

Appendix A – Storm Water Management Plan



City of Grover Beach

Notice of Intent

State Water Resources Control Board
 NOTICE OF INTENT
 TO COMPLY WITH THE TERMS OF THE GENERAL PERMIT FOR
 STORM WATER DISCHARGES FROM
 SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS
 (WATER QUALITY ORDER NO. 2003 - 0005 - DWQ)

I. NOI Status

Mark Only One Item 1. New Permittee 2. Change of Information WDID #: _____

II. Agency Information

A. Agency CITY OF GROVER BEACH					
B. Contact Person JAKE RAPER JR.			C. Title COMMUNITY DEVELOPMENT DIRECTOR		
D. Mailing Address 154 S. EIGHTH ST.			E. Address (Line 2) "		
F. City GROVER BEACH		State CA	G. Zip 93433	H. County SAN LUIS OBISPO	
I. Phone 805-473-4520		J. FAX 805-489-9657		K. Email Address JRAPER@GROVER.ORG	
L. Operator Type (check one) 1. <input checked="" type="checkbox"/> City 2. <input type="checkbox"/> County 3. <input type="checkbox"/> State 4. <input type="checkbox"/> Federal 5. <input type="checkbox"/> Special District 6. <input type="checkbox"/> Government Combination					

III. Permit Area

GROVER BEACH - Refer to APPENDIX A

IV. Boundaries of Coverage (include a site map with the submittal)

REFER TO APPENDIX A OF CITY OF GROVER BEACH STORM WATER MANAGEMENT PLAN

V. Billing Information

A. Agency GROVER BEACH					
B. Contact Person JAKE RAPER			C. Title COMMUNITY DEVELOPMENT DIR.		
D. Mailing Address 154 S. EIGHTH ST			E. Address (Line 2)		
F. City GROVER BEACH		State CA	G. Zip 93433	H. County SAN LUIS OBISPO	
I. Phone 805-473-4520		J. FAX 805-489-9657		K. Email Address JRAPER@GROVER.ORG	
Fees are based on the daily population served by the Small MS4. To determine your fee, consult the current fee schedule (California Code of Regulations, Title 23, Division 3, Chapter 9 Article 1), which can be viewed at www.swrcb.ca.gov/stormwtr/municipal.html .					
L. Population <u>13,067</u>					
Fee <u>\$3,000</u>					
Check(s) should be made payable to the SWRCB and submitted to the appropriate RWQCB.					
SWRCB Tax ID is: 68-0281986					

VI. Discharger Information (check applicable box(es) and complete corresponding information)

1. Applying for Individual General Permit Coverage

2. Applying for a permit with one or more co-permittees

The undersigned agree to work as co-permittees in implementing a complete small MS4 storm water program. The program must comply with the requirements found in Title 40 of the Code of Federal Regulations, parts 122.32. Attach additional sheets if necessary. Each co-permittee must complete an NOI.

Lead Agency	Signature
Agency	Signature
Agency	Signature
Agency	Signature

3. Separate Implementing Entity (SIE)

A. Agency			
B. Contact Person		C. Title	
D. Mailing Address		E. Address (Line 2)	
F. City	State CA	G. Zip	H. County
I. Phone	J. FAX	K. Email Address	
H. Operator Type (check one) 1. <input type="checkbox"/> City 2. <input type="checkbox"/> County 3. <input type="checkbox"/> State 4. <input type="checkbox"/> Federal 5. <input type="checkbox"/> Special District 6. <input type="checkbox"/> Government Combination			
Minimum Control Measures being implemented by the SIE (check all that apply)			
<input checked="" type="checkbox"/> Public Education	<input checked="" type="checkbox"/> Public Involvement	<input checked="" type="checkbox"/> Illicit Discharge/Elimination	
<input checked="" type="checkbox"/> Construction	<input checked="" type="checkbox"/> Post Construction	<input checked="" type="checkbox"/> Good Housekeeping	
<p>"I agree to coordinate with the agency identified in Section III of this form and comply with its qualifying storm water program. I certify under penalty of law that this document and all attachments were prepared under my direction and 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, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."</p>			
N. Signature of Official <i>Jake Lopez Jr.</i>		Date 10/27/03	

VII. Storm Water Management Plan (check box)

As per section A.2. of this General Permit, the SWMP is attached.

VIII. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction and 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, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Additionally, I certify that the provisions of the permit, including the development and implementation of a Storm Water Management Program, will be complied with."

A. Printed Name:	RONALD G. ANDERSON JR.
B. Title:	CITY MANAGER
C. Signature:	<i>Ronald Anderson Jr.</i>
D. Date:	10/27/03

Appendix B – Storm Water Management Plan



City of Grover Beach

Inventory of Existing Stormwater Activities

Appendix B: Inventory of Existing Stormwater Water Activities

1. Description of City Existing Water Quality Activities

The City of Grover Beach is currently involved in a number of activities which enhance water quality in the MS4 area. Listing all of these activities would exhaust the City's limited staff and resources, therefore, the list presented here is partial. An example of some of the more easily identifiable activities are:

CEQA Review. The Community Development Department reviews discretionary projects submitted for impacts to water quality and hydrology as part of the site plan review process. If a project is considered to have a potentially significant impact to either, the project proponent is required to mitigate impacts to the greatest extent feasible. See BMP **PE4D**.

Land Use Planning. The City General Plan, Area Plans, Local Coastal Plan and Zoning and Grading Ordinances address stormwater, water quality, and erosion in a number of different ways, including establishing setbacks from creeks and regulating grading. These planning documents generally support minimization of sprawl, low impact development, and development of adequate infrastructure. See BMPs **CON1J** and **CON1K**

Plan Check and Application of Standards (including on-site detention). During project site plan review, the City checks submitted plans for inclusion of detention structures, proper grading techniques, and compliance with City and State standards. See BMPs **CON2E** and **CON2F**.

Water Quality Related Public Outreach and Involvement: The City provides legal notices for meetings, routinely telecasts meetings and posts information on its web site. See BMPs **PP1A**, **PE3P** and **PE3O**.

Distribution of Water Quality Related Materials: The City dispenses written and graphic materials at a kiosk in City Hall. See BMPs **IL1H** and **IL1**. It also dispenses IWMA materials. See BMP **IL6C**.

Participates in Water Related Regional Affairs: The City attends and participates in SLO County Partners for Water Quality meetings. See BMP **PE1K**.

Maintenance and Operations: The City Public Works Department routinely conducts operations such as maintaining equipment, administering the sweeping of streets and parking lots, replacing filters on storm inlets and spray for weeds. These operations will have a beneficial impact upon stormwater and drinking water quality when properly conducted.

Corporation Yard Plan: The City has a Corporation Yard Plan document (see BMP **MO1A** and **Appendix C**) which can be implemented in Year 1 as an interim measure as it undergoes revision.

