Storm Water Management Plan

Fiscal Years 2003-2004 through 2007-2008

Lake County Clean Water Program

County of Lake

City of Clearlake

City of Lakeport

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TABLES AND FIGURES

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ACRONYMS

AC	Advisory Council
BLM	Bureau of Land Management
BMP	Best Management Practices
CASQA	California Stormwater Quality Association
CON	Construction Runoff and Development (Workgroup)
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
GIS	Geographic Information System
IDDE	Illicit Discharge Detection and Elimination (Workgroup)
Program	Lake County Clean Water Program
MEP	Maximum Extent Practicable
MS4	Municipal Separate Storm Sewer System
MUNI	Municipal Operations (Workgroup)
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
PEOP	Public Education, Outreach and Participation (Workgroup)
RCD	Resource Conservation District
SPR	Spill Prevention and Response
SWRCB	California State Water Resource Control Board
SWMP	Storm Water Management Plan
TMDL	Total Maximum Daily Load

DEFINITIONS

Authorized Non-Storm Water Discharges – Authorized non-storm water discharges are certain categories of discharges that are not composed entirely of storm water but are not found to pose a threat to water quality. They include: 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 condensate; 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 discharges or flows from emergency fire fighting activities. If any of the above authorized non-storm water discharges (except flows from fire fighting activities) are found to cause or contribute to an exceedance of water quality standards or cause or threaten to cause a condition of nuisance or pollution, the category of discharge must be prohibited.

Best Management Practices (BMPs) – mean schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States". BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (40 CFR §122.2).

Maximum Extent Practicable (MEP) – is the technology-based standards established by Congress in the Clean Water Act Section 402 that municipal discharges of storm water must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve.

Measurable Goal – Measurable goals are definable tasks or accomplishments that are associated with implementing best management practices.

Minimum Control Measure – A minimum control measure is a storm water program area that must be addressed (best management practices implemented to accomplish the program goal) by all regulated Small MS4s. The following six minimum control measures are required to be addressed by the regulated Small MS4s: Public Education and Outreach on storm Water Impacts, Public Involvement/Participation, Illicit Discharge Detection and Elimination, construction Site Storm Water Runoff Control, Post-Construction Storm Water Management in New Development and Redevelopment, and Pollution Prevention/Good Housekeeping for Municipal Operations.

New Development – New Development means land disturbing activities; structural development, including construction or installation of a building or structure, creation of impervious surfaces; and land subdivision.

Outfall – A point source at the point where a municipal separate storm sewer discharges to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States (40 CFR §122.26(b) (9)).

Phase II Regulations – Requirements adopted by U.S. EPA on October 29, 1999 and published in the Federal Regulations on December 8, 1999.

Point Source – Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

Regulated Small MS4 – A regulated Small MS4 is a Small MS4 that is required to be permitted for discharging storm water through its MS4 to waters of the U.S. and is designated either automatically by the U.S. EPA because it is located within an urbanized area, or designated by the SWRCB or RWQCB in accordance with the designation criteria listed at Finding 11 of the General Permit.

Small Municipal Separate Storm Sewer System (Small MS4) – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are:

(i) Owned or operated by the United States, a State, city, town, boroughs, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.

(ii) Not defined as "large" or "medium" municipal separate storm sewer systems.

(iii) This term includes systems similar to separate storm sewer systems in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings (40 CFR §122.26(b) (16)).

Source Control BMP – 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.

Storm Event – Storm Event means a rainfall event that produces more than 0.1 inch of precipitation and that, which is separated from the previous storm event by at least 72 hours of dry weather.

Structural BMP – 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.

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

Section 1
Introduction and Background

Introduction

The Lake County Clean Water Program (Program) is a consortium of agencies in Lake County that discharge storm water to Clear Lake. This Storm Water Management Plan (SWMP) describes the Program's approach to reducing storm water pollution and serves as the basis for the Program's National Pollutant Discharge Elimination System (NPDES) permit application to the Central Valley Regional Water Quality Control Board (CVRWQCB). The Program was developed as a requirement of the NPDES Phase II regulations and is compliant with the provisions described in NPDES General Permit No. CAS000004 (General Permit) issued by the State Water Resources Control Board (SWRCB). The Program consists of three (3) public agencies, the County of Lake, City of Clearlake and City of Lakeport, which are required by federal law to submit a NPDES permit application to the CVRWQCB by October 27, 2003. Full implementation of the Program is required by the end of the first 5-year permit term.

Background

By the late 1960s, urbanization and industrialization had taken a toll on the nation's waters: many rivers and bays were visibly polluted. In response to growing public concern over water pollution, Congress passed the Water Pollution Control Act (i.e., Clean Water Act). The goals of the Clean Water Act are to restore the biological, physical, and chemical integrity of our nation's waters and to make all of our waters fishable and swimable.

Porter-Cologne Water Quality Control Act

In California, the State Water Resources Control Board (SWRCB) along with the nine Regional Board Water Quality Control Boards (RWQCBs) has primary responsibility for regulating water quality. The SWRCB has overall responsibility for water quality regulation under division 7 of the Porter-Cologne Water Quality Control Act (Act). This Act also divides the state into nine hydrological basins, for local administration of the Act by the semiautonomous RWQCBs with coordination and oversight from the SWRCB. The RWQCBs have authority to regulate point source discharges, such as municipal storm water discharges, through the adoption of waste discharge requirements under chapter 5.5 of the Act. In addition, the responsibility for implementing the NPDES permit program has been delegated to the SWRCB and its local RWQCBs. As defined in Section 2 of this SWMP, the land area within Lake County that is subject to General Permit requirements is located within the jurisdictional boundaries of the Central Valley RWQCB.

