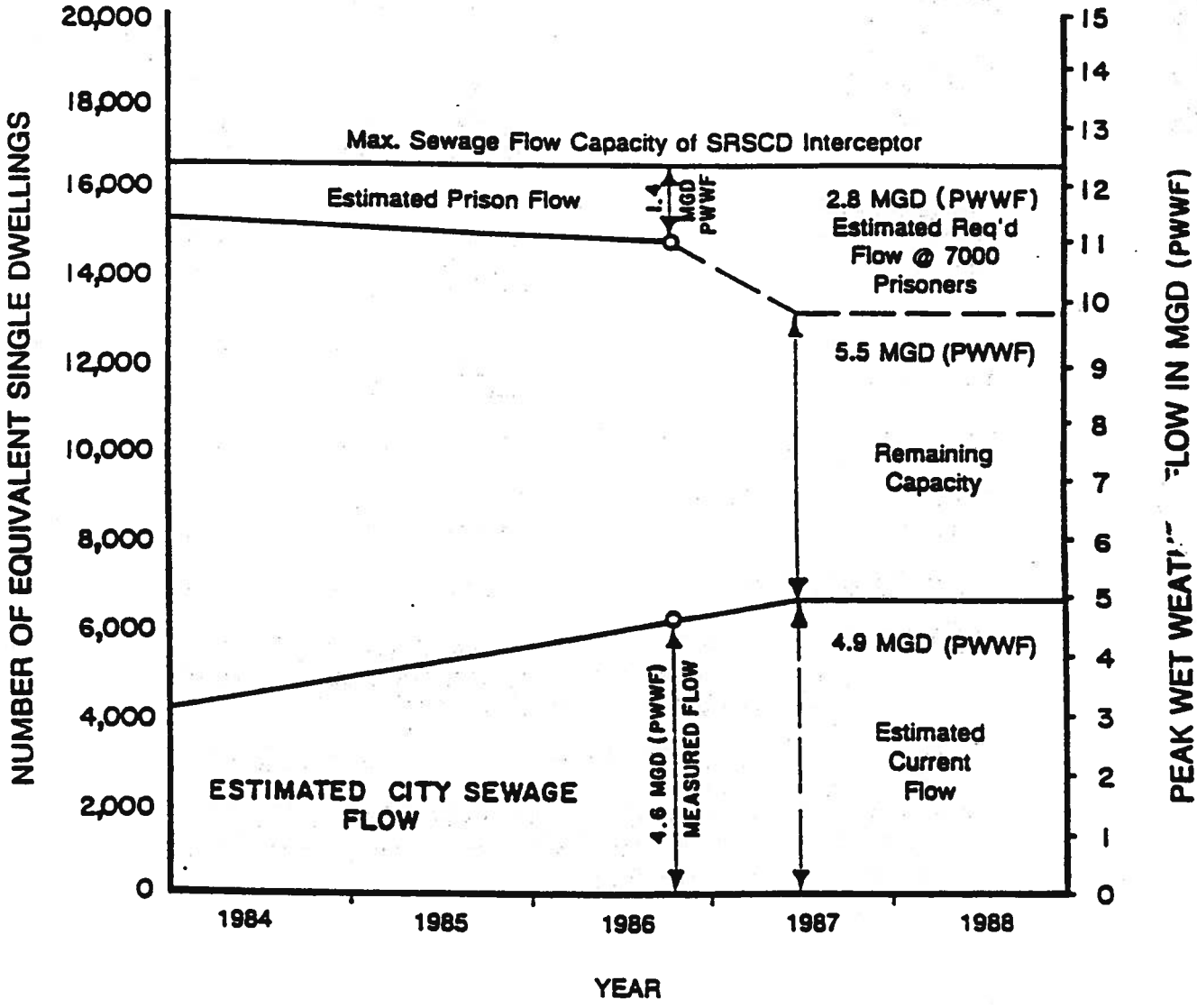
SOURCE: J.M. Montgomery, Consulting Engineers, Inc. City of Folsom Water System Implementation Plan for East Annexation Area, April 1986.

* This figure does not include Intel committment of 2.5 MGD water supply.

** Aerojet contract of June 1986 reduces this amount to five MGD, however, treated water supply commitment increases to three MGD.

FIGURE 33-5

NOTES: — SRSCD Interceptor Capacity is 12.5 HGD (PWWF) (1)
— Measured flow in Nov. 1986 @ 2.6 MGD (ADWF) including 0.6 MGD (ADWF) Prison flow.
— Conversions: 1.0 MGD (ADWF) = 2.3 MGD (PWWF)
1.0 MGD (ADWF) / 325 GPD = 3080 ESD



EXISTING SEWAGE FLOW CAPACITY FOR THE CITY OF FOLSOM

REFERENCES: (1) J.R. Gaffney, Principle Civil Engineer, County of Sacramento, Department of Public Works, Water Quality Division. Letter to Mayor Jack Kipp of the City of Folsom, Dated March 3, 1987

TABLES 33-3 AND 33-4

FIRE DEPARTMENT STAFFING AND EQUIPMENT

STATION	STAFFING PER SHIFT	STAFFING TOTAL	EQUIPMENT FIRE	EQUIPMENT EMERGENCY
No. 35	5	15	Ladder Truck Fire Engine Grass Truck	2 Ambulances
No. 36 (to be relocated and expanded)	4	12	Fire Engine Tanker	1 Ambulance
No. 37	2	6	Fire Engine Tanker	
Under Construction No. 38	2	6	Fire Engine Tanker	

SOURCE: Fire Marshall W.G. Murdock, May 5, 1987.

EXISTING SCHOOLS IN THE CITY OF FOLSOM

NAME OF SCHOOL	CAPACITY	ENROLLMENT
T. Judah Elementary	726	772
B. Spentz Elementary	582	548
C. Sundahl Elementary	415	0
Folsom Junior High	498	305
Folsom High	1,000	788

SOURCE: J.C. Miller, Facilities Supervisor, Folsom Cordova Unified School District, personal contact, May 5, 1987.

POLICY 40.1

No permit for construction shall be issued for any new development not served by existing municipal facilities until the following conditions have been met:

1. The applicant can provide for the installation and/or financing (through fees or other means) of needed public facilities.

2. The project is included in the area covered by an existing facilities plan approved by the City.

3. The project can be served by on-site or private facilities meeting City and County health and safety requirements.

POLICY 40.2

The City shall require the preparation of a facilities plan for an identified area when:

1. Development of an area necessitates the provision, extension, and/or expansion of municipal services and facilities which are not customarily constructed by a developer; or

2. There is a need for services or facilities not otherwise funded by regular City fees; or

3. The construction of the necessary services and facilities cannot be logically or economically provided by one landowner/developer in the normal sequence of orderly development.

POLICY 40.3

An area facilities plan shall include, but not be limited to the following:

1. Description of the plan area, the basis for the selection of the proposed boundaries, and the development potential of the area which is based on a comprehensive land use map.

2. A statement of the plan's consistency with the Folsom General Plan and the City's Urban Development Policy.

3. Identification of the nature and extent of facilities necessary to serve the area and a schedule of estimated time within which facilities must be constructed.

4. Engineer's estimate of the total cost of such improvements (including plan preparation).

5. A plan for the equitable apportionment of costs among benefitted properties and adjustments thereof based upon the time such costs are paid.

6. The nature of the obligation of each landowner or developer.

7. Discussion of the options available to finance the improvements, including, but not limited to, construction by developers, an assessment district, fees, or a combination of these and/or other provisions.

8. Provisions for amendments to the plan, which may result from changes in the plan area, development patterns, etc.

9. Provisions to refund or reimburse landowners who construct facilities with capacity beyond the ultimate need of their developments.

10. A statement which recognizes that the financial commitments required pursuant to such plans are not in lieu of other municipal service and facilities fees. The financial commitments of landowners/developers shall be taken into account by the City in determining the extent of the imposition of such other municipal service and facilities fees.

11. A statemant which recognizes that the area facilities plan is not intended to be responsible for the provision of all possible public facilities that will be needed in the future and that there are or may be additional costs/fees established by the City and other jurisdictions (such as school district) that may apply to the area. However, the plan must address the need for all public facilities which may reasonably be assumed to be necessary during buildout of the area.

12. Provisions for administration of the area plan and the collection and distribution of funds.

POLICY 40.4

All new development projects shall be planned for an urban level of services:

33

1. Sidewalks, gutters, and storm drains constructed to standards established by the City, except for residential estates and other projects when appropriately excluded.

2. Sanitary sewer lines of appropriate size to accommodate the project and that will tie into the City's main lines.

3. Public or private roads that can accommodate at least two lanes of traffic.

4. Parking and circulation systems that accommodate emergency vehicles and equipment.

POLICY 40.5

The City shall annually monitor the City's available municipal water supply to ensure adequate reserves exist to serve projected water demand. In the event projected demand exceeds supply, the City may take the following actions to prevent the anticipated shortfall.

1. Condition development approvals on the availability of identified water supplies.

2. Building permits covered by the former General Plan area should be restricted until such time as the City determines adequate supplies exist to allow unrestricted hookups to the municipal water system.

3. Seek to renegotiate municipal water contracts with large water demand users.

4. Within the area known as the East Area Facilities Plan Area consisting of approximately 3,900 acres, and any area south of U.S. Highway 50 which could be annexed to the City, the City shall not approve a final subdivision map or final parcel map, or other entitlement which would permit the commencement of construction until such time as the City has acquired an additional water supply which is adequate to supply such development as required under the Urban Development Policy.

SEE PAGE 33-12 A

33.6 IMPLEMENTATION PROGRAM

The major portion of the implementation program for the Public Facilities Element will be through the preparation and adoption of Area Facilities Plans. The Plans will be used to insure that areas of future development will be adequately served by the needed facilities. The Plans will provide for: 1) options available to finance the improvements, 2) the provisions to reimburse or refund landowners who construct facilities with excess capacities, and 3) provisions for amendments to the plan if necessary due to changes in the plan area.

PUBLIC FACILITIES ELEMENT RELATED GOALS AND POLICIES

GOAL 1
- POLICY 1.3
- POLICY 1.4
- POLICY 1.5
- POLICY 1.6

GOAL 2
- POLICY 2.2

GOAL 3
- POLICY 3.1
- POLICY 3.3

GOAL 4
- POLICY 4.4

GOAL 6
- POLICY 6.1
- POLICY 6.3

GOAL 7
- POLICY 7.1
- POLICY 7.2
- POLICY 7.3
- POLICY 7.4

GOAL 8
- POLICY 8.1
- POLICY 8.6
- POLICY 8.7
- POLICY 8.9
- POLICY 7.10

TEXT AMENDMENT TO CHAPTER 33.0 PUBLIC FACILITIES AND CHAPTER 40.0 AREA PLANS AND SPECIFIC PLANS

General Plan Amendment - 33.0 - (Public Facilities Element) 33.5
(Public Facilities Element Goals and Policies)

Goal 40 - Policy 40.5 (4)

4. For any area south of U.S. which could be annexed to the City or the area known as the East Area Facilities Plan area consisting of approximately 3,900 acres, the City shall no approve a final subdivision map or final parcel map. or other entitlement which would permit the commencement of construction until such time as the City has acquired an additional water supply which is adequate to supply such development as required under the Urban Development Policy. This prohibition shall not preclude the approval of final parcel maps covering all or a portion of the property covered by an approved tentative subdivision map, where multiple final subdivision maps are to be filed pursuant to Government Code Section 66456.1

   A. Additional water supply as discussed above may include water conservation programs as may be established by the City of Folsom.

   B. That it is not necessary that the entire additional water supply be available at one time. Policy 40.5 contemplates that development may be staged and it is only necessary that there is sufficient supply to service the proposed development. For example, if a proposed development creates a demand for 3,000 acre feet, such development is entitled to proceed once the City has acquired an additional 3,000 acre feet supply.

   C. Acquired water supply shall mean portable water contractually committed or available on demand.

PUBLIC FACILITIES ELEMENT RELATED GOALS AND POLICIES CONT.

GOAL9
- POLICY 9.1
- POLICY 9.2
- POLICY 9.3

GOAL 10
- POLICY 10.4
- POLICY 10.9

GOAL 11
- POLICY 11.4
- POLICY 11.5
- POLICY 11.7
- POLICY 11.8
- POLICY 11.10

GOAL 12
- POLICY 12.6

GOAL 13
- POLICY 13.6

GOAL 15
- POLICY 15.5

GOAL16
- POLICY 16.1
- POLICY 16.2
- POLICY 16.3
- POLICY 16.4
- POLICY 16.5
- POLICY 16.6

GOAL 17
- POLICY 17.1
- POLICY 17.2
- POLICY 17.4
- POLICY 17.5
- POLICY 17.6
- POLICY 17.7
- POLICY 17.8
- POLICY 17.9
- POLICY 17.10
- POLICY 17.11
- POLICY 17.16
- POLICY 17.17
- POLICY 17.20

GOAL 20
- POLICY 20.1
- POLICY 20.3

GOAL 22
- POLICY 22.1
- POLICY 22.2

GOAL 24
- POLICY 24.3

GOAL 27
- POLICY 27.2

PUBLIC FACILITIES ELEMENT RELATED GOALS AND POLICIES CONT.

GOAL 28
- POLICY 28.1
- POLICY 28.3

GOAL 29
- POLICY 29.1
- POLICY 29.2
- POLICY 29.5

GOAL 35
- POLICY 35.1
- POLICY 35.2
- POLICY 35.3
- POLICY 35.4
- POLICY 35.5
- POLICY 35.6
- POLICY 35.7
- POLICY 35.8
- POLICY 35.9
- POLICY 35.10
- POLICY 35.11
- POLICY 35.12

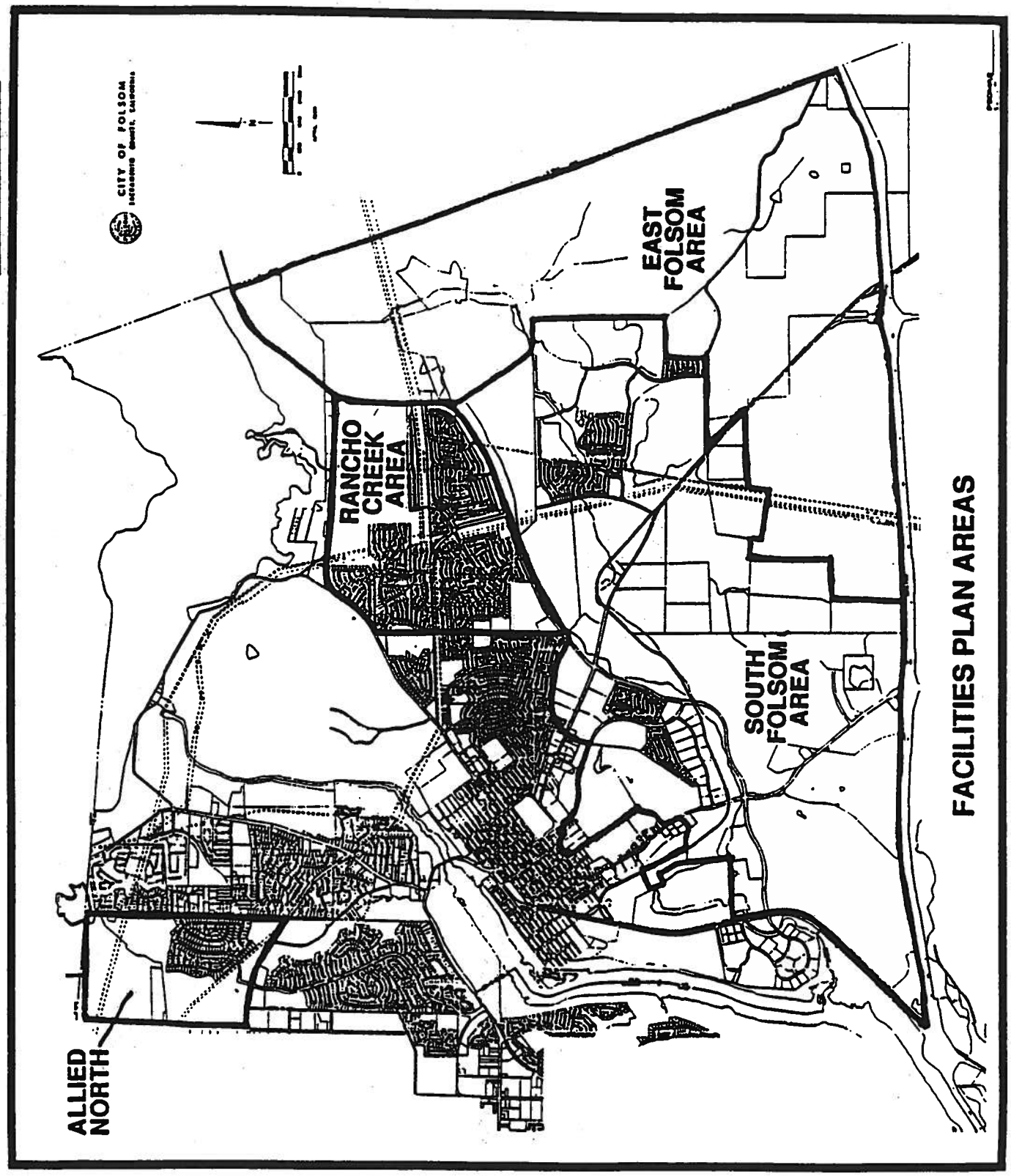
GOAL 36
- POLICY 36.1
- POLICY 36.2
- POLICY 36.3
- POLICY 36.4
- POLICY 36.5
- POLICY 36.6
- POLICY 36.7

GOAL37
- POLICY 37.1
- POLICY 37.2
- POLICY 37.3
- POLICY 37.4
- POLICY 37.5
- POLICY 37.6
- POLICY 37.7

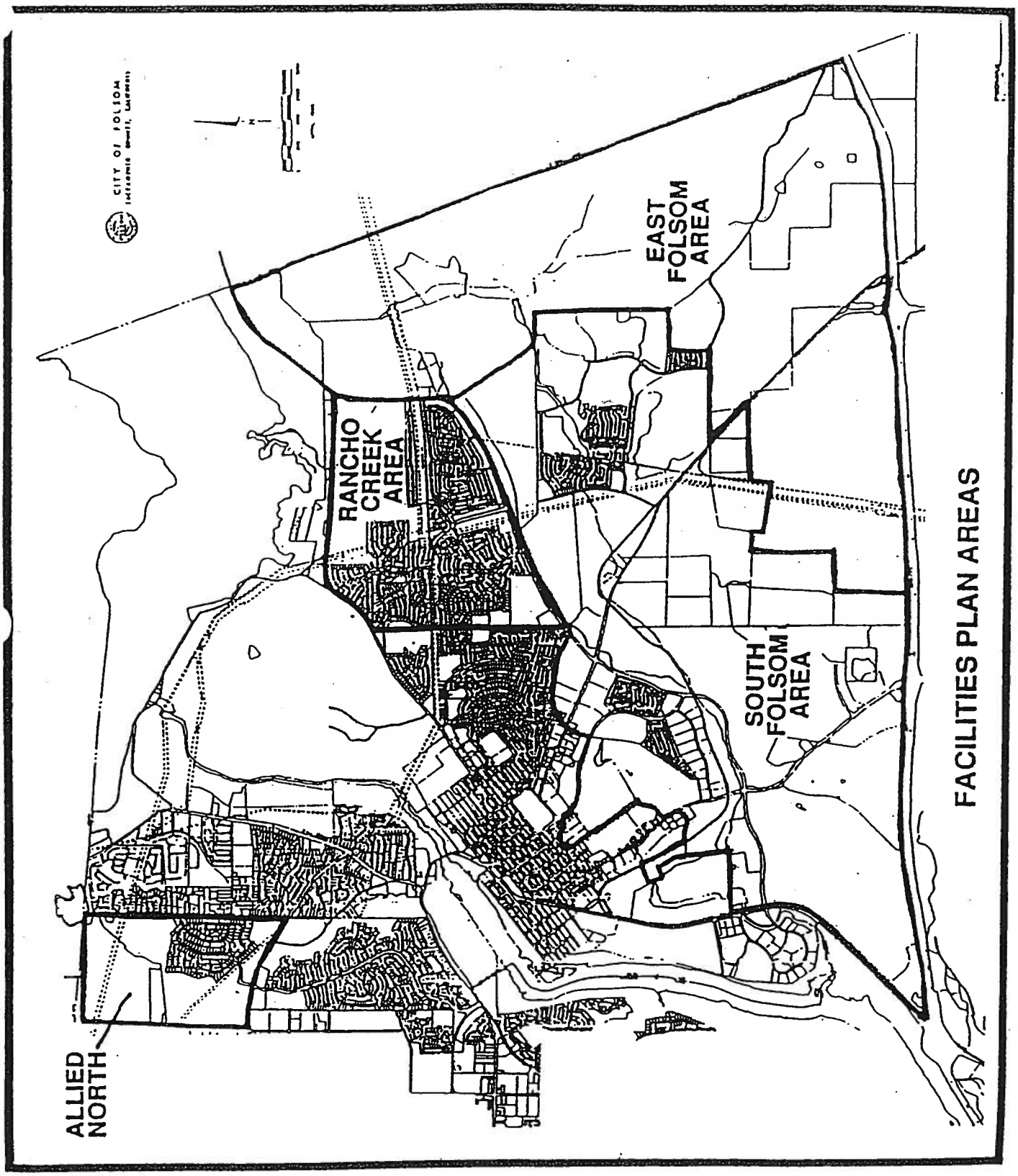
GOAL 38
- POLICY 38.1
- POLICY 38.2
- POLICY 38.3
- POLICY 38.4
- POLICY 38.5

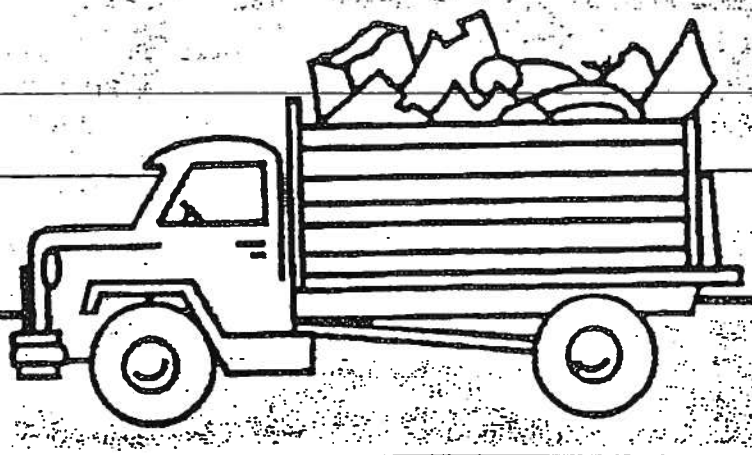
GOAL 39
- POLICY 39.1
- POLICY 39.2
- POLICY 39.3
- POLICY 39.4
- POLICY 39.5
- POLICY 39.6

CITY OF FOLSOM MAP



CITY OF FOLSOM MAP





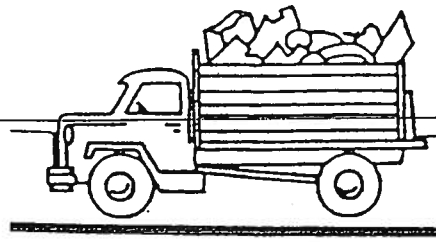
34.0 HAZARDOUS MATERIALS ELEMENT

Prepared For The City of Folsom
Community Development Department

By

QUAD Consultants

October 31, 1988



HAZARDOUS MATERIALS

TABLE OF CONTENTS

PAGE

34.1 INTRODUCTION 2

34.1.1 State Policy and Authorization 2
34.1.2 Related State and Federal Regulation 2
34.1.3 Relationship to the General Plan 2

34.2 SETTING 3

34.3 HAZARDOUS MATERIALS GOALS AND POLICIES 5

34.4 RELATED GOALS AND POLICIES 6

34.5 IMPLEMENTATION 7

HAZARDOUS MATERIALS

34.1 INTRODUCTION

Hazardous materials are found in every gas tank, under kitchen sinks, in commercial transports, and in most places of employment. Likewise, hazardous waste creates disposal questions for every part of today's society, ranging from households to industry. Over the past two decades, concern over the proper use and handling of hazardous materials has prompted a wide array of regulations from different levels of government. As budget crises have cut back inspection and enforcement capabilities at the state and federal levels, more of the responsibility for carrying out programs has been shifted to local governments.

34.1.1 STATE POLICY AND AUTHORIZATION

This Hazardous Materials Element is an optional Element of the General Plan and supplements the Safety Element presented in Chapter 25.

34.1.2 RELATED STATE AND FEDERAL REGULATION

Legislative efforts to control hazardous materials began in the last century as the federal government moved to protect waterways from pollution. Today, several dozen major state and federal acts serve to regulate hazardous materials in California.

In diverse areas such as air pollution, water pollution, underground tanks, disclosure ordinances, hazardous waste, and worker protection, California has passed legislation that advanced or significantly expanded the scope of hazardous materials regulation.

LOCAL GOVERNMENT AUTHORITY

Local government agencies interact with the network of regulations covering hazardous materials in six ways. Each determines the ability of local government to act to address a problem. These situations are:

1. Mandate: Some federal or state regulations require local agencies to implement a program, and often provide little freedom to modify the program to suit local resources or needs. This is true of the underground storage tank programs. Local governments are often placed in the position of having to collect fees or otherwise provide for the funding for a state-mandated program.

2. Conditional Authority: Local government may be given the authority over a regulatory program, provided certain conditions are met. (Typically, the local government has to be capable of administering the program and has to request the authority.)

3. De Minimis: Strictly interpreted, this phrase means that state and federal governments will not concern themselves with small matters. Practically speaking, it means local governments may have an opportunity to impose more restrictive standards or requirements than are contained in state or federal regulations.

4. Unregulated Area: An area or program not mentioned at all in federal or state statutes. The federal Constitution leaves unregulated matters to the states. The California Constitution provides local governments the authority to regulate unmentioned areas.

5. Exemption: Some products or areas may be specifically exempted from federal or state regulations, and local governments are precluded from imposing any restrictions.

6. Pre-emption: The authority to regulate some areas is specifically reserved by higher levels of government, and local governments are unable to impose any restrictions, even within their own communities. For example, the authority to regulate the commercial use and transportation of high-level radioactive materials is reserved by the Federal Nuclear Regulatory Commission, which delegates the authority to the State of California.

34.1.3 RELATIONSHIP TO THE GENERAL PLAN

This Element is directly related to the Safety

and Land Use Elements and indirectly to the Open Space and Conservation Element.

34.2 SETTING/ASSUMPTIONS/ISSUES

HAZARDOUS MATERIALS PROBLEMS

Chemical substances play a major role in the high standard of living we enjoy. Among other things, these substances have made improvements possible in our clothing, food, shelter, transportation and entertainment. Yet the last few years have been full of reminders that these benefits are not without cost.

DEFINITION

For the purposes of this Element, Folsom will use the definition of "hazardous materials" used by the State of California Department of Health Services. Section 66084 of the California Administrative Code states[1]:

1. "Hazardous material" means a substance or combination of substances which, because of its quantity, concentration, or physical, chemical, or infectious characteristics may either:

A. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

B. Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

2. Unless expressly provided otherwise, the term "hazardous material" shall be understood to also include extremely hazardous material.

This definition is also applied to hazardous waste in Section 25117 of the Health and Safety Code. This definition is not limited to just those chemicals with long-term detrimental effects. It also includes materials which present a hazard because of their physical nature (explosive, corrosive, flammable, etc.). This General Plan Element addresses all types of hazardous materials and refers to individuals or firms that manufacture, store, use, ship, recycle, or dispose of these materials as handlers.

SAFETY AND EXPOSURE STANDARDS

It is important to understand that there are legally enforceable standards of safety for only a fraction of the hazardous materials in the marketplace and little agreement on acceptable levels of exposure. For example:

- The Federal Food and Drug Administration has set an action level (which is not legally enforceable) for mercury in the edible portion of fish at 1.0 ppm, while the National Academy of Science's recommended guideline for mercury is 0.5 ppm in the whole fish. Other nations have set standards for mercury in fish that range between 0.1 and 1.0 ppm. (State Water Resources Control Board, "1983 Toxic Substances Monitoring Program", Water Quality Monitoring Report No. 85-1-WQ.)

- The State of California Maximum Concentration Level (MCL) for Trihalomethanes in public water systems with publicly-owned treatment works is 100 ppb. The EPA Suggested No Adverse Response Level (SNARL) for Trihalomethanes in drinking water is only 0.19 ppb, one five-hundredth of State level. (Burt Ellsworth, DOHS)

- Federal and State standards for concentrations of certain substances in air, water, and tissue have been set using generally accepted methods which use lab animals for test subjects. In very few instances are we absolutely confident that the results from these tests on animals can be related directly to human health. Test results for many more substances either can not be positively related to human health, or are not entirely clear. Worse still, complete tests have been performed on only ten to 20 percent of the over 70,000 chemicals that are in the marketplace.

Despite this uncertainty, regulations attempt to set standards or action levels that will keep human health impacts at acceptable levels.

[1] Source: California Administrative Code, Title 22, Division 4 "Environmental Health", Chapter 30, Article 1, Definitions, Section 66084

Agencies responsible for worker safety often allow higher exposure levels of toxic substances in the workplace than other agencies allow in the general environment. In California, the approach is to set conservative ambient standards that reduce the risk of cancer to one case per million population. Workplace standards are seldom as stringent. This method accounts for the fact that workplace exposure typically occurs for only eight-hour periods, with recovery times in between. It is also worth noting that in many cases exposure limits are more a reflection of economically practicable control technologies than human health knowledge.

The standards that have been set also do not account for the possibility of synergistic effects or recombinations. Synergism occurs when two or more substances in combination cause damage greater than the simple sum of their individual effects. Recombination occurs when two chemicals present in a medium combine together to form a third substance. The newly created material may have properties which are different from the parent substances. An example of this is the creation of potent carcinogens called trihalomethanes when water with low levels of organic contaminants is treated with chlorine for municipal consumption.

RISK MANAGEMENT

Risk management is a technique for evaluating the benefits and costs of safety regulations. It functions to aid decision making and prioritize possible courses of action. In recent years, it has been used to examine pollution standards and exposure levels. This is done not only to balance costs and benefits of control programs, but to weigh the relative merits of different programs so that limited financial resources may be put to the best use. Before risk management is applied, a risk assessment must be completed. Risk assessment is a term which describes the methods used to estimate human health impacts from bioassay or epidemiological data. This is a very complex task which is only partially completed for many common chemicals. For example, there are 35,000 to 40,000 pesticide products in use with federal registration. These products are formulated out of approximately 2,500 different active ingredients. A recent National Academy of Sciences review of EPA records revealed that complete health effect studies have been submitted on less than ten percent of these active ingredients. In California, roughly 13,000 pesticide products have been registered, formulated from a total of 850 different active ingredients. The California Department of Food and Agriculture reports that very few of these active ingredients have complete health study documentation as required by the California Birth Defect Prevention Act, but nearly 80 percent have at least some scientific evidence supporting their registration.

A detailed explanation of risk assessment is beyond the scope of this Element, but several factors make it an imperfect science at best. These include:

- Our poor understanding of the true risk of illness, cancer, or death from exposure to many chemicals. This uncertainty makes it impossible to exactly quantify risk.

- The impossible task of isolating the effects of a single chemical from the thousands we are all exposed to in our lives. Sunlight, campfire smoke, and trace elements in water supplies are all potentially harmful. Low levels of many chemical agents are present in our food, drink, clothing, and air. Most individuals live in several places during their lifetimes, hold several jobs and routinely use a variety of potentially harmful household or garden products. In any of these situations, a person may be exposed to a substance that harms them, though the harm may not be apparent for years. This is particularly true of cancers and problems with fertility.