Municipal Operations Program: The City has a Municipal Operations Program document (see BMP **MO1D** and **Appendix C**) which can be implemented in Year 1 as an interim measure as it undergoes revision.

2. Non-profit Organizations and Other Agencies

A number of Federal, State and local agencies and non-profit organizations are currently involved in water quality activities related to stormwater in the City. The majority of the existing programs deal with education, volunteer activities, and municipal operations. For example, organizations such as the San Luis Obispo County Integrated Waste Management Authority are involved in public education and outreach activities including education about coastal resources, native plants, pollution reduction, and the effects of household activities. The following table provides details about water quality programs and activities related to stormwater that currently exist in the City. The City anticipates working closely with many of these organizations and agencies throughout SWMP implementation.

Waste Management Public Education and Outreach. Waste management planning and education are delegated by the City to the Integrated Waste Management Authority (IWMA). The County Board of Supervisors sit on the IWMA Board. The IWMA governs a wide range of waste-related issues. IWMA provides educational resources in print and on its website, attends fairs and other events to promote waste reduction and has authorized used oil recycling at the curb. The IWMA is responsible for strategies leading to the 50% source reduction and recycling equivalent that has been achieved on a countywide regional basis.

Hazardous Materials Storage. The County Department of Environmental Health regulates storage and reporting of hazardous materials pursuant to state and federal requirements. Proper storage of hazardous materials to prevent contamination of water resources is required.

The following chart helps identify some of the programs administered by other organizations.

Organization / Agency	Program
Calif. Coastal Commission	The California Coastal Management Plan (CCMP) oversees almost all coastal activities which minimizes coastal development and runoff pollution. The Commission reviews Local Coastal Plans and coastal development permits.
Calif. Coastal Commission	The Coastal Polluted Runoff Plan (CPRP) outlines the Commission's authority to address polluted runoff and identify actions, with timelines and milestones, to achieve Commission objectives to reduce polluted runoff.

Calif. Coastal Commission	The Procedural Guidance Manual addresses polluted runoff in the coastal zone and implements an overall strategy to reduce polluted runoff to coastal waters.
Calif. Coastal Commission	The Watershed Analysis Tool for Environmental Review (WATER) is an internet-accessible analytical tool for managing polluted runoff across political boundaries.
Southwest Regional Office, NOAA Fisheries	Implements programs to protect coastal resources.
Army Corps of Engineers	Clean Water Act Sect 404 regulates activities involving filling of U.S. waters and requires RWQCB water quality certification which regulates pollutant discharge and erosion during and after project construction.
U.S. Fish & Wildlife Service	Runoff control is a component of permit operation and mitigation as it relates to impacts to threatened and endangered species.
Calif. Coastal Commission	Regulates activities such as grading, filling and dredging in state waters and stream beds to control erosion and the discharge of sediment and other stream pollutants.
Calif. Dept. of Transportation	The Caltrans statewide SWMP requires the agency to identify and implement BMPs, incorporate stormwater quality management into design, construction and maintenance activities, provide stormwater quality management information to staff, contractors and the public and to manage, monitor, evaluate and report on stormwater programs.
Calif. Dept. of Transportation	The Water Quality Planning Tool uses applicable water quality standards while developing strategies for achieving regulatory compliance with stormwater permits. It provides pollutant and sediment controls on Caltrans facilities flowing to receiving waters of the State.
Calif. Dept. of Transportation	Caltrans District 5 Regional Works Plans, Caltrans Statewide NPDES Permit Order No. 99-06-DWQ and NPDES No. CA S000003 are part of the District's participation in the Caltrans statewide stormwater program. See http://www.dot.ca/hq/env/stormwater/index.htm for more information.
Coastal San Luis Resource Conservation District	Project Clear Water includes reduction of erosion and sedimentation and bank stabilization.
Americorps Community Service Center of SLO County	Americorps Environmental Stewards is a watershed program focusing on restoration.
Coastal San Luis Resource Conservation District	Provides creek erosion and sedimentation information to the public
U.S. Fish & Wildlife Service	Runoff control is a component of permit operation and mitigation as it relates to impacts to threatened and endangered species.

Calif. Native Plant Society	Provides native plant education and sponsors restoration programs.
The Dunes Center	Provides coastal resources education.
Central Coast Salmon Enhancement	Provides coastal resources education.
The Monterey Bay National Marine Sanctuary	Urban Watch Storm Drain Monitoring Program
The Land Conservancy	Provides coastal resources education.
Central Coast Ambient Monitoring Program (CCAMP)	CCAMP is the RWQCB's water quality monitoring and assessment program. It monitors the status of surface, ground, estuarine and coastal water quality and associated beneficial uses. It provides water quality information to users to support decision-making and coordinates with other monitoring programs to promote effective and efficient monitoring.
SWRCB	The State Nonpoint Source Control Program (CWA Sect 319 and CZARA Sect 6217) includes recommendations for implementing urban runoff pollution controls for new and existing development, construction sites, other urban sources and transportation infrastructure.
RWQCB	The Basin Plan establishes regional water quality objectives, beneficial uses and implementation plans.
RWQCB	The General Industrial and General Construction Stormwater Permits control pollutant discharges from industrial and construction sites.
Morro Coast Audubon Society	Provides coastal resources education.
Morro Bay State Park Museum of Natural History	Provides coastal resources education.
The Nature Conservancy	Activities include land purchase and restoration projects.
Surfrider Foundation, San Luis Bay Chapter	Performs water quality monitoring at coastal confluences.

Appendix C – Storm Water Management Plan



City of Grover Beach

Corporation Yard Plan

&

Municipal Operations Program

Municipal Operations Program

Introduction

The City's Municipal Operations Program is required by the **General Permit for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (NPDES II)** issued to the City by the State Water Resources Board. The **purpose** of the City's Municipal Operations Program is to ensure that the delivery of public services by City management and employees is provided in a manner that protects storm water quality affected by municipal operations and facilities.

Our **objective** is to eliminate or reduce the amount and the type of pollutants that are discharged to the storm water collection system from City facilities, including streets, parking lots, storage areas, vehicle maintenance facilities, parks and open spaces. In order to do so, we must analyze our fixed facilities and field operations.

The Municipal Operations Program (The Program) is an effort to describe the way we operate and maintain our services and facilities so that we can prevent and reduce polluted runoff. Not only do we wish to detail good housekeeping practices, but also we wish to develop goals that will measure our progress and attainment of our goals.

The Program is broken down into the several categories with adopted City Best Management Practices.

- Municipal facilities
- Street sweeping and cleaning
- Municipal sidewalks, plazas and parking lots
- Municipal landscaped areas (parks, medians, open space, etc.)
- Municipal storm sewer inlets and pipe cleaning
- Municipal detention and retention basins
- Hardscaped surface (streets, alleys, sidewalks, etc.) repair and maintenance

We will document our efforts to prevent and reduce pollutants. These records will allow us to measure and analyze our progress and guide our future actions.