National Pollutant Discharge Elimination Program

Section 402 of the Clean Water Act (CWA) established the National Pollutant Discharge Elimination System (NPDES) permit program. The NPDES permit program set nationwide permitting requirements for discharging pollutants into waterways. The limits varied by category of industry and were based on the level of treatment that was achievable using the best available technology. The 1987 amendments to the CWA required that municipal storm water discharges

(i.e., municipalities) serving a population of 100,000 people or more obtain NPDES permit coverage. These regulations, known as Phase I regulations, required large and medium sized public agencies to effectively prohibit non-storm water discharges to their municipal separate storm sewer systems (MS4[1]) and to implement best management practices (BMPs) designed to reduce pollutants in storm water to the maximum extent practicable (MEP). On December 8, 1999, the U.S. Environmental Protection Agency (EPA) promulgated regulations, known as Phase II, requiring NPDES permits for storm water discharges from small MS4s[2] (i.e., small municipalities). To meet the intent of Phase II regulations, the SWRCB adopted the General Permit, for which this SWMP is intended to comply.

The General Permit regulates discharges from "regulated Small MS4s", which are defined as Small MS4s that discharge to a body of water of the United States or to another MS4 regulated by an NPDES permit, and which is designated in one of the following ways:

1. Automatically designated by the U.S. EPA because it is located within an urbanized area defined by the Bureau of the Census;
2. Traditional Small MS4s that serve cities, counties, and unincorporated areas that are designated by the SWRCB or RWQCB after consideration of following factors:
    a. High population density (i.e., greater than 1,000 residents per square mile);
    b. High growth or growth potential (i.e., if an area grew by more than 25 percent between 1990 and 2000 or anticipates a growth rate of more than 25 percent over a 10-year period ending prior to the end of the permit term);
    c. Significant contributor of pollutants to an interconnected permitted MS4;
    d. Discharge to sensitive water bodies (i.e., those water bodies listed as habitat for threatened or endangered species; or those subject to beach closings; or those list as impaired due to storm water); and,
    e. Significant contributor of pollutants to water of the U.S.

The County of Lake, City of Lakeport and City of Clearlake (i.e., the Lake County Clean Water Program) were each designated pursuant to factors, (a) high population density and (d) discharge to sensitive water bodies, as described above.

As per the General Permit:

"The Permittee shall maintain, implement, and enforce an effective SWMP, and develop adequate legal authority to implement and enforce the SWMP, designed to reduce the discharge of pollutants from the permitted MS4 to MEP and to protect water quality. SWMP shall serve as the framework for identification, assignment, and implementation of control measures/BMPs. The Permittee shall implement SWMP and shall subsequently demonstrate its effectiveness and provide

[1] An MS4 is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) designed or used for collecting or conveying storm water; (ii) which is not a combined sewer; and (iii) which is not part of a Publicly Owned Treatment Works (POTW).

[2] A small MS4 is an MS4 that is not permitted under the municipal Phase I regulations, and which is "owned or operated by the United States, a State, city, town, borough, county, parish, district, association, or other public body having jurisdiction over disposal of sewage, industrial wastes, storm water, or other waste, including special districts under State law such as a sewer district flood control district or drainage district or similar entity.

for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in storm water discharges to the MEP. SWMP shall be fully implemented by the expiration of this General Permit, or within five years of designation for Small MS4s designated subsequent to Permit adoption, with reasonable progress made towards implementation throughout the term of the General Permit. Existing programs that have storm water quality benefits can be identified in the SWMP and be a part of a Permittee's storm water program.

SWMP shall be revised to incorporate any new or modified BMPs or measurable goals developed through the Permittee's annual reporting process. The Permittee shall incorporate changes required by or acceptable to the RWQCB Executive Officer into applicable annual revisions to SWMP and adhere to its implementation.

1. The Permittee shall maintain, implement, and enforce an effective SWMP designed to reduce the discharge of pollutants from the regulated Small MS4 to the MEP and to protect water quality.

2. SWMP must describe BMPs, and associated measurable goals, that will fulfill the requirements of the following six Minimum Control Measures.

    a. **Public Education and Outreach on Storm Water Impacts**

    The Permittee must 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 water bodies and the steps that the public can take to reduce pollutants in storm water runoff. For non-traditional Permittees, the employee/user population may serve as "the public" to target for outreach and involvement**.** Non-traditional Small MS4s that discharge into medium and large MS4 may integrate public education and outreach program with the existing MS4 public education and outreach programs.

    b. **Public Involvement/Participation**

    The Permittee must at a minimum comply with State and local public notice requirements when implementing a public involvement/participation program.

    c. **Illicit Discharge Detection and Elimination**

    The Permittee must:

    1) Develop, implement, and enforce a program to detect and eliminate illicit discharges (as defined at 40 CFR §122.26(b)(2)) into the regulated Small MS4;

    2) Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the U.S. that receive discharges from those outfalls;

    3) To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water

discharges into the MS4 and implement appropriate enforcement procedures and actions;

4) Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit;

5) Inform public employees, businesses, and the general public of the hazards that are generally associated with illegal discharges and improper disposal of waste; and

6) Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the Small MS4:

    1. waterline flushing;
    2. landscape irrigation;
    3. diverted stream flows;
    4. rising ground waters;
    5. uncontaminated ground water infiltration (as defined at 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 condensation;
    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; and
    17. dechlorinated swimming pool discharges.

    Discharges or flows from fire fighting activities are excluded from the effective prohibition against non-storm water and need only be addressed where they are identified as significant sources of pollutants to waters of the U.S.