- The need to place dollar values on environmental damage, aesthetics, and human death or illness. Many people resist this effort strongly, and feel that impacts to the environment or human health must be avoided at any cost.

- The fact that even if risk management were a perfect, quantitative science, its application is in the political arena. The decision which results may not be that suggested by the analysis.

- The use of risk assessment to set standards and choose programs will always raise these issues and others. One of the most difficult is that allowing a certain level of pollution or choosing not to implement a program with high costs and low returns may condemn some unknown individuals to illness or death. (Risk management as defined here should not be confused with risk management as an organization applies it to determine insurance needs.)

- Risk management is best used by federal or state agencies to set action levels or standards, since local governments will seldom have the research resources to develop the necessary information.

COORDINATION WITH SACRAMENTO COUNTY

Regulations developed by different levels of government seldom work in perfect harmony. Hazardous material legislation is no exception to this rule. The combined effect of programs imposed by federal, state, and local government agencies varies from well coordinated to inconsistent, duplicative, or incomplete.

For example, in a society like ours where materials are extremely mobile, transportation is best regulated by higher levels of government. This avoids an inconsistent and confusing multitude of local regulations that would make compliance difficult for transporters crossing jurisdictional boundaries. Similarly, exposure standards should be set at the federal level because they reflect our understanding of the impacts of these substances on human health.

These impacts will not change in different parts of the country. Also, few state and local jurisdictions have the resources to perform health impact tests on the thousands of substances in use.

There are, however, many programs which are best carried out at the local level. Certainly this is true of those requiring routine inspections or monitoring, such as programs for underground storage tanks or business emergency plans. Local fire or health departments already have inspection programs which can be expanded to cover these additional concerns. Federal regulation in recent years has shown a trend to turn programs over to state governments for implementation. Similarly, agencies from the State of California have been turning over some hazardous material programs to local governments through either direct legislative mandate or memoranda of understanding (MOU). An MOU between two or more agencies delineates responsibility and authority for program implementation. Often a program can be better implemented with a local agency's faster response and knowledge of local conditions. Where appropriate, Folsom intends to pursue the localization of hazardous materials programs and enforcement.

The intent of this Hazardous Materials Element and the programs which will be derived from it is to act where it is most appropriate for a local government to act, and where the most good can be accomplished with the effort. Therefore, the following sections of this Element focus on areas where local government programs are appropriate. In most areas the Sacramento County Health Department will have primary responsibility for hazardous materials programs at the local level. The City of Folsom will continue to coordinate with the County in the development and implementation of plans and programs which affect the City and will take a pro-active role in protecting the health and welfare of the citizens of Folsom in this regard.

34.3 HAZARDOUS MATERIALS ELEMENT GOALS AND POLICIES

GOAL 41

To protect the health and welfare of the residents of Folsom through the management and regulation of hazardous materials in a manner that will focus on preventing problems.

POLICY 41.1

The City shall endeavor to work with industry, community groups, and government agencies to develop an effective, workable, and fair hazardous materials management system.

POLICY 41.2

As much as feasible, the City shall provide information to the general public and interested parties on technical and administrative developments in the field of hazardous materials management.

POLICY 41.3

The City shall endeavor to develop and implement with Sacramento County, a comprehensive hazardous materials management program.

POLICY 41.4

The City shall expand and strengthen existing Folsom programs where appropriate, to fill in gaps in the current federal, state and local hazardous materials management efforts.

POLICY 41.5

The City shall encourage the effective implementation of workplace safety regulations, and to assure that hazardous material information is available to users and employees.

POLICY 41.6

The City shall improve cooperation, information gathering, and information availability within existing Folsom programs.

POLICY 41.7

The City shall support a household hazardous waste disposal program.

POLICY 41.8

The City shall endeavor to develop land use standards that will reduce the risk of health or environmental damage through industrial or commercial use of hazardous materials.

POLICY 41.9

The City shall endeavor to protect residents and sensitive facilities from avoidable incidents n the transportation of hazardous materials in he county.

POLICY 41.10

The City shall endeavor to protect residents from avoidable accidents and mishandling of hazardous materials in industrial and commercial facilities.

POLICY 41.11

The City shall support local enforcement of hazardous materials regulations.

34.4 RELATED GOALS AND POLICIES

RELATED GENERAL GOALS AND POLICIES

GOAL 1
POLICY 1.10

GOAL 2
POLICY 2.1
POLICY 2.2

GOAL 5
POLICY 5.1
POLICY 5.2
POLICY 5.3

GOAL 6
POLICY 6.1

GOAL 7
POLICY 7.1
POLICY 7.2
POLICY 7.3
POLICY 7.4

RELATED LAND USE ELEMENT GOALS AND POLICIES

GOAL 10
POLICY 10.2
POLICY 10.6

GOAL 16
POLICY 16.1

RELATED TRANSPORTATION AND CIRCULATION ELEMENT GOALS AND POLICIES

GOAL 17
POLICY 17.1

RELATED OPEN SPACE AND CONSERVATION ELEMENT GOALS AND POLICIES

GOAL 28
POLICY 28.2
POLICY 28.4
POLICY 28.5

GOAL 29
POLICY 29.1
POLICY 29.5
POLICY 29.6

RELATED AIR QUALITY ELEMENT GOALS AND POLICIES

GOAL 31
POLICY 31.2

GOAL 32
POLICY 32.1

RELATED PUBLIC FACILITIES ELEMENT GOALS AND POLICIES

GOAL 40
POLICY 40.1
POLICY 40.4

34.5 IMPLEMENTATION

INFORMATION REGARDING HAZARDOUS MATERIALS MANAGEMENT REGULATIONS

Collect information regarding applicable regulations and enforcement at the federal, state, county and local levels and make that information available to all members of the community, including businesses and their employees.

IMPLEMENTS: GOAL 41, POLICIES 41.1; 41.2; 41.3; 41.5; 41.6; 41.7; AND 41.11

- Resource Groups/Agencies/Organizations

City Attorney
Sacramento County Health Department
Sacramento County Air Pollution Control District
Sacramento County Sheriff's Department
Sacramento Area Council of Governments
Regional Transit
Area Fire Departments
State Air Resources Control Board
State Department of Health Services
State Department of Food and Agriculture
CALTRANS
California Highway Patrol
California Waste Management Board
State Office of Noise Control
Golden Empire Health Systems Agency
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Occupational Safety and Health Administration

- Responsible Agencies

Fire Department
Police Department
Public Works Department
Community Development Department
Building Department

- Implementing Agency

Fire Department

- Target Dates: Start: January 1989
  Complete: On-Going

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$750	$300	$5,550	General Fund

AIR AND HAZARDOUS MATERIALS TECHNICAL ADVISORY BOARD

Establish an Air Pollution and Hazardous Materials Technical Advisory Board composed of representatives from all City Departments and the Sacramento County Health Department, to develop a hazardous materials management program for adoption by the City Council.

1. For those areas which the above-referenced program finds to be in need of regulation at the local level in order to protect the citizens of Folsom (potentially, some of the state's inspection duties which are presently unfunded), the City shall seek a MOU with the State Department of Health Services to

obtain authority for the regulation of hazardous waste generators in Folsom.

2. The City shall coordinate with the Sacramento County Health Department and the state to increase review of permit applications, and monitoring of underground storage tank testing programs and leaking tank clean-ups.

IMPLEMENTS: GOAL 41 - POLICIES 41.1; 41.3; 41.4; 41.6; 41.7; 41.10; AND 41.11

- Resource Groups/Agencies/Organizations

  City Attorney
  Sacramento County Health Department
  Sacramento County Air Pollution Control District
  Sacramento County Sheriff's Department
  Sacramento Area Council of Governments
  Regional Transit
  Area Fire Departments
  State Air Resources Control Board
  State Department of Health Services
  State Department of Food and Agriculture
  CALTRANS
  California Highway Patrol
  California Waste Management Board
  State Office of Noise Control
  Golden Empire Health Systems Agency
  U.S. Army Corps of Engineers
  U.S. Environmental Protection Agency
  U.S. Occupational Safety and Health Administration

- Responsible Agencies

  Community Development Department
  Public Works Department
  Fire Department
  Police Department
  Sacramento County Health Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: January 1989
  Complete: On-Going

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
48/$2,160	$50	$500	$2,710	General Fund, Development Fees

FACILITIES PERMITTING PROCEDURES - HAZARDOUS MATERIALS INCLUDING HAZARDOUS WASTE

With input of the Air and Hazardous Material Technical Advisory Board, develop a permit program for facilities which handle hazardous materials, including hazardous waste, and revise the Zoning Code and business license procedures accordingly:

1. Determine which handlers of hazardous materials would fall under the permit requirement.

2. Develop procedures to review project applications for site suitability, environmental hazards, risk to sensitive facilities, and other factors pertaining to hazardous materials.

3. Develop an ordinance to cover all storage of hazardous materials including requirements for above ground containment, leak testing and monitoring.

4. Perform a constraints analysis of hazardous materials impacts considering transportation, ground water supply, residential areas, environmental protection, and sensitive facilities.

5. Adopt, in conjunction with Sacramento County, a hazardous waste management plan and implementing ordinances.

6. Develop a review procedure for existing facilities so that facilities or locations which are inappropriate would be conditionally permitted, periodically reviewed, and/or phased out.

7. Revise business licensing procedures to complement the hazardous materials permitting procedure, including home occupations.

IMPLEMENTS: GOAL 41 - POLICIES 41.8; 41.10; AND 41.11

- Folsom Municipal Code: Title 17
- Cross Referenced To: Title 13 and Title 9
- Resource Groups/Agencies/Organizations

  State Department of Health Services
  Sacramento County Health Department

- Responsible Agencies

  Community Development Department
  Public Works Department
  Fire Department
  City Clerk

- Implementing Agency

  Community Development Department

- Target Dates: Start: June 1989
  Complete: June 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
60/$2,700	$200	$300	$3,200	Permit Fees

HAZARDOUS MATERIALS DISCLOSURE ORDINANCE

Update the existing Disclosure Ordinance to complement the hazardous materials permitting procedure, including the following provisions:

1. Develop a list of occupations that will potentially involve hazardous materials.

2. Develop business license review procedures to identify operations that involve hazardous materials and include a comprehensive list of chemicals on the business license application which will require compliance with the Disclosure Ordinance.

3. Prepare a handout statement about a firm's potential financial and criminal liability if a routine or accidental release of undisclosed toxic chemicals should harm emergency personnel, employees, or the public.

4. Bring all the appropriate firms in Folsom into the disclosure program, by having all City and County personnel (Building Inspectors, County Health Department Personnel, Fire Inspectors, etc.) report the undisclosed use of hazardous materials to the Environmental Health Branch of the County Health Department and to the appropriate permitting agency.

5. Include compressed gases over 200 cubic feet in volume in the disclosure requirement.

6. Provide for Health Department review of business license applications as appropriate.

7. Provide for staffing to inspect facilities and handling practices.

8. Develop a cost recovery fee schedule that is based on a fixed rate for the basic inspection (depending on the size or complexity of the operation), with a negotiated surcharge if additional staff time is necessary to resolve problems. This strategy is currently used by the APCD and the Underground Storage Tank program.

9. Design the fee schedule to also cover costs for emergency response training and development of the state mandated area plans (AB 2185).

IMPLEMENTS: GOAL 41- POLICIES 41.4; 41.5; AND 41.10

- Resource Groups/Agencies/Organizations

  State Department of Health Services
  Sacramento County Health Department

- Responsible Agencies

  Community Development Department
  Sacramento County Health Department
  Public Works Department
  Fire Department
  City Clerk

- Implementing Agencies
  Fire Department
  Community Development Department

- Target Dates: Start: June 1990
  Complete: December 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
120/$5,400	$500	$600	$6,500	General Fund, Business License Fees

HAZARDOUS MATERIALS TRANSPORTATION PROGRAM

Develop standards for transportation of hazardous materials, including wastes, which complement the City's permitting programs and the regulations of other levels of government.

1. Identify firms and land uses requiring hazardous material shipping access.

2. Identify sensitive facilities (schools, hospitals, etc.) and environmentally sensitive areas.

3. Identify appropriate transportation routes which would avoid sensitive land uses.

4. Evaluate accident probability and severity.

5. Identify emergency responses.

6. Restrict hazardous materials transportation to appropriate routes and time periods.

IMPLEMENTS: GOAL 41 - POLICY 41.9

- Folsom Municipal Code: Title 9

- Cross Reference To: Title 17

- Resource Groups/Agencies/Organizations

  California Highway Patrol
  State Department of Health Services
  Sacramento County Health Department
  CALTRANS

- Responsible Agencies

  Community Development Department
  Public Works Department
  Police Department

- Implementing Agency

  Community Development Department

- Target Dates: Start: June 1990
  Complete: December 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$200	$550	$5,250	General Funds

HOUSEHOLD HAZARDOUS MATERIALS AND WASTE PROGRAM

Develop a household hazardous materials and waste program.

1. Implement an educational and public awareness program aimed at reducing the use and mis-use of household products containing hazardous materials or generating hazardous waste and promoting recycling.

2. Implement a household hazardous waste program including regular collection times at established sites throughout Folsom for hazardous wastes and hazardous waste containers.

IMPLEMENTS: GOAL 41 - POLICIES 41.1; 41.3; 41.4; 41.6; AND 41.7

- Resource Groups/Agencies/Organizations

  California Waste Management Board
  Sacramento County Health Department
  State Department of Health Services

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: March 1989
  Complete: October 1989

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
48/$2,160	$50	$500	$2,710	General Fund

HAZARDOUS MATERIALS MONITORING

Develop a monitoring and enforcement program to control dumping of hazardous materials into the municipal sanitary and storm sewer systems:

1. Develop an educational program to inform residential and commercial customers of the impacts of sewer dumping.

2. Develop a monitoring and enforcement program to control dumping of hazardous materials into the municipal sewer and storm drain systems.

A. Increase Folsom's ability to respond to complaints.

B. Establish an enforcement link with the District Attorney's Office.

C. Provide funding for periodic sampling on a rotating basis to identify contamination problems.

D. Mitigate contamination sources where identified.

IMPLEMENTS: GOAL 41 - POLICIES 41.4; 41.10; AND 41.11

- Resource Groups/Agencies/Organizations

  California Waste Management Board
  State Department of Health Services
  Sacramento County Health Department

- Responsible and Implementing Agency

  Public Works Department

- Target Dates: Start: October 1989
  Complete: May 1990

ESTIMATED COSTS PER YEAR				
Person Hours/ Dollars	Printing	Direct	Total	Funding
100/$4,500	$500	$1,100	$6,100	General Fund, Fines

EMERGENCY RESPONSE PROCEDURES

Existing emergency response plans shall be reviewed and updated as needed. The emergency response plans shall be published, shall provide for agency coordination and shall address medical care, escape routes, mutual aid agreements and temporary housing and communications in the event of fire, flooding, inundation, earthquake, hazardous materials spill or other emergency situation.

IMPLEMENTS: GOAL 29 - POLICY 29.5; GOAL 41 - POLICIES 41.9; AND 41.10

- Folsom Municipal Code: Title 9

- Resource Groups/Agencies/Organizations

  State Department of Health Services
  Sacramento County Health Department
  Sacramento General Services Department
  California Highway Patrol
  CALTRANS
  U.S. Army Corps of Engineers

• Responsible Implementing Agencies

Public Works Department
Fire Department
Police Department

• Implementing Agency

Police Department

• Target Dates: Start: July 1989
Complete: January 1990

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$100	$200	$2,100	General Funds

SPILL RESPONSE

The City shall cooperate with nearby jurisdictions to:

1. Respond promptly to any spills within the City's jurisdiction or as may be appropriate under mutual aid agreements.

2. Institute a policy of civil recovery of spill clean-up costs from responsible parties.

3. Seek the allowable state reimbursements for spill clean-up expenses that are not recovered from a responsible party.

IMPLEMENTS: GOAL 41 - POLICIES 41.3; AND 41.11

• Resource Groups/Agencies/Organizations

State Department of Health Services
Sacramento County Health Department

• Responsible Agencies

Public Works Department
Fire Department
Police Department

• Implementing Agency

Fire Department

• Target Dates: Start: March 1989
Complete: October 1989

ESTIMATED COSTS PER YEAR

Person Hours/ Dollars	Printing	Direct	Total	Funding
40/$1,800	$100	$400	$2,300	State General Fund

LOCAL CONTROL STRATEGIES FOR TOXIC AIR CONTAMINANTS

Inventory and develop control strategies for toxic air contaminants in Folsom.

IMPLEMENTS: GOAL 31 - POLICIES 31.1; 31.2; AND 31.3; GOAL 32 - POLICY 32.1; GOAL 41 -POLICIES 41.8; 41.9; AND 41.10

• Resource Groups/Agencies/Organizations

State Air Resources Board
Sacramento County Air Pollution Control District
Sacramento Area Council of Governments
State Department of Health Services
Sacramento County Health Department

• Responsible and Implementing Agencies

Community Development Department
Public Works Department

Target Dates: Start: January 1989
Complete: On-Going

ESTIMATED COSTS OVER SIX MONTHS

Person Hours/ Dollars	Printing	Direct	Total	Funding
48/$2,160	$50	$500	$2,710	Development Fees, User Fees

GENERAL PLAN DATABASE MAINTENANCE

IMPLEMENTS: GOAL 30 - POLICY 30.1; GOAL 41 - POLICY 41.6

Maintain and update on a regular basis the database prepared for the General Plan, including but not limited to the following areas:

1. Noise: Develop and continually update a database as part of the General Plan program containing noise exposure information for the City so that noise related issues can be addressed in the land use planning process.

2. Ground Water and Surface Water Monitoring: Cooperate with the County of Sacramento in developing a computerized data base on water quality and seek funding for a County-assisted testing program to continue to improve information about water quality in the City.

3. Medical Statistics: Cooperate with the Sacramento County Health Department to compile statistics on medical problems potentially related to hazardous materials, and support efforts to gather this information on a statewide basis.

- Resource Groups/Agencies/Organizations

  State Department of Health Services
  Sacramento County Health Department
  State Office of Noise Control

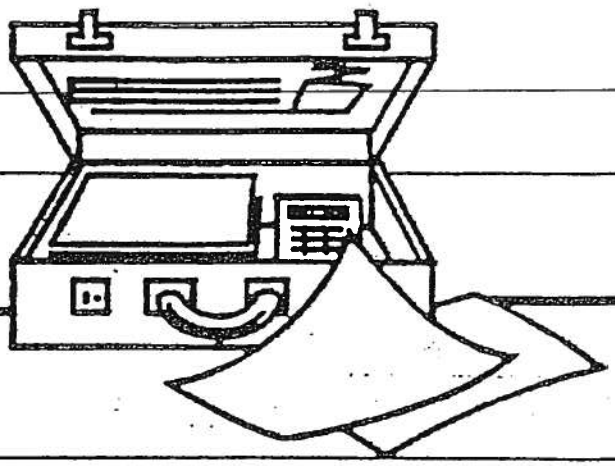
- Responsible and Implementing Agencies

  Public Works Department
  Community Development Department

- Target Dates: Start: January 1989
  Complete: On-Going

ESTIMATED COSTS OVER SIX MONTHS

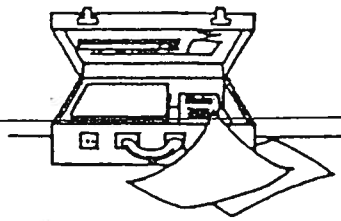
Person Hours/ Dollars	Printing	Direct	Total	Funding
36/$1,620	$100	$400	$2,120	General Fund, Development Fees, EIRs



40.0 AREA PLANS AND SPECIFIC PLANS

Prepared By The City Of Folsom
Community Development Department

October 31,1988



40.0 AREA PLANS & SPECIFIC PLANS

TABLE OF CONTENTS

PAGE

40.1 AREA FACILITIES PLANS 2

40.1.1 Folsom South Assessment District 2
40.1.2 American River Canyon Units 4 - 9 2
40.1.3 Folsom East Area Facilities Plan 2
40.1.4 Rancho Creek - Briggs Property 2

40.2 AREA PLANS 2

40.2.1 Folsom Redevelopment Agency/Central Folsom Redevelopment District 2
40.2.2 Historic District Plan 2
40.2.3 Central Commercial District Plan 2
40.2.4 Humbug Creek/Willow Creek Parkway Plan 2

40.3 SPECIFIC PLANS 3

40.3.1 Russell Ranch Specific Plan 3
40.3.2 Eastgate/ Broadstone Project 3
40.3.3 Sobrato Development 3

AREA PLANS AND SPECIFIC PLANS

The purpose of this Section is to list and inventory the Area Facilities Plans, Area Plans, and Specific Plans.

The City has, through its Urban Development Policy, adopted and proposed a number of Area Facilities Plans.

40.1.1 FOLSOM SOUTH ASSESSMENT DISTRICT

The first such adopted Area Facilities Plan accompanied the Folsom South Assessment District. This area adjacent to Highway 50, included a 2,000-acre assessment district area with an additional 1,000 acres of study area. The Facilities Plan and related documents are on file with the Community Development Department or Public Works Department.

40.1.2 AMERICAN RIVER CANYON UNITS 4-9

This area, also known as the Allied North Facilities Area, had an approved Plan adopted with a 440-acre project known as American River Canyon Units 4-9. This project, taken over by Elliot Homes Inc., encompasses a number of land uses including approximately 1,540 dwelling units and a ten-acre commercial site, a park site and school site.

40.1.3 FOLSOM EAST AREA FACILITIES PLAN

The East area Facilities Plan covers the Russell Ranch, Teichert Property, Broadstone II and Broadstone III. The total area is 3,900 acres. The Facilities plan provides a more refined depiction and description of facilities required for the East Area. References on maps, or descriptions in text of the East Area Facilities Plan (EAFP), are for general information purposes only. Additional detailed plans will be reviewed and adopted as part of each individual specific plan. the more refined plans will be reviewed for overall compatibility with other facilities needed within the East Area Facilities Plan (EAFP). Resolution No. 3798.

40.1.4 RANCHO CREEK-BRIGGS PROPERTY

This is the fourth Area Facilities Plan and encompasses an area around East Natoma Street. The area is primarily residential and is largely developed. One parcel of approximately 200 acres known as the Briggs Ranch or Briggs Estate, will be reviewed during late 1988 and 1989 for development permit approvals and approval of the Area Facilities Plan.

40.2 AREA PLANS

40.2.1 FOLSOM REDEVELOPMENT AGENCY/CENTRAL FOLSOM REDEVELOPMENT DISTRICT

In 1983, the City formed a Redevelopment Agency which encompasses 1,050 acres in the older part of the town. The purpose of formation of the Folsom Redevelopment District was to provide parking for the Historic District, upgrade certain housing areas in the City and provide for public improvements and beautification of East Bidwell Street. The Agency is currently, as of 1988, in its fifth year and has tax increment of over $350,000 per year. The City has sold bonds in 1987 for $2 million in public projects. The projects will be centered on the three areas that were the reasons the Agency was formed. As a result of the General Plan adoption, an amendment to the Redevelopment Plan will be necessary in order to bring the land uses in line with the 1983 Plan.

40.2.2 HISTORIC DISTRICT PLAN

The City Redevelopment Agency has authorized the preparation of a Specific Plan for the Folsom Historic District. During the review of the implementation program in the General Plan's Land Use Element, the Planning Commission recommended that the Historic District Plan Area be expanded to encompass the entire Folsom Township area. The Plan will be completed in 1989 and will be on file with the Community Development Department.

40.2.3 CENTRAL COMMERCIAL DISTRICT PLAN

The policies in the Land Use Element that refer to the Central Commercial District discuss a need to formulate a plan for this area. The City's Redevelopment Agency has contracted with a landscape architect, Earth Art Inc., to prepare an East Bidwell Beautification Project which is to upgrade and provide consistency in the develop-

ment along East Bidwell Street. It is expected that this concept, which will include landscaping, street furniture, signage and other amenities, should be expanded to include the entire Central Commercial District. This type of Plan will be implemented through the Redevelopment Agency and with revisions to the Zoning Code and should provide for a quality development of this area.

40.2.4 HUMBUG CREEK/WILLOW CREEK PARKWAY PLAN

Several Sections of the General Plan discuss this Plan Area. The Plan is to be a linear park system and will run from Lake Natoma eastward to the El Dorado County Line following the Humbug Creek and Willow Creek drainage areas. The Plan is expected to accommodate several issues, including recreation and open space needs, floodway issues, wildlife issues and enhancement of development projects adjacent to the streams. The wetlands issues that have been raised recently will, to some degree, be resolved through the development of this Plan by encouraging the consolidation of wetlands along the two watersheds, in order to maintain an overall balance of open space, wildlife areas and wetlands in the City. This Plan is expected to be developed in late 1988 and 1989 and integraed into adjacent projects with long term mainitenance and construction provided in the adoption of the Plan.

40.3 SPECIFIC PLANS

40.3.1 RUSSELL RANCH SPECIFIC PLAN

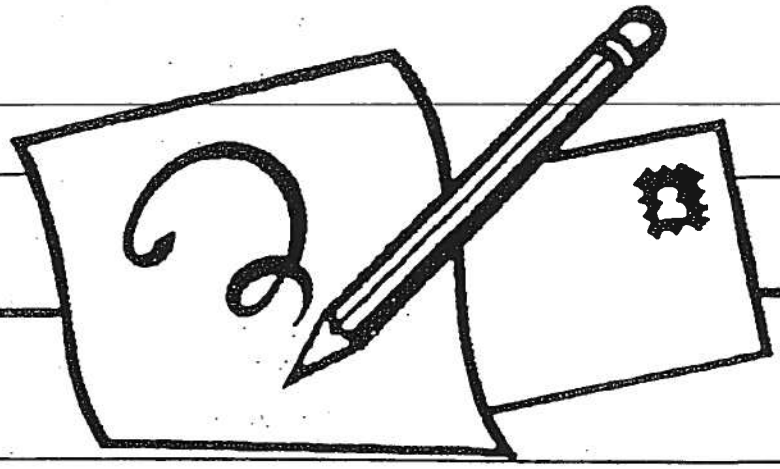
The Russell Ranch is part of the East Area Facilities Plan and encompasses 1,700 acres. The Ranch covers approxtmately 800 acres in El Dorado County and 400 acres south of U.S. 50 in addition to the 1,700 acres in the Folsom city limits. A conceptual plan has been prepared by the developer, River West Developments. The purpose of the conceptual plan is to introduce the project and provide some basis for which to provide a more definitive Specific Plan at some point in the future. The conceptual Russell Ranch plan, will be reviewed for consistency with the General Plan and revised based on an application which will be reviewed following the Plan adoption.

40.3.2 EASTGATE/BROADSTONE PROJECT

The Eastgate Project, at the intersection of Highway 50 and East Bidwell off of Scott Road on the northwest corner, encompasses approxtmately 1000 acres. Similar comments apply to this as with the Russell Ranch Project in that a number of steps should be taken prior to summarizing all of the information needed to develop the property into a format of a Specific Plan. The project includes a regional mall and accessory uses and is expected to be a very large scale project that will take one or two years of planning in order to actually begin development.

40.3.3 SOBRATO DEVELOPMENT

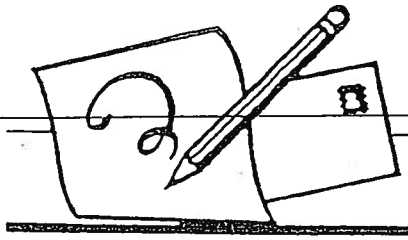
The Sobrato project encompasses 160 acres and has been earmarked as a Specific Plan Area through the General Plan hearings. The property is expected to be a mixed-use development and is included in the Redevelopment Area boundaries. Substantial benefits are expected to be derived to the Redevelopment Agency due to the development that is anticipated on this parcel. The Specific Plan will be developed between the City and developer and also include aspects of the Humbug Creek drainage plan area.



60.0
IMPLEMENTATION PROGRAMS

Prepared By The City of Folsom
Community Development Department

October 31, 1988



IMPLEMENTATION PROGRAMS

TABLE OF CONTENTS

PAGE

60.1 IMPLEMENTATION PROGRAMS 2

60.1.1 INTRODUCTION 2

60.2 GENERAL PLAN 2

60.3 SPECIFIC PLANS/MASTER PLAN 2

60.4 REDEVELOPMENT PLAN 3

60.5 MUNICIPAL CODE 3

60.6 DEVELOPMENT STANDARDS 3

60.7 PUBLIC INFORMATION 3

60.8 AGENCY COORDINATION 4

60.9 ADMINISTRATIVE/PROJECT REVIEW 4

60.10 DATA BASE/SPECIAL STUDIES 4

60.11 ENFORCEMENT/COMPLAINTS 4

60.12 MONITORING 5

60.13 ACQUISITION/ABANDONMENT 5

60.14 CAPITAL IMPROVEMENT PROGRAM 5

60.15 IMPLEMENTATION PROGRAM SUMMARY 5

IMPLEMENTATION

60.1 IMPLEMENTATION PROGRAMS

60.1.1 INTRODUCTION

This section of the Folsom General Plan is an overview of the Plan's implementation program, consistency aspects and its relationship with other adopted plans. It is primarily oriented to the individual wanting to know if a proposed development project meets the City's goals and policies, and as a guide for making the Plan a responsive and current document. Sections 60.7 and 60.8, Public Information and Agency Coordination, describe the role and function of public input in the local planning process.

The discussion on implementation explains what "tools" are available to implement the General Plan, and identifies programs and work tasks to keep the General Plan a useful and current policy document for the City. Implementation of the Plan is achieved by various methods the City has at its disposal through state and local law. The most commonly used is the City's Zoning Code (Folsom Municipal Code Chapter 17). Table 60-1 illustrates compatible zoning and land use designations. Section 60.5 discusses this in greater detail.

Consistency focuses on how the General Plan is used to evaluate both public and private development and improvement projects. State law mandates consistency between a local jurisdiction's General Plan and its zoning, subdivision, capital improvements programs and other development regulations and land use decisions.

The relationship of other adopted plans to the General Plan is discussed in Sections 60.3 and 60.4, Specific Plans/Master Plans and Redevelopment Plans respectively. It defines what land use and policy provisions of the adopted redevelopment plan, area plans and specific/master plans are to be used in evaluating projects and programs against City policy.

60.2 GENERAL PLAN

A section describing implementation measures and programs is contained in each Element. Implementing actions/products, responsible/implementing agency, time frame, costs and funding sources are presented for each measure. In addition, Section 60.15 provides a summary of each Element's implementation program. A summary table is also included which provides easy reference to the Plan's complete implementation program.

60.3 SPECIFIC PLANS/MASTER PLANS

Perhaps the most versatile method of implementing the General Plan, specific/master plans can address a variety of issues and serve a variety of functions. Specific/master plans offer the advantage of blending land use with zoning by providing an overall development concept for a project. The City, through the Planned Development process, encourages large landowners/developers to prepare specific plans. As an overall development plan, these address land use, open space/parkland, circulation, financing mechanisms and public facilities/services.

The environmental work required for these plans is an excellent vehicle for updating the General Plan's MEA. Subsequent planning efforts can use the MEA as a base document and supplement it with new and updated information data as necessary.

TABLE 60-1
LAND USE
AND
ZONING CONSISTENCY

GENERAL PLAN DESIGNATION	ZONING
Single Family	R-1-L, R-1-ML,
Single Family High Density	R-1-M, R-2,RMH
Multi-Family Low Density	R-M, R-2
Multi-Family Medium Density	R-M, R-3
Multi-Family High Density	R-M, R-4
Neighborhood Commercial	C-1
General Commercial	C-2, C-3
Community Commercial	C-1, C-2
Central Commercial Mixed Use District	C-2
Regional Commercial	C-3, CH
Specialty Commercial	C-3, HD, BP.
Industrial/Office Park	M-1, M-2, ML, MF, BP
Public	*
Park/Open Space	OSC, A-1-A
All Designations	PD, A-1-A, OSC

*A variety of zones are consistent with this land use.