Best Management Practices or BMPs are descriptions of procedures and methods for employees to use in their daily. City-adopted BMPs are included in this document for everyone's reference. By doing so, all employees have the identical, clearly definable process for proper delivery of public services and stormwater protection.

We do not intend that this document is the beginning and ending of our efforts to reach our objective. We want employees to recommend amendments to this document when they see or hear of a better way to reduce or prevent pollutants from City facilities or from City operations reaching storm water collection points.

Adopting procedures for City employees to use to reduce and eliminate pollutants is only a part of the City's efforts. **Other measures** are being taken by the City to reduce and prevent pollutants from sources other than City facilities and operations.

The City is also adopting a Corporation Yard Operations Plan. When implemented, this plan will help reduce pollutants reaching storm waters from this important City facility. This plan incorporates City BMPs for:

- Vehicle / equipment cleaning
- Vehicle maintenance
- Vehicle / . Equipment parking
- Outdoor materials storage
- Waste handling / storage
- Pave and unpaved surface maintenance
- Storm water runoff / drainage

Employee Training Program

On on-going employee training program will be implemented. The training program intends to:

- Involve employees in the process of determining the many ways the City can reduce and prevent Stormwater pollutants
- Inform employees of how and when to properly implement BMPs
- Explain the City's expectations of each employee and their role in reaching The Program's goals

The City's General Permit also requires builder / developer training in certain instances.

A training manual will be adopted. A training officer will be appointed to administer the employee training program and training records will be kept for each employee participating in a 'tail-gate sessions' or more formal classroom exercises or courses of study.

California Municipal BMP Handbook

The California Municipal BMP Handbook is referenced in this document. The BMPs referenced in this document are not the same as the adopted City BMPs. The California Municipal BMPs may be used for reference, training or can be adopted, where applicable, to supplement the City BMPs.

Program Administration

The Public Works Department will administer The Program, however, other departments and City employee will participate in The Program and assist the City in reaching The Program's goals.

Table of Contents

Page

Introduction	1
Chapter 1 Municipal Facilities & Field Program	4
Chapter 2 Street Sweeping and Cleaning with City BMPs	10
Chapter 3 Municipal Sidewalks, Plazas and Parking Lots with City BMPs	12
Chapter 4 Municipal Landscaped Areas (Parks, Medians, Open Space, etc.) with City BMPs	15
Chapter 5 Municipal Storm Sewer Inlets and Pipe Cleaning with City BMPs	18
Chapter 6 Municipal Detention and Retention Basins with City BMPs	21
Chapter 7 Hardscaped Surface Repair and Maintenance (Streets, Alleys, Sidewalks, etc.) with City BMPs	22
Form Municipal Facilities Inspection	26
Form MO-1 Street Sweeping Record	27
Form MO-2 Trash & Green Waste Collection Record	28
Form MO-3 Inlet & Pipe Cleaning Record	29

Chapter 1 Municipal Facilities & Field Programs

Municipal fixed facilities conduct activities that have the potential to generate pollutants. There are a number of potential pollutants that are likely to be associated with municipal fixed facilities such as community centers, parks and playgrounds, fire and rescue buildings, law enforcement centers and city offices.

Potential Pollutants Likely Associated with Fixed Facility Activities

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Bldg & Grounds Maint. & Repair	X	X	X	X	X	X	X	X	X
Parking / Storage Area Maintenance	X	X	X	X	X	X	X		X
Waste Handling & Disposal	X	X	X	X	X	X	X	X	X
Outdoor Loading & Unloading	X	X	X	X		X	X	X	X
Landscape Maintenance	X	X	X		X			X	X

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon fixed facilities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal Fixed Facility BMPs are reference materials when discussing how to go about performing City operations and services.

California Fixed Facility BMPs

BMP	Activity
SC-10	Non-Stormwater Discharges
SC-11	Spill Prevention, Control and Cleanup
SC-30	Outdoor Loading / Unloading
SC-31	Outdoor Container Storage
SC-32	Outdoor Equipment Maintenance
SC-33	Outdoor Storage of Raw Materials
SC-34	Waste Handling and Disposal
SC-41	Buildings and Grounds Maintenance
SC 43	Parking / Storage Area Maintenance
SC-60	Housekeeping Practices
SC-61	Safer Alternative Products

City field programs also require BMPs that are effective. The City's operations in the field are extensive and include street and parking lot sweeping and maintenance, response to fires and hazardous spills and the operation and maintenance of utilities.

Field Program Activities and Associated Potential Pollutants

Roads, Streets and Hwy Ops & Maintenance	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Sweeping and Cleaning	X		X	X		X			X
Street Repair, Maint. & Striping / Painting	X		X	X		X	X		
Bridge & Structure Maint.	X		X	X		X	X		
Plaza, Sidewalk & Parking Lot Maint. & Cleaning	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Surface Cleaning	X	X			X	X			X
Graffiti Cleaning	X	X		X			X		
Sidewalk Repair	X		X						
Controlling Litter	X		X		X	X			X
Landscape Maint.	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Mowing, Trimming, Planting	X	X	X		X			X	X
Fertilizer & Pesticide Mgmt	X	X						X	
Landscape Waste Mgmt			X					X	X
Erosion Control	X	X							
Fountains, Pools, Lakes & Lagoon Maint.	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Fountain & Pool Draining		X						X	

Lake & Lagoon Maintenance	X	X	X		X			X	X
---------------------------------	----------	----------	----------	--	----------	--	--	----------	----------

Sewer Line Maintenance	X				X	X			X
Spill, Leak, Overflow Control, Response and Containment	X	X			X		X		X

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon field activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services.

California Municipal Field Program BMPs

BMP	Activity
SC-10	Non-Stormwater Discharge (Field Program)
SC-70	Road and Street Maintenance
SC-71	Plaza and Sidewalk Cleaning
SC-72	Fountains and Pool Maintenance
SC-73	Landscape Maintenance
SC-74	Drainage System Maintenance
SC-75	Waste Handling and Disposal
SC-76	Water and Sewer Utility Maintenance

The City has adopted the following BMPs for fixed facilities. City BMPs for field operations are located in other chapters of this document. The City Corporation Yard Plan contains BMPs for that specific facility and its operation. City employees are requested to apply the adopted City when providing City services.

Bldg & Grounds Maint. & Repair

- Municipal facilities shall be inspected annually and inspection records maintained for two years. Use the Municipal Facilities Inspection Form in this document.

Parking / Storage Area Maintenance

- Refer to Chapter 3 of this document.