    If a RWQCB Executive Officer determines that any individual or class of non-storm water discharge(s) listed above may be a significant source of pollutants to waters of the U.S. or physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the RWQCB Executive Officer require the appropriate Permittee(s) to monitor and submit a report and to implement BMPs on the discharge.

d. **Construction Site Storm Water Runoff Control**

The Permittee must develop, implement, and enforce a program to reduce pollutants in any storm water runoff to the Small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre. Reduction of storm water discharges from construction activity disturbing less than one acre must be included in your program if that construction activity is part of a larger common plan of development or sale that would disturb one acre or more. The program must include the development and implementation of, at a minimum:

1) An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State, or local law;

2) Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;

3) Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;

4) Procedures for site plan review which incorporate consideration of potential water quality impacts;

5) Procedures for receipt and consideration of information submitted by the public; and

6) Procedures for site inspection and enforcement of control measures.

e. **Post-Construction Storm Water Management in New Development and Redevelopment**

The Permittee must:

1) Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Small MS4 by ensuring that controls are in place that would prevent or minimize water quality impacts;

2) Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for your community;

4) Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law; and,

5) Ensure adequate long-term operation and maintenance of BMPs.

f. **Pollution Prevention/Good Housekeeping for Municipal Operations**

The Permittee must:

1) Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and

2) Using training materials that are available from U.S. EPA, the State, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

3. SWMP must identify the measurable goals for each of the BMPs, including, as appropriate, the months and years for scheduled actions, including interim milestones and the frequency of the action.

4. SWMP must identify the person or persons who will implement or coordinate SWMP, as well as each Minimum Control Measure."

SWMP Objectives and Structure

SWMP Objectives

The widespread nature of storm water pollution requires a comprehensive solution. This SWMP describes how pollutants in local storm water runoff will be controlled and describes best management practices (BMPs) designed to address the six minimum measures. The objectives of the *SWMP* are to:

◊ Reduce the discharge of pollutants to storm water through the implementation of BMPs to the "maximum extent practicable" (MEP);

◊ Protect water quality; and,

◊ Satisfy the appropriate water quality requirements of the Clean Water Act.

The General Permit requires that each agency seeking permit coverage implement six types of minimum control measures through its development of a Storm Water Management Plan and Program. The six minimum measures are as follows:

◊ Public Education and Outreach on Storm Water Impacts;

◊ Public Involvement and Participation ;

◊ Illicit Discharge Detection and Elimination;

- ◊ Construction Site Storm Water Runoff Control;
- ◊ Post Construction Storm Water Management in New Development/Redevelopment; and,
- ◊ Pollution Prevention/Good Housekeeping for Municipal Operations.

SWMP Structure and Organization

The *SWMP* is organized into nine Sections and describes proposed activities designed to meet objectives. Section 1 provides an overview of the structure, organization, and content of the *SWMP*, and a brief history of water quality regulation. Section 2 provides a description of the Program's organizational structure, funding mechanisms, permit area, legal authority, geography and demographics. Sections 3 – 8 (see below) describe the six minimum measures or program elements and implementation timelines. Section 9 provides information on the Program's tracking and annual reporting procedures.

- ◊ ***Section 3 - Public Education and Outreach:*** This section describes developing and distributing general public education and information materials on the impacts of storm water pollution, as well as targeting educational efforts to residential neighborhoods, schools, and the local community.
- ◊ ***Section 4 - Public Involvement and Participation:*** This section presents activities designed to address storm water pollution through the supportive efforts of the community. The goals of this program are to raise public awareness about storm water runoff and foster public participation.
- ◊ ***Section 5 - Illicit Discharge Detection and Elimination:*** This section presents activities to control illicit discharges by conducting field surveys of the municipal storm drainage conveyance system and identifying and eliminating the sources of non-storm water discharges. An important part of this program includes detecting and eliminating illegal disposal of wastes to the storm drain system by combining education, alternative disposal options, and enforcement.
- ◊ ***Section 6 -Construction Site Storm Water Runoff Control:*** This section discusses pollutants commonly discharged from construction sites and methods for minimizing impacts to storm water using best management practices (BMPs).
- ◊ ***Section 7- Post-Construction Storm Water Management***: This chapter describes good site planning and development review practices to ensure new projects are designed with storm water protection considerations.
- ◊ ***Section 8 - Pollution Prevention and Good Housekeeping for Municipal Operations:*** This section discusses the importance of good housekeeping practices for municipal operations. It presents methods to optimize pollutant removal during routine maintenance activities and discusses methods to prevent or minimize discharges to storm drains and watercourses from road maintenance, parks, corporation yards and other publicly owned facilities.

Best Management Practices (BMP) and Measurable Goals

The foundation of the *SWMP* is based on BMPs and measurable goals designed to address the six minimum measures and existing agency programs. BMPs are practical ways to implement the storm water management program. In some cases, storm water pollution can be curtailed simply by regular street sweeping or by an outreach program that teaches the public how to prevent pollutants from entering the environment. Measurable goals are BMP design objectives that quantify the progress of program implementation and the performance of the BMPs. Measurable goals provide milestones for tracking the progress and effectiveness of the BMPs in reducing pollutants to the Maximum Extent Practicable (MEP), which is the technology-based standard established in the CWA that dischargers must achieve. MEP is an ever-evolving flexible and advancing concept, which considers technical and economic feasibility; and is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense.

Integration of Existing Programs into SWMP

Existing agency programs are a critical element of the SWMP. Many aspects of municipal activities already incorporate measures protective of storm water quality. The SWMP is designed to identify and build upon these programs. Furthermore, the Program will coordinate with other agencies within Lake County, to the extent possible, to avoid duplicative efforts and foster the creation of partnerships that may aid in reducing storm water pollution and improve the environmental quality of Lake County.

Consistency with Total Maximum Daily Load (TMDL) Program

The implementation of the Clean Water Act (CWA) has been very effective in cleaning up our nation's waters. The reduction of pollution has been particularly dramatic for industrial and sanitary treatment plant discharges. However, many of our nation's waters still do not meet the goals set forth in the CWA. One approach to address this problem is the Total Maximum Daily Load (TMDL).