The City also uses specific plans for facilities planning in developing areas of the City. These are particularly useful in planning, financing and construction-timing of major public facilities and services. Such plans could also be used for future transportation/circulation studies and improvements. Section 40 further describes Specific Plan requirements and opportunities.

60.4 REDEVELOPMENT PLAN

Redevelopment is another effective tool for implementing the General Plan. It allows for direct City involvement in implementing the Plan through land use and fiscal activities. All redevelopment projects and activities are reviewed for General Plan consistency. The City's redevelopment efforts to date have concentrated on providing development incentives, assisting developers in assembling properties, and financing mechanisms (loans, grants, assessments, and issuing revenue bonds). The City's older areas and the designated central commercial district, have been the focus of redevelopment activities.

The City also coordinates with Sacramento Housing and Redevelopment Agency (SHRA) in county-wide programs for funding sources and housing needs.

60.5 MUNICIPAL CODE

The Folsom Municipal Code (FMC) is the primary implementation tool available to the City. Regulations relating to planning and development can be found in the following chapters:

- Chapter 12 Streets and Sidewalks
- Chapter 13 Water and Sewage
- Chapter 14 Building and Construction
- Chapter 16 Subdivision
- Chapter 17 Zoning

Within these chapters are the various ordinances and regulations (i.e., zoning, subdivision, grading, environmental review procedures) that govern all public and private development projects within the City. As such, they implement the various General Plan goals and policies and must be consistent with the Plan.

State Planning Law specifically requires zoning and subdivisions to be consistent with the General Plan. In doing so, the General Plan land use categories have been developed in a manner to allow the broadest range of a particular type of use within the designation. Specific uses and density ranges are identified by zoning. Further refinement of land uses and development guidelines are provided on some properties through the adoption of specific development plans.

Subdivision activity, through the local subdivision ordinance, implements and must be consistent with the General Plan. Government Code Section 66473.2 provides that no local agency shall approve a subdivision map unless the map, together with its design and improvements, is consistent with the local General Plan.

60.6 DEVELOPMENT STANDARDS

City standards/regulations for development projects are found in various chapters of the FMC (see Section 60.5 discussion). General Plan policies also address development standards through the application of building intensities (i.e., density, lot sizes, area and height restrictions). Standards are also referred to in the implementation program for the Land Use Element.

The City has chosen to rely not only on the zoning and subdivision ordinances and other regulations, but is also strongly encouraging the preparation of specific plans for large development proposals. General Plan policies encourage innovative planning and site design, retention of open space, and mixing of compatible land uses. Development guidelines and an overall development plan are a requirement of the planning development process. This process allows flexibility in interpreting zoning code standards.

60.7 PUBLIC INFORMATION

Public information and education programs are important functions of a local planning agency. Several implementation measures call for preparation and distribution of informational handouts on zoning and building regulations, code enforcement activities, development guidelines, and parks and recreation facilities. The primary purpose of these publications is to assist and inform residents and developers of the planning agency's functions and responsibilities.

Another aspect of a public information program involves the periodic review and monitoring of the General Plan. The City will establish and implement a system for monitoring development, implementation programs and plan amendments. As an annual task, such a report would provide the basis for understanding current growth trends, effectiveness of implementation actions, and land use balances.

Noticing and public review/comment opportunities on development projects is another component of a successful public information program. The City shall continue to follow state law noticing and public review/comment requirements, and shall encourage citizen participation on local boards, commissions and committees involved with planning issues.

60.8 AGENCY COORDINATION

Coordination among various local, regional, state and federal agencies governing Folsom's growth and development will be encouraged. The City will continue to coordinate with and participate in regional planning efforts designed to address growth and environmental issues that impact Folsom's quality of life. Several of the General Plan's implementation programs can only be implemented through inter-jurisdictional cooperation. The Plan calls for the City to work with neighboring jurisdictions in solving regional problems, e.g., traffic, air quality, housing, etc.

Agency coordination also refers to the various City Departments. Review of public works projects, special studies and plans, and maintenance of public service levels require staff expertise from all City Departments.

60.9 ADMINISTRATIVE/PROJECT REVIEW

Administrative review refers to review and monitoring of the General Plan itself. Portions of the Plan will be periodically reviewed and recommended for revision if necessary. Plan policies will be reviewed and offered for amendment if no longer applicable or reinforcement is deemed necessary. Implementation activities will also be closely monitored and amended or supplemented if necessary. Administrative review is also an effective means of maintaining internal consistency among the various elements and components of the General Plan.

Review of public and private projects is another effective General Plan implementation tool. Development projects should reflect and embody Plan goals and policies through their implementation at the project-specific level. Project review should also focus on plan-project consistency issues. Plan consistency review is an important step in the project review process. If inconsistencies exist between the Plan and project, revisions to the project should be called for. If the General Plan is amended for individual projects, local officials must consider the amendment's impact on the entire community, what is "in the public interest", and its consistency impact on the remainder of the General Plan.

60.10 DATA BASE/SPECIAL STUDIES

The Master Environmental Assessment (MEA), General Plan data base document, will be periodically updated through special studies, project EIRs, and regional data gathering efforts (i.e., Air Quality). The MEA provides an excellent source document for baseline data on which future EIRs may be "tiered" (Government Code Section 15152). Future studies and environmental work will be used to periodically update the MEA.

Special studies (i.e., traffic, vegetation/wildlife, cultural resources) will be required of development proposals as the City builds out. These future studies will provide City staff and local officials with the latest available information necessary when reviewing and conditioning projects.

60.11 ENFORCEMENT/COMPLAINTS

Enforcement of the Municipal Code, and the various building and development regulations, is the objective of the City's Code enforcement program. Enforcement and abatement is handled on a City or complaint initiated basis. Zoning regulations, sign enforcement, nuisance abatement, and business license matters all fall within the jurisdiction of the code enforcement program and implementation of the General Plan.

60.12 MONITORING

A monitoring program will be established and coordinated through various City agencies (Community Development, Public Works, Building, Parks and Recreation, Finance). It will focus on development activity including such things as development trends, building permit activity, business license renewals, impacts on municipal services, and land use balances. The City's computer system will be utilized to connect the various departments to track these activities. This program will also analyze the effectiveness of the General Plan implementation measures.

60.13 ACQUISITION/ABANDONMENT

Real property to be acquired or disposed of by the City is another tool the City uses in implementing the General Plan goals and policies. In addition, these properties are submitted to the Community Development Department for General Plan consistency review.

60.14 CAPITAL IMPROVEMENT PROGRAM

All capital improvements proposed for the ensuing fiscal year by the City are listed and classified, and a coordinated program is developed for review and recommendation to the City Council. The City's Planning Commission annually reviews the proposed CIP for General Pl consistency and implementation.

60.15 IMPLEMENTATION PROGRAM SUMMARY

This section briefly summarizes the implementation measures developed to follow-through with the goals of the General Plan as presented in the established policies for each specific goal.

The table summarizes the implementation measures that have been established for the mandatory and optional Elements. Specific implementation measures along with estimated cost and funding sources are provided for each element. Those measures are also referred to in more detail at the back of each Element section.

Included, also, as part of the Implementation Program Summary is a chart listing the Goals of the General Plan and the implementation measures that relate to each specific goal. This chart is useful to aid in determining the corresponding goals and implementation programs for specific projects related to all levels development and services in the City.

GENERAL PLAN
IMPLEMENTATION WORK PROGRAM

WORK TASK	DEPARTMENT	TIME FRAME	HOURS	COST	REMARKS
LAND USE					
1. Special Plans/Master Plans	A, C	1/89-9/90	-	$120,000-$300,000	$40,000-$100,000 (Cost/Plan)
2. Grading Ordinance	A, C	1/89-6/89	10	$ 475	
3. Incentive Programs (Subdivision Ordinance)	A	1/89-6/89	80	$ 5,500	
4. Revision of Zoning Standards and Zones	A	1/89-1/90	1,000	$49,500	
5. Plan Review Procedures	A, B, C	3/89-3/90	40	$ 2,200	
6. Project Application Requirements	A	3/89-10/90	40	$ 2,200	
7. Planned Development Process	A	1/89-1/90	40	$ 1,800	
8. Pre-Zoning Procedures (Annexation)	A	1/89-1/90	20	$ 900	
9. Density Transfer Ordinances	A	1/89-1/90	30	$ 1,350	
10. Incentive Programs (Zoning Ordinance)	A, C, E	1/89-1/90	80	$ 5,500	
11. Update Development Standards	A, C	6/89-1/90	-	-	
12. Inter-Agency Review and Comment	A	Ongoing	-	-	1
13. Contribution to SACOG	A	Ongoing	-	-	1
14. Coordination with School District	A	Ongoing	-	-	1
15. Regional Control Strategies	A	Ongoing	-	-	1
16. Environmental Review Process	A	Ongoing	-	-	1
17. Use of Utility Easement	A, E	Ongoing	-	-	1
18. Sphere of Influence Study	A, C	1/89-1/90	400	$18,000	With LAFCO
19. Capital Improvement Program	A, C	1/89-6/89	150	$ 7,000	
20. Redevelopment Plan	A, C, G	7/89-12/89	100	$ 5,550	
21. Folsom Township Plan	A, C, G	1/90-7/90	200	$9,550	
SUBTOTAL			2,190	$211,525-$391,525	
TRANSPORTATION AND CIRCULATION					
1. Public Transit Plan	A, C	10/89-10/89	400	$ 19,000	With RT and SACOG.
2. Pedestrian and Bicycle Master Plan	A, C, E	10/89-4/90	200	$ 9,500	
3. Subdivision Street Standards	A, C	6/89-12/89	100	$ 4,500	
4. Parking Requirements	A, C	1/89-1/90	80	$ 3,600	With Zoning Ordinance Revision.
5. Transportation System Management Ordinance	A, C	3/89-10/90	120	$ 7,250	With RT and SACOG.
6. Bicycle and Pedestrian Guide	A, E	1/90-3/90	40	$ 2,300	
7. Bridge Study	A, C	8/88-6/89	6,000	$305,000	Major Study.
8. Financing and Construction of Needed Road Improvements	A, C	1/89-Ongoing	250	$ 11,500	With CALTRANS.
9. Funding Plans for Transportation Improvements	A, C	7/89-12/89	500	$ 22,500	
SUBTOTAL			7,690	$385,150	

A = Community Development Department B = Building Department C = Public Works Department
D = Police Department E = Parks and Recreation Division F = Fire Department Permits G = Redevelopment Agency
1 = Work Completed in Normal Processing of Development

WORK TASK	DEPARTMENT	TIME FRAME	HOURS	COST	REMARK
POSSIBLE ADDITIONAL TASKS					
1. Regional Traffic Study	A, C	-	-	-	Major Study with Sacramento, El Dorado and Placer Counties.
2. Special Intersection Improvements Study and Financing Mechanisms	C	-	-	-	Impacted intersections study.
HOUSING[1]					
1. New Housing Production					
2. Provisions of Public Services					
3. Revise General Plan Land Use					
4. Housing Rehabilitation and Repair Program					
5. Economic Feasibility of Affordable Housing					
6. Preserve Mobilehome Parks					
7. Mortgage Revenue Bonds					
8. Condominium Conversion					
9. Housing Assistance Program Referrals					
10. Fair Housing Law Compliance					
11. Urban Development Policy					
12. Monitor Employment Growth					
13. Annual Review of Housing Element					
14. Second Unit Ordinance					
15. Permit Review Process					
16. Identification of Possible Locations for Emergency Housing Shelters					
SUBTOTAL					
OPEN SPACE AND CONSERVATION					
1. Park and Recreation Open Space Master Plan	C	7/89-5/90	200	$13,500	
2. Park and Recreation Ordinance	C, E	3/89-10/89	40	$ 2,350	With Parks and Recreation Element.
3. Water Conservation Measures	B	10/89-3/90	40	$ 2,200	
4. Grading Ordinance for Water Quality Modification of Existing Ordinance	C	1/89-6/89	40	$ 2,200	
5. Incentive Programs - Title 17	A, C	1/89-1/90	80	$ 5,500	With Subdivision Ordinance Update.
6. Reference Development Standards	A, B, C	3/89-10/89	40	$ 2,100	With Zoning and Grading Ordinance.
7. Project Application Requirements	A	3/89-10/89	40	$ 2,200	With Land Use Element.
8. Use Permits - Mining	A, B	8/89-3/90	80	$ 5,500	
9. Incentive Programs - Zoning Ordinance	A, C	1/89-1/90	80	$ 5,500	With Zoning Ordinance Update.
10. Landscape Ordinance Update	A, C	8/89-1/90	300	$18,000	
11. Landscape Standards	A, C	8/89-1/90	300	$18,000	
12. Guidelines for Water Quality Maintenance	C	3/89-10/89	40	$ 2,200	
13. Mining and Reclamation					

[1] To be completed with Housing Element Amendment.

A = Community Development Department B = Building Department C = Public Works Department

D = Police Department E = Parks and Recreation Division F = Fire Department Permits G = Redevelopment Agency

1 = Work Completed in Normal Processing of Development

WORK TASK	DEPARTMENT	TIME FRAME	HOURS	COST	REMARKS
Plan/Natural Resource Extraction	A, B	8/89-3/90	80	$ 5,500	
14. Development Adjacent to Open Space	A	1/89-1/90	120	$ 6,400	With Zoning Ordinance Update.
15. Trails, Recreation and Safety Guide	A, C, F	3/89-8/89	100	$ 8,000	
16. Landscape Maintenance and Planting Guide	A	7/89-1/90	100	$ 8,000	
17. Historic Preservation Program - Public Information	A, B	7/89-7/90	20	$ 1,650	
18. Historic Preservation Program Standards	A, B	7/89-2/90	25	$ 1,425	
19. Water Conservation Education Programs	B, C	10/89-3/90	40	$ 2,550	
20. Vegetation Preservation Ordinance	A	2/89-8/89	300	$18,000	
21. Open Space Preservation	A	3/89-3/90	200	$11,225	
SUBTOTAL			2,265	$142,000	
SAFETY					
1. Review of Public Safety Code	A, C, F	10/89-6/90	180	$ 9,300	
2. Trails, Recreation and Safety Guide	A, C, F	3/89-8/89	100	$ 8,000	
3. Emergency Residence Procedures	C, D, F	10/89-2/90	40	$ 2,100	
SUBTOTAL			320	$19,400	
NOISE					
1. Annual Update	A	11/89-Ongoing	80	$4,300	
2. Housing Element Update	A	12/88-2/89	120	$6,700	
3. Noise Control	B, C	1/89-7/89	20	$1,100	
4. Reference Noise Ordinance - Zoning Ordinance	A	1/89-1/90	20	$1,300	With Zoning Ordinance Update.
5. Noise Ordinance	A	3/89-10/90	140	$7,500	
6. General Plan Database Maintenance	C	3/89-Ongoing	36	$2,120	
7. California Vehicle Code	D	Ongoing	-	-	
SUBTOTAL			416	$23,020	
PARK AND RECREATION					
1. Parks and Recreation Master Plan	C	5/88-3/89	100	$15,000	
2. Pedestrian and Bicyle Master Plan	C	7/88-3/89	200	$10,000	
3. Parks and Recreation Ordinance	C, E	3/89-10/89	40	$ 2,350	With Parks and Recreation Element.
4. Incentive Programs - Zoning Ordinance	A, C	1/89-1/90	80	$ 5,500	With Zoning Ordinance Update.
5. Trails, Recreation and Safety Guide	A, C, F	3/89-8/89	100	$ 8,000	
SUBTOTAL			520	$40,850	

A = Community Development Department B = Building Department C = Public Works Department
D = Police Department E = Parks and Recreation Division F = Fire Department Permits G = Redevelopment Agency
I = Work Completed in Normal Processing of Development

WORK TASK	DEPARTMENT	TIME FRAME	HOURS	COST	REMARKS
AIR QUALITY					
1. Air and Hazardous Materials Advisory Board	C	7/90-Ongoing	48	$2,710	
2. Local Control Strategy	A, B	10/89-Ongoing	48	$2,710	
3. Transportation System Management Ordinance	A, C	3/89-10/90	120	$7,250	
SUBTOTAL			216	$12,670	
PUBLIC FACILITIES					
1. Area Facilities Plans[1]	A, C				
SUBTOTAL					
HAZARDOUS MATERIALS					
1. Hazardous Material Disclosure Ordinance	A, C, F	6/90-12/90	120	$6,500	With City Clerk and Sacramento County Health Department.
2. Facilities Permitting Procedures - Hazardous Materials	A, C, F	6/89-6/90	60	$3,200	With City Clerk.
3. Household Hazardous Waste Program	C	3/89-10/89	48	$2,710	
4. Air and Hazardous Materials Technical Advisory Board	A, C, D, F	1/89-Ongoing	48	$2,710	With Sacramento County Health Department.
5. Emergency Response Procedures	C, D, F	10/89-2/90	40	$2,100	
6. General Plan Database Maintenance	A, C	1/89-Ongoing	36	$2,120	
7. Hazardous Materials Transportation Program	A, C, D	6/90-12/90	100	$5,250	
8. Spill Response	C, D, F	3/89-10/89	40	$2,300	
9. Local Control Strategies	A, C	1/89-Ongoing	48	$2,710	
10. Hazardous Materials Monitoring	C	10/89-5/90	100	$6,100	
SUBTOTAL			640	$35,700	

[1] Major portion of the implementation program for the Public Facilities Element will be through the preparation and adoption of Area Facilities Plans.

A = Community Development Department B = Building Department C = Public Works Department

D = Police Department E = Parks and Recreation Division F = Fire Department Permits G = Redevelopment Agency

1 = Work Completed in Normal Processing of Development



GLOSSARY



GLOSSARY

Active Recreation Acreage:

Active recreation acreage is defined as land with less than five percent slope which can be developed into high use facilities. High use facilities include, but not limited to such facilities as soccer fields, hardball diamonds, softball fields, football fields, gymnasiums, tennis courts, tot lots and swimming pools.

Affordable:

Capable of being purchased or rented by a household with very low, low or moderate income, based on a household's ability to make monthly payments necessary to obtain housing. Housing is considered affordable when a household pays no more than 30 percent of its gross monthly income (GMI) for housing.

Arterial Street:

Relatively-high-speed (40-50 mph), relatively-high-capacity (up to 50,000 average daily trips) roads providing access to regional transportation facilities and serving relatively long trips, or medium-speed (30-40 mph), medium-capacity (10,000-35,000 average daily trips) roads which provide intra-community travel and access to the countywide arterial highway system. Access to arterials should be provided at collector roads and local streets, but some direct access onto arterials exists.

Buffer or Buffer Zone:

An area designed to provide a separation between two, sometimes incompatible land uses.

Central Commercial District:

The primary commercial area serving the needs of entire community. The district includes retail commercial uses, such as one or more community-level retail centers, professional and corporate offices, financial and real estate services, cultural and entertainment uses, public buildings, and high density residential uses.

Cluster Homes:

Homes grouped in close association on a portion of a parcel of land.

Collector Street:

Relatively-low-speed (25-30 mph), relatively low volume (5,000-20,000 average daily trips) street, typically two lanes, which provides circulation within and between neighborhoods. Collectors usually serve relatively short trips and are meant to collect trips from local streets and distribute them to the arterial network.

Combined (Mixed) Use Building:

A building which contains more than one type land use, such as a multilevel residential building with shops on the ground floor.

Community Noise Equivalent Level (CNEL):

A 24-hour energy equivalent level derived from a variety of single-noise events, with weighing factors of five and ten dBA applied to the evening (7:00 to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) periods, respectively, to allow for the greater sensitivity to noise during these hours.

dB:

Decibel: a unit used to express the relative intensity of a sound as it is heard by the human ear. The decibel measuring scale is logarithmic. Zero (0 dB) on the scale is the lowest sound level that a normal ear can detect under very quiet (laboratory) conditions and is referred to as the "threshold" of human hearing. On the logarithmic scale, ten decibels are ten times more intense, 20 decibels are 100 times more intense, and 30 decibels are 1,000 times more intense than one decibel.

dBA:

The "A-weighted" scale for measuring sound in decibels; weights or reduces the effects of low and high frequencies in order to simulate human hearing.

Density:

The degree of crowding together of people or buildings. For housing, density is the number of permanent residential dwelling units per acre of land. All densities specified in the General Plan are expressed in maximum number of units per

LOSSARY

ss developable acre. (See "Developable Acres, ıss".) Density can be controlled through zoning he following ways: minimum lot-size requirents. floor area ratio. land use-intensity ratio. ɔack and yard requirements. minimum house- : requirements. ratios comparing number and es of housing units to land area. limits on ts per acre. and other means. Maximum rwable density often serves as the major dis- :tion between residential districts.

nsity Bonus:

The allocation of development rights that rw a parcel to accommodate additional square tage or additional residential units beyond the xtmum for which the parcel is zoned. usually exchange for the provision or preservation of amenity at the same site or at another loca- ı. (See "Transfer of Development Rights".)

nsity Transfer:

A way of retaining open space by increasing nsities - usually in compact areas adjacent to sting urbanization and utilities - while leaving changed historic. sensitive. or hazardous areas.

'elling Unit: A residence.

lerly Housing:

Typically one- and two-bedroom apartments signed to meet the needs of persons 62 years ıge and older. and restricted to occupancy by m. In Folsom. such units will be constructed non-institutional settings. in proximity to mmunity amenities and public transporta- n.

:eway:

High-speed. high-capacity. limited-access nsportation facility serving regional and intywide travel. Generally used for long trips ween major land use generators. Major streets ss at a different grade level. U.S. Highway 50 he only such facility in Folsom.

al:

A general. overall. and ultimate purpose. ı. or end toward which the City will direct ɔrt.

:enbelt:

A strip of land reserved for open space or :kland between two developed areas. often viding pedestrian or bicycle connections be- :en the developed areas.

Historic:

Associated with an important local. state. or national event. or representing an outstanding example of an architectural period.

Home Occupation:

A residence which is used by the occupant to conduct a business wholly within the residence. The business use is secondary to the use of the home as a residence.

Implementation:

Actions. procedures. programs. or techniques that carry out policies.

INCOME LEVELS:

Very Low Income: 50 percent or less of the Sacramento County median household income.

Lower Income: 50 to 80 percent or less of the Sacramento County median household income.

Moderate Income: 80 to 120 percent or less of the Sacramento County median household income.

Above Moderate Income: More than 120 percent of the Sacramento County median household income.

Industrial Park:

An industrial subdivision in which several establishments are located on a project site with common roads. unified building design. common open space areas. and landscaping.

Landscaping:

Any ornamental plantings or fixtures. including trees. shrubs. grasses and other vegetation; planters. fences. walls. gatehouses. and similar structures in a common area or bordering a site; and rocks. boulders. woodchips. and other non-living earthen materials.

Ldn:

Day-night average sound level. The A-weighted average sound level for a given area measured in decibels (dB) during a 24-hour period with a ten dB weighting applied to nighttime sound levels. The Ldn is approximately numerically equal to the CNEL for most environmental settings.

Level of Service:

A scale that measures the operating capacity likely to be encountered on a roadway or at the intersection of roadways, based on a volume-to-capacity ratio, with levels ranging from A to F, with A representing the lowest volume-to-capacity ratio and the highest level of service. (See "Volume-to-Capacity Ratio".)

Level of Service A: Indicates a relatively free flow of traffic, with little or no limitation on vehicle movement or speed. Usually denotes a volume-to-capacity ratio of 0.00 to 0.60.

Level of Service B: Describes a steady flow of traffic, with slight delays in vehicle movement and speed, with a volume-to-capacity ratio of 0.61 to 0.70.

Level of Service C: Denotes steady, high-volume flow of traffic, with significant limitations on movement and speed and a volume-to-capacity ratio of 0.71 to 0.80.

Level of Service D: The level where traffic nears an unstable flow, in which there is little freedom of movement, with a volume-to-capacity ratio of 0.81 to 0.90. Queues develop and short delays occur.

Level of Service E: Traffic characterized by slow movement and momentary stoppages. This type of congestion is not uncommon at peak traffic hours, with a volume-to-capacity ratio of 0.91 to 1.00.

Level of Service F: Very congested traffic with frequent stoppages. Indicates forced flow or operation, with a volume-to-capacity ratio of 1.00+.

Local Street:

A road of limited length, often terminating in a dead-end or cul-de-sac, serving a portion of a neighborhood.

Low Income Household:

A household with an annual income of no more than 80 percent of the Sacramento County median household income by household size, as determined by a survey of incomes conducted by the City or by Sacramento County, or in the absence of such a survey, based on the latest available findings for the County as provided by the U.S. Department of Housing and Urban Development (HUD).

Mitigate:

To ameliorate, alleviate, or avoid to the extent reasonably feasible. According to CEQA, mitigations include: a) avoiding an impact by not taking a certain action or parts of an action; b) minimizing an impact by limiting the degree or magnitude of the action and its implementation; c) rectifying an impact by repairing, rehabilitating, or restoring the environment affected; d) reducing or eliminating an impact by preserving and maintaining operations during the life of the action; e) compensating for an impact by replacing or providing substitute resources or environments.

Moderate-Income Household:

A household with an annual income of between 80 and 120 percent of the Sacramento County median household income by household size, as determined by a survey of incomes conducted by the City or Sacramento County, or in the absence of such a survey, based on the latest available findings for the County as provided by the U.S. Department of Housing and Urban Development (HUD).

Multiple Dwellings:

A structure composed of no more than four attached dwelling units which share any common building components, including, but not limited to, foundations, roofing and structural systems. Such multiple dwelling units shall be of woodframe construction and not more than two stories and basement in height.

Naturalized:

In reference to vegetation which is not native to Folsom but which has, through time, become associated with the native environment.

Neighborhood Commercial Center:

A convenience shopping center serving residents in the immediate vicinity, typically 1,000 to 2,000 residents within a radius of one-half mile.

Neighborhood:

An area with a distinct identity owing to natural or artificial boundaries, the character of land uses in that area, and transportation patterns. A neighborhood may or may not have precise boundaries.

Noise:

Noise is often defined simply as unwanted sound, and thus is a subjective reaction to

haracteristics of a physical phenomenon. Re-
:archers for many years have grappled with the
roblem of translating objective measurements
sound into directly correlatable measures of
ublic reaction to noise. The descriptors of
ommunity noise in current use are the results
these efforts, and represent simplified, practi-
al measurement tools to gauge community
:sponse.

oise Attenuation:

Reduction of the level of a noise source
sing a substance, material, or surface, such as
arth berms and/or solid concrete walls.

oise Contour:

A line connecting points of equal noise level
s measured on the same scale. Noise levels
reater than the 60 Ldn contour (measured in
BA) require noise attenuation in residential
evelopment.

pen Space:

An area with few or no paved surfaces or
uildings, which may be primarily in its natural
ate or improved for use as a park.

pen Space Acreage:

Although open space is an integral part of
ie parks and recreation system, it must be
early distinguished from park acreage. Open
pace acreage is land or water which is essen-
ally unimproved and devoted to the preserva-
on and conservation of scenic beauty and natu-
l resources. Open space acreage will not be
lculated or credited as park acreage. (See
pen Space and Conservation Element)

rkways:

Designed as a natural linear park to con-
ct schools, parks and other trail systems
roughout the City. Parkways shall be pre-
rved in their natural state with a network of
ils for walking, cycling and horseback riding.
rkways will be classified as open space for the
eservation of natural resources. Therefore,
rkways will not be figured into or credited as
tive park. The State Department of Fish and
me (DFG) is assisting in the preservation of
e Humbug Creek/Willow Creek Parkway as an
ological reserve. Standards and policies for
is area have been developed, based upon past
tions by the City Council and the DFG.

ssive Recreation Acreage:

Passive recreation acreage is defined as land designed for low activity level. Passive recreation acreage includes, but is not limited to picnic barbecue areas, shaded turfed area, shaded pavilion areas, walking trails, and nature trails.

Planned Development:

A relatively large area in which the entire system of buildings, parks, schools, other public facilities, and roads are established by a master plan for that area.

Performance Standards:

Zoning regulations that admit uses based on a particular set of standards of operation rather than on the particular type of use. Performance standards may be established to limit noise, air pollution, emissions, odors, vibration, dust, dirt, glare, heat, fire hazards, wastes, traffic generation, and visual impact of a use.

Performance Zoning:

The performance approach to zoning regulates development mainly on the basis of four variables: open space ratio, impervious surface ratio, density, and floor area ratio. The first two standards apply to all land uses, whereas density is applicable only to residential uses. For non-residential uses, the floor area factor is utilized in place of density.

Policy:

A specific statement of principle or of guiding actions which implies clear commitment but is not mandatory. A general direction that the City will follow in order to meet its goals and objectives by undertaking specific action programs.

Project:

A proposal which involves physical changes to one or more parcels of land for which a plan showing the proposed changes has been prepared for all such parcels.

Regional Commercial Center:

A primarily retail district serving Folsom residents and residents outside the community, with one or more full-line department stores, specialty stores, and restaurants.

Residential Estate:

A home on a large parcel of land, usually one or more acres.

Riparian:

Referring to the wildlife associated with a river or stream.

Single Family Dwelling:

A freestanding unattached dwelling of woodframe construction not more than two stories and basement in height. Such a single family dwelling shall not share any common building components, including but not limited to, foundations, roofing and structural systems, with any other structure or dwelling.

Sound:

Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and hence are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, now called Hertz (Hz) by international agreement. The speed of sound in air is approximately 770 miles per hour, or 1,130 feet/second. Knowing the speed and frequency of a sound, one may calculate its wavelength, the physical distance in air from one compression of the atmosphere to the next. An understanding of wavelength is useful in evaluating the effectiveness of physical noise and control devices such as mufflers or barriers, which depend upon either absorbing or blocking sound waves to reduce sound levels. To measure sound directly in terms of pressure would require a very large and awkard range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. Use of the decibel scale allows a million-fold increase in pressure to be expressed as 120 dB.

Specific Plan:

A tool for detailed design and implementation of a defined portion of the area covered by a General Plan. A specific plan may include all detailed regulations, conditions, programs, and/or proposed legislation which may be necessary or convenient for the systematic implementation of any General Plan Element(s) or a portion thereof.

Strip Commercial:

A commercial area characterized by multiple businesses located on a long, shallow lot to maximize street frontage. Buildings are typically set back from the street to allow for parking in front.

Suburban:

A level of development in which buildings are mostly one or two stories and residential neighborhoods are dominated by single family homes and garden apartments.