Waste Handling & Disposal

- Cover storage containers with leak proof lids or some other means. If waste is not in containers, cover all waste piles (plastic tarps are acceptable coverage) and prevent stormwater run-on and runoff with a berm. The waste containers or piles must be covered except when in use.
- Check storage containers semi-annually for leaks and to ensure that lids are on tightly. Replace any that are leaking, corroded, or otherwise deteriorating.
- Sweep and clean the storage area regularly. If it is paved, do not hose down the area to a storm drain.
- Dispose of rinse and wash water from cleaning waste containers into a sanitary sewer if allowed by the local sewer authority. Do not discharge wash water to the street or storm drain.
- Post "No Littering" signs and enforce anti-litter laws.
- Provide a sufficient number of litter receptacles for the facility.
- Clean out and cover litter receptacles frequently to prevent spillage.
- Keep waste collection areas clean.
- Inspect solid waste containers for structural damage or leaks semi-annually. Repair or replace damaged containers as necessary.

- ❑ Secure solid waste containers; containers must be closed tightly when not in use.
- ❑ Place waste containers under cover if possible.
- ❑ Do not fill waste containers with washout water or any other liquid.
- ❑ Ensure that only appropriate solid wastes are added to the solid waste container. Certain wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc. may not be disposed of in solid waste containers (see chemical/ hazardous waste collection section below).
- ❑ Do not mix wastes; this can cause chemical reactions, make recycling impossible, and complicate disposal.
- ❑ Use the entire product before disposing of the container.
- ❑ Keep the waste management area clean at all times by sweeping and cleaning up spills immediately.
- ❑ Use dry methods when possible (e.g. sweeping, use of absorbents) when cleaning around Restaurant / food handling dumpster areas. If water must be used after sweeping/using absorbents, collect water and discharge through grease interceptor to the sewer.
- ❑ Stencil storm drains on the facility's property with prohibitive message regarding waste disposal.
- ❑ Select designated hazardous waste collection areas on-site.
- ❑ Store hazardous materials and wastes in covered containers protected from vandalism, and in compliance with fire and hazardous waste codes.
- ❑ Place hazardous waste containers in secondary containment.
- ❑ Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.
- ❑ Prevent stormwater run-on from entering the waste management area by enclosing the area or building a berm around the area.
- ❑ Prevent the waste materials from directly contacting rain.
- ❑ Cover waste piles with temporary covering material such as reinforced tarpaulin, polyethylene, polyurethane, polypropylene or hypalon.
- ❑ Cover the area with a permanent roof if feasible.
- ❑ Cover dumpsters to prevent rain from washing waste out of holes or cracks in the bottom of the dumpster.
- ❑ Move the activity indoor after ensuring all safety concerns such as fire hazard and ventilation are addressed.
- ❑ Check waste management areas for leaking containers or spills.
- ❑ Repair leaking equipment including valves, lines, seals, or pumps promptly.

Spill Response and Prevention

- ❑ Have spill cleanup materials readily available and in a known location.
- ❑ Cleanup spills immediately and use dry methods if possible.
- ❑ Properly dispose of spill cleanup material.

Outdoor Materials Storage

- ❑ Store all materials inside. If this is not feasible, then all outside storage areas should be covered with a roof, and bermed, or enclosed to prevent stormwater contact. At the very minimum, a temporary waterproof covering made of polyethylene, polypropylene or hypalon should be used over all materials stored outside.
- ❑ Cover and contain the stockpiles of raw materials to prevent stormwater from running into the covered piles. The covers must be in place at all times when work with the stockpiles is not occurring. (applicable to small stockpiles only).
- ❑ Keep liquids in a designated area on a paved impervious surface within a secondary containment.
- ❑ Keep outdoor storage containers in good condition.

- ❑ Keep storage areas clean and dry.
- ❑ Design paved areas to be sloped in a manner that minimizes the pooling of water on the site, particularly with materials that may leach pollutants into stormwater and/or groundwater, such as compost, logs, and wood chips. A minimum slope of 1.5 percent is

recommended.

- ❑ Secure drums stored in an area where unauthorized persons may gain access to prevent accidental spillage, pilferage, or any unauthorized use.
- ❑ Do not store chemicals, drums, or bagged materials directly on the ground. Place these items in secondary containers if applicable.
- ❑ Prevent the run-on of uncontaminated stormwater from adjacent areas as well as runoff of stormwater from the stockpile areas, by placing a curb along the perimeter of the area.

The

area inside the curb should slope to a drain. Liquids should be drained to the sanitary sewer if allowed. The drain must have a positive control such as a lock, valve, or plug to prevent release of contaminated liquids.

- ❑ Tanks should be bermed or surrounded by a secondary containment system.
- ❑ Release accumulated stormwater in petroleum storage areas prior to the next storm. At a minimum, water should pass through an oil/water separator and, if allowed, discharged to

a

sanitary sewer.

- ❑ Conduct regular inspections of storage areas so that leaks and spills are detected as soon as possible.
- ❑ Conduct routine inspections and check for external corrosion of material containers. Also check for structural failure, spills and overfills due to operator error, failure of piping

system.

- ❑ Check for leaks or spills during pumping of liquids or gases from truck or rail car to a storage facility or vice versa.
- ❑ Visually inspect new tank or container installations for loose fittings, poor welding, and improper or poorly fitted gaskets.
- ❑ Inspect tank foundations, connections, coatings, and tank walls and piping system. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank

or

container system.

- ❑ Storage sheds often must meet building and fire code requirements. Storage of reactive, ignitable, or flammable liquids must comply with the Uniform Fire Code.
- ❑ Berms and curbs may require periodic repair and patching.

Landscape Maintenance

- ❑ Refer to Chapter 4 of this document

Chapter 2 Street Sweeping and Cleaning

The following chart lists the common pollutants associated with street sweeping and cleaning.

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Sweeping and Cleaning	X		X	X		X			X
Street Repair, Maint. & Striping / Painting	X		X	X		X	X		
Bridge & Structure Maint.	X		X	X		X	X		

The City has adopted the following BMPs.

Street Sweeping and Cleaning

- The Public Works Director shall maintain records of City street sweeping operations. See Form MO-1 in this document.
- Maintain a consistent sweeping schedule. Provide minimum monthly sweeping of curbed streets.
- Perform street cleaning during dry weather if possible.
- Avoid wet cleaning or flushing of street, and utilize dry methods where possible.
- Consider increasing sweeping frequency based on factors such as traffic volume, land use, field observations of sediment and trash accumulation, proximity to watercourses, etc. For example: Increase the sweeping frequency for streets with high pollutant loadings, especially in high traffic and industrial areas. Increase the sweeping frequency just before the wet season to remove sediments accumulated during the summer. Increase the sweeping frequency for streets in special problem areas such as special events, high litter or erosion zones.
- Maintain cleaning equipment in good working condition and require the purchase replacement of equipment as needed. Old sweepers should be replaced with new technologically advanced sweepers (preferably regenerative air sweepers) that maximize pollutant removal.
- Operate sweepers at manufacturer requested optimal speed levels to increase effectiveness.
- To increase sweeping effectiveness consider the following:
 - Institute a parking policy to restrict parking in problematic areas during periods of street sweeping.
 - Post permanent street sweeping signs in problematic areas; use temporary signs if installation of permanent signs is not possible.
 - Develop and distribute flyers notifying residents of street sweeping schedules.
- Regularly inspect vehicles and equipment for leaks, and repair immediately.
- If available use vacuum or regenerative air sweepers in the high sediment and trash areas (typically industrial/commercial).