A TMDL is an estimate of the maximum quantity of a pollutant that could be discharged to a body of water while still ensuring the attainment of water quality standards. The TMDL program was established by Section 303 of the CWA. Congress correctly presumed that even after the implementation of technology based controls, some water bodies would not meet water quality standards. For each water body that does not meet applicable standards (referred to as "impaired"), a TMDL must be established. After the TMDL is established, additional requirements are placed on sources of the pollutant so that the total quantity of the pollutant discharged to the water body from all sources is no greater than the established TMDL.

Clear Lake Mercury TMDL

In Lake County, a TMDL has been developed for mercury pollution in Clear Lake. The lake lies within a region naturally enriched in mercury. The large Sulphur Bank Mercury Mine (SBMM) on the shore of the lake and several smaller mines in the Clear Lake watershed are inactive. The TMDL proposed that mercury loads from the tributaries and direct surface water runoff into the lake should be reduced to 80% of existing inputs. Efforts to meet the reductions are focused on identifying and remediating hot spots of mercury loading. In coordination with the Central Valley RWQCB, the County of Lake was rewarded a grant to conduct watershed monitoring and source

identification activities to facilitate the watershed load reductions. No implementation actions are currently planned as part of the grant since the sources of mercury have not been identified. When sources are identified, preliminary assessments will be conducted to determine potential remediation activities. To the extent possible, the activities described within the SWMP, which are applicable to mercury reduction from storm water runoff, will be consistent with the goals of the Clear Lake Mercury TMDL.

Clear Lake Impairment by Excess Nutrients

In 1998, Clear Lake was listed as impaired by excess nutrients by the Central Valley RWQCB. The sources of nutrients entering the lake are not fully understood. Furthermore, the schedule for the development of a TMDL for excess nutrients in Clear Lake has not been released by the Central Valley RWQCB. Once a TMDL has been developed for excess nutrients in Clear Lake and storm water runoff has been identified as a significant source requiring a reduction, the activities described within the SWMP, to the extent possible, will be modified to be consistent with the TMDLs goals.

Section 2
Program Description and Management Structure

Program Description

The County of Lake, City of Lakeport and City of Clearlake have joined together as Co-permittees to form the Lake County Clean Water Program (Program). The Storm Water Management Plan (SWMP) is a joint project of these agencies. As Co-permittees to the Program, each agency will pursue its own local storm water pollution prevention activities and also contribute support to a region-wide effort. Each Co-permittee is responsible for implementing the BMPs described in Sections 3 through 8. Some of the BMPs will be implemented on a region-wide basis, being jointly sponsored by all Co-permittees. Examples of region-wide efforts include public education targeted to residents in both municipalities, and coordinating with other countywide, regional, and state agencies.

Program Goals and Objectives

The overarching goal of the Program is to reduce pollutants from entering the MS4s and local water bodies through the effective implementation of BMPs to the MEP. More specific goals are described in Figure 2.1. To accomplish these goals, the Program has developed the following strategic objectives:

- ◊ Develop a self-directed, proactive approach fostering trust and respect from regulators, businesses and environmental groups;
- ◊ Produce tangible water quality improvements through expanded collaborations with other organizations;
- ◊ Communicate a clear vision of the program's goals and objectives to the public, and to member agencies' staff, management, and elected officials; and,
- ◊ Improve communication links and working relationships among departments within member agencies and between the Program and RWQCB staff.

Geographic Description of Lake County

Lake County is located in Northern California approximately two and one-half hours from the San Francisco Bay Area and the Sacramento metropolitan area. Lake County is situated in the Coastal Range and is characterized as a mountainous region interspersed with alluvial valleys. The major topographic features of the county include; Clear Lake, centrally located within Lake County; Cobb Mountain, the highest peak of the Mayacamas Mountains, located along the county's western margin; Hull Mountain, above Lake Pillsbury within the Mendocino National Forest, located in the Northern portion of the County; Walker Ridge separating Lake and Colusa counties; Callayomi Valley, located in the southern portion of the county; and Mount Konocti, a volcanic feature located on the southern margin of Clear Lake. Lake County is bordered to the west by Mendocino County, to the southwest by Sonoma County, to the northeast by Glenn County, to the East by Colusa County and to the southeast by Yolo and Napa Counties.

Figure 2.1 Lake County Clean Water Program (Program) Goals

1. Comply with the General Permit by:

- ◊ Effectively prohibiting non-storm water discharges;
- ◊ Protecting water quality from the impacts of storm water runoff from small MS4s; and,
- ◊ Reducing, to the maximum extent practicable, pollutants in storm water runoff.

2. Determine Success by:

- ◊ Evaluating changes in public awareness and behavior;
- ◊ Evaluating the effectiveness of specific control measures at pollution reduction; and,
- ◊ Utilizing what is learned to plan next steps.

3. Achieve Acceptance of SWMP Activities by:

- ◊ Effectively facilitating public input to the Storm Water Management Plan;
- ◊ Integrating storm water runoff goals at various intra-agency levels; and,
- ◊ Developing and maintaining a proactive relationship with regulatory authorities

Water Bodies and Watersheds

Lake County is divided into three major watersheds, the Eel River drainage, the Cache Creek drainage, and the Putah Creek drainage (Figure 2.2). The Eel River drainage is located in the northern portion of the county and drains approximately 35 percent of the land in the county. A large majority of this land is owned and maintained by the United States Forest Service (USFS) and does not contain urban land uses. The water emanating from this drainage flows in a northerly direction to the Pacific Ocean via the Eel River. The Eel River Watershed is not included within the NPDES Phase II Permit area.