Through-Traffic:

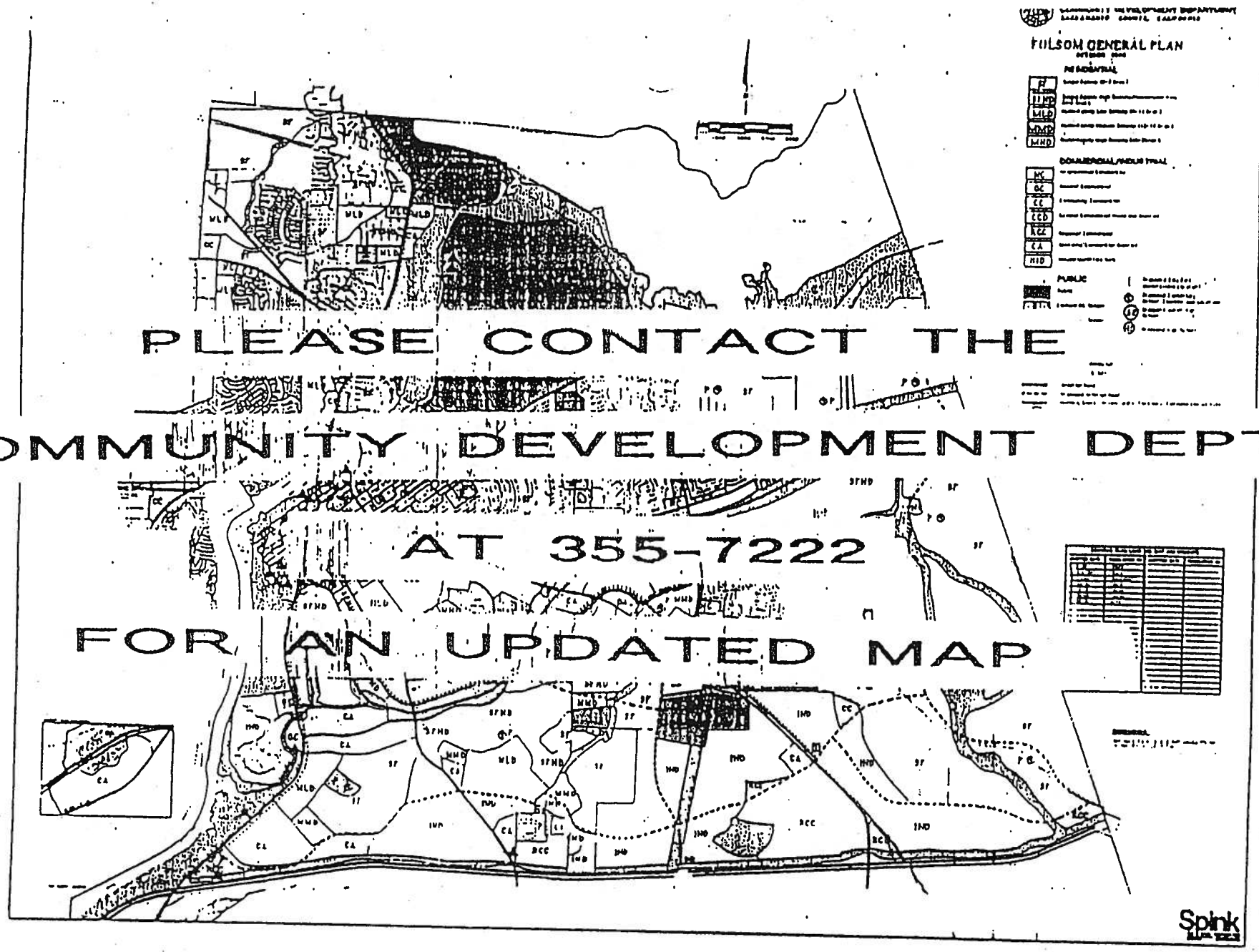
Denoting motor vehicles whose destination is beyond the immediate vicinity of the road the vehicle is on.

Urban:

In the context of development, describing projects which contain curbs, gutters, sidewalks, storm drains, underground sewer lines, paved roads, and other public improvements.

Zero Lot Line:

A type of development in which one wall of a house coincides with one of the boundaries of the parcel on which it is located.


FOLSOM GENERAL PLAN
PLEASE CONTACT THE
COMMUNITY DEVELOPMENT DEPT
AT 355-7222
FOR AN UPDATED MAP
Splink

WHEN RECORDED RETURN TO:

CITY OF FOLSOM
DEPARTMENT OF PUBLIC WORKS
50 NATOMA STREET
FOLSOM, CA 95630

RETURN TO: Stormwater Quality
Program Manager

NO FEE DOCUMENT

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

TITLE(S)

Stormwater Quality Treatment Facility Access and Maintenance Agreement Between the City of Folsom and _____[Legal Name of Property Owner].

STORMWATER QUALITY TREATMENT FACILITY
ACCESS AND MAINTENANCE AGREEMENT

This Agreement is entered into this _____ day of _____ 2008, by and between the City of Folsom, a Municipal Corporation of the State of California ("City"), and _____[insert Legal Name of Property Owner] ("Owner").

RECITALS

The following Recitals are hereby incorporated and made part of this Agreement:

WHEREAS, Owner is developing real property within the City, known as ("Project"), located at_____, Folsom, California, further described by APN No (s). ____and depicted in Exhibit "A", of which is attached hereto and incorporated herein by reference (the "property" or "real property"); and

WHEREAS, Owner is the owner of said real property described hereinabove; and

WHEREAS, the City is required by NPDES Permit CAS052897 (Provision C.22) to require developments to provide verification of maintenance provisions for post-construction structural and treatment control facilities or devices; and

WHEREAS, the City's Stormwater Management and Discharge Control Ordinance ("Stormwater Ordinance"; Folsom Municipal Code 8.70) authorizes the City to establish development standards for post-construction treatment of runoff; and

WHEREAS, the Project is subject to certain conditions (including the requirement to include one or more post-construction stormwater quality treatment facilities to reduce pollutants in site runoff), as approved by the City on _____[insert date] (See Condition_____, Project No. PN __-___), made a part of this Agreement by reference; and

WHEREAS, Owner has chosen to install the following post-construction stormwater quality treatment facility(ies): _____("Stormwater Quality Facility(ies)"), to minimize pollutants in site runoff; and

WHEREAS, said Stormwater Quality Facilities are being installed in accordance with plans and specifications acceptable to the City; and

WHEREAS, said Stormwater Quality Facilities, with installation on private property and draining only private property are private facilities with all inspection, maintenance or replacement, therefore, being the sole responsibility of the Owner in accordance with the terms of this Agreement; and

WHEREAS, the Owner is aware that periodic and continuous inspection and maintenance is required to assure peak performance of Stormwater Quality Facilities in accordance with the maintenance procedures prepared for the Stormwater Quality Facilities, which are attached hereto as Exhibit "B" and incorporated herein; and

WHEREAS, such maintenance activity must comply with all Local, State, or Federal laws and regulations, including those pertaining to confined space and waste disposal methods, in effect at the time such maintenance occurs;

NOW THEREFORE, in consideration of the mutual promises contained herein, City and Owner hereby agree as follows:

1. **Stormwater Quality Facility(ies):** Owner and City agree to the installation of the Stormwater Quality Facility identified as _____(the "Stormwater Quality Facility" or "Facility") on the Property by Owner, all pursuant and subject to the terms and conditions of this Agreement.

2. **Access by City and Other Public Entities:** To the fullest extent allowed by law, Owner hereby provides to the City, its authorized agents and employees, the Sacramento County Environmental Management Department, the Sacramento-Yolo Mosquito and Vector Control District, and the Regional Water Quality Control Board, complete access to the Stormwater Quality Facilities and its immediate vicinity as deemed necessary by any of the foregoing entities to verify compliance with the City's Stormwater Ordinance and to protect public health and safety. These entities may enter the premises at any reasonable time to inspect the premises and operation of the Stormwater Quality Facilities, to inspect and copy records related to stormwater regulatory compliance, to collect samples and take measurements, and to perform emergency maintenance as needed. Whenever possible, these entities will provide notice prior to entry. These entities shall make every effort at all times to minimize or avoid interference with Owner's use of the Property. This right of access shall be irrevocable by the owner during the entire time this Agreement is in effect.

3. **Term:** This Agreement shall remain in full force and effect until terminated by either (1) 90 days' written notice of termination by the City to the Owner; or (2) mutual agreement of the City and the Owner. Owner shall have no right to unilaterally terminate this Agreement.

4. **Owner Responsibility to Maintain:** Owner shall maintain the Stormwater Quality Facilities pursuant to the requirements in Exhibit "B," in a manner assuring peak performance at all times, during the time the Agreement is in effect. All reasonable precautions shall be exercised by Owner and Owner's representatives in the removal and extraction of material(s) from the Stormwater Quality Facilities. Cleaning operations and disposal of the material(s) must be done in a manner consistent with all relevant Local, State and Federal laws and regulations in effect at the time of removal. As may be requested from time to time by the City, Owner shall provide the City with documentation describing maintenance dates and maintenance performed, and identifying

the material(s) removed, the quantity, and disposal destination.

5. **Failure to Maintain:** In the event Owner, or its successors or assigns, fails to accomplish the necessary maintenance contemplated by this Agreement in accordance with Exhibit "B", with not less than 72 hours prior notice to the Owner, the City is hereby authorized to cause any maintenance necessary to be done under the requirements specified in Exhibit "B". In the event of an emergency, as determined by the City, notice is not required. The City shall charge the entire cost and expense of such work to the Owner or Owner's successors or assigns, including administrative costs and interest thereon, at the rate of ten percent (10%) per annum from the date of written notice of expense until paid in full. The City is under no obligation to maintain, repair or monitor the Stormwater Quality Facilities, and this Agreement may not be construed to impose any such obligation on the City.

6. **Security:** If the Owner fails to maintain the Stormwater Quality Facilities as required to the standards specified in Exhibit "B", the City may require the Owner to post security in a form, for a time period, and in an amount sufficient and satisfactory to the City, to guarantee the performance of the obligations stated herein. Should the Owner fail to perform the obligations under this Agreement, the City may, in the case of a cash security deposit, act for the Owner using the proceeds from it, or in the case of a surety bond, require the sureties to perform the obligations of the Agreement and/or pursue any other remedy authorized by law.

7. **Agreement Binding On Successors In Interest:** This Agreement is an instrument affecting the title to or the possession of the real property. All terms, covenants and conditions herein imposed shall be binding upon and inure to the benefit of the successors in interest of Owner. Upon any sale or division of the real property, the terms of this Agreement shall apply separately to each parcel, and the Subdivider and/or Owner of each parcel shall succeed to the obligations imposed on Owner by this Agreement. As used in this Agreement, the term "Owner" shall include, respectively, not only subdivider and the present owner of the real property but also heirs, successors, executors, administrators and assigns.

8. **Recording of Agreement:** This Agreement shall be recorded in the Office of the Recorder of Sacramento County, California and shall constitute notice to all successors and assigns of the title to said Property of the obligation herein set forth.

9. **Notice to Successors:** The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the parties hereto. The term "Owner" shall include not only the present Owner, but also its heirs, successors, executors, administrators, and assigns. Owner shall notify any successor to title of all or part of the Property about the existence of this Agreement. Owner shall provide notice of the Agreement to any successor obtaining an interest in all or part of the Property. Owner shall provide a copy of such notice to the City at the same time such notice is provided to the successor. The failure of the owner to give notice shall not impair the effectiveness of this Agreement or its binding effect on successors.

10. **Notice:** Any notice to a party required or called for in this Agreement shall be served in

person, or by deposit in the U.S. Mail, certified or first class postage prepaid, to the address set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change a notice address only by providing written notice thereof to the other party.

OWNER: _____

_____

_____

ATTENTION: _____[Insert Name and Title]

CITY: Director of Public Works
City of Folsom Public Works Department
50 Natoma Street
Folsom, CA 95630

11. **Indemnity:** To the fullest extent permitted by law, the Owner agrees to defend, indemnify and holds harmless the City, its officials, employees and its authorized agents from any and all damages, accidents, casualties, occurrences or claims which might arise or be asserted against the City and which are in any way connected with the construction, operation, presence, existence, inspection or maintenance of the Stormwater Quality Facilities by the Owner, or from any personal injury or property damage that may result from the City or other public entities entering the Property.

12. **Attorneys' Fees:** If a dispute arises between the parties concerning the performance of obligations under this Agreement or the meaning or interpretation of any provision of it, the prevailing party to such dispute shall be entitled to the recovery of all costs and expenses incurred by the other party, including costs and reasonable attorney and expert witness fees.

13. **General Provisions:**

a. **Entire Agreement.** The parties declare and represent that this Agreement contains the entire agreement of the parties pertaining to the subject matter hereof.

b. **Modifications.** Any changes to this Agreement whether by additions, deletions, waivers, amendments or modifications, may only be made in writing and must be signed by all parties in order to be effective.

c. **Waiver/estoppel.** No waiver by any party of any breach of any term or provision of this Agreement shall be construed to be a waiver of any proceeding, concurrent or succeeding breach of the same, or any other term or provision thereof. No waiver shall be binding unless in writing and signed by all parties to this Agreement. Failure of any party to enforce any right provided by this Agreement

shall not constitute a waiver or estoppel of said right. Any waiver by any party of any term or provision of this Agreement shall not be deemed a waiver of any other term or provision of this Agreement

d. **Execution in Counterparts.** This Agreement may be executed in counterpart copies, which together shall constitute one and the same instrument.

e. **Severability**. If any part of this Agreement is held to be illegal or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall be given effect to the fullest extent reasonably possible.

IN WITNESS THEREOF, the parties hereto have affixed their signatures as of the date first written above.

Date: _____ CITY of FOLSOM,
Municipal Corporation ("City")

By: _____
Kerry L. Miller
City Manager

Date: _____ ("OWNER")

By: _____

Title: _____

Approved as to content:

_____ Date: _____
Richard J. Lorenz
Public Works Director

Approved as to form:

_____ Date: _____
Bruce C. Cline
City Attorney

ATTEST:

_____ Date: _____
Christa Schmidt
City Clerk

NOTARIES ON FOLLOWING PAGE

NOTICE: SIGNATURE(S) MUST BE NOTARIZED.
A certificate of acknowledgment in accordance with the provisions of civil code section 1189 must be attached for each person executing this agreement. California Civil Section provides, at part (b): "Any certificate of acknowledgment taken in another place shall be sufficient in this state if it is taken in accordance with the laws of the place where the acknowledgment is made."

Insert notaries here

EXHIBIT A
Legal Description

EXHIBIT B
Operation and Maintenance Requirements

WHEN RECORDED RETURN TO:

CITY OF FOLSOM
DEPARTMENT OF PUBLIC WORKS
50 NATOMA STREET
FOLSOM, CA 95630

RETURN TO: Stormwater Quality
Program Manager

NO FEE DOCUMENT

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

TITLE(S)

Stormwater Quality Treatment Facility Access and Maintenance Agreement Between the City of Folsom and _____[Legal Name of Property Owner].

STORMWATER QUALITY TREATMENT FACILITY
ACCESS AND MAINTENANCE AGREEMENT

This Agreement is entered into this _____ day of _____ 2008, by and between the City of Folsom, a Municipal Corporation of the State of California ("City"), and _____[insert Legal Name of Property Owner] ("Owner").

RECITALS

The following Recitals are hereby incorporated and made part of this Agreement:

WHEREAS, Owner is developing real property within the City, known as ("Project"), located at_____, Folsom, California, further described by APN No (s). ____and depicted in Exhibit "A", of which is attached hereto and incorporated herein by reference (the "property" or "real property"); and

WHEREAS, Owner is the owner of said real property described hereinabove; and

WHEREAS, the City is required by NPDES Permit CAS052897 (Provision C.22) to require developments to provide verification of maintenance provisions for post-construction structural and treatment control facilities or devices; and

WHEREAS, the City's Stormwater Management and Discharge Control Ordinance ("Stormwater Ordinance"; Folsom Municipal Code 8.70) authorizes the City to establish development standards for post-construction treatment of runoff; and

WHEREAS, the Project is subject to certain conditions (including the requirement to include one or more post-construction stormwater quality treatment facilities to reduce pollutants in site runoff), as approved by the City on _____[insert date] (See Condition_____, Project No. PN __-___), made a part of this Agreement by reference; and

WHEREAS, Owner has chosen to install the following post-construction stormwater quality treatment facility(ies): _____("Stormwater Quality Facility(ies)"), to minimize pollutants in site runoff; and

WHEREAS, said Stormwater Quality Facilities are being installed in accordance with plans and specifications acceptable to the City; and

WHEREAS, said Stormwater Quality Facilities, with installation on private property and draining only private property are private facilities with all inspection, maintenance or replacement, therefore, being the sole responsibility of the Owner in accordance with the terms of this Agreement; and

WHEREAS, the Owner is aware that periodic and continuous inspection and maintenance is required to assure peak performance of Stormwater Quality Facilities in accordance with the maintenance procedures prepared for the Stormwater Quality Facilities, which are attached hereto as Exhibit "B" and incorporated herein; and

WHEREAS, such maintenance activity must comply with all Local, State, or Federal laws and regulations, including those pertaining to confined space and waste disposal methods, in effect at the time such maintenance occurs;

NOW THEREFORE, in consideration of the mutual promises contained herein, City and Owner hereby agree as follows:

1. **Stormwater Quality Facility(ies):** Owner and City agree to the installation of the Stormwater Quality Facility identified as _____(the "Stormwater Quality Facility" or "Facility") on the Property by Owner, all pursuant and subject to the terms and conditions of this Agreement.

2. **Access by City and Other Public Entities:** To the fullest extent allowed by law, Owner hereby provides to the City, its authorized agents and employees, the Sacramento County Environmental Management Department, the Sacramento-Yolo Mosquito and Vector Control District, and the Regional Water Quality Control Board, complete access to the Stormwater Quality Facilities and its immediate vicinity as deemed necessary by any of the foregoing entities to verify compliance with the City's Stormwater Ordinance and to protect public health and safety. These entities may enter the premises at any reasonable time to inspect the premises and operation of the Stormwater Quality Facilities, to inspect and copy records related to stormwater regulatory compliance, to collect samples and take measurements, and to perform emergency maintenance as needed. Whenever possible, these entities will provide notice prior to entry. These entities shall make every effort at all times to minimize or avoid interference with Owner's use of the Property. This right of access shall be irrevocable by the owner during the entire time this Agreement is in effect.

3. **Term:** This Agreement shall remain in full force and effect until terminated by either (1) 90 days' written notice of termination by the City to the Owner; or (2) mutual agreement of the City and the Owner. Owner shall have no right to unilaterally terminate this Agreement.

4. **Owner Responsibility to Maintain:** Owner shall maintain the Stormwater Quality Facilities pursuant to the requirements in Exhibit "B," in a manner assuring peak performance at all times, during the time the Agreement is in effect. All reasonable precautions shall be exercised by Owner and Owner's representatives in the removal and extraction of material(s) from the Stormwater Quality Facilities. Cleaning operations and disposal of the material(s) must be done in a manner consistent with all relevant Local, State and Federal laws and regulations in effect at the time of removal. As may be requested from time to time by the City, Owner shall provide the City with documentation describing maintenance dates and maintenance performed, and identifying

the material(s) removed, the quantity, and disposal destination.

5. **Failure to Maintain:** In the event Owner, or its successors or assigns, fails to accomplish the necessary maintenance contemplated by this Agreement in accordance with Exhibit "B", with not less than 72 hours prior notice to the Owner, the City is hereby authorized to cause any maintenance necessary to be done under the requirements specified in Exhibit "B". In the event of an emergency, as determined by the City, notice is not required. The City shall charge the entire cost and expense of such work to the Owner or Owner's successors or assigns, including administrative costs and interest thereon, at the rate of ten percent (10%) per annum from the date of written notice of expense until paid in full. The City is under no obligation to maintain, repair or monitor the Stormwater Quality Facilities, and this Agreement may not be construed to impose any such obligation on the City.

6. **Security:** If the Owner fails to maintain the Stormwater Quality Facilities as required to the standards specified in Exhibit "B", the City may require the Owner to post security in a form, for a time period, and in an amount sufficient and satisfactory to the City, to guarantee the performance of the obligations stated herein. Should the Owner fail to perform the obligations under this Agreement, the City may, in the case of a cash security deposit, act for the Owner using the proceeds from it, or in the case of a surety bond, require the sureties to perform the obligations of the Agreement and/or pursue any other remedy authorized by law.

7. **Agreement Binding On Successors In Interest:** This Agreement is an instrument affecting the title to or the possession of the real property. All terms, covenants and conditions herein imposed shall be binding upon and inure to the benefit of the successors in interest of Owner. Upon any sale or division of the real property, the terms of this Agreement shall apply separately to each parcel, and the Subdivider and/or Owner of each parcel shall succeed to the obligations imposed on Owner by this Agreement. As used in this Agreement, the term "Owner" shall include, respectively, not only subdivider and the present owner of the real property but also heirs, successors, executors, administrators and assigns.

8. **Recording of Agreement:** This Agreement shall be recorded in the Office of the Recorder of Sacramento County, California and shall constitute notice to all successors and assigns of the title to said Property of the obligation herein set forth.

9. **Notice to Successors:** The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the parties hereto. The term "Owner" shall include not only the present Owner, but also its heirs, successors, executors, administrators, and assigns. Owner shall notify any successor to title of all or part of the Property about the existence of this Agreement. Owner shall provide notice of the Agreement to any successor obtaining an interest in all or part of the Property. Owner shall provide a copy of such notice to the City at the same time such notice is provided to the successor. The failure of the owner to give notice shall not impair the effectiveness of this Agreement or its binding effect on successors.

10. **Notice:** Any notice to a party required or called for in this Agreement shall be served in

person, or by deposit in the U.S. Mail, certified or first class postage prepaid, to the address set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two (72) hours after deposit in the U.S. Mail, whichever is earlier. A party may change a notice address only by providing written notice thereof to the other party.

OWNER: _____

_____

_____

ATTENTION: _____[Insert Name and Title]

CITY: Director of Public Works
City of Folsom Public Works Department
50 Natoma Street
Folsom, CA 95630

11. **Indemnity:** To the fullest extent permitted by law, the Owner agrees to defend, indemnify and holds harmless the City, its officials, employees and its authorized agents from any and all damages, accidents, casualties, occurrences or claims which might arise or be asserted against the City and which are in any way connected with the construction, operation, presence, existence, inspection or maintenance of the Stormwater Quality Facilities by the Owner, or from any personal injury or property damage that may result from the City or other public entities entering the Property.

12. **Attorneys' Fees:** If a dispute arises between the parties concerning the performance of obligations under this Agreement or the meaning or interpretation of any provision of it, the prevailing party to such dispute shall be entitled to the recovery of all costs and expenses incurred by the other party, including costs and reasonable attorney and expert witness fees.

13. **General Provisions:**

a. **Entire Agreement.** The parties declare and represent that this Agreement contains the entire agreement of the parties pertaining to the subject matter hereof.

b. **Modifications.** Any changes to this Agreement whether by additions, deletions, waivers, amendments or modifications, may only be made in writing and must be signed by all parties in order to be effective.

c. **Waiver/estoppel.** No waiver by any party of any breach of any term or provision of this Agreement shall be construed to be a waiver of any proceeding, concurrent or succeeding breach of the same, or any other term or provision thereof. No waiver shall be binding unless in writing and signed by all parties to this Agreement. Failure of any party to enforce any right provided by this Agreement

shall not constitute a waiver or estoppel of said right. Any waiver by any party of any term or provision of this Agreement shall not be deemed a waiver of any other term or provision of this Agreement

d. **Execution in Counterparts.** This Agreement may be executed in counterpart copies, which together shall constitute one and the same instrument.

e. **Severability**. If any part of this Agreement is held to be illegal or unenforceable by a court of competent jurisdiction, the remainder of this Agreement shall be given effect to the fullest extent reasonably possible.

IN WITNESS THEREOF, the parties hereto have affixed their signatures as of the date first written above.

Date: _____ CITY of FOLSOM,
Municipal Corporation ("City")

By: _____
Kerry L. Miller
City Manager

Date: _____ ("OWNER")

By: _____

Title: _____

Approved as to content:

_____ Date: _____
Richard J. Lorenz
Public Works Director

Approved as to form:

_____ Date: _____
Bruce C. Cline
City Attorney

ATTEST:

_____ Date: _____
Christa Schmidt
City Clerk

NOTARIES ON FOLLOWING PAGE

NOTICE: SIGNATURE(S) MUST BE NOTARIZED.
A certificate of acknowledgment in accordance with the provisions of civil code section 1189 must be attached for each person executing this agreement. California Civil Section provides, at part (b): "Any certificate of acknowledgment taken in another place shall be sufficient in this state if it is taken in accordance with the laws of the place where the acknowledgment is made."

Insert notaries here

EXHIBIT A
Legal Description

EXHIBIT B
Operation and Maintenance Requirements

CERTIFICATION
for the
Stormwater Quality Improvement Plan
April 30, 2009

I certify under penalty of law that the Sacramento Stormwater Quality Improvement Plan (regional and Sacramento City-specific activities), dated April 30, 2009, and all associated attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Date: 4/23/09

Gregg L. Halladay, P.E.
Director of Public Works
City of Galt

meyers | nave riback silver & wilson
professional law corporation

Steven P. Rudolph
Attorney at Law
916.556.1531

MEMORANDUM

DATE: April 27, 2009

TO: California Regional Water Quality Control Board

FROM: Steven P. Rudolph
Galt City Attorney

RE: **City of Galt - Statement of Legal Authority**

This Statement is provided on behalf of the City of Galt pursuant to the "Waste Discharge Requirement for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento Storm Water Discharges from Municipal Separate Storm Sewer Systems Sacramento County, NPDES No. CAS082597, Order No. R5-2008-0142," issued by the California Regional Water Quality Control Board Central Valley Region on September 11, 2008 (hereafter referred to as the "Order").

Order NO. R5-2008-0142

Section C.6. of the Order provides as follows:

"Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revise SQIP, shall include the following:

a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;

b. Progressive enforcement policy and how it will be effectively implemented;

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order.

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

Legal Authority

a. Urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable:

The principle ordinance governing discharges to the City's municipal separate storm sewer system (MS4) is Chapter 16.10 of the Municipal Code, Storm Water Protection. In addition, the City's Grading Ordinance, Chapter 16.30 of the Municipal Cade, regulates grading projects and sets conditions for approval. Copies of these ordinances are attached as Exhibits A and B, respectively.

These ordinances were duly adopted by the Galt City Council and constitute valid municipal enactments pursuant to the City's police power. The California Constitution provides that a city "may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." (Cal. Const. Art XI, § 7.) A general law city's police power within its own territory is subject to preemption by the State, but "otherwise is as broad as the police power exercisable by the legislature itself." (Birkenfield v. City of Berkley, 17 Cal. 3d. 129, 140 (1976).)

b. Progressive enforcement policy and how it will be effectively implemented:

Chapter 16.10 of the Municipal Code, Storm Water Protection, authorizes and provides City enforcement officers with a range of enforcement options, including issuing notices to clean and abate, directing the preparation of storm water pollution prevention plans, establishing best management practices for specific properties, developing compliance schedules, issuing cease and desist orders, undertaking the abatement of discharges, or pursuing civil or criminal lawsuits. Additionally, City enforcement officers may impose administrative penalties pursuant to Chapter 21.01 of the Municipal Code, Violations, Penalties and Enforcement, and Chapter 21.02 of the Municipal Code, Administrative Citations. Copies of these ordinances are attached as Exhibits C and D, respectively.

City enforcement officers will assess any violations of urban runoff regulations, and will utilize the enforcement mechanism most suited to the situation. Repeat violators will be subject to increasing administrative fines in accordance with Chapter 21.02, and the City will seek court-issued injunctions.

c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order:

The Galt Municipal Code sets forth a variety of mechanisms that can be utilized by the City to ensure compliance with storm water related ordinances. The Storm Water Protection ordinance provides that persons violating the ordinance are subject to monetary penalties, charges and cleanup costs, judgments and associated costs, and costs of containment, treatment or disposal necessary to abate adverse impacts on water quality. (Section 16.10.060.) Administrative penalties are set forth in Chapters 21.01 and 21.02 of the Municipal Code. In addition, the City's enforcement officer may issue cease and desist orders, order abatement of any discharge, undertake to abate the discharge in emergency circumstances, and arrest or cite any person violating the ordinance for committing a misdemeanor. (Section 16.10.108.)

In addition, the City has the authority to inspect property, take samples and require any person to conduct monitoring and submit the results to the City. (Section 16.10.150.) The City may also bring a civil action against violators for, among other things, injunctive relief, cost recovery and civil penalties of up to $25,000 per day. (Section 16.10.200.)

The Grading Ordinance includes similar enforcement provisions. (See Section 16.30.240.)

d. How the ordinances are implemented and how enforcement actions under these ordinances may be appealed:

The storm water protection ordinances are implemented by the Director to Public Works, or his or her designee, and authorized enforcement officers, defined as the Director, the code enforcement officer, and the building official and their designees. (Section 16.10.180; Section 16.10.030.) The ordinance sets forth the enforcement mechanisms the enforcement officer may use, including compliance schedules, cease and desist orders, abatement order, criminal citations and declaration of public nuisance. (Section 16.10.180.) Any person served with any of these administrative orders may appeal by providing to the City Manager or his or her designee, a written request for hearing within seven days of the effective date of service of the notice. (Section 16.10.190.) The City Manager shall set a date for hearing before a hearing officer, and notify the party requesting the hearing in writing of the time, date and place for hearing at least 10 calendar days before the hearing. Procedures for conduct of the hearing are set forth in the Code (Section 16.10.190(C).) The hearing officer's decision must be in writing, and can be appealed pursuant to Government Code Section 53069.4. (Section 16.10.190(F)-(G).)

The Grading Ordinance is implemented by the Director of Public Works and the Building Official. The ordinance requires written notice to violators and provides that a person served with a notice may request a hearing. (Section 16.30.240(D)-(F).) The City Manager shall set a date for hearing before a hearing officer, and notify the party requesting the hearing in writing of the time, date and place for hearing at least 10 calendar days before the hearing. Procedures for conduct of the hearing are set forth in the Code. (Section 16.30.240(F).) The hearing officer's decision must be in writing, and can be appealed pursuant to Government Code Section 53069.4 (Section 16.30.240(F) –(G).)

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions:

The City's administrative enforcement powers under the Storm Water Protection ordinance are described in Section 16.10.180. As noted above, these powers include the issuance of various administrative order and notices, including compliance schedules, cease and desist orders, abatement orders, criminal citations and declaration of public nuisance. The Code also authorizes the filing of a civil action to enforce the ordinance and provides that the City may seek, among other remedies, injunctive relief. (Section 16.10.200.)

The City has similar authority under its Grading Ordinance. (Section 16.30.240.) The powers include the issuance of stop work notices, denial of future grading permits, and the abatement of nuisance conditions. (Section 16.30.090; Section 16.30.230.)

Further administrative enforcement authority is described in Chapters 21.01 and 21.02, as discussed under paragraph b, above.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities:

The Director of Public Works has primary responsibility for the development, implementation and enforcement of the various components of the urban runoff program. When other city officials, such as code enforcement officers, become aware of illicit discharges or other violations of the storm water regulations, they communicate this information to the Department of Public Works, who will undertake corrective action.

Additional Legal Authority / Clarification of Legal Authority

The City's authority under its ordinances is quite broad, and sufficient to address the pollutant sources set forth in the Order. To the extent that any activities become a cause for concern, and are not explicitly addressed in the City ordinances, the City has the ability to amend such ordinances as necessary.

Title 16

STORM WATER

Chapters:

16.10	**STORM WATER PROTECTION**
16.30	**GRADING**
16.50	**DRAINAGE UTILITY**

Chapter 16.10

STORM WATER PROTECTION

Sections:

16.10.010 Title.
16.10.020 Purpose.
16.10.030 Definitions.
16.10.040 Consistency.
16.10.050 Ultimate responsibility of the discharger.
16.10.060 Liability.
16.10.070 Prohibited activities.
16.10.080 Exceptions to discharge prohibition.
16.10.090 Reduction of pollutants in storm water.
16.10.100 Separately npdes permitted dischargers.
16.10.110 Construction activities.
16.10.120 New development and redevelopment.
16.10.130 Industrial discharges.
16.10.140 Inspection authority.
16.10.150 Monitoring, analysis and reporting authority.
16.10.160 Notification of spills.
16.10.170 Monitoring fees.
16.10.180 Enforcement.
16.10.190 Appeal.
16.10.200 Civil violation.
16.10.210 Criminal violations.
16.10.220 Remedies not exclusive.

Section 16.10.010 Title.