- ❑ Keep accurate logs of the number of curb-miles swept and the amount of waste collected.
- ❑ Dispose of street sweeping debris and dirt at a landfill.
- ❑ Do not store swept material along the side of the street or near a storm drain inlet.
- ❑ Keep debris storage to a minimum during the wet season or make sure debris piles are contained (e.g. by berming the area) or covered (e.g. with tarps or permanent covers).

Spill Response and Prevention

- ❑ Have spill cleanup materials readily available and in a known location.
- ❑ Cleanup spills immediately and use dry methods if possible.
- ❑ Properly dispose of spill cleanup material.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
SC-11	Spill Prevention, Control & Cleanup
SC-34	Waste Handling & Disposal
SC-75	Waste Handling and Disposal
SC-70	Road and Street Maintenance

Chapter 3 Municipal Sidewalks, Plazas and Parking Lots

The following charts list the common pollutants associated with the maintenance of public parking lots, plazas and sidewalks.

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Surface Cleaning	X	X			X	X			X
Graffiti Cleaning	X	X		X			X		
Sidewalk Repair	X		X						
Controlling Litter	X		X		X	X			X

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Solid Waste Collection		X	X	X	X	X	X		X
Waste Reduction & Recycling			X	X					X
Household Hazardous Waste Collection			X	X		X	X	X	
Controlling Litter			X	X	X		X		X
Controlling Illegal Dumping	X		X		X	X		X	X

The City has adopted the following BMPs.

Surface Cleaning

- Regularly broom (dry) sweep sidewalk, plaza and parking lot areas to minimize cleaning with water.
- Dry cleanup first (sweep, collect, and dispose of debris and trash) when cleaning sidewalks or plazas, then wash with or without soap.
- Block the storm drain or contain runoff when cleaning with water. Discharge wash water to landscaping or collect water and pump to a tank or discharge to sanitary sewer if allowed.

Plaza and Sidewalk Cleaning

- Block the storm drain or contain runoff when washing parking areas, driveways or drive throughs.
- Use absorbents to pick up oil; then dry sweep. Clean with or without soap.
- Collect water and pump to a tank or discharge to sanitary sewer if allowed. Street Repair and Maintenance.

Graffiti Removal

- Avoid graffiti abatement activities during rain events.
- Implement the procedures under Painting and Paint Removal in SC-70 Roads, Streets, and Highway Operation and Maintenance fact sheet when graffiti is removed by painting over.
- Direct runoff from sand blasting and high pressure washing (with no cleaning agents) into a dirt or landscaped area after treating with an appropriate filtering device.
- Plug nearby storm drain inlets and vacuum/pump wash water to the sanitary sewer if authorized to do so if a graffiti abatement method generates wash water containing a cleaning compound (such as high pressure washing with a cleaning compound). Ensure that a non-hazardous cleaning compound is used or dispose as hazardous waste, as appropriate.

Surface Removal and Repair

- Schedule surface removal activities for dry weather if possible.
- Avoid creating excess dust when breaking asphalt or concrete.
- Take measures to protect nearby storm drain inlets prior to breaking up asphalt or concrete (e.g. place hay bales or sand bags around inlets). Clean afterwards by sweeping up as much material as possible.
- Designate an area for clean up and proper disposal of excess materials.
- Remove and recycle as much of the broken pavement as possible to avoid contact with rainfall and stormwater runoff.
- When making saw cuts in pavement, use as little water as possible. Cover each storm drain inlet completely with filter fabric during the sawing operation and contain the slurry by placing straw bales, sandbags, or gravel dams around the inlets. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site.
- Always dry sweep first to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquid in storm drains. Once dry sweeping is complete, the area may be hosed down if needed. Wash water should be directed to landscaping or collected and pumped to the sanitary sewer if allowed.

Concrete Installation and Repair

- Schedule asphalt and concrete activities for dry weather.
- Take measures to protect any nearby storm drain inlets and adjacent watercourses, prior to breaking up asphalt or concrete (e.g. place sand bags around inlets or work areas).
- Limit the amount of fresh concrete or cement mortar mixed, mix only what is needed for the job.
- Store concrete materials under cover, away from drainage areas. Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm

- drains, rainfall, and runoff.
- Return leftover materials to the transit mixer. Dispose of small amounts of hardened excess concrete, grout, and mortar in the trash.
- Do not wash sweepings from exposed aggregate concrete into the street or storm drain.
- Collect and return sweepings to aggregate base stockpile, or dispose in the trash.
- Protect applications of fresh concrete from rainfall and runoff until the material has dried.
- Do not allow excess concrete to be dumped onsite, except in designated areas.
- Wash concrete trucks off site or in designated areas on site designed to preclude discharge of wash water to drainage system.

Controlling Litter

- Post “No Littering” signs and enforce anti-litter laws.
- Provide litter receptacles in busy, high pedestrian traffic areas of the community, at recreational facilities, and at community events.
- Cover litter receptacles and clean out frequently to prevent leaking/spillage or overflow.
- Clean parking lots on a regular basis with a street sweeper.

Spill Response and Prevention

- Have spill cleanup materials readily available and in a known location.
- Cleanup spills immediately and use dry methods if possible.
- Properly dispose of spill cleanup material.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
SC-71	Plaza and Sidewalk Cleaning
SC-75	Waste Handling and Disposal
SC-34	Waste Handling & Disposal
SC-43	Parking / Storage Area Maintenance

Chapter 4 Municipal Landscaped Areas (Parks, Medians, Open Space, etc.)

The following chart lists the common pollutants associated with public landscaped areas such as parks, medians, open space and playgrounds.

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Mowing, Trimming, Planting	X	X	X		X			X	X
Fertilizer & Pesticide Mgmt	X	X						X	
Landscape Waste Mgmt			X					X	X
Erosion Control	X	X							
Surface Cleaning	X	X			X	X			X
Graffiti Cleaning	X	X		X			X		
Sidewalk Repair	X		X						
Controlling Litter	X		X		X	X			X
Fountain & Pool Draining		X					X		
Lake & Lagoon Maintenance	X	X	X			X		X	X
Controlling Litter			X	X	X		X		X
Controlling Illegal Dumping	X		X		X	X		X	X

The City has adopted the following BMPs.

- Consider grass cycling (grass cycling is the natural recycling of grass by leaving the clippings on the lawn when mowing. Grass clippings decompose quickly and release valuable nutrients back into the lawn).