The Cache Creek drainage is the most dominant hydrologic feature in the county representing approximately 40 percent of the county's drainage area. Within the Cache Creek drainage is Clear Lake, the major surface water feature of the county. The lake acts as a collection point for waters emanating from the western and central portions of the county. Clear Lake is the largest natural freshwater lake within the boundaries of California and is believed to be the oldest lake in the North America.

The Putah Creek drainage is located in the southern portion of the county and collects water emanating from the Mayacamas Mountains and other regions of southern Lake County. Both the Cache Creek and Putah Creek drainages flow in an east-southeast direction toward the Central Valley of California.

Demographics and Land Use

County of Lake – The County of Lake was formed in 1861 and is comprised of 1,328 square miles. As estimated by the State of California Department of Finance, the current total population of Lake County is 42,771, (70% of the County's population, excluding the populations of the Cities of Clearlake and Lakeport). Lake County totals nearly 849,920 acres with approximately 51 percent or 435,000 acres under public ownership. A majority of these public lands are managed either by the US Forest Service or the US Bureau of Land Management. The land use in the unincorporated

areas of Lake County is made up of approximately 3 percent commercial/residential, less than 1 percent industrial and 97 percent open space/governmental/agriculture. The urbanized areas (as designated by the U.S. Census Bureau) and land use designations are illustrated in Figures 2.5 through 2.9.

City of Clearlake - The city of Clearlake is located on the southeastern shore of Clear Lake (Figure 2.2). The city was incorporated in 1980 and is 10 square miles in size. The population of Clearlake is currently13,527. Clearlake accounts for 22% of Lake County's total population. The land use in Clearlake is made up of approximately 62 percent commercial/residential, 4 percent industrial and 34 percent open space/governmental/agriculture. Figure 2.3 illustrates the land use areas within the City of Clearlake.

City of Lakeport - The city of Lakeport is located on the Northwest shore of Clear Lake (Figure 2.2). The city was incorporated in 1888 and is 2.44 square miles in size. The population of Lakeport is currently 5,009, accounting for 8 percent of the entire population in the county. Land use in Lakeport is approximately 76 percent commercial/residential, 5 percent industrial and 19 percent open space/governmental/agriculture. Figure 2.4 illustrates the land use areas within the City of Lakeport.

Regional Board Boundaries and NPDES Permit Area

Using areas defined by the U.S. Bureau of the Census as "urbanized" the SWRCB/RWQCB has determined that land areas within the County of Lake, City of Lakeport and City of Clearlake contain high population (i.e., density greater than 1,000 residents per square mile) and are subject to Phase II requirements. Many of these areas are relatively small in size and scattered around the perimeter of Clear Lake and the cities of Lakeport and Clearlake (Figures 2.3 to 2.9), making it difficult to easily distinguish those areas that are subject to the Phase II requirements and those areas which are not. Furthermore, due to accelerated growth in other areas of the County that were not designated, it made sense include those areas. Using the watershed approach, the County of Lake has designated the Clear Lake Basin and Upper Putah Creek Watershed as the overall program boundary (Figure 2.2). The city of Lakeport has chosen to use the current city boundary as their individual permit area (Figure 2.4). The City of Clearlake has chosen to use the State designated urbanized areas as their individual permit area (Figure 2.3)

Although Lake County falls within the boundaries of two RWQCBs, Region 1 – North Coast and Region 5- Central Valley, the entire Clear Lake Watershed and Upper Putah Creek Watershed fall within the jurisdictional boundaries of Region 5. Therefore, the Program will report annually to the Central Valley RWQCB.

Program Organization and Management

The following paragraphs provide a description of the organization structure of the Program. Integral parts of the Program organizational structure include the Storm Water Program Coordinators, Advisory Council and Workgroups. It is currently envisioned that the Lake County Flood Control and Water Conservation District will play a key role in management of the Program, providing both coordination and oversight to Co-permittees. This may require additional staffing and/or assistance of and direction from consultants with expertise in the area of storm water program management. Figure 2.10 illustrates the Program organizational structure and departmental interactions.

Storm Water Program Coordinator

Within fiscal year 2003/2004, each Co-permittee will designate a coordinator responsible for overall coordination and implementation of the SWMP in their respective agencies. The goal of program coordination is to provide the administrative, financial, and management support to implement the SWMP. Each coordinator will be responsible for providing the support needed to implement the SWMP within their agency, communicating with other agency coordinators, and preparing and submitting the annual report to the Central Valley RWQCB. Specific administrative and planning functions of the storm water program coordinators will include:

- ◊ Coordinating with other countywide, regional and state agencies to stay abreast of storm water technology and the development of storm water regulations. Examples include the RWQCB, SWRCB, and the California State Storm Water Quality Association (CASQA);
- ◊ Coordinating with and participating on the Program Advisory Council (Advisory Council); and,
- ◊ Coordinating with Program workgroup members to effectively develop and implement the SWMP and resolve issues if necessary.

Program Advisory Council

The Lake County Clean Water Program Advisory Council (Advisory Council) will provide overall management and monitor the implementation of the SWMP. Each Co-permittee will have at least one representative on the Advisory Council. Representatives may include the storm water program coordinators, Board of Supervisors Members, City Council Members, or other agency staff. The Advisory Council will meet quarterly to discuss common issues and identify solutions. Advisory Council meetings will be open to all interested stakeholders. Advisory Council meetings will commence in fiscal year 2003/2004 (FY 03/04) and meet quarterly thereafter.