This Chapter shall be known as the storm water protection ordinance of the city of Galt, and shall be referred to herein as the "storm water protection ordinance."
(2002-05, Added, 07/02/2002)

Section 16.10.020 Purpose.

A. The intent of this Chapter is to protect and enhance the water quality of the city's watercourses, water bodies, and wetlands pursuant to, and consistent with, the Federal Water Pollution Control Act (Clean Water Act, 33 USC section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code section 13000 et seq.) and National Pollutant Discharge Elimination System (NPDES) permit no. CA0082597 issued by the California Regional Water Quality Control Board, as such permit is amended and/or renewed.

B. The purpose of this Chapter is to ensure, protect, and promote the health, safety, general welfare, and protection of property for city of Galt citizens by:

1. Regulating non-storm water discharges to the city storm drain system;

2. Controlling the discharge to city storm drain systems from spills, dumping, or disposal of materials other than storm water;

3. Reducing pollutants in storm water discharges from the city storm drain system to the maximum extent practicable;

4. Minimizing damage to surrounding properties and public rights-of-way, the degradation of the water quality of watercourses, and the disruption of natural or city authorized drainage flows caused by the activities of clearing and grubbing, grading, filling, and excavating of land, and sediment and pollutant runoff from other construction related activities, and to comply with the provisions of the city's npdes permit. Significant grading activities are further regulated in Chapter 16.30, grading ordinance.
(2002-05, Added, 07/02/2002)

Section 16.10.030 Definitions.

The following words and phrases when used in this Chapter shall be defined herein. Words and phrases used in this Chapter and not otherwise defined shall be interpreted as defined in the regulations of the United States Environmental Protection Agency to implement the provisions of the Federal Clean Water Act, and as defined by the State Water Resources Control Board to implement the Porter-Cologne Act in the state water code.

Authorized enforcement officer: shall include the city of Galt director of public works or his/her designee, code enforcement officer, and building official or his/her designee.

Best management practice (bmps): means schedules of activities, prohibitions of practices, general good housekeeping practices, maintenance procedures, educational programs, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to water of the united states or groundwater.

City: means the city of Galt.

City standards: means the city improvement standards, city standard construction specifications, city erosion and sediment control standards, and other standards included in applicable city ordinances, regulations and manuals, as amended from time to time and adopted by the city.

Civil engineer: means a professional engineer in the branch of civil engineering holding a valid certificate of registration issued by the state of California.

Council: means the city council of the city of Galt.

Director: means the city of Galt director of public works or his/her designee.

Discharge: means any release, spill, leak, pumping, flow, escape, dumping, or disposal of any gas, liquid, semi-solid, or solid substance.

Erosion control measures: means seeding, mulching, vegetative buffer strips, sod, plastic covering, burlap covering, watering, and other measures, which control the movement of the ground surface or soil.

National pollutant discharge elimination system (NPDES) permit: shall mean a discharge permit issued by the State Regional Water Quality Control Board, in compliance with section 402(p) of the Federal Clean Water Act.

Noncommercial vehicle washing: means the washing and rinsing of passenger vehicles on private property in which no commercial enterprise is being conducted in the washing of those vehicles.

Non-storm water discharge: means any discharge to the storm drain system that is not entirely composed of storm water.

Person: means any natural person, firm, association, club, organization, corporation, partnership, business trust, company or other entity, which is recognized by law as the subject of rights or duties.

Pollutant: means those pollutants defined in section 502 of the Federal Clean Water act (33 USC), or incorporated into California water code section 13373. Pollutants include, but are not limited to anything, which causes the deterioration of water quality such that it impairs subsequent and/or competing uses of the water. Pollutants include paints, oil and other petroleum hydrocarbons, soil, rubbish, trash, garbage, debris, refuse, waste, fecal coliform, fecal streptococcus, enteroccus, metals (such as cadmium, lead, zinc, copper, silver, nickel, chromium), nonmetals (such as phosphorus and arsenic), hazardous wastes, chemicals, fresh concrete, yard waste from commercial landscaping operations, animal wastes, materials that result from the process of constructing a building or structure, noxious or offensive matter of any kind. Pollutants also include hazardous materials, hazardous wastes, and any material that the enforcement agency has a reasonable basis for believing would be harmful to the environment if it were released into the municipal storm water system. Pollutant also means any contaminant, which can degrade the quality of the receiving waters by altering ph, total suspended or settleable solids, biochemical oxygen demand, chemical oxygen demand, nutrients, or temperature.

Sediment: means soil or earth material deposited by water.

Sediment control measures: means dikes, sediment detention traps, sediment detention basins, filters, fences, barriers, swales, berms, drains, check dams, and other measures which control sediment.

Storm drain system: means a conveyance or system of conveyances owned or operated by the city designed or used to convey storm water to waters of the united states. Storm drain systems include, but are not limited to, rockwells, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels or storm drains.

Storm water: means water that originates from atmospheric moisture (rainfall, hail, snow or snow melt) and that falls onto land, water or other surfaces.

(2002-05, added, 07/02/2002)

Section 16.10.040 Consistency.

This Chapter shall be construed to assure consistency with the requirements of the Federal Clean Water Act and acts amendatory thereof or supplementary thereto, applicable implementing regulations, and any existing or future municipal NPDES permits and any amendments, revisions or reissuance thereof. In the event of any conflict between this Chapter and any federal or state law, regulation, or permit, that requirement which establishes the higher standard shall govern. To the extent permitted by law, nothing in this Chapter shall preclude enforcement of any other applicable law, regulation, order, or permit.

(2002-05, added, 07/02/2002)

Section 16.10.050 Ultimate responsibility of the discharger.

The standards set forth herein and promulgated pursuant to this Chapter are minimum standards; therefore, this Chapter does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, or unauthorized discharge of pollutants into the water of the united states caused by said person. This Chapter shall not create liability on the part of the city or any agents or employee thereof, for any damages, claims, or liabilities that result from any discharger's reliance on this chapter or any administrative decision, lawfully made hereunder. (2002-05, added, 07/02/2002)

Section 16.10.060 Liability.

In the event that any person does not comply with the provisions of this Chapter and wastes or pollutants are discharged to the city's storm drain system that causes or threatens to cause an adverse impact on the water quality or a receiving stream or the groundwater, that person shall be liable for any or all of the following:

A. Any and all monetary penalties, charges, fees, cleanup costs, and other costs that may be imposed on the city by state or federal regulatory agencies as a result of threatened or actual violation(s), including administrative and legal fees;

B. Any and all judgments and associated costs that may be awarded to individuals or entities as a result of threatened or actual violation(s);

C. The total costs of containment, cleanup, treatment or disposal that the director may deem necessary to abate threatened or actual adverse impact on water quality of a receiving stream or the ground water, including consulting and administrative fees.

(2002-05, added, 07/02/2002)

Section 16.10.070 Prohibited activities.

A. Discharge of pollutants (illicit discharge). A non-storm water discharge to the city storm drain system is prohibited. All discharges of material other than storm water must be in compliance with a NPDES permit issued for the discharge.

B. Discharge in violation of permit. Any discharge that would result in or contribute to a violation of the city's existing or future municipal NPDES permit and any amendment, revision or reissuance thereof, either separately considered or when combined with other discharges, is a violation of this Chapter and is prohibited. Liability for any such discharge shall be the responsibility of the person(s) causing or responsible for the discharge, as well as the parcel owner on whose property the discharge occurs, who shall be strictly liable for its consequences, and such persons and/or owners shall defend, indemnify and hold harmless the city in any administrative or judicial enforcement action relating to such discharge.

C. Illicit connections. It is a violation of this Chapter to establish, use, maintain, or continue illicit connections to the city storm drain system, and to commence or continue any illicit discharge to the city storm drain system. This prohibition against illicit connections is retroactive and applies to unpermitted connections made in the past, regardless of whether permissible under the law or practices applicable or prevailing at the time of the connection.

D. Roof run-off. New construction, renovations, and alterations of domestic roof drain leaders may not be directly connected to sidewalks and gutters. Any practical method must be administered to discharge roof run-off into landscaped areas.

E. Private drains. Storm water or surface water, which is causing flooding on private property served by an on-site storm drainage system, may not be discharged to the city's storm drainage facilities.

F. Swimming pool water. Discharge of water from a swimming pool or fountain filter into an open channel is prohibited. Discharge of water, if dechlorinated, from a swimming pool into the street drain inlet or underground storm drainage facilities is allowed only with the written permission of the director. Such discharge may not cause flooding of the street. Water from pumping out a swimming pool or fountain filter backwash may be discharged into the sanitary sewer.

G. Food-related wastes. Food-related waste such as fats, oils, grease and fish processing water may not be discharged to the storm drain system. Restaurant kitchen mat and trash bin

waste water may be discharged to the sanitary sewer.
(Ord. 2003-11, Amended, 10/07/2003; 2002-05, added, 07/02/2002)

Section 16.10.080 Exceptions to discharge prohibition.

The following discharges are exempt from the prohibition set forth in section 16.10.070 above:

A. Any discharge or connection regulated under a NPDES permit issued to the discharger provided that the discharger is in compliance with all requirements of the permit and all other applicable laws and regulations;

B. Discharges from the following activities which do not cause or contribute to the violation of any standard:

1. Water line flushing and other discharges from potable water sources,

2. landscape irrigation and lawn watering (except as prohibited under the water conservation ordinance),

3. rising ground waters or springs,

4. passive foundation and footing drains,

5. water from crawl space pumps and basement pumps,

6. air conditioning condensate,

7. noncommercial vehicle washing,

8. natural flows from riparian habitats and wetlands,

9. lows from fire suppression activities, including fire hydrant flows,

10. diverted stream flows,

11. untreated ground water,

12. waters from street cleaning equipment during street cleaning operations.

C. Any discharge which an authorized enforcement officer, the local health officer, or the Regional Water Quality Control Board determines, in writing, is necessary for the protection of the public health and safety, and the environment.

D. Any discharge caused by flooding or other natural disaster, which could not have been reasonably foreseen or mitigated for in advance by the discharger, as determined by the authorized enforcement officer.
(2002-05, added, 07/02/2002)

Section 16.10.090 Reduction of pollutants in storm water.

Any person engaged in activities, which will or may result in pollutants entering the city storm drain system shall undertake all practicable measures to reduce such pollutants. Examples of such activities include ownership and use of facilities, which may be a source of pollutants such as parking lots, gasoline stations, industrial facilities, commercial facilities, stores, etc. The following minimal requirements shall apply:

A. Littering. No person shall throw, deposit, leave, maintain, keep or permit to be thrown, deposited or placed, any refuse, rubbish, garbage or other discarded or abandoned objects, articles or accumulations, in or upon any street, alley, sidewalk, storm drain, inlet, catch basin, conduit, or other drainage structure, business place, or upon any public or private lot of land, so that the same might be or become a pollutant, except in containers or in lawfully established dumping grounds. The occupant or tenant, or in the absence of occupant or tenant, the owner, lessee, or proprietor of any real property in the city in front of which there is a paved sidewalk shall maintain the sidewalk free of dirt or litter to the maximum extent practicable. Sweeping from the sidewalk and driveways shall not be swept, or washed, or otherwise made or allowed to go into the gutter or roadway, but shall be disposed of in receptacles maintained as required for the disposal of solid wastes.

B. Drain inlets and gutters. Owners of properties fronting a city right-of-way shall maintain the drain inlets and gutters adjacent to their property free of debris, leaves, dirt, or other sediment. The owner shall remove debris, leaves, dirt, and other sediment from the drain inlets and gutters adjacent to their properties and disposed of in receptacles maintained as required for the disposal of solid wastes.

C. Animal waste. Waste from dogs, cats, and other animals shall not be washed into the street or storm drain system.

D. Bodies of water. No person shall throw or deposit litter in any fountain, pool, lake, stream, river or any other body of water within the city's jurisdiction.

E. Standards for parking lots, paved areas, and related storm water systems. Persons, owning, operating, or maintaining a paved parking, lot the paved areas of a gas station, a paved private street, alley or road, and related storm water conveyance systems shall clean those structures as frequently and thoroughly as practical in a manner that does not result in the

discharge of pollutants to the city's storm drain system.

F. Outdoor storage areas. In outdoor areas, no person shall improperly store grease, oil or other hazardous substances. In outdoor areas, no person shall improperly store motor vehicles, machine parts, or other objects in a manner that may leak grease, oil, or other hazardous substances. To prevent discharge of hazardous substances from the property, the city may require the installation of a spill containment system.

G. Banned pesticides. No person shall use, store or dispose of any state or federally banned pesticide in a manner that allows the pesticide to be washed into the street or storm drain system.

H. Mobile washing operations: Mobile washing operations may not discharge wash water to the storm drain system. Operations shall be conducted so as to contain discharge runoff for disposal to the sanitary sewer system.

(Ord. 2003-11, Amended, 10/07/2003; 2002-05, added, 07/02/2002)

Section 16.10.100 Separately npdes permitted dischargers.

A. Compliance with NPDES permits and notification of intent. Any industrial discharger, discharger associated with construction activity, or other discharger subject to a storm water NPDES permit issued by the United States Environmental Protection Agency, the State Water Resource Control Board, or the Regional Water Quality Control Board, shall provide a notice of intent to the appropriate permitting agency and comply with all requirements of such NPDES permit. Every person undertaking any activity or use of a premises which may cause or contribute to storm water pollution or contamination, illegal discharges, or non-storm water discharges shall comply with best management practices guidelines or pollution control requirements as stated in their permit and as may be reasonably established by the authorized enforcement officer or this chapter.

B. Storm water pollution prevention plan. The authorized enforcement officer may require any business or construction site, which may directly or indirectly discharge into the city storm drain system that is engaged in activities which may result in pollutant discharges, to develop and implement a storm water pollution prevention plan, which must include an employee training program and any other BMPS, programs, or process descriptions which the authorized enforcement officer deems necessary to prevent a non-storm water discharge. Business activities which may require a storm water pollution prevention plan include, but are not limited to construction maintenance, storage, manufacturing, assembly, equipment operations, vehicle loading or fueling, or cleanup procedures which are carried out partially or wholly out of doors.

(2002-05, added, 07/02/2002)

Section 16.10.110 Construction activities.

A. Best management practices for construction activities. All construction contractors performing work in the city shall conform to adopted city standards. In addition to any adopted BMPS or other requirements for construction projects adopted by the city, the following requirements shall apply to all projects undergoing construction in the city. The requirements set forth below shall apply at the time of demolition of an existing structure or commencement of construction and until the project receives final occupancy/clearance from the city.

1. Sediment, construction waste and other pollutants from construction sites and parking areas, including runoff from equipment at construction sites, shall be retained on the site to the maximum extent practicable.

2. Any sediment or other materials that are not retained on the site shall be removed the same day as the projects are completed. Where determined necessary by the director, a temporary sediment barrier shall be installed.

3. On an emergency basis only, plastic covering may be utilized to prevent erosion of an otherwise unprotected area, along with runoff devices to intercept and safely convey the runoff.

4. Excavated soil or stockpiled base materials shall be located on the site in a manner that minimizes the amount of sediments running into the street or adjoining properties. Soil and materials piles shall be covered until the soil is either used or removed. Soil and materials shall not be placed on paved streets or sidewalks without specific permission of the director.

5. No washing of construction or other industrial vehicles shall be allowed on a construction site or property adjacent to a construction site.

6. Drainage controls shall be utilized as needed, depending on the extent of the proposed grading and topography of the site, including but not limited to the following: detention ponds, sediment ponds, infiltration pits, dikes, filter berms, ditches, down drains, chutes, or flumes.

B. Notification to the director shall be required within twenty-four (24) hours following the failure of authorized measures to prevent erosion or sediment from leaving the construction site; the deposit of debris or material on adjoining property or public rights-of-ways, or; the interference with any existing watercourses or drainage facilities.

(2002-05, added, 07/02/2002)

Section 16.10.120 New development and redevelopment.

The city may establish controls on the volume and rate of storm water runoff from new developments and redevelopments as may be appropriate to minimize the discharge and transport of pollutants. To minimize the discharge and transport of pollutants, the city may require, in its discretion, new development or redevelopment projects to implement designs, which minimize storm water runoff. Acceptable methods and standards for controlling storm water runoff volumes, rates, and pollutant load may include but are not limited to the following: increasing permeable areas, directing runoff to permeable areas, maximizing storm water storage for controlled release and/or reuse, and requiring the construction of sediment basins, ponds and/or other structures to reduce sediments and pollutants. Where treatment devices are installed to reduce pollutants, such treatment devices must be properly operated and maintained.

(Ord. 2003-11, Amended, 10/07/2003; 2002-05, added, 07/02/2002)

Section 16.10.130 Industrial discharges.

A. Coordination with hazardous materials release response plans and inventory. Any business requiring a hazardous materials release response and inventory plan under section 25500 of the California Health and Safety Code shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-storm water discharges and illegal discharges, and requiring the release of pollutants to be reduced to the maximum extent practicable.

B. Coordination with hazardous waste generator contingency plan. Any business requiring a hazardous waste generator contingency plan and emergency procedures pursuant to California Code of Regulations, TITLE 22, shall include in that plan provisions for compliance with this chapter, including the provisions prohibiting non-storm water discharges and illegal discharges, and requiring the release of pollutants to be reduced to the maximum extent possible.

C. National categorical storm water effluent limitations. All users listed in 40 CFR Sub-Chapter N shall comply with the effluent limitations guidelines as set forth therein. However, where the city has adopted effluent limitation standards more stringent than those contained in the national categorical water effluent limitations, the specific prohibitions or limits on pollutants or pollutant parameters as developed by the city shall be deemed the applicable pretreatment standards. When local limitations are more stringent than those contained in the act have been adopted, the city shall notify all affected users of the applicable reporting requirements.

(2002-05, added, 07/02/2002)

Section 16.10.140 Inspection authority.

The director may enter and inspect property for which a grading permit, building permit, or improvement plan approval has been issued to determine applicability or compliance with all applicable city ordinances and city standards. The director may also inspect any and all property on which grading, filling, clearing and grubbing or excavating activities are occurring. In addition, whenever necessary to make an inspection to enforce any of the provisions of this Chapter, or whenever an authorized enforcement officer has reasonable cause to believe that there exists in any building or upon any premises any condition which constitutes a violation of this Chapter, the agent may, enter such building or premises to inspect the same or perform any duty imposed upon the officer by this Chapter. If an owner, tenant, occupant, agent or other responsible party refuses to grant the city permission to enter or inspect, the city may seek an administrative inspection warrant pursuant to the procedures provided for in the California Code of Civil Procedure. Routine or area inspections shall be

based upon such reasonable selection processes as may be deemed necessary to carry out the objectives of this Chapter, including but not limited to random sampling and/or sampling in areas with evidence of storm water contamination, illicit discharges, discharge of non-storm water to the storm drain system, or similar factors. With the consent of the owner or occupant or pursuant to a search warrant, any authorized enforcement officer may establish on any property such devices as are necessary to conduct sampling or metering operations. During all inspections as provided herein, the authorized enforcement officer may take any samples deemed necessary to aid in the pursuit of the inquiry or in the recording of the activities onsite.
(2002-05, added, 07/02/2002)

Section 16.10.150 Monitoring, analysis and reporting authority.

Any authorized enforcement officer may request that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to storm water pollution or contamination, illicit discharges, and/or discharge of non-storm water to the storm water system, undertake such monitoring activities and/or analysis and furnish such reports as the officer may specify. The burden, including costs, of these activities, analysis and reports shall bear a reasonable relationship to the need for the monitoring, analysis, and reports and the benefits to be obtained. The recipient of such request shall undertake and provide the monitoring, analysis and/or reports requested. In the event the owner or operator of a facility subject to a monitoring and/or analysis order fails to conduct required monitoring and/or analysis and furnish the required reports in the form required, the authorized enforcement officer may cause such monitoring and/or analysis to be performed and the cost, therefore, including the reasonable additional administrative costs incurred by the city shall be borne by the owner of the property and the cost thereof shall be invoiced to the owner of the property.
(2002-05, added, 07/02/2002)

Section 16.10.160 Notification of spills.

Any person owning, occupying or in charge of a premises or responsible for emergency response for a facility has a personal responsibility to train facility personnel and maintain notification procedures to assure immediate notification is provided to the city of any suspected, confirmed, or unconfirmed release of materials, pollutants or wastes creating a risk of discharge into the city storm drain system. As soon as any person owning, occupying or in charge of the premises or responsible for emergency response for a facility has knowledge of any suspected, confirmed or unconfirmed release, such person shall take all necessary steps to ensure the discovery and containment and cleanup of such release and shall immediately notify the city of the occurrence by telephoning the city public works department or police department and confirming the notification by written correspondence to the director within twenty-four (24) hours of any known or confirmed pollutant.
(2002-05, added, 07/02/2002)

Section 16.10.170 Monitoring fees.

A. Council may, from time to time, establish by resolution a schedule of storm water monitoring activities fees. These fees shall apply to persons performing activities which are required by federal law to obtain a National Pollutant Discharge Elimination System (NPDES) permit regulating the discharge of storm water and surface water from the site of an industrial or construction activity; and shall apply to persons performing any activity which the city may be required to regulate or monitor by the NPDES municipal storm water permit issued to the city. The fees shall correspond to the costs expended by the city in monitoring the discharge from such a site or activity for compliance with the conditions of any applicable NPDES permit, as well as any costs associated with damage to or degradation of city's storm drain system. Every cost, fee, charge, penalty, or other monies collected under this Chapter shall be paid to the city to be used exclusively for storm water and drainage programs.

B. If the City Council and the Sacramento County Board of Supervisors enter into an agreement for Sacramento County to monitor any provisions of this Chapter within the city, Sacramento County may directly charge fees to persons performing activities being monitored in the same manner as the City, to monitor any activity of any provision of this Chapter with respect to such agreement. Such fees shall be

established by Sacramento County and shall correspond to the costs expended by the county in monitoring the discharge from such a site or activity for compliance with the conditions of any applicable NPDES permits
(Ord. 2004-06, Amended, 08/02/2004; 2002-05, added, 07/02/2002)

Section 16.10.180 Enforcement.

A. The enforcement officer may utilize any enforcement powers authorized or provided in this code. These include, but are not limited to, the penalties as set forth in Chapter 21.01 of Title 21 and the penalties as set forth in this Chapter.

B. The enforcement officer may exercise any of the following supplemental enforcement powers as he deems necessary or advisable:

1. Notice to clean and abate. Whenever an authorized enforcement officer finds any oil, earth dirt, cans, rubbish, refuse, waste or any other material of any kind, in or upon the sidewalk abutting or adjoining any parcel of land, or upon any parcel of land or grounds, which may result in an increase in pollutants entering the city storm drain system or natural water course, he or she may give notice to remove and abate such oil, earth, dirt, cans, rubbish, refuse, waste or other material, in any manner that he or she may reasonably provide. The recipient of such notice shall undertake the activities as described in the notice. In the event the owner or operator of a facility fails to conduct the activities as described in the notice, the authorized enforcement officer may cause such required activities as described in the notice and the cost thereof shall be invoiced to the owner of the property.

2. Storm water pollution prevention plan. The director shall have the authority to establish elements of a storm water pollution prevention plan and to require any business to adopt and implement such a plan, as may be reasonably necessary to fulfill the purposes of this chapter.

3. Best management practices. The director may establish the requirements of best management practices for any premises.

4. Compliance schedule. The authorized enforcement officer may develop and implement a schedule for compliance to meet any applicable federal or state standards or regulations covering the discharge of storm water or surface water for any activity not complying with the strictest of said standards and regulations. Failure to complete the compliance schedule by any specified date shall constitute a violation of this chapter.

5. Cease and desist orders. When an authorized enforcement officer finds that a discharge has taken place or is likely to take place in violation of this chapter or, that may lead to such violation, the officer may issue an order to cease and desist such discharge, or practice, or operation likely to cause such discharge and direct that those persons not complying shall: comply with the requirement; comply with a time schedule for compliance; and/or take appropriate remedial or preventive action to prevent the violation from recurring.

6. Nuisance and Abatement. The authorized enforcement officer may order the abatement of any discharge from any source to the storm water drain system when, in the opinion of the authorized enforcement officer, the discharge causes or threatens to cause a condition which presents an imminent danger to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit, and therefore is deemed a public nuisance. In emergency situations where the property owner or other responsible party is unavailable and time constraints are such that service of a notice and order to abate cannot be effected without presenting an immediate danger to the public health, safety, or welfare, or the environment, or a violation of a NPDES permit, the City may perform or cause to be performed such work as shall be necessary to abate said threat or danger pursuant to section 21.01.090. The costs of any such abatement shall be borne by the owner and shall be collectable as provided by sections 21.01.100 and 21.01.110.

7. Criminal citation. Authorized enforcement officers shall have and are hereby vested with the authority to arrest or cite any person who violates any section of this code in the manner provided by the California Penal Code for the arrest or release on citation of misdemeanor infractions as prescribed by Chapter 5, 5c, and 5d of TITLE 3, part 2 of the penal code (or as the same may be hereafter amended). Such authorized enforcement officers may issue a citation and notice to appear in the manner prescribed by Chapter 5 of TITLE 3, part 2 of the penal code, including section 853.6 (or as the same may hereafter be amended). It is the intent of the city council that the immunities prescribed in section 836.5 of the penal code be

applicable to public officers or employees acting the course and scope of employment pursuant to this chapter.

8. In addition to the actions provided herein, any condition caused or permitted to exist in violation of any of the provisions of this Chapter is a threat to the public health, safety and welfare, is declared and deemed a public nuisance.

C. Notices and Orders

1. Notice of Non-Compliance

a. The authorized enforcement officer may issue to the owner, manager, operator, or occupant of any premises, or to any person responsible for any violation of this Title, a Notice of Non-Compliance.

b. The Notice shall identify the provisions of this Title that have been violated, the corrective actions required to achieve compliance, required date of completion of corrective actions to be in compliance, and the right to appeal the matter.

2. Administrative Enforcement Orders

a. If the Director determines that a person has committed, or is committing, a violation of any law, regulation, permit, information request, order, variance, or other requirement that the Director is authorized to enforce or implement pursuant to this Chapter, the Administrator may issue an Administrative Enforcement Order requiring that the violation be corrected and may impose an Administrative Civil Penalty as specified in Section 16.10.20 of this Chapter.

b. The Director shall adopt written procedures for issuing an Administrative Enforcement Order and imposing an Administrative Civil Penalty. In establishing a penalty amount and ordering that the violation be corrected pursuant to this section, the Director shall take into consideration such factors as the nature, circumstances, extent, and gravity of the violation, the violator's past and present efforts to prevent, abate, or clean up conditions posing a threat to the public health or safety or the environment.

c. The Administrative Enforcement Order shall specify a date by which the discharger must be in compliance with this Chapter. The Director may extend the compliance date when good cause exists for such an extension.

d. The Administrative Enforcement Order may state that the City may recover any costs incurred by the City as a result of the violation and may include a demand for recovering costs incurred.

e. An Administrative Enforcement Order may be issued in the same document or separately from any Notice of Non-Compliance and/or any Cease and Desist Order.

f. The Administrative Enforcement Order shall state that the recipient has a right to appeal as set forth in Section 16.10.190 of this Chapter.

3. Cease and Desist Orders

a. The Director may issue a Cease and Desist Order. The Cease and Desist Order may be included in a Notice of Non-Compliance and/or in an Administrative Enforcement Order. A Cease and Desist Order may direct the owner or occupant of any premises, or any other person responsible for any violation of this Chapter, to take any of the following action:

1. Immediately discontinue any prohibited discharge to the City storm water conveyance system.

2. Immediately discontinue any other violation of this Chapter.

3. Clean up the area affected by the violation.

b. The Director may direct by a Cease and Desist Order that any person immediately cease any activity which may lead to a violation of Receiving Water Limitations.

D. If the City Council and the Sacramento County Board of Supervisors enter into an agreement for Sacramento County to administer and enforce any provisions of this Chapter within the City, any administrative or civil enforcement by Sacramento County of any provision of this Chapter with respect to such agreement shall be governed by and conducted pursuant to Chapter 15.12 of the Sacramento County code. Within the terms of any such agreement, Sacramento County and its authorized official(s) and employee(s) shall be authorized to take any action with respect to facilities located within the City, in accordance with the provisions of this Chapter, including the levying and collection of applicable

penalties, fees, and other payments.
(Ord. 2006-07, Amended, 06/06/2006; Ord. 2004-06, Repealed and Replaced, 08/02/2004; 2002-05, added, 07/02/2002)

Section 16.10.190 Appeal.

Any person served with an administrative citation, administrative notice and order, notice to clean and abate, cease and desist order, compliance schedule or who is aggrieved by a decision of the Director or other authorized enforcement officer, may appeal by filing a written request for a hearing with the City Clerk within seven (7) days of the effective date of service of the notice. The hearing shall be set and conducted pursuant to section 21.03.060. The decision of the hearing officer is final. Any person aggrieved by a decision of the hearing officer may obtain judicial review pursuant to section 21.03.070.
(Ord. 2006-07, Amended, 06/06/2006; Ord. 2004-06, Amended, 08/02/2004; 2002-05, added, 07/02/2002)

Section 16.10.200 Civil violation.

In addition to any other remedies provided in this Chapter, any violation of the provisions of this Chapter may be enforced by civil action brought by the city pursuant to sections 21.01.060 and 21.01.080. In any such action, the City may seek any or all of the following remedies:

A. Injunctive relief;

B. Assessment against the violator for the costs of any investigation, inspection, or monitoring survey which led to the discovery of the violation, and for the reasonable costs incurred in preparing and prosecuting the legal action as a result of violations of this chapter;

C. Recovery for costs incurred in removing, correcting, terminating, or preventing adverse effects resulting or likely to result from the violation;

D. Compensatory damages for loss or destruction to water quality, wildlife, fish, and aquatic life; and/or

E. Such other relief as the court may authorize.

Any person who violates any provision of this Chapter, who discharges or causes pollution, or who violates any cease and desist order, state or national law or regulation, or any other order of the director shall be civilly liable to the city in a sum not to exceed twenty-five thousand dollars ($25,000.00) per violation per day. In addition, the city may require the user to pay any excess costs to the system for supplementary treatment systems, facilities, or operations needed as a result of allowing the entry of such discharges into the storm water system. The city may petition the Sacramento County Superior Court to impose, assess, and collect any sums levied pursuant to this chapter and sections 54725, 54739, and 54740, et seq. of the California Government Code. In determining the amount to be recovered, the court shall take into consideration all relevant circumstances including, but not limited to, the extent of the harm caused by the violation, the economic benefit derived through any noncompliance, the nature and persistence of the violation, the length of time over which the violation occurs, and corrective action, if any, attempted or taken by the discharger. Notwithstanding any other provision of law, all civil penalties imposed by the court pursuant to this paragraph shall be distributed to the city. Remedies imposed pursuant to this section are in addition to and do not supersede or limit any and all other administrative, civil, or criminal remedies available at law.
(Ord. 2006-07, Amended, 06/06/2006; 2002-05, added, 07/02/2002)

Section 16.10.210 Criminal violations.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Chapter. A violation of any of the provisions or failing to comply with any of the mandatory requirements of this Chapter shall constitute a misdemeanor. Causing, permitting, aiding, abetting or concealing a violation of any provision of this Chapter is unlawful and shall also constitute a misdemeanor. Notwithstanding any other provision with this code, any such violation constituting a misdemeanor under this Chapter may, in the discretion of the City Attorney, be charged and prosecuted as an infraction. Misdemeanors shall be punishable as provided by Section 21.01.050. Infractions shall be punishable as provided by section 21.01.040. Each person shall be charged with a separate offense for each and every day, during which

any violation of any provision of this code is committed, continued or permitted by such person and shall, upon conviction, be punished accordingly.
(Ord. 2006-07, Amended, 06/06/2006; 2002-05, added, 07/02/2002)

Section 16.10.220 Remedies not exclusive.