Mowing, Trimming, and Weeding

- Whenever possible use mechanical methods of vegetation removal (e.g. mowing with tractor type or push mowers, hand cutting with gas or electric powered weed trimmers) rather than applying herbicides. Use hand weeding where practical.
- Avoid loosening the soil when conducting mechanical or manual weed control, this could lead to erosion. Use mulch or other erosion control measures when soils are exposed.

- ❑ Performing mowing at optimal times. Mowing should not be performed if significant rain events are predicted.
- ❑ Mulching mowers may be recommended for certain flat areas. Other techniques may be employed to minimize mowing such as selective vegetative planting using low maintenance grasses and shrubs.
- ❑ Collect lawn and garden clippings, pruning waste, tree trimmings, and weeds. Chip if necessary, and compost or dispose of at a landfill (see waste management section of this fact sheet).
- ❑ Place temporarily stockpiled material away from watercourses, and berm or cover stockpiles to prevent material releases to storm drains.

Planting

- ❑ Determine existing native vegetation features (location, species, size, function, importance) and consider the feasibility of protecting them. Consider elements such as their effect on drainage and erosion, hardiness, maintenance requirements, and possible conflicts between preserving vegetation and the resulting maintenance needs.
- ❑ Retain and/or plant selected native vegetation whose features are determined to be beneficial, where feasible. Native vegetation usually requires less maintenance (e.g., irrigation, fertilizer) than planting new vegetation.
- ❑ Consider using low water use groundcovers when planting or replanting.

Waste Management

- ❑ Compost leaves, sticks, or other collected vegetation or dispose of at a permitted landfill. Do not dispose of collected vegetation into waterways or storm drainage systems.
- ❑ Place temporarily stockpiled material away from watercourses and storm drain inlets, and berm or cover stockpiles to prevent material releases to the storm drain system.
- ❑ Reduce the use of high nitrogen fertilizers that produce excess growth requiring more frequent mowing or trimming.
- ❑ Avoid landscape wastes in and around storm drain inlets by either using bagging equipment or by manually picking up the material.

Irrigation

- ❑ Where practical, use automatic timers to minimize runoff.
- ❑ Use popup sprinkler heads in areas with a lot of activity or where there is a chance the pipes may be broken. Consider the use of mechanisms that reduce water flow to sprinkler heads if broken.
- ❑ Ensure that there is no runoff from the landscaped area(s) if re-claimed water is used for irrigation.
- ❑ If bailing of muddy water is required (e.g. when repairing a water line leak), do not put it in the storm drain: pour over landscaped areas.
- ❑ Irrigate slowly or pulse irrigate to prevent runoff and then only irrigate as much as is needed.
- ❑ Apply water at rates that do not exceed the infiltration rate of the soil.

Fertilizer and Pesticide Management

- ❑ Utilize a comprehensive management system that incorporates integrated pest management (IPM) techniques. There are many methods and types of IPM, including the following:
 - Mulching can be used to prevent weeds where turf is absent, fencing installed to keep rodents out, and netting used to keep birds and insects away from leaves and fruit.
 - Visible insects can be removed by hand (with gloves or tweezers) and placed in soapy

water or vegetable oil. Alternatively, insects can be sprayed off the plant with water or in some cases vacuumed off of larger plants.

- Store-bought traps, such as species-specific, pheromone-based traps or colored sticky cards, can be used.
- Slugs can be trapped in small cups filled with beer that are set in the ground so the slugs can get in easily.
- In cases where microscopic parasites, such as bacteria and fungi, are causing damage to plants, the affected plant material can be removed and disposed of (pruning equipment should be disinfected with bleach to prevent spreading the disease organism).
- Small mammals and birds can be excluded using fences, netting, and tree trunk guards.
- Beneficial organisms, such as bats, birds, green lacewings, ladybugs, praying mantis, ground beetles, parasitic nematodes, trichogramma wasps, seed head weevils, and spiders that prey on detrimental pest species can be promoted.
- Follow all federal, state, and local laws and regulations governing the use, storage, and disposal of fertilizers and pesticides and training of applicators and pest control advisors.
- Use pesticides only if there is an actual pest problem (not on a regular preventative schedule).
- Do not use pesticides if rain is expected. Apply pesticides only when wind speeds are low (less than 5 mph).
- Do not mix or prepare pesticides for application near storm drains.
- Prepare the minimum amount of pesticide needed for the job and use the lowest rate that will effectively control the pest.
- Employ techniques to minimize off-target application (e.g. spray drift) of pesticides, including consideration of alternative application techniques.
- Fertilizers should be worked into the soil rather than dumped or broadcast onto the surface.
- Calibrate fertilizer and pesticide application equipment to avoid excessive application.
- Periodically test soils for determining proper fertilizer use.
- Sweep pavement and sidewalk if fertilizer is spilled on these surfaces before applying irrigation water.
- Purchase only the amount of pesticide that you can reasonably use in a given time period (month or year depending on the product).
- Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
- Dispose of empty pesticide containers according to the instructions on the container label.

Inspection

- Inspect irrigation system periodically to ensure that the right amount of water is being applied and that excessive runoff is not occurring. Minimize excess watering, and repair leaks in the irrigation system as soon as they are observed.
- Inspect pesticide/fertilizer equipment and transportation vehicles daily.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
SC-33	Outdoor Storage of Raw Materials
SC-34	Waste Handling & Disposal
SC-41	Building & Grounds Maintenance

SC-72	Fountains and Pool Maintenance
SC-73	Landscape Maintenance
SC-75	Waste Handling and Disposal

Chapter 5 Municipal Storm Sewer Inlets and Pipe Cleaning

The following chart list the common pollutants associated with the maintenance of storm sewer inlets and stormwater pipe cleaning.

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Stormwater Conveyance Structures Inspection & Cleaning	X	X	X		X		X		X
Controlling Illicit Connections & Discharges	X	X	X	X	X	X	X	X	X
Sidewalk Controlling Illegal Dumping	X	X	X	X	X	X	X	X	X
Controlling Outlet & Inlet Structures Maint.	X		X	X		X			X
Water line Maint	X				X	X			
Sanitary Sewer Line Maintenance	X				X	X			X
Spill, Leak, Overflow Control, Response and Containment	X	X			X		X		X

The City has adopted the following BMPs.

- Inspect all facilities after every storm event to determine if maintenance is required. Monthly during the wet season, or after significant rain events
- Clean out and dispose of accumulated oil, grease, and sediments. Remove accumulated trash and debris. The clean out and disposal techniques should be environmentally acceptable and in accordance with local regulations.

Catch Basins/Inlet Structures

- Municipal staff should regularly inspect facilities to ensure the following:
 - Immediate repair of any deterioration threatening structural integrity.
 - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.