Program Workgroups

Four workgroups will be formed during FY 03/04 to provide direct oversight of specific elements of the SWMP. The workgroups include:

- ◊ Public Education, Outreach and Participation (PEOP) Workgroup – The PEOP workgroup will aid in the development and implementation of the Public Education and Outreach and the Public Involvement and Participation elements of the SWMP by providing direction and oversight. Participants to the workgroup may include: Storm Water Program Coordinators and/or other Co-permittee staff; Representatives from the University of California Davis Extension; Representatives from the Lake County Resource Conservation District (RCD); Representatives from the Lake County Office of Education; City of Clearlake staff; City of Lakeport Community Development Staff; and, other interested stakeholders.
- ◊ Illicit Discharge Detection and Elimination (IDDE) Workgroup - The IDDE workgroup will aid in the development and implementation of the Illicit Discharge and Elimination (IDDE) Program by providing direction and oversight. Participants to the workgroup may include, Storm Water Program Coordinators; Lake County Code Enforcement staff; Lake County Public Services staff; Lake County Environmental Health Department staff; Lake County Special District's staff; City of Clearlake Code Enforcement staff; City of Lakeport Community Development staff; and, other interested stakeholders.

- ◊ Construction and Post Construction Runoff Control (CON/PCON) Workgroup – The CON/PCON workgroup will aid in the development and implementation of the Construction Site Storm Water Runoff Control and Post-Construction Storm Water Management elements of the SWMP by providing direction and oversight. Participants to the workgroup may include, Storm Water Program Coordinators; Lake County Public Works Department staff; Lake County Community Development Department staff; and, other interested stakeholders.
- ◊ Municipal Operations (MUNI) Workgroup - The MUNI workgroup will aid in the development and implementation of the Pollution Prevention/Good House Keeping for Municipal Operations element of the SWMP by providing direction and oversight. Participants to the workgroup may include, Storm Water Program Coordinators; Lake County Public Works Department staff; Lake County Roads Department staff; Lake County Public Services staff; Lake County Special Districts Staff; staff from the Cities of Lakeport and Clearlake Public Works Departments; and, other interested stakeholders.

Program Agreement

During the first year of the SWMP (FY 03/04) an agreement between Program Co-permittees will be developed to help define the relationship between the agencies for permit coordination, reporting, and overall program consistency. Several agreement options will be evaluated, ranging from a full joint program agreement to a project/program element-specific agreement. Informal cooperative agreements may allow agencies to effectively share resource responsibility for specific projects, such as developing outreach material. Appendix A serves as a placeholder for the Program Agreement. Once adopted, Co-permittees will include the agreement in their SWMPs and submit a copy to the Central Valley RWQCB.

Legal Authority

The Phase II General Permit requires each Co-permittee to adopt and enforce ordinances and policies to clarify its authority to control what is discharged to its MS4. In addition, each Co-permittee needs to develop adequate legal authority to implement and enforce provisions of the SWMP, including right of entry and inspection, and methods to reduce discharge of pollutants to the storm drain.

During the first year of the SWMP Co-permittees will review existing ordinances and general plans and develop legal authority for implementing the SWMP. In particular, legal authority for the following requirements will be established:

- ◊ Effectively prohibiting non-storm water discharges to storm drains and implementing appropriate enforcement procedures and actions;
- ◊ Requiring that persons engaged in activities that are potential sources of pollutants implement BMPs to reduce pollutant discharges to the MEP;
- ◊ Requiring erosion and sediment controls, as well as sanctions or other effective mechanisms, to ensure compliance from construction site activities that result in a land disturbance of greater than or equal to one acre; and,

- ◊ Addressing post-construction runoff from new development and redevelopment projects that disturb greater than or equal to one acre; including projects less than one acre that are part of a larger common plan of development or sale.

Appendix B serves as a placeholder for the ordinances (or equivalent). Once adopted, Co-permittees will include the ordinances in their SWMPs and submit a copy to the Central Valley RWQCB.

Funding Mechanism(s) and Structure

Meeting these new regulatory requirements will require new or additional public expenditures. The Phase II regulations require that each Co-permittee allocate funds for the capital, operation and maintenance, and enforcement expenditures necessary to implement and enforce the SWMP within its jurisdiction. During the first year of the SWMP the agencies will investigate funding mechanisms to support the storm water program. Possible funding options/mechanisms that the agencies may chose to utilize for developing and implementing the *SWMP* include the following:

- ◊ Current revenues (general fund appropriation);
- ◊ New "dedicated" funding sources (fees, taxes and assessments); and,
- ◊ Outside funding sources (grants and loans)

Appendix C serves as a placeholder for the document describing the funding mechanism Co-permittees implement. Once adopted, Co-permittees will include the funding mechanism in their SWMPs and submit a copy to the Central Valley RWQCB.

Section 3
Public Education and Outreach

Everyday, individuals make thousands of routine, seemingly inconsequential decisions in their lives that can potentially contribute to storm water pollution. For example, decisions such as where to dispose of used motor oil or how to eliminate an insect problem can release pollutants into the environment that may be transported by storm water runoff to local water bodies, where if concentrations/loads are significant, adverse impacts can occur on beneficial uses (e.g., fish spawning, recreational activities, municipal supply and domestic supply). To help reduce the potential of impacts of storm water pollutants on water bodies in Lake County and to satisfy the Public Education and Outreach element of the General Permit, the Lake County Clean Water Program (Program) is developing and implementing a **Public Education and Outreach Program**.

Public education and outreach plays an integral part in preventing storm water pollution. An informed and knowledgeable community is crucial to the success of a storm water management program since it helps to ensure: (1) greater support for the program as the public gains a greater understanding of the reasons why it is necessary and important, and (2) greater compliance with the program as the public becomes aware of the personal responsibilities expected of them and others in the community, including the individual actions they can take to protect or improve the quality of water bodies in Lake County.

Goals and Objectives

The goal of the Public Education and Outreach element is to reduce storm water pollution in Lake County through the development and implementation of an effective PEOP program that will: (1) Increase public awareness about storm water pollution; and, (2) Educate the community about specific pollutant sources and on what they can do to reduce them in storm water. To achieve this goal, the Program has developed the following objectives for the PEOP program:

- ◊ Generate awareness of storm water pollution prevention by educating people about the storm drain system and its relationship to the health of local water bodies; and,
- ◊ Change behavior patterns through education and encouragement of active participation in storm water pollution prevention.