A. Remedies under this Chapter are in addition to and do not supersede or limit any and all other remedies, civil or criminal. The remedies provided herein shall be cumulative and not exclusive. In addition to any penalty, sanction, fine or imprisonment, any person violating the provisions of this Chapter shall be required to pay any and all expenses of enforcement including those costs necessary to monitor, inspect, remove and/or correct the violation. In addition to all remedies herein contained, the city may pursue all reasonable and legal means in collecting those sums authorized and due.

B. If the costs of enforcement and any penalties assessed are not paid within thirty (30) days of effective date of service of the notice or order demanding payment, such costs may be assessed against the parcel of land pursuant to section 21.01.110, and shall be transmitted to the tax collector for collection and shall be subject to the same penalties and the same procedures and sale in case of delinquency as provided for ad valorem taxes.
(Ord. 2006-07, Amended, 06/06/2006; Ord. 2004-06, Amended, 08/02/2004; 2002-05, added, 07/02/2002)

Chapter 16.30

GRADING

Sections:

16.30.010 Title.
16.30.020 Purpose.
16.30.030 Definitions.
16.30.040 Grading approval required.
16.30.050 Exemptions.
16.30.060 Grading approval.
16.30.070 Conditions of grading approval.
16.30.080 Liability.
16.30.090 Compliance with permits and standards.
16.30.100 Water obstruction.
16.30.110 Levee work.
16.30.120 Application for grading permit.
16.30.130 Grading prior to issuance of approval of improvement plans.
16.30.140 Permission of other agencies or owners.
16.30.150 Erosion and sediment control plans (esc plan).
16.30.160 Modification of approved grading plans.
16.30.170 Permit fees.
16.30.180 Inspection of work.
16.30.190 Identification of property lines.
16.30.200 Other responsibilities of permittee.
16.30.210 Time limits.
16.30.220 Permits nontransferable.
16.30.230 Abatement.
16.30.240 Penalty and cost of enforcement.

Section 16.30.010 Title.

This Chapter shall be known as the grading ordinance of the city of Galt, and shall be referred to herein as the “grading ordinance.”
(2002-06, Added, 07/02/2002)

Section 16.30.020 Purpose.

The grading ordinance is enacted for the purpose of regulating grading on property within the city limits of the city to safeguard life, limb, health, property and the public welfare; to avoid pollution of watercourses with nutrients, sediments, or other materials generated or caused by surface water runoff; to comply with the city's National Pollution Discharge Elimination System (NPDES) permit no. CA0082597, issued by the California Regional Water Quality Control Board and to ensure that the intended use of a graded site within the city limits is consistent with the city general plan, any specific plans adopted thereto and all applicable city ordinances and regulations. The grading ordinance is intended to control all aspects of grading operations within the city limits of the city.
(2002-06, Added, 07/02/2002)

Section 16.30.030 Definitions.

Unless the particular provision or the context otherwise requires, wherever the following terms are used in the grading ordinance, they shall have the meaning ascribed to them in this section.

Best management practices: Any program, technology, technique, process, siting criteria, operating method, measure or device which controls, prevents, removes or reduces pollution, erosion, and sediment transport.

Building official: The building official for the city of Galt who has responsibility for the application of california building code within the city.

City council: City council of the city of Galt.

City standards: A compilation of administrative procedures, technical standards, and design specifications adopted by the city of Galt.

Director: Director of the public works department of the city of Galt, or his or her authorized designees.

Erosion and sediment control plan (ESC plan): Consists of a set of best management practices or equivalent measures designed to control surface runoff and erosion, retain sediment on a particular site, and prevent pollution of site runoff during the period in which preconstruction and construction related grading and/or soil storage occur, and before final improvements or permanent structures are completed.

Person: Includes any individual, firm, partnership, association, corporation, public district, public agency, public utility, trust,

estate, other political subdivision or any other entity.
(2002-06, Added, 07/02/2002)

Section 16.30.040 Grading approval required.

Except for the specific exemptions listed hereinafter, no person shall do or permit to be done any grading on any site in the city without first obtaining approval of such grading from the director or the building official in accordance with the provisions of the grading ordinance.
(2002-06, Added, 07/02/2002)

Section 16.30.050 Exemptions.

The following grading may be done without obtaining grading approval unless grading approval is required in mitigation monitoring agreements or other conditions of project approval. Exemption from the grading approval requirement shall not be deemed as permission to violate any other provision of this chapter.

A. Minor construction projects, which meet all of the following requirements:

1. The volume of material graded is less than fifty (50) cubic yards,

2. The depth of cuts and fills is less than two feet,

3. Any drainage way is not blocked or obstructed and its storm water carrying capacities are not modified,

4. Slopes are less than ten percent and are not left in an unstable or erodible condition;

B. Single family residential lots less than one-half acre that are not part of a larger common plan and residential infill projects less than one-half acre which also meet the requirements of subsection (A) of this section;

C. Grading necessary for agricultural operations unless the failure of any cut or fill created by such grading could endanger any structure intended for human or animal occupancy or any public road, or could obstruct any watercourse or drainage way;

D. Exploratory excavations of less than three hundred fifty (350) cubic yards under the supervision of a geotechnical engineer;

E. Routine cemetery excavations and fills;

F. Performance of emergency work necessary to protect life or property when an urgent necessity therefore arises. The person performing such emergency work shall notify the director promptly of the problem and work required;

G. Refuse disposal sites controlled by TITLE 23 of the California Code of Regulations;

H. The repair and maintenance of levees for river and local drainage control performed by a governmental agency.
(2002-06, Added, 07/02/2002)

Section 16.30.060 Grading approval.

Grading approval for grading done on a single parcel in conjunction with imminent construction of a building or other structure shall be granted by the building official in accordance with California Building Code and is not further addressed in this ordinance with the exception that section 16.30.150 applies to all grading permits. Grading approval for multiple parcels and single parcels where grading is requested in the absence of construction of buildings or structures, may be issued by the director in connection with the issuance of an encroachment permit, or the approval of improvement plans; or where commencement of grading is desired prior to such issuance or approval, or is performed separately, through the issuance of a separate grading permit. If a building permit, improvement plan or encroachment permit is approved in accordance with other sections of city code, and then a separate grading permit shall not be required. Approval of the building permit, improvement plans, or encroachment permit, constitutes approval of the grading work intended.
(2002-06, Added, 07/02/2002)

Section 16.30.070 Conditions of grading approval.

A. No grading shall be approved unless the project conforms with the city's general plan, any adopted specific or community plans, and applicable city ordinances, including the zoning ordinance and the subdivision ordinance.

B. Where the California Environmental Quality Act (CEQA) requires the preparation and approval of environmental documents concerning a project which will result in grading for which a grading permit is required under this Chapter, no grading shall be approved until all CEQA requirements have been met, including

but not limited to mitigation measures relating to protection of threatened and endangered species under applicable federal and state endangered species laws.

C. Where a proposed grading project requires the filing of a tentative map or the intended use requires approval of a discretionary zoning permit or variance, grading may also require approval from the city planning and building departments.

D. Work shall be performed in accordance with the provisions of this grading ordinance and the applicable criteria set forth in the city standards.

E. Grading approval shall be limited to work shown on the grading plans as approved by the director. The director may impose any condition deemed necessary to protect the health, safety, and welfare of the public, to prevent the creation of a hazard to public or private property, and/or to assure proper completion of the grading.
(2002-06, Added, 07/02/2002)

Section 16.30.080 Liability.

The issuance of a permit hereunder shall not be construed as imposing any liability upon the city or upon any of its officers, employees, or agents by reason of damage or injury to persons or property resulting from any activity, repair, improvement, excavation or obstruction authorized by the permit. Neither issuance of grading approval under the provisions of the grading ordinance nor compliance with the provisions hereof or with any conditions imposed in a permit issued hereunder shall relieve any person from responsibility for damage to any person or property.
(2002-06, Added, 07/02/2002)

Section 16.30.090 Compliance with permits and standards.

The issuance of grading approval shall not be construed as an approval of any action or condition constituting a violation of the provisions of the grading ordinance or of any other applicable laws, ordinances, rules or regulations. Any act done under the authority of a written permit issued pursuant to the provisions of this Chapter shall be done in accordance with the terms and conditions of such permit. All federal and state laws and codes, and the construction standards of the city will be complied with during the execution of work under the permit. All work shall be done and must be constructed in accordance with the standards adopted by the city. The failure of any permittee or person to obey the provisions of this Chapter or the lawful directions of the director of public works or his or her designated representative relative to grading work shall be deemed to be sufficient cause to refuse the request of the person for further permits for work of such character or to cause the stoppage of any work and progress by the director of public works by written notice until the permittee is in full compliance with the terms of this Chapter.
(2002-06, Added, 07/02/2002)

Section 16.30.100 Water obstruction.

No person shall do or permit to be done any grading which may obstruct, impede, or interfere with the natural flow of storm waters, whether such waters are unconfined upon the surface of the land or confined within land depressions, natural drainage ways, unimproved channels, watercourses, improved ditches, channels or conduits, in such manner as to cause flooding where it would not otherwise occur, aggravate any existing flooding condition or cause accelerated erosion except where said grading is in accordance with all applicable laws including, but not limited to, the provisions of the grading ordinance.
(2002-06, Added, 07/02/2002)

Section 16.30.110 Levee work.

No person shall excavate or remove any material from or otherwise alter any levee adjacent to any river, creek, bay, or local drainage control channel, without prior approval of the governmental agency or agencies responsible for the operation and/or maintenance of the levee.
(2002-06, Added, 07/02/2002)

Section 16.30.120 Application for grading permit.

The director shall determine whether the application is complete and may require additional information from the applicant before accepting the application as complete. The

director may require the submission of plans, soil or geological reports, detailed construction recommendations, drainage study or other engineering data prior to and in connection with any work or activity proposed. Grading plans and specifications shall be prepared and signed by a registered civil engineer, except as otherwise provided herein and shall include the information required in the city standards. The director may waive the requirement that all plans and specifications be prepared and signed by a registered civil engineer if the grading would not endanger the public health, safety, or welfare as determined by the director.
(2002-06, Added, 07/02/2002)

Section 16.30.130 Grading prior to issuance of approval of improvement plans.

Approval of a separate grading permit to perform grading prior to issuance of approval of improvement plans shall not prohibit the city from requiring additional grading or changes to grading in accordance with improvement plans once approved. Any additional grading or revisions to work necessitated by conflicts discovered during the improvement plan check, subsequent building plan checks, or subsequent construction will be corrected at the permittee's expense.
(2002-06, Added, 07/02/2002)

Section 16.30.140 Permission of other agencies or owners.

No application for grading approval shall relieve the permittee of responsibility for securing other permits or approvals required for work which is regulated by any other department or other public agency, or for obtaining any easements or authorization for grading on property not owned by the permittee. Proof of applicable public agency permits may be required prior to issuance of grading approval.
(2002-06, Added, 07/02/2002)

Section 16.30.150 Erosion and sediment control plans (esc plan).

An ESC plan shall be prepared for all projects to control surface runoff and erosion and to retain sediment on a particular site and prevent pollution of site runoff during the period when preconstruction and construction related grading activities occur, but before final improvements or permanent structures are complete. The ESC plan shall be prepared and submitted concurrently with the grading plan and shall include all of the information required by city standards.
(2002-06, Added, 07/02/2002)

Section 16.30.160 Modification of approved grading plans.

Any modifications of an approved grading plan shall be submitted in writing to the director, who shall approve or deny such modification at his or her sole discretion.
(2002-06, Added, 07/02/2002)

Section 16.30.170 Permit fees.

Processing fees in an amount established by resolution of the city council shall be paid for permits prior to permit issuance, except where a continuous billing account has been established. Costs incurred by city for processing and checking the application and for inspection shall be billed to the permittee based upon the city fee schedule in effect at the time of permit processing. If grading work is done in violation of the grading ordinance or does not comply with the terms and conditions of a grading approval issued for such grading, a fee covering investigation of any violation and inspection and plan checking of work required to correct such violation shall be charged to the violator to cover all costs actually incurred by the city.
(2002-06, Added, 07/02/2002)

Section 16.30.180 Inspection of work.

The director may inspect any work done pursuant to the grading ordinance at any time during the course of construction. No person shall be deemed to have complied with the grading ordinance until a final inspection of the work has been made by the director. As a condition of any grading approval, the permittee shall provide the city a right-of-entry and reasonable access to the site during the performance of all work and for a minimum period of one year after final inspection pursuant to the grading permit.
(2002-06, Added, 07/02/2002)

Section 16.30.190 Identification of property lines.

Prior to any grading work or related activities, the owner may be required to mark all property corners of the parcel of land to be graded. If the property corners are unknown, or whenever the location of a property line or easement or the title thereto is disputed during the application process or during a grading operation, a survey by a licensed land surveyor or civil engineer, or other resolution of the title dispute, all at the expense of the permittee, may be required by the director. Whenever necessary to enforce the provisions of the grading ordinance, the director may enter the premises at all reasonable times to the extent authorized by law to perform any duty imposed by the grading ordinance. If such entry is refused, the director shall have recourse to every remedy provided by law to secure entry.
(2002-06, Added, 07/02/2002)

Section 16.30.200 Other responsibilities of permittee.

The permittee shall be responsible for the prevention of damage to any public utilities or services, for the prevention of damage to adjacent property, and to prevent discharge of sediment from the site, in quantities greater than before the grading occurred, to any watercourse, drainage system, or adjacent property.
(2002-06, Added, 07/02/2002)

Section 16.30.210 Time limits.

All the work required by the permit or grading approval shall be completed within the time limits specified in the permit or approval. The director may in his or her sole discretion approves or denies a request for time extension. The director may require a new application and fees depending on the time between the expiration date and the extension request, revisions in city regulations, and/or changed circumstances in the immediate area.
(2002-06, Added, 07/02/2002)

Section 16.30.220 Permits nontransferable.

No approval or permit issued under the grading ordinance may be transferred or assigned in any manner whatsoever, without the express written consent of the director.
(2002-06, Added, 07/02/2002)

Section 16.30.230 Abatement.

Any activity contrary to the provisions of this Chapter or contrary to the issued permit or the terms or conditions imposed therein is unlawful and a public nuisance, and the City Manager or his or her designee is authorized to commence in the name of the city actions or proceedings for the abatement and removal and enjoining thereof in the manner provided by sections 21.01.060 and 21.01.080, and shall take such other steps and shall apply to such court or courts as may have jurisdiction to grant such relief as will abate and remove such operation and restrain and enjoin any person, firm or corporation from so operating.
(Ord. 2006-07, Amended, 06/06/2006; 2002-06, Added, 07/02/2002)

Section 16.30.240 Penalty and cost of enforcement.

A. Any person violating the provisions of this chapter or any grading permit issued pursuant to this Chapter is guilty of a misdemeanor.

B. In addition to any other remedies available by law, any person violating the provisions of this Chapter or any grading permit issued pursuant to this Chapter shall be liable to the city for all expenses and damages caused by any such violation.

C. In addition to any other remedies provided by this Chapter or state law, there are hereby imposed the following administrative civil penalties for each violation of this Chapter or the terms and conditions of any grading permit issued pursuant to this Chapter.

1. Any person initiating work within the public road right-of-way without obtaining a grading permit shall be subject to and responsible for a fine in the amount of $500 for a first violation, $750 for a second violation, or $1,000 for a third or subsequent violation.

2. Any person in possession of a valid grading permit that initiates work, but fails to provide notification for inspection as required by the permit shall be subject to and responsible for a fine in the amount of $250 for a first violation,

$1,000 for a second violation, or $1,000 for a third or subsequent violation.

D. Whenever the city manager or his or her designee determines that grading violates the provisions of this Chapter or the terms and conditions of any permit issued pursuant to this Chapter, the city manager or his or her designee shall give written notice of such violation to the alleged violator. The notice shall include the following information:

1. The street address, legal description or other description sufficient to identify the affected property.

2. The penalty imposed as a result of such violation.

3. A statement that the party affected may file a written request for hearing with the director of public works if it objects to imposition of the penalty.

4. A statement that the penalty imposed shall be enforced if the party fails to file a timely written request for a hearing.

E. Notice of any administrative civil penalty shall be served either personally or by mailing a copy of such notice by certified mail, postage prepaid, return receipt requested, to the alleged violator. Service shall be effective for all purposes upon receipt if personally served, or within five (5) days of mailing as herein provided. Proof of service of the notice shall be certified at the time of service by a written declaration under penalty of perjury executed by the person effecting service, declaring the time, date, and manner in which service was made. The declaration, together with any receipt card returned in acknowledgment of receipt by certified mail, shall be affixed to the copy of the notice retained by the city manager or his or her designee. The failure of a party to receive such notice shall not affect in any manner the validity of any proceedings taken pursuant to this chapter.

F. A written request for a hearing must be received by the City Manager or his or her designee within seven (7) days of the effective date of service of the notice. The hearing shall be set and conducted pursuant to Section 21.03.060. The order of the hearing officer shall be in writing resolving the essential issues raised in the hearing and confirming, amending or rejecting the administrative civil penalty imposed by the Director of Public Works.

G. The manner of contesting the final order of the hearing officer concerning any administrative civil penalty is governed by Government Code section 53069.4, or any successor provision thereto. A copy of the notice of appeal authorized by Government Code section 53069.4 shall be served upon the City Clerk.

H. Each party violating any provision of this chapter or any grading permit issued pursuant to this chapter shall be guilty of a separate offense for each and every day on which any such violation is committed, continued, or permitted by any such person.

I. In addition to any penalty, sanction, fine or imprisonment, any person violating the provisions of this Chapter or any grading permit issued pursuant to this Chapter shall be required to pay any and all expenses of enforcement including those costs necessary to inspect, remove and/or correct the violation. In addition to all remedies herein contained, the City may pursue all reasonable and legal means in collecting those sums authorized and due, including, but not limited to the provisions of Chapter 21.01 of Title 21.

(Ord. 2006-07, Amended, 06/06/2006; 2002-06, Added, 07/02/2002)

Chapter 16.50

DRAINAGE UTILITY

Sections:

16.50.010 Purpose.
16.50.020 Findings.
16.50.030 Definitions.
16.50.040 Levy of charge for storm drainage services.
16.50.050 Adjustment of charge.
16.50.060 Bill procedure.
16.50.070 Lien.
16.50.080 Administration and enforcement.
16.50.090 Administrative appeal.
16.50.100 Deposit of collection.
16.50.110 Severability.

Section 16.50.010 Purpose.

The purpose of this Chapter is to establish a drainage utility for managing and funding the operation and maintenance of the City storm water program in order that storm and surface waters may be properly drained and controlled to safeguard the health, safety and welfare of the City's inhabitants; to protect the waters of the United States, and to insure compliance with applicable federal and state laws and permits. This Chapter shall be known as the *drainage utility ordinance* of the City of Galt, and shall be referred to herein as the "drainage utility ordinance."
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.020 Findings.

The City Council hereby finds as follows:

A. The City maintains a system of storm and surface water management facilities within the incorporated area of the City, including but not limited to inlets, conduits, manholes, channels, ditches, drainage easements, retention and detention basins, infiltration facilities, overland release corridors, and other components as well as natural waterways.

B. Those elements of the City's storm and surface water management system that provide for the collection, storage, treatment, and conveyance of storm drainage are of benefit and provide services to all developed property within the incorporated area of the City.

C. The cost of operating and maintaining the storm water management system, including necessary repairs, should, to the extent practicable, be allocated in relationship to the benefits enjoyed and services received therefrom.

D. Erosion and the discharge of nutrients, metals, oil, grease, and other substances into and through the storm drainage system is resulting in a degradation in water quality.

E. The public health, safety and welfare are adversely affected by poor water quality and flooding resulting from inadequate storm drainage management practices.

F. The storm drainage management practices necessary to protect water quality are largely established by federal and state statutes, regulations and permitting requirements.

G. Real property either uses or benefits from the presence and operation of the storm drainage management system.

H. The use of the storm drainage system is dependent on factors that influence runoff, including land use and impervious area.

I. The City has the authority under applicable law, including, but not limited to, Health and Safety Code section 5471 to prescribe, revise and collect fees, tolls, rates, rentals and other charges for facilities and services furnished by it in connection with its storm drainage system.

J. The Legislature, through the adoption of applicable law, including, but not limited to, Health and Safety Code section 5471, has specifically authorized the City to provide storm drainage services as a utility function for which service charges may be levied.

K. A fee to fund storm drainage services offers a reliable and consistent source of revenue that is locally controlled.
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.030 Definitions.

The meanings ascribed to the terms set forth in this section shall govern the interpretation of this Chapter.

A. Administrative charge: shall mean the charge imposed by the City's consolidated utility billing service for the actual cost of billing for, and collection of, storm drainage service fees.

B. Director: shall mean the City of Galt Director of Public Works, his/her designee.

C. City: shall mean the City of Galt.

D. City storm drainage system: shall mean the system of storm and surface water management facilities, including but not limited to inlets, conduits, manholes, storm sewers, channels, ditches, drainage easements, retention and detention basins, infiltration facilities, overland release corridors and other components as well as natural waterways, within the unincorporated area that is either owned or operated by the City.

E. Developed parcel: shall mean any parcel of land altered from its natural state by the construction, creation or addition of impervious area.

F. Exempt use: shall mean the use of any public or undeveloped property and the use of any other parcel for any of the following purposes: agricultural land used for crops or pasture, aquatic farms, orchards, City-maintained drainage ditches, property within a floodplain recognized by the City on which improvements are prohibited, and levees.

G. Parcel: shall mean the smallest separately segregated lot, unit or plot of real property having an identified owner, boundaries, and surface area which is documented for property tax purposes and given a tax lot number by the County Assessor.

H. Person: shall mean any individual, firm, company, association, society, partnership, corporation, organization, group or public agency.

I. User: shall mean the owner of a parcel of real property that is charged for storm drainage services.

(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.040 Levy of charge for storm drainage services.

City Council may levy on any parcel, subject to applicable law, within the boundaries of the City of Galt, a storm drainage service fee to be calculated based on the approximate pro-rata cost share impact of the parcel with development on storm drainage. Rates and charges for drainage services shall be fixed from time to time, by resolution of the City Council, subject to applicable law.

(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.050 Adjustment of charge.

A. Whenever the owner of any parcel is subject to a storm drainage service fee, other than parcels classified as a single-family residential use, he/she may file an application with the director to have the fee levied on such parcel reduced by means of one of the following mechanisms: (1) by designing, constructing and maintaining, at the owner's expense, storm drainage detention facilities approved by the director; (2) demonstrating to the satisfaction of the director that less than five percent (5%) of the parcel area drains into a City storm drainage system; or (3) demonstrating to the satisfaction of the director that the actual impervious area of the parcel is at least ten percent (10%) less than that calculated using the impervious factor for the parcel's use classification.

B. After receipt and review of the application, the director shall either deny any reduction in the fee or approve a reduced fee calculated pursuant to subdivision C hereof. The director, in approving any reduction in the otherwise applicable fee, may attach reasonable conditions to any such approval. If the applicant is dissatisfied with the action of the director, he/she may file a petition pursuant to section 16.50.100 hereof.

C. Any storm drainage facilities constructed by a parcel owner pursuant to this section shall meet the standards set forth in the City's improvements standards. Upon approval of any reduction in the otherwise applicable fee pursuant to this section, the revised fee shall be calculated on the basis of the equivalent contributing parcel area.

D. The fee for a parcel may be adjusted for the impact of any additional development on the parcel upon completion of construction.

E. Any adjustment of charges may be initiated by either the director or by the owner of a parcel subject to the storm drainage service fee. If the director denies any adjustment proposed by an owner or an owner objects to an adjustment proposed by the director, any adjustment shall be made pursuant to the procedure set forth in section 16.50.100 hereof.

Any debit adjustments shall be added to the charge in the succeeding billing period. Any credit adjustments shall first be credited against the previous balance and then any remaining credit shall be applied to subsequent charges. No debits or credits shall be made for any period more than three (3) years prior to the date that an adjustment is proposed by the director or requested by the owner of record pursuant to section 16.50.100.
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.060 Bill procedure.

A. Whenever a storm drainage service fee is levied, it shall be billed as part of the City's consolidated utility billing service in the same manner as for water service in Chapter 13.08. Alternatively, the fee may be collected by any procedure available to the City under applicable law. Specific billing procedures as appropriate, delinquency charges, and deposits will be further detailed in the service fee schedule.

B. The storm drainage service fee shall be based on the use of the parcel as determined by the director. For each parcel of property there shall be only one unit for purposes of billing for storm drainage services. The charge may be divided among tenants of condominium or multi-family residential dwelling units if separate utility accounts exist for water services and if approved by the director.

C. The storm drainage service fee shall be billed to the owner of record of the parcel, to the successor in interest of such person, or to such person's designees if approved by the director and separate water accounts exist. The owner of record shall remain liable for any delinquent fees.

D. Application of fees shall be based on current parcel numbers, square footage and use codes on record in the county assessor's office, unless the director determines that the actual use of the parcel is different than the use reflected in the use codes in which case the fees shall be based on the actual use of the parcel.
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.070 Lien.

A. The City shall notify the assessee shown on the latest equalized assessment roll whenever delinquent and unpaid fees, which would become a lien on the parcel pursuant to subdivision B remain delinquent and unpaid for sixty (60) days.

B. Whenever a storm drainage service fee and any penalties are levied pursuant to this Chapter, they shall constitute a lien upon the parcel subject to the fee; as provided for in applicable law, including, but not limited to, Health and Safety Code section 5473.11; if the fee remains delinquent for a period of sixty (60) days and the City has notified the assessee of the parcel shown on the latest equalized assessment roll of the delinquent fees and the lien provided by this section.

C. The lien provided herein shall have no force or effect until a certificate specifying the amount of the unpaid fees is recorded with the county recorder.

D. Any delinquent storm drainage service fees and penalties may be collected on the tax roll in the same manner and at the same time as property taxes are collected.
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.080 Administration and enforcement.

The director shall be responsible for the administration and enforcement of the provisions of this Chapter. The director shall have the authority to adopt rules and regulations not inconsistent with provisions of this Chapter for purposes of carrying out and enforcing the payment, collection and remittance of the fee herein levied.
(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.090 Administrative appeal.

A. Any owner who disputes the amount of a levied storm drainage service fee charged to his/her parcel, the classification of the property in terms of its use, any adjustment proposed by the Director, or any other determination affecting the property made by or on behalf of the City pursuant to this Chapter may appeal with regard to any such issue. Any appeal petition may only be filed once in connection with the issue or issues presented in the petition, except upon a showing of changed circumstances sufficient to justify the filing of such additional petition.

B. Any appeal petition shall be in writing, signed by the owner under penalty of perjury and filed with the City Clerk. The petition shall include the following information: (1) a complete description of the factual basis for the appeal; (2) the legal basis for the appeal; and (3) the remedy sought by the appellant.

C. The hearing shall be set and conducted pursuant to section 21.03.060. The hearing officer shall make and serve by mail written findings of facts based upon all relevant information presented in the appeal petition or at the hearing, shall make a determination of issues based upon such findings and, if appropriate, an order setting forth an appropriate remedy subject to the limitations set forth in subdivision E of section 16.50.060. The determination of the hearing officer shall be final.

(Ord. 2006-07, Amended, 06/06/2006; Ord. 2002-11, Added, 10/15/2002)

Section 16.50.100 Deposit of collection.

There is hereby created in the City treasury a special revenue account. All storm drainage service fees collected by the City shall be deposited in such account. The revenue deposited in such account from any fees collected, shall be used only for management and execution of the City storm water program including prevention of storm water pollution; compliance with drainage related federal and state laws and permits; and the acquisition, construction, reconstruction, maintenance, and operation of drainage facilities.

(Ord. 2002-11, Added, 10/15/2002)

Section 16.50.110 Severability.

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter or any part thereof is for any reason held to be invalid, such invalidity shall not affect the validity of the remaining portion of this Chapter or any part thereof. The City Council of the City hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause and phrase thereof, irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared invalid.

(Ord. 2002-11, Added, 10/15/2002)

general plan 2030
a vision for the future
galt, california

2030 Galt General Plan
Policy Document

Final



April 2009

Prepared by:

Mintier Harnish
Environmental Science Associates
Applied Development Economics
Omni-Means

Please visit the City's website for more information on the General Plan: **www.ci.galt.ca.us**

2030 Galt General Plan Policy Document

City of Galt

April 2009

Prepared by:

mintierharnish
planning consultants

In Association With:

ESA

APPLIED DEVELOPMENT ECONOMICS

omni • means
ENGINEERS • PLANNERS

Public Facilities and Services Element

Introduction

City development is dependent on a complicated network of public facilities and services. Each type of facility or service has a unique set of opportunities and constraints and must adapt to growth and change differently. The Public Facilities and Services Element focuses on water production, treatment, and distribution; sewage collection and treatment; flood protection; parks and recreational open space; storm drainage; solid waste collection and disposal; fire protection and emergency medical service; law enforcement; schools; and other utilities such as gas, electricity, and communications. This element provides guidance for the logical and efficient extension of these services as new development occurs. The City will also provide for the development of major public facilities through capital improvement projects to accommodate growth projected under the General Plan consistent with applicable State and Federal law. Transportation facilities are discussed separately in the Circulation Element.

This element contains goals, policies, and implementation measures related to the following topics:

- Public Facilities and Services Funding
- Water Supply, Treatment, and Delivery
- Wastewater Collection, Treatment, Disposal, and Reuse
- Stormwater Drainage
- Solid Waste Collection and Disposal
- Law Enforcement
- Fire Protection and Emergency Medical Services
- Parks and Recreational Open Space
- Education
- Childcare
- Gas and Electric Services
- Information Technology

Public Facilities and Services Funding

The goal and policies in this section seek to identify funding methods for new facilities and services as new development occurs, and to consider how the ongoing maintenance and operations of these facilities will be funded to ensure that operational levels do not decline. New development is generally responsible for financing and/or providing for the extensions of the services it requires. The City will plan for the development of major public facilities through its Capital Improvement Program, which identifies capital improvement projects to accommodate growth projected under the General Plan consistent with applicable State and Federal law.

Policy PFS-3.8: Sewer Services
The City should not extend sewer service to areas outside the city limits prior to annexation unless the City amends the Utility Services Area with LAFCO. *(City Staff)*

Policy PFS-3.9: Expand Use of Reclaimed Water
The City shall encourage the use of tertiary treated wastewater and household gray water for irrigation of agricultural lands, large landscaped areas, and recreation/open space areas within close proximity to the City's WWTP to help ensure ongoing compliance with RWQCB requirements. *(Draft EIR Analysis)*

Policy PFS-3.10: Point Source Control
The City shall work with the RWQCB to ensure that all point source pollutants are adequately mitigated (as part of the CEQA review and project approval process) and monitored to ensure long-term compliance. *(Final EIR Analysis)*

Stormwater Drainage

The City's storm drainage system consists of collection, conveyance, detention, and pumping facilities. Stormwater is ultimately pumped and discharged into several area waterways. Future development will require the development of new storm drainage and flood protection systems. In addition, Federal and State water quality standards will require examination of the quality of stormwater released into public waterways. Policies of this section require the development of new storm drainage and flood protection systems in the safest and most efficient manner.