- Stenciling of catch basins and inlets (see SC-75 Waste Handling and Disposal).
- Clean catch basins, storm drain inlets, and other conveyance structures in high pollutant load areas just before the wet season to remove sediments and debris accumulated during the summer.
- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.
- Keep accurate logs of the number of catch basins cleaned.
- Record the amount of waste collected.
- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.
- Dewater the wastes with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed of. Do not dewater near a storm drain or stream.
- Except for small communities with relatively few catch basins that may be cleaned manually, most municipalities will require mechanical cleaners such as eductors, vacuums, or bucket loaders.

Storm Drain Conveyance System

- The Public Works Director shall maintain records of pipe and inlet cleaning. See MO-3 Form in this document.
- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.
- Collect flushed effluent and pump to the sanitary sewer for treatment.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.
- Do not allow discharge from cleaning a storm drain pump station or other facility to reach the storm drain system.
- Conduct quarterly routine maintenance at each pump station.
- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.
- Sample collected sediments to determine if landfill disposal is possible, or illegal discharges in the watershed are occurring.

Open Channel

- Consider modification of storm channel characteristics to improve channel hydraulics, to increase pollutant removals, and to enhance channel/creek aesthetic and habitat value.
- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a stream

or

Stream Alteration Agreement with the Department of Fish and Game. The developer-applicant

Should also contact local governments (city, county, special districts), other state agencies

- During routine maintenance of conveyance system and drainage structures field staff should look for evidence of illegal discharges or illicit connections:
 - Is there evidence of spills such as paints, discoloring, etc.
 - Are there any odors associated with the drainage system
 - Record locations of apparent illegal discharges/illicit connections

can

- Track flows back to potential dischargers and conduct aboveground inspections. This

be done through visual inspection of up gradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.

- Once the origin of flow is established, require illicit discharger to eliminate the discharge.

to

- ❑ Stencil storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as “Dump No Waste Drains to Stream” stenciled next

them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.

Illegal Dumping

- ❑ Regularly inspect and clean up hot spots and other storm drainage areas where illegal dumping and disposal occurs.
- ❑ Establish a system for tracking incidents. The system should be designed to identify the following:
 - Illegal dumping hot spots
 - Types and quantities (in some cases) of wastes
 - Patterns in time of occurrence (time of day/night, month, or year)
 - Mode of dumping (abandoned containers, “midnight dumping” from moving vehicles, direct dumping of materials, accidents/spills)
 - Responsible parties
- ❑ Post “No Dumping” signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
SC-11	Spill Prevention, Control & Cleanup
SC-34	Waste Handling & Disposal
SC-74	Drainage System Maintenance
TC-50	Water Quality Inlet

Chapter 6 Municipal Detention and Retention Basins

Targeted Constituents

- Sediment
- Nutrients
- Trash
- Metals
- Bacteria
- Oil and Grease
- Organics
- Oxygen Demanding

The City has adopted the following BMPs.

- ❑ The irrigation system should be inspected and tested (or observed while in operation) to verify proper operation multiple times annually. Two of these inspections should occur during or immediately following wet weather. Any leaks, broken spray heads, or other malfunctions with the irrigation system should be repaired immediately. Frequently (3-6 times per year)
- ❑ The upper stage, side slopes, and embankment of a retention basin must be mowed regularly to discourage woody growth and control weeds.

Frequently

- ❑ Remove sediment from inlet structure/sediment fore bay, and from around the sump area at least 2 times annually or when depth reaches 3 inches. When sediment in other areas of the basin fills the volume allocated for sediment accumulation, all sediment should be removed and disposed of properly.
- ❑ Grass areas in and around basins must be mowed at least twice annually to limit vegetation height to 18 inches. More frequent mowing to maintain aesthetic appeal may be necessary in landscape areas. When mowing is performed, a mulching mower should be used, or grass clippings should be caught and removed.
- ❑ Debris and litter will accumulate near the basin pump and should be removed during regular mowing operations and inspections. Particular attention should be paid to floating debris that can eventually clog the irrigation system.

Semi-annual

- ❑ The pond side slopes and embankment may periodically suffer from slumping and erosion, although this should not occur often if the soils are properly compacted during construction. Regrading and revegetation may be required to correct the problems.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
TC-12	Retention / Infiltration
TC-20	Wet Pond

TC-22	Extended Detention Basin
TC-30	Vegetated Swale
TC-31	Vegetated Buffer Strip

Chapter 7 Hardscaped Surface Repair and Maintenance (Streets, Alleys, Sidewalks, etc.)

The following chart list the common pollutants associated with street, alley, sidewalk and other hardscaped surface repair and maintenance.

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Sweeping and Cleaning	X		X	X		X			X
Street Repair, Maint. & Striping / Painting	X		X	X		X	X		
Bridge & Structure Maint.	X		X	X		X	X		

Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Surface Cleaning	X	X			X	X			X
Graffiti Cleaning	X	X		X			X		
Sidewalk Repair	X		X						
Controlling Litter	X		X		X	X			X
Activity	Sediment	Nutrients	Trash	Metals	Bacteria	Oil-Grease	Organics	Pesticides	Oxygen Demanding Substances
Solid Waste Collection		X	X	X	X	X	X		X
Waste Reduction & Recycling			X	X					X
Household Hazardous Waste Collection			X	X		X	X	X	
Controlling Litter			X	X	X		X		X
Controlling Illegal Dumping	X		X		X	X		X	X

The City has adopted the following BMPs.

Pavement marking

- ❑ Schedule pavement marking activities for dry weather.

Road and Street Maintenance

- ❑ Develop paint handling procedures for proper use, storage, and disposal of paints.
- ❑ Transfer and load paint and hot thermoplastic away from storm drain inlets.
- ❑ Provide drop cloths and drip pans in paint mixing areas.
- ❑ Properly maintain application equipment.
- ❑ Street sweep thermoplastic grindings. Yellow thermoplastic grindings may require special handling as they may contain lead.
- ❑ Paints containing lead or tributyltin are considered a hazardous waste and must be disposed of properly.
- ❑ Use water based paints whenever possible. If using water based paints, clean the application equipment in a sink that is connected to the sanitary sewer.
- ❑ Properly store leftover paints if they are to be kept for the next job, or dispose of properly.
- ❑ Concrete installation and repair
- ❑ Schedule asphalt and concrete activities for dry weather.
- ❑ Take measures to protect any nearby storm drain inlets and adjacent watercourses, prior to breaking up asphalt or concrete (e.g. place sand bags around inlets or work areas).
- ❑ Limit the amount of fresh concrete or cement mortar mixed, mix only what is needed for the job.
- ❑ Store concrete materials under cover, away from drainage areas. Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- ❑ Return leftover materials to the transit mixer. Dispose of small amounts of hardened excess concrete, grout, and mortar in the trash.
- ❑ Do not wash sweepings from exposed aggregate concrete into the street or storm drain.
- ❑ Collect and return sweepings to aggregate base stockpile, or dispose in the trash.
- ❑ When making saw cuts in pavement, use as little water as possible and perform during dry weather.
- ❑ Cover each storm drain inlet completely with filter fabric or plastic during the sawing operation and contain the slurry by placing straw bales, sandbags, or gravel dams around the inlets. After the liquid drains or evaporates, shovel or vacuum the slurry residue from the pavement or gutter and remove from site. Alternatively, a small onsite vacuum may be used to pick up the slurry, as this will prohibit slurry from reaching storm drain inlets.
- ❑ Wash concrete trucks off site or in designated areas on site designed to preclude discharge of wash water to drainage system.