Public Education and Outreach BMPs

To reach the program goals and objectives, the Program has developed a variety of Best Management Practices (BMPs). Each BMP has at least one associated measurable goal, which will be used to evaluate the effectiveness of the BMP. Each BMP that is scheduled for implementation between FY 03/04 and FY 07/08 is described below and presented in Table 3.1 and the end of this section.

Public Education and Outreach Program Management

Public Education and Outreach Program and PEOP Workgroup - As a first year implementation activity, the Program will develop a Public Education, Outreach, and Participation (PEOP) Workgroup in fiscal year 2003/2004. Participation in the workgroup is open to Co-permittee staff, citizens and any other interested parties. The workgroup will be designed to aid in the development and implementation of the Program's Public Outreach and Education activities. As a measurable goal, the workgroup will meet four times each fiscal year, starting in fiscal year 2003/2004. Following fiscal year 2003/2004, Co-permittee staff, in coordination with the workgroup, will develop and implement a Public Education and Outreach Program, including determination of administrative structure(s), staffing requirements and fiscal resources needed to implement the Program. The workgroup will also begin coordinating with other Program workgroups in fiscal year 2004/2005 to determine their needs for public education and outreach materials specific to their SWMP element.

Evaluation of Existing Public Education and Outreach Activities – To avoid duplicative efforts, during fiscal FY 03/04, Co-permittees will gather existing public education and outreach materials that may be applicable to the Program. In FY 04/05 Co-permittees will evaluate applicable materials and revise existing materials and activities as necessary to meet Program goals. Existing materials will begin to be distributed to the public in FY 03/04. Where materials are needed to support specific program elements, new BMP materials will begin to be developed in FY 04/05.

Tracking and Reporting

All aspects of the Public Education and Outreach Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated to satisfy Phase II NPDES permit requirements. As an outcome of the assessment, tracking and reporting procedures will be developed/revised as necessary. The revised procedures will be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented in annual reports may include: the types of public outreach and educational materials developed; the number of public outreach and educational materials distributed.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each public education and outreach best management practice (BMP). These BMPs and measurable goals are presented in Table 3.1. Co-permittees will maintain records to document Program implementation and annual progress. This information will be included in the annual report submitted to the Central Valley RWQCB.

Table 3.1

Public Education and Outreach
BMP Implementation Tables

FY 2003/2004 through 2007/2008

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Public Education and Outreach Program Management								
PEOP-1	**Public Education and Outreach Program and PEOP Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the Public Education and Outreach Program	PEOP Workgroup formed	**X**				
	1b.	Determine administrative structure(s), staffing requirements and fiscal resources needed to develop and implement the Program	Staffing and fiscal resource estimates developed		**X**			
	1c.	Develop and begin implementing the Program	Program developed and implementation has begun		**X**	**X**	**X**	**X**
	1d.	Conduct PEOP Workgroup meetings quarterly	PEOP Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
	1e.	Coordinate with other working groups to determine needs for outreach/education materials	Meet with other workgroups as needed to determine needs for outreach/education materials		**X**	**X**	**X**	**X**
PEOP-2	**Evaluation of Public Education and Outreach Activities and Materials**							
	2a.	Collect existing public education and outreach material	Existing public education and outreach material collected	**X**				
	2b.	Evaluate and revise existing public education and outreach materials and activities as needed	Public education and outreach materials evaluated and revised		**X**	**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
	2c.	Incorporate public education and outreach materials onto co-permittees websites (update as appropriate)	Public education and outreach materials available via co-permittees websites		X	X	X	X
Tracking and Reporting								
PEOP-3	**Public Education and Outreach Tracking and Reporting**							
	3a.	Conduct an assessment of current tracking and reporting procedures	Assessment complete	X				
	3b.	Revise and implement current tracking and reporting procedures	Tracking and reporting procedures revised and implemented		X	X	X	X

Section 4
Public Involvement and Participation

Public involvement and participation are important components of the SWMP. The term "public" refers to various sectors of the community including residents, commercial and retail business owners; industry representatives; developers; construction contractors; agency staff; elected officials; and governmental agencies. The success of the Program depends largely upon acceptance and support from these sectors.

The public can provide valuable input and assistance to the Program. During this permit term, Co-permittees will implement a public involvement and participation element that not only informs these audiences of the storm water concerns within their communities, but also invites participation in implementing the SWMP. Section four describes BMPs and measurable goals designed to comply with the public involvement and participation requirement of the General Permit through the development and implementation of a **Public Involvement and Participation Program.**

Goals and Objectives

The following Public Involvement and Participation Program objectives are designed to address storm water pollution through the supportive efforts of an informed community:

- ◊ Raise public awareness about urban runoff pollution through involvement in the Lake County Clean Water Program;
- ◊ Raise public awareness about storm water pollution prevention efforts; and,
- ◊ Foster participation through community-based projects or volunteer activities focused on pollution prevention.

Public Involvement and Participation BMPs

The public involvement and participation element is divided into four categories to effectively address storm water issues: (1) Public Involvement and Participation Program Management; (2) Public Activities and Participation; (3) Public Opinion and Involvement; and, (4) Tracking and Reporting. Each category, BMPs, and associated measurable goal are briefly described below. These categories, BMPs and associated implementation schedules are described in further detail below and in Table 4.1.