Goal PFS-4

To collect and dispose of stormwater in a manner that protects the city's residents and property from the hazards of flooding, manages stormwater in a manner that is safe and environmentally sensitive, and enhances the environment. *(M&A)*

Policy PFS-4.1: Storm Drain Enhancements
The City shall continue to upgrade the storm drainage facilities in the older section of the city, and provide for systems needed in newly developing areas. *(City: I-11)*

Policy PFS-4.2: Conservation/Stormwater
The City shall develop storm water drainage facilities consistent with the policies of the Conservation and Open Space Element. *(City: I-12)*

Policy PFS-4.3: Stormwater Quality
The City shall ensure compliance with Federal and State clean water standards by continuing to monitor and enforce provisions to control non-point source and point source water pollution contained in the U.S. Environmental Protection Agency NPDES program. (*Draft EIR Analysis*)

Policy PFS-4.4: Project Design
The City should encourage project designs that minimize drainage concentrations and impervious surfaces. *(M&A)*

Policy PFS-4.5: Grading During the Rainy Season
The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities. *(M&A)*

Policy PFS-4.6: Erosion Control Plan
The City shall require new development projects to prepare an erosion control plan. *(M&A)*

Policy PFS-4.7: Mitigating Stormwater Runoff
The City ~~should~~ shall require projects that have significant impacts on the quantity and quality of surface water runoff to incorporate mitigation measures for impacts related to urban runoff. *(M&A)*

Policy PFS-4.8: Joint Use of Detention Facilities
The City ~~should~~ shall encourage stormwater detention facilities to be designed for multiple purposes, including recreational (e.g., parks, ball fields, etc.) stormwater quality improvement, and/or waterfowl habitat. *(M&A and PC)*

Policy PFS-4.9: Detention Requirements
The City should require detention storage with measured release to ensure that the capacity of downstream creeks and sloughs will not be exceeded. To ensure downstream capacity is not exceeded, the following measures will be applied:

a. Outflow to creeks and sloughs should be designed and constructed to avoid exceeding downstream channel capacities; and

b. Storage facilities should be designed and constructed to prevent problems caused by timing of storage outflows. *(M&A)*

Solid Waste Collection and Disposal

Solid waste collection and disposal and curbside recycling in Galt are provided by a franchise agreement with California Waste Recovery Systems based in Lodi. Waste is disposed at one of several locations, including Foothill-Sanitary Landfill, L-D Landfill, North County Landfill, and Sacramento County Landfill. Policies in this section seek to reduce the amount of waste produced through source reduction, reuse, and recycling, and to ensure safe disposal of waste. The goal of this plan is to reduce the total amount of waste generated and disposed of through source reduction, recycling and composting, and safe transformation and land disposal of solid wastes.

Goal PFS-5 To ensure the safe and efficient disposal and recycling of solid waste generated in Galt. *(M&A)*

Policy PFS-5.1: Waste Collection
The City shall require waste collection in all new developments. *(M&A)*

Policy PFS-5.2: Waste Reduction
The City ~~should~~ shall promote maximum use of solid waste reduction, recycling, composting, and environmentally-safe transformation of wastes. *(M&A)*

Policy PFS-5.3: Solid Waste Facilities
The City shall require that all solid waste facilities be located in areas free of incompatible land uses and prohibit future incompatible land uses on surrounding lands. *(City: B-32)*

Conservation and Open Space Element

Introduction

Galt's environmental resources (water, air, vegetation, wildlife, and open space) contribute to the city's economy and are important elements in the quality of life of Galt's residents. The preservation of these natural resources is frequently in conflict with urban development. The General Plan seeks to balance the need for growth with the need for the conservation and enhancement of the area's natural resources, frequently in cooperation with other agencies.

Modern ecological research shows the value of natural land corridors and large preservation areas instead of small, isolated preserves, in perpetuating complete ecosystems and wildlife habitats. These contiguous linkages between natural community types help protect biologically important transition zones for species higher in the food chain (e.g., mammals, raptors, etc.) When their natural habitat is reduced to isolated patches, and no linkages are available between preserves, the long term viability of the species is severely threatened.

This element contains goals, policies, and implementation measures related to the following topics:

- Water Resources
- Fish and Wildlife Habitat
- Vegetation
- Agriculture, Open Space, and Natural Resource Preservation
- Air Quality–General
- Air Quality–Transportation
- Global Warming and Energy Conservation

Water Resources

The availability, quantity, and quality of water are vital to natural processes and human activities. Water is essential to the development of housing, commerce, industry, and agriculture, to recreation, and to the maintenance of high quality fish and wildlife habitats. Cosumnes River, Laguna Creek, Skunk Creek, Dry Creek, Hen Creek, and Deadman Gulch are all located within the Planning Area. A groundwater aquifer underlies Galt and serves as the City's municipal water supply. Most of these resources are regional in nature and require a cooperative effort to ensure protection of water quality in these bodies.

The goal and policies in this section seek to protect these water resources and maintain the highest quality for human and natural use. Goals and policies related to the City's water supply and delivery system are discussed in the Public Facilities and Services Element.

The goal and policies in this section seek to protect these water resources and maintain the highest quality for human and natural use. Goals and policies related to the City's water supply and delivery system are discussed in the Public Facilities and Services Element.

Goal COS-1 To protect and enhance the qualities of the area's rivers, creeks, sloughs, and groundwater. *(M&A)*

Policy COS-1.1: Flood Control
The City shall require adequate natural floodway design to assure flood control in areas where stream channels have been modified and to foster stream enhancement, improved water quality, recreational opportunities, and groundwater recharge. *(City: A-14 and City Staff)*

Policy COS-1.2: Flood Protection Ordinance
The City shall continue to implement the City's flood protection ordinance. *(City: A-15)*

Policy COS-1.3: Inter-Agency Coordination
The City ~~should~~ shall cooperate with FEMA, California Department of Water Resources, and other appropriate local, State, and Federal agencies to address local and regional flood issues. *(M&A)*

Policy COS-1.4: Storm Flow Impacts
The City will continue to ensure, through the development review process, that future developments do not increase peak storm flows and do not cause flooding of downstream facilities and properties. *(City: A-16)*

Policy COS-1.5: Water Quality Control Board Regulations Compliance
The City shall continue to comply with the Regional Water Quality Control Board's regulations concerning the operation of the City's wastewater treatment plant. *(City: A-17)*

Policy COS-1.6: Underground Storage Tank Law Compliance
The City shall provide continued compliance with the Underground Storage Tank Law and all other laws relating to water quality. *(City: A-18)*

Policy COS-1.7: Stormwater Quality Protection
The City shall, through the development review process, ensure compliance with Federal and State stormwater quality standards and regulations. *(M&A)*

Policy COS-1.8: Septic System Discouragement
The City ~~should~~ shall protect groundwater resources by ~~discouraging~~ protesting urban development with septic systems in the unincorporated County on parcels less than 2 acres on the west side of the Planning Area and ~~larger~~ less than 5 acres on the north and east side of the Planning Area. *(M&A & PC)*

Policy COS-1.9: Streambed Alteration Watershed Regulations Compliance
The City shall require proposed developments to comply with streambed alteration and watershed protection regulations as administered by the California Department of Fish and Game. *(M&A)*

Policy COS-1.10: Ecological Features Retention
The City ~~should~~ shall retain to the extent feasible the ecological features of the creeks, sloughs, and rivers in their natural state. *(M&A)*

Policy COS-1.11: Riparian Corridor Protection
The City ~~should~~ shall endeavor to protect, preserve, and improve riparian corridors. *(M&A)*

Policy COS-1.12: Best Management Practices
The City shall require all new development and redevelopment to implement Best Management Practices (BMPs) to reduce pollutants to the maximum extent practicable. Additionally, the City shall require, as part of its Storm Water NPDES Permit and ordinances, to implement the Grading Plan, Erosion Control Plan, and Pollution Prevention Plan (SWPPP) during construction activities of any improvement plans, new development and redevelopment projects for reducing pollutants to the maximum extent practicable. *(ESA)*

Policy COS-1.13: No Net Loss of Wetlands
The City shall review development proposals in accordance with applicable local, State, and Federal statues protecting jurisdictional wetlands (Section 404 of the Clean Water Act) and require that new developments have no net loss of existing wetland habitats. *(City Staff)*

Policy COS-1.14: Floodplain Dedication
The City should require property owners and developers to dedicate land within 100 year floodplains to the City, or other City-designated entity for biological mitigation credit or similar purpose, when a development project is approved. In addition to the land requirement, the City should require public access adjacent to these areas, but outside the 100 year flood plain, via bicycle and pedestrian trails and related amenities with appropriate signage. *(City staff and PC)*

Policy COS-1.15: Trails and Open Space Access
The City shall provide public access to all City-owned and maintained trails and open space areas in city limits. The City should also provide educational signage in these areas. *(City Staff)*

Policy COS-1.16: Incorporating Parks and Open Space with School Curricular Activities
The City should encourage schools to maximize curricular activities based on their location near parks and open space areas. (*City Staff)*

Policy COS-1.17: Floodplain Visual Accessibility
The City ~~should~~ shall require visual accessibility to floodplains via direct, single frontage roadways, along the length of any particular stream and associated floodplain section being developed (on both sides). (*City: C-3 and City Staff)*

Fish and Wildlife Habitat

Fish and wildlife resources in the Galt area occur in both natural and altered habitats. Habitats altered either by agricultural cultivation or urban development make up most of the Planning Area. Although altered by human activities, these areas may still be valuable for wildlife (e.g., Deadman Gulch, Hen Creek). Natural habitats in and around Galt include Cosumnes River, Dry, Laguna, and Skunk Creeks.



Implementation Programs

Introduction

The section summarizes the implementation programs associated with the goals and policies of the Policy Document. Implementation programs are shown as follows:

- Table IMP-1: Circulation Element Implementation Programs
- Table IMP-2: Community Character Element Implementation Programs
- Table IMP-3: Conservation and Open Space Element Implementation Programs
- Table IMP-4: Economic Development Element Implementation Programs
- Table IMP-5: Historic Resources Element Implementation Programs
- Table IMP-6: Housing Element Implementation Programs
- Table IMP-7: Land Use Element Implementation Programs
- Table IMP-8: Noise Element Implementation Programs
- Table IMP-9: Public Facilities and Services Element Implementation Programs
- Table IMP-10: Safety and Seismic Element Implementation Programs

This page is intentionally left blank

Table IMP-3
Conservation and Open Space Element Implementation Programs

Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
COS-A: Annual Review The City should annually review General Plan goals, policies, and implementation programs and identify City priorities and any quantifiable objectives that should be addressed for the upcoming fiscal year.	All COS policies	City Council City Manager				■
COS-B: Flood Protection Ordinance The City should monitor and update the flood protection ordinance to assure adequate flood controls.	COS-1.1 COS-1.2	City Manager Public Works Director				■
COS-C: Aquifer Monitoring The City should prepare and regularly update a Water Supply Master Plan to monitor any activities that may degrade the aquifers of Cosumnes River, Laguna Creek, Skunk Creek, and Dry Creek and affect City water supplies.	COS-1.6 COS-1.8	City Manager Public Works Director	■			■
COS-D: Visual Accessibility of Floodplains The City should include in the floodplain ordinance a requirement for direct roadway access of the entire length of any particular stream (perennial or intermittent) and associated floodplain section being developed (both sides). This should include an explanation of the nexus between the requirement and the impact of development.	COS-1.17	City Council Planning Commission Community Development Director	■			
COS-E: Infill Development Priority The City should adopt incentives for implementing infill development near job centers and transportation nodes. Incentives can include, but are not limited to, building permit fee waiver, parking standard reductions, etc.	COS-5.3	City Council Planning Commission Community Development Director	■			
COS-F: City Fleet Vehicles The City should adopt a program for the phased replacement of City fleet vehicles with low-emission technology vehicles, as appropriate.	COS-6.4 COS-6.5	City Council City Manager	■			■

Table IMP-3 Conservation and Open Space Element Implementation Programs						
Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
COS-G: Support Energy Conservation Legislation The City shall support legislation that promotes cleaner industry, lowest emission technology vehicles, and more efficient-burning engines and fuels.	COS-7.1 COS-7.2	City Council City Manager				■
COS-H: City Facilities The City should upgrade existing City facilities so that energy use can be derived from sustainable energy sources by 2020. This can include, but is not limited to, the installation of solar panels or by purchasing electricity from service providers that use renewable energy sources.	COS-7.9	City Council City Manager				■
COS-I: Energy Efficiency The City should encourage new housing units be constructed to meet and/or exceed LEED Certified energy efficiency standards.	COS-7.11	City Council City Manager				■
COS-J: Energy Conservation Features The City shall coordinate with utility providers to provide City residents with information on a variety of energy conservation features including tree planting programs, energy efficient development, and increased use of renewable energy sources.	COS-7.17	City Manager Community Development Director	■			■
COS-K: Greenhouse Gas Emissions Reduction Plan The City will prepare and adopt a Greenhouse Gas Emissions Reduction Plan.	COS-7.1	City Manager City Council Community Development Director Public Works Director	■			
COS-L: Green Construction The City shall amend the municipal code as necessary to remove barriers to green construction.	COS-7.1 COS-7.18	Community Development Director Public Works Director	■			

Table IMP-7
Land Use Element Implementation Programs

Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
LU-A: Sphere of Influence The City should request that the Sacramento Local Agency Formation Commission (LAFCO) modify Galt's sphere of influence consistent with the long-term growth plans reflected in the General Plan.	LU-1.5	City Council Planning Commission Community Development Director	■			
LU-B: Habitat Conservation Plan The City should work with Sacramento County to identify and protect critical species habitat as shown in the proposed South Sacramento County Habitat Conservation Plan.	LU-1.10	City Council City Manager Community Development Director				■
LU-C: Landscape and Lighting District The City should explore the use of a citywide Landscape and Lighting District and other programs to fund landscape maintenance.	LU-3.3 LU-5.4 CC-4.2	City Manager Public Works Director				■
LU-D: Annual General Plan Reviews The City Council should review the General Plan annually, focusing principally on actions undertaken in the previous year to carry out the implementation programs of the plan.	LU-11.1 LU-11.2	City Council Planning Commission City Manager Community Development Director				■
LU-E: Major General Plan Reviews The City should conduct a major review of the General Plan, including the General Plan Policy Document and Existing Conditions Report, beginning every ten years from the date of final approval of this General Plan, and should revise it as deemed necessary.	LU-11.1	City Council Planning Commission City Manager Community Development Director		■		■
LU-F: Ordinance Consistency The City should review and amend, as necessary, applicable ordinances, regulations, and plans referenced herein to ensure consistency with the General Plan. These shall include, but not be limited to, the Park Master Plan, Bicycle and Pedestrian Plan, Landscape Manual, and Building Code.	LU-1.15 LU-4.7 LU-6.4 LU-8.5 LU-11.2 CC-1.9 C-4.1 C-4.2 N-1.5	City Council City Manager Community Development Director Building Official Public Works Director	■			■

Table IMP-7
Land Use Element Implementation Programs

Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
LU-G: Downtown Revitalization and Improvement The City should work with Downtown business and property owners to continue revitalization efforts via private property improvements and programs.	LU-3.2 LU-3.3	City Council Assistant City Manager Community Development Director				■
LU-H: Zoning Ordinance and Zoning Map Consistency The City shall review and amend, as necessary, the Zoning Ordinance and Zoning Map to ensure consistency with the General Plan.	C-3.4 C-4.1 C-4.2 C-4.5 C-4.7 C-6.5 C-6.8 C-6.9 CC-1.9 CC-2.2 CC-2.3 CC-2.4 CC-4.1 CC-4.2 CC-4.3 COS-5.2 COS-5.10 COS-6.2 COS-7.4 COS-7.5 COS-7.6 COS-7.7 COS-7.14 COS- 7.21 COS-7.23 LU-1.13 LU-2.2 LU-2.3 LU-3.3 LU-6.4 LU-11.2 N-1.5 N-1.14	City Council City Manager Community Development Director Building Official Public Works Director	■			■

Table IMP-7 Land Use Element Implementation Programs						
Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
	PFS-6.4 SS-4.3					

Table IMP-9
Public Facilities and Services Element Implementation Programs

Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
PFS-A: Infrastructure Master Plans The City shall prepare, annually review, and update every five years a Water Master Plan, Wastewater Master Plan, Storm Drainage Master Plan, and Pavement Management Plan.	PFS-1.10	City Council Public Works Director	■	■	■	
PFS-B: Capital Improvement Program The City shall annually review and update the Capital Improvement Program.	PFS-1.11	City Council Assistant City Manager	■	■	■	■
PFS-C: Development Fee Schedule The City shall prepare development fee schedules based on the Capital Improvement Program.	PFS-1.4 PFS-1.14	City Council Public Works Director Assistant City Manager				■
PFS-D: Water Supply Alternatives Study The City shall conduct a study of future water supply alternatives to determine the most appropriate long-term water supply to serve Galt.	PFS-2.1 PFS-2.2	City Council Public Works Director	■			
PFS-E: Water Management Plan The City shall update the Water Management Plan to include fire protection needs, water conservation, management measures, and monitoring as required by State law.	PFS-2.2 PFS-2.6 PFS-2.8 PFS-2.11	City Council Public Works Director		■		
PFS-F: Ground Water Protection Response Plan If the results from PFS-E indicate an imbalance between safe groundwater and project water requirements, the City should develop a response plan to address the imbalance, including an appropriate mix of water conservation measures, reuse, surface water supplements, and other water management techniques.	PFS-2.2	City Council Public Works Director		■		
PFS-G: Stormwater Management Plan The City shall prepare, periodically update, and implement on an ongoing basis a Stormwater Management Plan in coordination with other member agencies.	PFS-4.3	City Council Public Works Director	■	■	■	

Table IMP-9 Public Facilities and Services Element Implementation Programs						
Implementation Programs	**Implements What Policies**	**Who is Responsible**	**Timeframe**			
			Near Term	**Mid Term**	**Long Term**	**On-going**
PFS-H: Stormwater and Flood Protection Ordinance The City shall prepare and adopt a Stormwater and Flood Protection Ordinance to implement the updated Storm Drainage and Flood Protection Master Plan to address stormwater runoff and flood protection.	PFS-4.7 PFS-4.8 PFS-4.9	City Council City Manager Public Works Director	■			
PFS-I: Public Safety Services Master Plan The City shall update the Public Safety Services Master Plan for police services based on future development trends.	PFS-6.3 PFS-6.4 PFS-6.5 PFS-6.6	City Council Police Chief	■			
PFS-J: New Fire Substations The City shall work with the Cosumnes Community Services District Fire Department to identify and site new fire stations in accordance with the "maximum fire station siting zones" identified on the Land Use and Circulation Diagram (Figure LU-1).	PFS-7.1	City Council City Manager Fire Chief		■		
PFS-K: Park and Recreation Master Plan The City shall update the park and recreation master plan as necessary to outline facility needs and funding mechanisms.	PFS-8.4 PFS-8.6 PFS-8.8	City Council City Manager Parks and Recreation Director	■			
PFS-L: Technology Coordinator The City shall designate a Technology Coordinator, within a City department or agency, with responsibility for oversight over communitywide information technology infrastructure development.	PFS-12.1	City Council City Manager Assistant City Manager	■			
PFS-M: Telecommunications Program The City shall develop and expand telecommunications programs at City Hall.	PFS-12.2	City Council City Manager Assistant City Manager		■		

Table IMP-10
Safety and Seismic Element Implementation Programs

Implementation Programs	Implements What Policies	Who is Responsible	Timeframe			
			Near Term	Mid Term	Long Term	On-going
SS-A: Uniform Address System The City shall continue to implement a Uniform Address System.	SS-1.5	Community Development Director				■
SS-B: Unreinforced Masonry Structures Inventory The City shall complete an inventory of non-single family unreinforced masonry structures.	SS-2.2	Building Inspector Fire Chief		■		
SS-C: Sacramento County Hazardous Waste Management Plan The City should continue to implement the County's Hazardous Waste Management Plan.	SS-5.1 SS-5.2 SS-5.3	City Council City Manager Fire Chief Police Chief				■
SS-D: Use, Production, or Transport of Hazardous Materials and Wastes The City should develop siting and enforcement criteria for businesses that use, produce, or transport hazardous materials and wastes.	SS-5.1 SS-5.2 SS-5.3 SS-5.4 SS-5.5 SS-5.6	City Council City Manager Public Works Director Fire Chief		■		

general plan 2030
a vision for the future
galt, california

Draft Environmental Impact Report for the 2030 Galt General Plan

SCH No. 2007082092

Final



July 2008

Prepared by:

Mintier Harnish
Environmental Science Associates
Applied Development Economics
Omni-Means

Please visit the City's website for more information on the General Plan Update: **www.ci.galt.ca.us**

Storm Drainage System Overview

The City of Galt Public Works Department operates the City's storm drain collection and disposal system. The storm drain system consists of curbs and gutters which collect the storm waters and direct them into catch basins where it enters an underground system of pipes. The underground piping system then directs the storm runoff to one of three drainage channels: Dry Creek, Hen Creek and Deadman's Gulch.

Dry Creek is a natural channel which forms the southern boundary of the City and the boundary between Sacramento and San Joaquin County to the south. Dry Creek, flowing in a westerly direction, flows into the Mokelumne River which then flows to the Delta.

Deadman's Gulch flows in the westerly direction generally through the northern sector of the City. East of SR99, Deadman's Gulch has been designed and reconstructed to serve as a storm water detention facility in addition to a storm water conveyance facility. This occurs as a result of the culvert structure under SR 99 which meters the flow into Deadman's Gulch west of the highway. This allows the storm water flows from the development occurring east of the highway to better match the channel capacity west of the highway.

The City has one other detention basin which serves as a joint use facility/city park. It is located on the west side of town adjacent to the Greer Middle School. After being detained in the detention basin the storm flows are pumped to Hen Creek for ultimate disposal. The lift station at Greer Detention Basin is one of only two stormwater lift stations in the City of Galt. The other is the Wagon Way lift station.

The storm drainage system is comprised of pipelines ranging in size from 8" to 84" in diameter. The larger pipe sizes serve as the outfall structures conveying the storm runoff from the southwest portion of the community to Dry Creek.

The City of Galt has a Phase 1 NPDES stormwater permit. The City joined with Sacramento County and other cities in the County to obtain the permit during the first round of permitting in the early 1990s.

The City funds the operation and maintenance of the storm drainage system through a storm drainage monthly utility rate. For the most part, the monthly utility rate is insufficient to fully fund the operation and maintenance of the system and is augmented with gas tax funding. A storm drainage impact fee is assessed to new development to fund the construction of the major components of the storm drain system. New development is required to construct the storm drainage system associated with their projects.

Sacramento area public agencies, including the County of Sacramento and the Cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova have joined together to form the Sacramento Stormwater Quality Partnership (SSQP). These agencies are regulated by Order No. R5-2002-0206 NPDES No. CAS082597 "Waste Discharge Requirements for County of Sacramento and Cities of Citrus Heights, Elk Grove, Folsom, Galt and Sacramento Storm Water Discharges

From Municipal Separate Storm Sewer Systems Sacramento County" issued by the Central Valley RWQCB. Galt is unlike the other permittees in that its MS4 is non-contiguous with the other MS4s; it is also surrounded by rural and agricultural areas that are not subject to the NPDES regulations. An MS4 (or municipal separate storm sewer system) is a conveyance or system of conveyances owned by a State, City, Town, or other public entity that discharges to waters of U.S. and is: designed or used for collecting or conveying stormwater; not a combined sewer; and not part of a Publicly Owned Treatment Works (POTW). Galt became part of the Phase I Sacramento Storm Water Management Program voluntarily in 1990.

The General MS4 permit requires the discharger to develop and implement a Storm Water Management Plan/Program (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). MEP is the performance standard specified in Section 402(p) of the Clean Water Act. The general permit requires regulated Small MS4s to develop and implement a SWMP that describes Best Management Practices (BMPs), measurable goals, and timetables for implementation in the following six program areas.

- Public Education – Educate the public in its permitted jurisdiction about the importance of the storm water program and the public's role in the program;
- Public Participation – Comply with all State and local notice requirements when implementing a public involvement/participation program;
- Illicit Discharge Detection and Elimination – Adopt and enforce ordinances or take equivalent measures that prohibit illicit discharges, and implement a program to detect illicit discharges;
- Construction Site Storm Water Runoff Control – Develop a program to control the discharge of pollutants from construction sites greater than or equal to one acre in size within its permitted jurisdiction. The program must include inspections of construction sites and enforcement actions against violators;
- Post Construction Storm Water Management – Require long term post-construction BMPs that protect water quality and control runoff flow, to be incorporated into development and significant redevelopment projects. Post construction programs are most efficient when they stress (1) low impact design; (2) source controls; and (3) treatment controls.

Impacts and Mitigation Measures

Impact 6.4-1: The Proposed Project could result in increase of erosion during the construction process or cause significant changes in the flow velocity or volume of storm water runoff to cause environmental harm and the potential for significant increases in erosion of the project site and surrounding areas.

Impact Summary

Level of Significance Before Mitigation: ***Potentially Significant***
Required Mitigation: ***Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts and Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts.***
Level of Significance After Mitigation: ***Less than Significant***

Impact Analysis

Drainage runoff from developing areas or parcels is dependent on the percent of impervious surface created on individual parcels or projects. Development resulting from the Proposed Project (particularly within currently undeveloped areas) will increase the amount of impervious surfaces, thereby increasing the amounts and speed of runoff. Increased runoff volumes and speeds may increase erosion or siltation and result in localized nuisance flooding in areas without adequate drainage facilities.

The existing drainage channels of Dry Creek, Hen Creek and Deadman's Gulch all serve the drainage sheds of the Study Area south of Twin Cities Road. With continued urbanization under the Proposed Project (including both the Preferred Land Use Alternative and the Circulation Diagram), these existing drainage sheds will continue to increase in runoff requiring additional detention storage to meter downstream flows and prevent flooding. Therefore, future detention sites should be identified early in the process as individual development projects are proposed to provide adequate storm water detention over time.

Under the Proposed Project, urban development is planned north of Twin Cities Road both west and east of SR 99. The drainage shed north of Twin Cities Road is oriented north toward the Cosumnes River. With such an orientation, additional processing and permits would be required to identify locations for drainage outfalls and detention requirements to help meter increased runoff due to the urbanization of land.

Policies and implementation programs included as part of the Proposed Project that would minimize this impact are summarized below by General Plan Element, with a complete description of these policies and programs provided in Appendix C "Policy Document" of this draft EIR.

Public Facilities and Services Element
Policies designed to minimize this water quality impact through adherence to appropriate best management practices designed to address soil erosion include the following:
PFS-4.3 Stormwater Quality PFS-4.4 Project Design PFS-4.5 Grading During the Rainy Season PFS-4.6 Erosion Control Plan PFS-4.7 Mitigating Stormwater Runoff
Policies and implementation programs designed to minimize this impact through management of downstream channel capacities, and allow for development of the City's storm drainage system to prevent flooding include the following:
PFS-1.5 Public Facilities Master Plans PFS-1.6 Capital Improvement Program

PFS-1.7 Public Facility Financing
PFS-1.8 Ultimate Capacity Needs
PFS-4.8 Joint Use of Detention Facilities
PFS-4.9 Detention Requirements
PFS-A Infrastructure Master Plans
PFS-B Capital Improvement Program
PFS-C Development Fee Schedule
PFS-G Stormwater Management Plan
PFS-H Stormwater and Flood Protection Ordinance

Implementation Program PFS-A requires the City to prepare, annually review, and update every five years a Storm Drainage Master Plan and a Pavement Management Plan. The preparation and implementation of a Storm Drainage Master Plan would implement Policy PFS-1.5 by ensuring compatibility with current land use policy, and identifying necessary improvements consistent with State and Federal Laws. PFS-A would also implement Policy PFS-1.2 by establishing areas suitable for development consistent with the location of master planned infrastructure. PFS-A would also implement Policies PFS-1.6 and PFS-1.8 through the identification of needed capital improvements and associated schedule for inclusion in the City's CIP, and by sizing infrastructure facilities to meet ultimate demands. A Storm Drainage Master Plan would identify the ultimate capacity of receiving channels, appropriate locations for joint use detention facilities, and ultimate sizing of major storm drainage conveyance facilities. The implementation of a Storm Drainage Master Plan would identify future drainage facilities that are necessary in order to control flooding in existing and future development areas. The City would then tie Master Planned Drainage Improvements to its CIP which would ensure that funding is dedicated on an annual basis to implement storm drainage infrastructure projects. The preparation of a Storm Drainage Master Plan would also assist the City in evaluating its development impact fees to ensure that they are adequate to finance future drainage facilities required as a result of new development.

Implementation Program PFS-B requires the City to annually review and update its CIP. Annual reviews and updates of the City's CIP would implement Policies PFS-1.3 and PFS-1.7 by establishing the required financing for needed infrastructure improvements, and tying the needed funds to development impact fees. Implementation Program PFS-C requires the City to prepare development fee schedules based on the City's CIP. The preparation of development fee schedules implements Policies PFS-1.4 and PFS-1.9 by assuring that financing mechanisms are in place in order to construct capital infrastructure improvements that are required as a result of new development.

Implementation Program PFS-G also requires the City to prepare and periodically update a Stormwater Management Program (SWMP). Implementation Program PFS-G implements Policy PFS-4.3 by coordinating all storm water discharges with the RWQCB consistent with the requirements of the NPDES permit, and SWMP. Through NPDES compliance and implementation of the SWMP, the City ensures that stormwater discharges are in compliance with Federal and State laws. As previously mentioned, the City has prepared a SWMP in a joint effort with other agencies that establishes a comprehensive Development Standards Plan. The implementation of the comprehensive Development Standards Plan requires proposed development projects to incorporate erosion control measures, BMPs, and other design aspects to improve the water quality of receiving streams and rivers (including reducing erosion and siltation on- and off-site).

Implementation Program PFS-H requires the City to prepare and adopt a Stormwater and Flood Protection Ordinance to implement the updated Storm Drainage and Flood Protection Master Plan to address stormwater runoff and flood protection.

Even with implementation of the above mentioned policies and implementation programs, this impact is considered ***potentially significant***.

Required Mitigation Measures

To address this impact, the City shall implement the following mitigation measures:

Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts:

To mitigate storm drainage system impacts resulting from implementation of the Proposed Project, the City shall incorporate the following revisions to Policy PFS-4.3 "Stormwater Quality" into the Final General Plan.

- **Policy PFS-4.3: Stormwater Quality**. The City shall ensure compliance with Federal and State clean water standards *by continuing to monitor and enforce provisions to control non-point source, and point source water pollution contained in the U.S. Environmental Protection Agency NPDES program. (M&A)*

Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts:

To mitigate storm drainage system impacts resulting from implementation of the Proposed Project, the City shall incorporate the following revisions to Implementation Program PFS-G into the Final General Plan.

- **Implementation Program PFS-G: Stormwater Management Plan**. The City shall prepare, ~~and~~ periodically update*, and implement on an ongoing basis, its* Stormwater Management Plan, *in coordination with other member agencies. (M&A)*

Significance after Implementation of Mitigation for Impact 6.4-1

The City's implementation of the Sacramento SWMP, and associated Development Standards Plan would address a variety of erosion generating or water quality impacts associated with the alteration of an existing drainage pattern. As stated above, the City will continue to implement a variety of policies and programs designed to address the provision of needed storm drainage infrastructure and stormwater quality issues. Therefore, implementation of the Proposed Project including the adoption of the revised policy and implementation program described under Mitigation Measure 6.4-1a and Mitigation Measure 6.4-1b (revisions to Policy PFS-4.3 "Stormwater Quality" and Implementation Program PFS-G: "Stormwater Management Plan") would result in a ***less-than-significant*** impact.