Patching, resurfacing, and surface sealing

- ❑ Schedule patching, resurfacing and surface sealing for dry weather.
- ❑ Stockpile materials away from streets, gutter areas, storm drain inlets or watercourses.
- ❑ During wet weather, cover stockpiles with plastic tarps or berm around them if necessary to prevent transport of materials in runoff.
- ❑ Pre-heat, transfer or load hot bituminous material away from drainage systems or water courses.
- ❑ Where applicable, cover and seal nearby storm drain inlets (with waterproof material or mesh) and maintenance holes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and until all water from emulsified oil sealants has drained or evaporated. Clean any debris from covered maintenance holes and storm drain inlets when

- the job is complete.
- ❑ Prevent excess material from exposed aggregate concrete or similar treatments from entering streets or storm drain inlets. Designate an area for clean up and proper disposal of excess materials.
- ❑ Use only as much water as necessary for dust control, to avoid runoff.
- ❑ Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquid in storm drains.
- ❑ Catch drips from paving equipment that is not in use with pans or absorbent material placed under the machines. Dispose of collected material and absorbents properly.
- ❑ Equipment cleaning maintenance and storage
- ❑ Inspect equipment daily and repair any leaks. Place drip pans or absorbent materials under heavy equipment when not in use.
- ❑ Perform major equipment repairs at the corporation yard, when practical.
- ❑ If refueling or repairing vehicles and equipment must be done onsite, use a location away from storm drain inlets and watercourses.
- ❑ Clean equipment including sprayers, sprayer paint supply lines, patch and paving equipment, and mud jacking equipment at the end of each day. Clean in a sink or other area (e.g. vehicle wash area) that is connected to the sanitary sewer.

Bridge and Structure Maintenance Paint and Paint Removal

- ❑ Transport paint and materials to and from job sites in containers with secure lids and tied down to the transport vehicle.
- ❑ Do not transfer or load paint near storm drain inlets or watercourses.

Road and Street Maintenance

- ❑ Test and inspect spray equipment prior to starting to paint. Tighten all hoses and connections and do not overfill paint container.
- ❑ Plug nearby storm drain inlets prior to starting painting where there is significant risk of a spill reaching storm drains. Remove plugs when job is completed.
If sand blasting is used to remove paint, cover nearby storm drain inlets prior to starting work.
- ❑ Perform work on a maintenance traveler or platform, or use suspended netting or tarps to capture paint, rust, paint removing agents, or other materials, to prevent discharge of materials to surface waters if the bridge crosses a watercourse. If sanding, use a sander with a vacuum filter bag.
- ❑ Capture all clean-up water, and dispose of properly.
- ❑ Recycle paint when possible (e.g. paint may be used for graffiti removal activities).
Dispose
- ❑ of unused paint at an appropriate household hazardous waste facility.

Graffiti Removal

- ❑ Schedule graffiti removal activities for dry weather.
- ❑ Protect nearby storm drain inlets prior to removing graffiti from walls, signs, sidewalks, or other structures needing graffiti abatement. Clean up afterwards by sweeping or vacuuming
thoroughly, and/or by using absorbent and properly disposing of the absorbent.
- ❑ When graffiti is removed by painting over, implement the procedures under Painting and
- ❑ Direct runoff from sand blasting and high pressure washing (with no cleaning agents) into a
landscaped or dirt area. If such an area is not available, filter runoff through an
appropriate
filtering device (e.g. filter fabric) to keep sand, particles, and debris out of storm drains.
- ❑ If a graffiti abatement method generates wash water containing a cleaning compound
(such
as high pressure washing with a cleaning compound), plug nearby storm drains and

- ❑ vacuum/pump wash water to the sanitary sewer.
- ❑ Consider using a waterless and non-toxic chemical cleaning method for graffiti removal (e.g. gels or spray compounds).

Repair Work

- ❑ Prevent concrete, steel, wood, metal parts, tools, or other work materials from entering storm drains or watercourses.
- ❑ Thoroughly clean up the job site when the repair work is completed.
- ❑ When cleaning guardrails or fences follow the appropriate surface cleaning methods (depending on the type of surface) outlined in SC-71 Plaza & Sidewalk Cleaning fact sheet.

Road and Street Maintenance

- ❑ If painting is conducted, follow the painting and paint removal procedures above.
- ❑ If graffiti removal is conducted, follow the graffiti removal procedures above.
- ❑ If construction takes place, see the Construction Activity BMP Handbook.
- ❑ Recycle materials whenever possible.
- ❑ Unpaved Roads and Trails
- ❑ Stabilize exposed soil areas to prevent soil from eroding during rain events. This is particularly important on steep slopes.
- ❑ For roadside areas with exposed soils, the most cost-effective choice is to vegetate the area, preferably with a mulch or binder that will hold the soils in place while the vegetation is establishing. Native vegetation should be used if possible. If vegetation cannot be established immediately, apply temporary erosion control mats/blankets; a comma straw, or gravel as appropriate.
- ❑ If sediment is already eroded and mobilized in roadside areas, temporary controls should be installed. These may include: sediment control fences, fabric-covered triangular dikes,
- ❑ gravel-filled burlap bags, biobags, or hay bales staked in place.

Non-Stormwater Discharges

- ❑ Field crews should be aware of non-stormwater discharges as part of their ongoing street maintenance efforts.
- ❑ Identify location, time and estimated quantity of discharges.
- ❑ Notify appropriate personnel.

BMPs identified on the following list are located in the **California Municipal BMP Handbook**. Each BMP describes potential, common pollutant impacts upon Corporation Yard activities and suggest means to reduce negative impacts and to prevent pollutants from reaching stormwaters. These California Municipal BMPs are reference materials when discussing how to go about performing City operations and services. They may also be used for training and, where appropriate, may be used for amending this document.

BMP	Activity
SC-11	Spill Prevention, Control & Cleanup
SC-43	Parking / Storage Area Maintenance
SC-70	Road and Street Maintenance

Street Sweeping Record

Form MO-1

Records detailing the frequency and numbers of streets and parking lots swept by an the City's independent contractor are located in the files of the Public Works Director in City Hall.

Trash & Green Waste Collection Record

Form MO-2

Records detailing the amount of green waste and trash collected within the City by the City's independent, franchised contractor are located in the files of the Public Works Director in City Hall.