Impact 6.4-2: The Proposed Project could result in an increase of the level of pollutants in storm water runoff from the post-construction activities or cause the impairment of the beneficial uses of receiving waters or areas that provide water quality benefit or cause significant harm on the biological integrity of the waterways and water bides by the discharge of stormwater;

Impact Summary

Level of Significance Before Mitigation: *Potentially Significant*
Required Mitigation: *Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts and Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts.*
Level of Significance After Mitigation: *Less than Significant*

Impact Analysis

Flood control detention is considered the most viable option for mitigating the increase in runoff from new development areas, with the specific types and locations of these drainage facilities to be determined at the time development applications are submitted. Pollution associated with increased stormwater and urban runoff would affect local and regional surface and groundwater quality conditions. Unlike sewage, which is transported to a treatment plant, urban runoff may flow untreated through the storm drainage system. Anything thrown, swept, or poured into the street, gutter, or a catch basin (the curbside openings that lead into the storm drainage system) flows directly into ponding basins or local channels and creeks. Pollutant loads can be particularly acute at the beginning of the rainy season, but can be a problem at any time due to the improper disposal of products associated with home, garden, or automotive use.

Policies and implementation programs included as part of the Proposed Project that would minimize this impact are the same as those described above under Impact 6.4-1. However, even with implementation of the above mentioned policies and implementation programs, this impact is considered ***potentially significant***.

Required Mitigation Measures

To address this impact, the City shall implement "Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts and Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts", which are more fully described above under the description for Impact 6.4-1.

Significance after Implementation of Mitigation for Impact 6.4-2

The City's implementation of the Sacramento SWMP, and associated Development Standards Plan would address a variety of erosion generating or water quality impacts associated with runoff water that exceeds the capacity of existing storm drainage infrastructure

As stated above, the City will continue to implement a variety of policies and programs designed to address the provision of needed storm drainage infrastructure and stormwater quality issues. Therefore, implementation of the Proposed Project including the adoption of the revised policy and implementation program described above under Mitigation Measure 6.4-1a and Mitigation Measure 6.4-1b would result in a ***less-than-significant*** impact.

Impact 6.4-3: The Proposed Project could place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map or place within a 100-year flood hazard area structures which could impede or redirect flood flows.

Impact Summary

Level of Significance Before Mitigation: ***Less than Significant***
Required Mitigation Measures: ***No Mitigation Required***
Level of Significance After Mitigation: ***Less than Significant***

Impact Analysis

A review of applicable FEMA flood maps indicates that there are several areas within the City's Planning Area that are within a 100-year floodplain area. Floodplain lands are found (but not limited to) areas along Dry Creek, Laguna Creek, Skunk Creek, and Deadman Gulch. Additionally, there are small patches of 100-year floodplain areas along Hen Creek in the southwest portion of the Study Area. The Proposed Project (Preferred Land Use Diagram) has identified the floodplain areas around Dry Creek as remaining as open space. Implementation of the Proposed Project (including build-out of the Preferred Land Use Alternative) could expose more people and habitable structures to potential flooding if development occurs within or adjacent to these floodplain areas. The City of Galt has channelized Deadman Gulch and a Letter of Map Revision (LOMR) has been issued from FEMA. The City anticipates that there will be no structures in the floodplains located within the current City limits.

Policies and implementation programs included as part of the Proposed Project that would minimize this impact are summarized below by General Plan Element, with a complete description of these policies and programs provided in Appendix C "Policy Document" of this draft EIR. Specific policies direct the City to preserve floodplain areas (see policies SS-3.1, SS-3.3, COS-1.14, COS-4.2, and Implementation Program COS-A) and limit development in hazardous areas (see policies SS-3.1 and SS-3.2). Additional policies require the City to continue to cooperate with local, state, and federal agencies to address local and regional flood issues (see policy COS-1.3) and continue to enforce the City's Emergency Response Plan (policy SS-1.1) in the event of a flood emergency. Other policies from the Public Facilities and Services Element require the City to prepare, annually review, and update every five years a Storm Drainage Master Plan and a Pavement Management Plan to ensure that adequate levels of storm drainage infrastructure are planned and provisions are made for their development (see policies PFS-1.5, PFS-4.1, and Implementation Programs PFS-A, PFS-G, and PFS-H). With implementation of these policies and implementation programs, this impact is considered ***less-than-significant.***

Safety and Seismic & Land Use Elements	Conservation and Open Space Element
Policies and implementation programs designed to minimize this impact through the preservation of floodplain areas and the management of new development in hazardous areas include the following:	
SS-3.1 Floodplain Mapping SS-3.2 Development in the 100-Year Floodplain SS-3.3 Natural Drainageways Enhancements LU-1.9 Growth in Hazard-Prone Areas	COS-1.1 Flood Control COS-1.2 Flood Protection Ordinance COS-1.4 Storm Flow Impacts COS-1.14 Floodplain Dedication COS-1.17 Floodplain Visual Accessibility COS-4.2 Natural Floodway Protection COS-4.4 Open Space Protection COS-A Flood Protection Ordinance
Policies designed to minimize this impact through the continued coordination with emergency response plans and service providers include the following:	
SS-1.1 City Emergency Operations Plan (EOP) SS-1.2 Inter-Agency Coordination	COS-1.3 Inter-Agency Coordination
Public Facilities and Services Element	
Policies and implementation programs designed to minimize this impact through adherence to appropriate levels of stormwater infrastructure planning, financing and construction include the following:	
PFS-1.4 Financing from New Development PFS-1.5 Public Facility Master Plans PFS-1.6 Capital Improvement Program PFS-1.7 Public Facility Financing PFS-1.8 Ultimate Capacity Needs PFS-1.9 Fair Share Costs on New Developments PFS-1.10 Broad-Based Funding Sources PFS-1.11 Fiscal Impact Analysis for Specific Plans and Significant General Plan Amendments	PFS-4.1 Storm Drain Enhancements PFS-4.2 Conservation/Stormwater PFS-4.4 Project Design PFS-4.7 Mitigating Stormwater Runoff PFS-4.8 Joint Use of Detention Facilities PFS-4.9 Detention Requirements PFS-A Infrastructure Master Plans PFS-G Stormwater Management Plan PFS-H Stormwater and Flood Protection Ordinance

Required Mitigation Measures

This impact is considered ***less-than-significant***. No additional mitigation measures are required.

Impact 6.4-4: The Proposed Project could expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Summary

Level of Significance Before Mitigation: ***Less than Significant***
Required Mitigation Measures: ***No Mitigation Required***
Level of Significance After Mitigation: ***Less than Significant***

Impact Analysis

Flood hazards associated with inundation resulting from levee or dam failure are considered a low threat in the City of Galt. A system of levees and dikes for the streams and creeks draining to the Cosumnes River are generally found in the northwestern portion of the Study Area outside of the General Plan boundary and to the north of the Study Area. Additionally, Laguna Creek may be subject to dam failure inundation in the event of a major dam failure at Rancho Seco Dam, which is located almost 10 miles northeast of the City of Galt. However, the dam inundation area along Laguna Creek and near the City of Galt is located along the northern boundary of the Study Area.

(California OES 1997-2007) No development is proposed for these areas as part of the Proposed Project since they are outside of the City's proposed Sphere of Influence boundary.

Policies and implementation programs included as part of the Proposed Project that would minimize this impact are summarized below by General Plan Element, with a complete description of these policies and programs provided in Appendix C "Policy Document" of this draft EIR. Specific policies direct the City to preserve floodplain areas (see policies SS-3.1, SS-3.3, COS-1.14, COS-4.2, and Implementation Program COS-A) and limit development in hazardous areas (see policies SS-3.1 and SS-3.2). Additional policies require the City to continue to cooperate with local, state, and federal agencies to address local and regional flood issues (see policy COS-1.3) and continue to enforce the City's Emergency Response Plan (policy SS-1.1) in the event of a flood emergency. Other policies from the Public Facilities and Services Element require the City to prepare, annually review, and update every five years a Storm Drainage Master Plan and a Pavement Management Plan to ensure that adequate levels of storm drainage infrastructure and planned and provisions are made for their development (see policies PFS-1.5, PFS-4.1, and Implementation Programs PFS-A, PFS-G, and PFS-H). With implementation of these policies and implementation programs, this impact is considered ***less-than-significant.***

Safety and Seismic & Land Use Elements	Conservation and Open Space Element
Policies and implementation programs designed to minimize this impact through the preservation of floodplain areas and the management of new development in hazardous areas include the following:	
SS-3.1 Floodplain Mapping SS-3.2 Development in the 100-Year Floodplain SS-3.3 Natural Drainageways Enhancements LU-1.9 Growth in Hazard-Prone Areas	COS-1.1 Flood Control COS-1.2 Flood Protection Ordinance COS-1.4 Storm Flow Impacts COS-1.14 Floodplain Dedication COS-1.17 Floodplain Visual Accessibility COS-4.2 Natural Floodway Protection COS-4.4 Open Space Protection COS-A Flood Protection Ordinance
Policies designed to minimize this impact through the continued coordination with emergency response plans and service providers include the following:	
SS-1.1 City Emergency Operations Plan (EOP) SS-1.2 Inter-Agency Coordination	COS-1.3 Inter-Agency Coordination
Public Facilities and Services Element	
Policies and implementation programs designed to minimize this impact through adherence to appropriate levels of stormwater infrastructure planning, financing and construction include the following:	
PFS-1.4 Financing from New Development PFS-1.5 Public Facility Master Plans PFS-1.6 Capital Improvement Program PFS-1.7 Public Facility Financing PFS-1.8 Ultimate Capacity Needs PFS-1.9 Fair Share Costs on New Developments PFS-1.10 Broad-Based Funding Sources PFS-1.11 Fiscal Impact Analysis for Specific Plans and Significant General Plan Amendments	PFS-4.1 Storm Drain Enhancements PFS-4.2 Conservation/Stormwater PFS-4.4 Project Design PFS-4.7 Mitigating Stormwater Runoff PFS-4.8 Joint Use of Detention Facilities PFS-4.9 Detention Requirements PFS-A Infrastructure Master Plans PFS-G Stormwater Management Plan PFS-H Stormwater and Flood Protection Ordinance

Required Mitigation Measures

This impact is considered ***less-than-significant***. No additional mitigation measures are required.

Impact 6.4-5: The Proposed Project could result in an increase of the discharge of storm water from material storage areas, vehicle or equipment fueling, vehicle or equipment

maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas or loading docks, or other outdoor work areas;

Impact Summary

Level of Significance Before Mitigation: ***Potentially Significant***
Required Mitigation: ***Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts and Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts.***
Level of Significance After Mitigation: ***Less than Significant***

Impact Analysis

Development consistent with the build-out of the General Plan could result in stormwater discharges from material storage areas, vehicle or equipment fueling/maintenance areas, loading docks, or other outdoor work areas. Several policies and implementation measures contained in the General Plan are designed to minimize discharge of polluted runoff.

Detention and implementation of other best management practices (BMPs) are considered the most viable option for minimizing the discharge of pollutants to receiving waters. Pollution associated with increased stormwater and urban runoff would affect local and regional surface and groundwater quality conditions. Unlike sewage, which is transported to a treatment plant, urban runoff may flow untreated through the storm drainage system. Anything thrown, swept, or poured into the street, gutter, or a catch basin (the curbside openings that lead into the storm drainage system) flows directly into ponding basins or local channels and creeks. Pollutant loads can be particularly acute at the beginning of the rainy season, but can be a problem at any time due to the improper disposal of products associated with home, garden, or automotive use. The implementation of BMPs on every project helps to reduce the discharge of pollutants to receiving waters.

Policies and implementation programs included as part of the Proposed Project that would minimize this impact are the same as those described under Impact 6.4-1. However, even with implementation of the above mentioned policies and implementation programs, this impact is considered ***potentially significant***.

Required Mitigation Measures

To address this impact, the City shall implement "Mitigation Measure 6.4-1a: Adopt Revised General Plan Policy PFS-4.3 "Stormwater Quality" to Address Storm Drainage System Impacts and Mitigation Measure 6.4-1b: Adopt Revised General Plan Implementation Program PFS-G to Address Storm Drainage System Impacts", which are more fully described above under the description for Impact 6.4-1.

Significance after Implementation of Mitigation for Impact 6.4-5

The City's implementation of the Sacramento SWMP, and associated Development Standards Plan would address a variety of erosion generating and water quality impacts associated with runoff water that exceeds the capacity of existing storm drainage infrastructure.

As stated above, the City will continue to implement a variety of policies and programs designed to address stormwater quality issues. Therefore, implementation of the Proposed Project including the adoption of the revised policy and implementation program described above under Mitigation Measure 6.4-1a and Mitigation Measure 6.4-1b would result in a ***less-than-significant*** impact.

6.5 Solid Waste

This section focuses on impacts resulting from the generation, handling, and storage of solid waste materials associated with implementation of the Proposed Project.

Environmental and Regulatory Setting

Section 15150 of the CEQA Guidelines permits documents of lengthy technical detail to be incorporated by reference in an EIR. Specifically, Section 15150 states that an EIR may "incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public ...." Consistent with the CEQA Guidelines and as a way to avoid creating an overwhelming amount of paper for members of the public and decision-makers to sort through, this draft EIR incorporates by reference information from both the Existing Conditions and Policy Document. Consistent with this approach, the reader is directed to Chapter 4 of the Existing Conditions Report for environmental and regulatory setting information specific to public facilities and services topics (see Appendix B of this draft EIR).

Impact Methodology

Solid waste impacts were evaluated by comparing the expected solid waste generated by the Proposed Project to existing and any planned capacity of the landfills expected to serve the Study Area. Estimates of City-wide average daily solid waste production were calculated using average daily production rates provided by the EPA (4.6 pounds per day) and the estimate of current solid waste production (20,406 tons per year in 2003) provided for the City.

As a result of comments (see Table 1-1 of Chapter 1.0 "Introduction") received during the NOP public scoping phase of the Proposed Project, specific effects from the project relating to solid waste have been considered as part of the impact analysis. For example, the California Waste Recovery Systems suggested that the City should have a solid waste transfer station and that the identification of a transfer station site should be included in the project description of the EIR. To address this concern, the Policy Document includes Policy LU-8.5 "Refuse Transfer Station". This policy requires the City to coordinate efforts with the refuse service provider to locate a new refuse transfer station along the railroad tracks, north of Twin Cities Road.

CHAPTER 8.0
Natural Resources

8.1 Introduction

In preparing the Proposed Project, a common chapter numbering system was used in preparing the key general plan documents to allow readers the ability to easily find related information throughout the various documents. In the Existing Conditions Report, Chapter 8.0 is the "Natural Resources" section. This section provides background information on the existing open space and natural resource conditions of the Study Area, with the draft Policy Document providing the policy framework for the various resources identified under the Proposed Project.

This chapter discusses the potential impacts of the Proposed Project on a variety of natural resources including:

- Hydrology (8.2),
- Biological Resources (8.3), and
- Soils and Agricultural Resources (8.4).

8.2 Hydrology

Hydrology issues include the distribution and circulation of water, both aboveground (surface water) and belowground (groundwater). Water quality deals with the quality of both surface and groundwater resources. Surface water includes all water resources on the surface of the land and includes rivers, lakes, canals, and of course the Sacramento-San Joaquin River Delta (Delta). Hydrologic impacts related to the provision of water supply, wastewater, and storm water drainage services are addressed in Chapter 6.0 "Public Facilities & Services" (see Sections 6.2 "Water Supply", Section 6.3 "Wastewater Systems", and Section 6.4 "Storm Drainage"). Hydrologic impacts related to flooding issues are addressed in Chapter 10.0 "Public Health and Safety" (see Section 10.4 "Flooding").

Environmental and Regulatory Setting

As previously described in the "Readers Guide" (see Chapter 1 of this draft EIR), Section 15150 of the CEQA Guidelines permits documents of lengthy technical detail to be incorporated by reference in an EIR. Specifically, Section 15150 states that an EIR may "incorporate by reference all or portions of another document which is a matter of public record or is generally available to the

public…" Consistent with the CEQA Guidelines and as a way to avoid creating an overwhelming amount of paper for members of the public and decision-makers to sort through, this draft EIR incorporates by reference information from both the Existing Conditions Report and Policy Document. Consistent with this approach, the reader is directed to Chapter 8.0 of the Existing Conditions Report for environmental and regulatory setting information specific to hydrology and water quality topics (see Appendix B of this draft EIR).

Impact Methodology

The provision of ongoing storm water management is currently being accomplished through requirements set forth in the City of Galt Municipal Code. The City of Galt also submitted its Storm Water Management Plan/Program (SWMP) (as a joint effort with other member agencies of the Sacramento Stormwater Quality Partnership) in November 2000 and a subsequent update in December 2003. The SWMP includes program elements that each permittee will implement to reduce the discharge of pollutants in storm water to the maximum extent practicable (MEP), and to effectively prohibit non-storm water discharges into municipal separate storm sewer systems (MS4s) within each permittee's jurisdiction. Each Stormwater Quality Improvement Program (SQIP) is a site-specific modification of the existing comprehensive SWMP required under the previous MS4 permit, Order No. 96-105. The County and the Cities of Citrus Heights, Elk Grove, Folsom, and Galt jointly submitted a SQIP (County SQIP). The City of Sacramento submitted a separate SQIP (City SQIP). The City is required to maintain compliance with National Pollutant Discharge Elimination System (NPDES) requirements that evolve over time.

Impacts associated with hydrologic resources were evaluated using information provided in the General Plan Existing Conditions Report (see Appendix B of this draft EIR). This assessment of impacts to hydrologic resources is a qualitative review of the existing hydrologic conditions within the Study Area and a determination of whether the Proposed Project includes adequate provisions to ensure continued protection of these resources.

As a result of comments (see Table 1-1 of Chapter 1.0 "Introduction") received during the NOP public scoping phase of the Proposed Project, specific effects on groundwater resources have been considered as part of the impact analysis. For example, Michael Eaton recommended that the EIR analysis consider specific impacts to groundwater resources and that the City consider working actively with the South Sacramento County Agricultural Water Authority (SSCAWA) in order to move towards a system of conjunctive water use.

Standards of Significance

The Proposed Project will establish development guidelines against which future projects will be judged for consistency. The significance criteria for this analysis were developed from criteria presented in Appendix G, "Environmental Checklist Form", of the CEQA Guidelines (as amended by the City of Galt to address a variety of water quality issues). The project (or the project alternatives) would result in a significant impact if it would:

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted); or

- Violate any water quality standards, waste discharge requirements, or otherwise substantially degrade water quality.

Impacts and Mitigation Measures

Impact 8.2-1: The Proposed Project would have the potential, in the long-term, to deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

Impact Summary

Level of Significance Before Mitigation: ***Potentially Significant***
Required Mitigation: ***Mitigation Measure 8.2-1: Adopt General Plan Policy PFS-2.12 "Water Meter Retrofit Program" to Address Water Supply Impacts***
Level of Significance After Mitigation: ***Significant and Unavoidable***

Impact Analysis

Implementation of the Proposed Project (including build out of the Preferred Land Use Alternative and the Circulation Diagram) would result in an increased demand on groundwater supplies for urban and rural uses within the City. Effective implementation of groundwater management practices are necessary to meet future water demands via groundwater extraction, without creating declining groundwater levels, and adversely affecting existing wells. Concerns of declining groundwater levels are heightened by the fact that the City is presently dependent upon groundwater supplies.

The City of Galt relies upon groundwater from the Cosumnes Sub-basin (DWR Groundwater Basin Number 5-22.16) of the San Joaquin Valley Groundwater Basin as its sole source of domestic potable water. The Cosumnes Sub-basin is an un-adjudicated basin that supports both municipal and agricultural users.

The publication, *"California's Groundwater – Bulletin 118, Update 2003"*, published by the California Department of Water Resources contains a wide range of information pertaining to groundwater basins and sub-basins throughout California. The information summarized below was derived from the referenced publication.

> *Cosumnes Sub-Basin: "Montgomery Watson Consultants (Montgomery Watson 1993) developed a groundwater model for Sacramento County. A subsequent model was developed for San Joaquin County by Montgomery Watson as part of*

meyers | nave riback silver & wilson
professional law corporation

Adam U. Lindgren
Attorney at Law
916.556.1531

April 29, 2009

Statement of Legal Authority

This statement verifies the authority of the City of Rancho Cordova ("City") to comply with certain Federal NPDES Storm Water Regulations and the requirements of the California Regional Water Quality Control Board, Central Valley Region Order No. R5-2008-0142 ("Order"), which also serves as NPDES Permit CAS082597 ("Permit"). The City submits this statement along with its Stormwater Quality Improvement Plan ("SQIP") as required by the Order.

Section D.6 of the Order requires the preparation of a statement "certified by its Chief Legal Counsel," verifying that adequate authority exists to implement the terms of the Order and requirements of federal stormwater regulations. Section D.6 specifies six items that must be included in the statement:

> "6. Each Permittee shall provide to the Regional Board a statement certified by its chief legal counsel that the Permittee has adequate legal authority to implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order, including any modifications thereto in effect when the certified statement is provided. This statement, which shall be included in Permittees' revised SQIP(s), shall include the following:
>
> a. Citation of urban runoff related ordinances adopted by the Permittee and the reasons the ordinances are enforceable;
>
> b. Progressive enforcement policy and how it will be effectively implemented;
>
> c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order;
>
> d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed; and
>
> e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions; and

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

As required by the Order, a complete discussion of each issue follows.

a. Citation of urban runoff related ordinances adopted by the Permittees and the reasons the ordinances are enforceable.

Chapter 15.12 of the Rancho Cordova Municipal Code (the "City Storm Water Ordinance") is the principal ordinance governing discharges to the municipal separate storm sewer system (MS4) of which the City's storm sewer system is a designated part. The City's Storm Water Ordinances was revised in 2004, in order to ensure the County had the legal authority to implement and enforce the City's Stormwater control program, as well as to provide for the recovery of administrative and regulatory costs incurred by the City or by the County.

The purpose of the City Storm Water Ordinance is to "protect and enhance the water quality of watercourses, water bodies and wetlands within the unincorporated area of the City in a manner consistent with the Federal Clean Water Act, the Porter-Cologne Water Quality Control Act and Municipal Discharge Permit No. CA0082597 by controlling the contribution of urban pollutants to stormwater runoff which enters the County stormwater conveyance system." The provisions of the City Storm Water Ordinance authorize implementation or enforcement of each mandate of the Order or stormwater regulation.

Additionally, the Grading Ordinance regulates grading projects and sets conditions for approval of such projects. This ordinance is specifically designed to minimize the degradation of the water quality of watercourses caused by grading, filling and excavation of land, and to control sediment and pollutant runoff from other construction-related activities. These goals are achieved by establishing administrative procedures, minimum standards of review, and implementation and enforcement procedures for controlling erosion, sedimentation and other construction-related pollution.

These ordinances were properly published, introduced and adopted by the City Council pursuant to California law and constitute enforceable enactments pursuant to the City's police power.

The City's authority under the Grading Ordinance and the City Storm Water Ordinance is very wide-ranging and is sufficient to address the majority of the mandates contained in the Order. The Order requires the Permittees to "carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits, including the prohibition of illegal discharges to the MS4." The City Storm Water Ordinance authorizes inspections and monitoring by the City and requires regular reports from dischargers. Additionally, the Order requires the City to have the legal authority to require "that

treatment control BMPs be properly operated and maintained." City Storm Water Ordinance sections 15.12.200-230 require any person engaged in activities which may result in pollutants entering the storm water conveyance system to implement and maintain BMPs.

b. Progressive enforcement policy and how it will be effectively implemented.

The City's Storm Water Ordinance provides various levels of enforcement, which are discussed further below. The City may issue a notice of violation to any person found in violation of the City's Storm Water Ordinance. If an issue is not resolved voluntarily after the notice of violation, the City has administrative enforcement options, including the ability for the administrator to issue an administrative compliance order which, among other things, sets forth the specific steps and time schedules for compliance and the measures necessary to implement the BMPs in accordance with the City's Storm Water Ordinance. Additionally, if a violation constitutes an immediate threat to public health or safety, including for example, significant harm to human or aquatic life, the City may issue a cease and desist order requiring the immediate end to the activities causing the threat. The City also has the ability to impose administrative civil penalties up to $5,000 for each violation of the storm water ordinance.

c. Identification of the local administrative and legal procedures available to mandate compliance with the Permittees' storm water related ordinances, which incorporate the conditions of this Order.

The City Storm Water Ordinance has several administrative procedures available to mandate compliance with the requirements contained in the ordinance. As discussed further below, these options include issuing notices of non-compliance, administrative enforcement orders and cease and desist orders. In addition to administrative enforcement options, the City may seek civil and criminal penalties against a violator and may seek nuisance abatement through the court system. Lastly, Section 15.12.230 of the City Storm Water Ordinance allows the City's Public Works Director to promulgate regulations for the implementation of the City's Storm Water Ordinance. This section gives the City the ability to further refine its administrative compliance options.

d. Description of how these ordinances are implemented and how enforcement actions under these ordinances may be appealed.

The City will implement the City Storm Water Ordinance through the stormwater program detailed in the SQIP.

The City Storm Water Ordinance sets forth a detailed process for appealing enforcement action brought pursuant to it. Section 15.12.440 provides that any person receiving a notice of non-compliance, an administrative compliance order or otherwise suffers an adverse determination under the ordinance may request an administrative hearing before an administrative hearing officer designated by the City Council. The Ordinance requires the appellant to file, within 30 days of receipt of notice of an adverse determination, a written

request for an administrative hearing, accompanied by an administrative hearing fee as established by resolution of the Council, with the Director. The City will then hold a hearing on the matter before a hearing officer within 45 days of the filing of the written request unless, in the reasonable discretion of the hearing officer and pursuant to a request by the appealing party, a continuance of the hearing is granted. The hearing office must issue his or her final decision within ten days of the hearing.

e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

As stated above, the City Storm Water Ordinance includes an extensive section on enforcement actions (giving the City a wide variety of administrative options in case of violations). The administrative enforcement options include issuing a notice of non-compliance, administrative compliance orders, and cease and desist orders. Issuance of a cease and desist order functions as an injunction in that it allows the City's Public Works Director to direct the owner or occupant of any premises, or any other person responsible for any violation of the proposed ordinance, to take one or more of the following actions: (1) Immediately discontinue any prohibited discharge to the City stormwater conveyance system; (2) Immediately discontinue any other violation of the ordinance; and (3) Clean up the area affected by the violation. The City's Public Works Director may direct by a Cease and Desist Order that any person immediately cease any activity that may lead to a violation of Receiving Water Limitations.

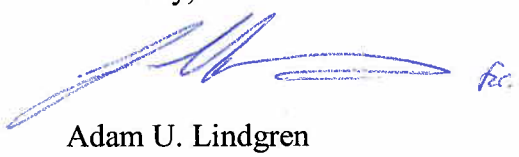
The City has similar authority under the Grading Ordinance. The powers include the issuance of stop work notices, denial of future grading permits and the abatement of nuisance conditions.

f. Description of the Permittee's storm water management structure. There might be different departments that are to develop, implement, and enforce various components of the program. Summarize how the various departments communicate and coordinate activities.

The City's Public Works Department ("PWD") oversees the responsibility for compliance with the Storm Water Quality Improvement Plan and the Order. Members of the City's Planning Staff participate in the implementation and enforcement of the Order by reviewing environmental documents for projects, and conditioning projects to comply with the Order and Permit requirements. The PWD also works closely with the Public Information Officer to conduct outreach to citizens and City employees. While the PWD is the lead department, the City ensures a comprehensive approach to achieve compliance.

Based on the foregoing discussion, the City Attorney respectfully submits this certification. Please do not hesitate to contact me if you need further information.

Sincerely,

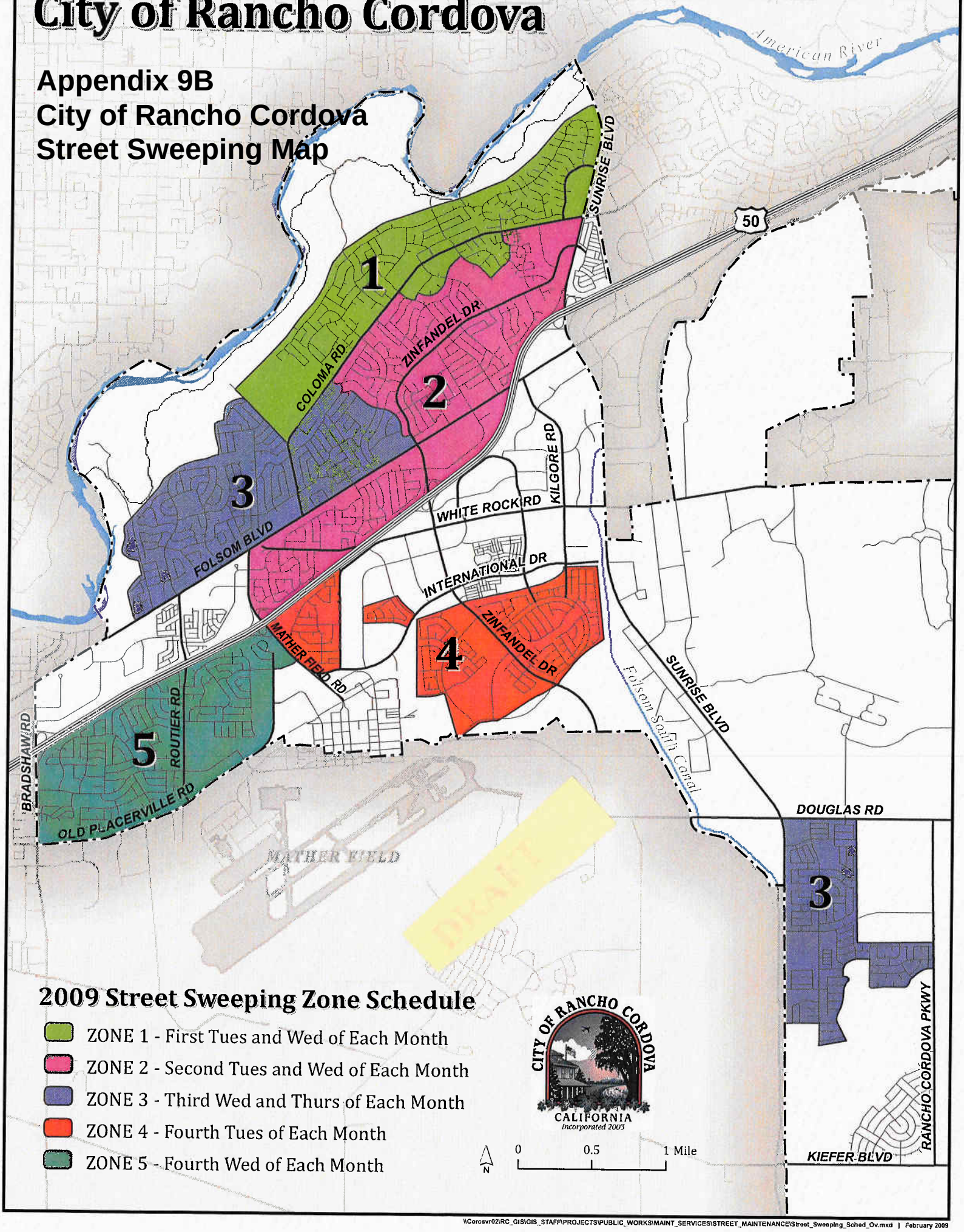


Adam U. Lindgren
City Attorney
City of Rancho Cordova

1221948.3

City of Rancho Cordova

Appendix 9B
City of Rancho Cordova
Street Sweeping Map



2009 Street Sweeping Zone Schedule

- ZONE 1 - First Tues and Wed of Each Month
- ZONE 2 - Second Tues and Wed of Each Month
- ZONE 3 - Third Wed and Thurs of Each Month
- ZONE 4 - Fourth Tues of Each Month
- ZONE 5 - Fourth Wed of Each Month

CITY OF RANCHO CORDOVA
CALIFORNIA
Incorporated 2003

N

0 0.5 1 Mile

\\Corcsvr02\RC_GIS\GIS_STAFF\PROJECTS\PUBLIC_WORKS\MAINT_SERVICES\STREET_MAINTENANCE\Street_Sweeping_Sched_Ov.mxd | February 2009