Public Involvement and Participation Program Management

PEOP Workgroup - As a first year implementation activity, the Program will develop a Public Education, Outreach, and Participation (PEOP) Workgroup in fiscal year 2003/2004. Participation in the workgroup is open to Co-permittee staff, public citizens and any other interested parties. The workgroup will be designed to aid in the development and implementation of the Program's public education, outreach, participation and involvement activities. As a measurable goal, the workgroup

will meet four times each fiscal year, starting in fiscal year 2004/2005. Following fiscal year 2003/2004, Co-permittee staff will determine of administrative structure(s), staffing requirements and fiscal resources needed to implement the Program.

Public Activities and Participation

Storm Drain Stenciling - Storm drain stenciling involves labeling storm drain inlets with painted messages warning citizens not to dump pollutants into the drain. These signs raise awareness about the connection between storm drains and receiving waters. Co-permittees may use public works staff or volunteer groups to perform the stenciling. During FY 03/04, the current storm drain stenciling program will be reviewed and updated, as needed. As part of this program, a checklist for annually tracking stenciled drains will be developed and each agency will, at a minimum, stencil 25% of the storm drains each year starting in FY 04/05. In addition, beginning in FY 04/05, opportunities for using volunteers to stencil storm drains will be investigated.

Development of Local Partnerships - A valuable part of public participation is implementing a watershed-based approach to identify and address local water quality issues. During FY 04/04 of the SWMP implementation, the Co-permittees will begin to coordinate with local organizations and develop partnerships, as appropriate, to identity storm water issues affecting the watershed. Long-term goals of these partnerships are to develop approaches for soliciting volunteers to protect, clean, and restore local creeks and watershed. Co-permittees will also assist and support creek cleanup events and adopt-a-creek programs beginning in FY 04/05.

Public Input and Involvement

A key goal for the Program is to involve a diverse cross-section of people who can offer a variety of opinions, concerns, ideas, and connections relating to storm water pollution prevention. During FY 03/04 Co-permittees will provide public notice of the SWMP and facilitate an Advisory Council. The purpose of the Advisory Council is to provide overall management and monitor the implementation of the SWMP. The Advisory Council meetings are open to the public and involvement is welcomed. A goal of the Advisory Council is to provide an "open forum" to allow citizens to discuss viewpoints and provide input on storm water management policies and BMPs. The following groups may chose to participate on the Advisory Council:

- ◊ Neighborhood and business associations;
- ◊ Commercial property owners;
- ◊ Local service clubs;
- ◊ Trade organizations;
- ◊ Chamber of commerce;
- ◊ Watershed and environmental organizations; and,

◊ Other interested parties.

In addition to the Advisory Council, a storm water telephone hotline will be created during FY 04/05 of the SMWP implementation. The purpose of the hotline is to provide a means for the public's questions and concerns about water quality to be addressed. Beginning in FY 05/06, the hotline number will be included on public outreach materials. Links to the hotline via the Co-permittee web pages will also be established in FY 04/05.

Public Attitude Survey - Surveys of how the public perceives storm water management can foster better planning and management programs. The results of these attitude surveys can enlighten both the agencies and the public on the sources of pollution, the effects of storm water on the environment, and options for control. Public attitude surveys can bring to light what is important to the stakeholders, and the Co-permittees can use this information to determine how best to incorporate the public's needs into the overall goals of the program. A general public survey will be solicited from citizens in FY 05/06 of the SWMP implementation. Additional public attitude surveys may also be developed in subsequent years.

Tracking and Reporting

All aspects of the Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated to satisfy Phase II NPDES permit requirements. As an outcome of the assessment, PEOP tracking and reporting procedures will be developed/revised as necessary. The revised procedures will be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented in annual reports may include: number of people participating in community cleanup events; the number of storm drains stenciled; number of calls received on storm water hotline; public participation in the Advisory Council; and results of public attitude surveys.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each Public Involvement and Participation BMP. These BMPs and measurable goals are presented in Table 4.1. Co-permittees will maintain records to document Program implementation and annual progress. This information will be included in the annual report submitted to the Central Valley RWQCB.

Table 4.1

Public Involvement and Participation BMP Implementation Tables

FY 2003/2004 through 2007/2008

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Public Involvement and Participation Program Management								
PIP-1	**Public Education, Outreach and Participation Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the Public Involvement and Participation Program	PEOP Workgroup developed	**X**				
	1b.	Conduct PEOP Workgroup meetings quarterly	PEOP Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
Public Activities and Participation								
PIP-2	**Storm Drain Stenciling**							
	2a.	Review and update existing storm drain stenciling program	Current stenciling program reviewed and updated (as needed) to achieve measurable goals	**X**				
	2b.	Conduct storm drain stenciling	Stencil 25% of existing storm drains		**X**	**X**	**X**	**X**
	2c.	Investigate opportunities for using volunteers to stencil storm drains	Using volunteers to stencil storm drains discussed at PEOP workgroup meeting and/or with volunteers. Implemented as appropriate		**X**			
PIP-3	**Develop and Support Local Partnerships**							
	3a.	Coordinate with local organizations and develop partnerships (as appropriate)	Discuss coordination with local organizations and collaborate as appropriate	**X**	**X**	**X**	**X**	**X**
	3b.	Assist in coordinating creek clean up events with local organizations	Number of creek clean up events conducted		**X**	**X**	**X**	**X**
	3c	Support adopt-a-creek programs	Number of adopt-a-creek programs supported		**X**	**X**	**X**	**X**

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Public Input and Involvement								
PIP-4	**Public Notice Storm Water Management Plan and Receive Public Input**							
	4a.	Conduct public meeting to announce the SWMP	SWMP advertised and public meeting held	**X**				
	4b.	Develop and Facilitate Advisory Council Meetings to receive and record public input	Public input recorded in quarterly meeting summaries	**X**	**X**	**X**	**X**	**X**
PIP-5	**Storm Water Telephone Hotline**							
	5a.	Develop and implement hotline for public comments/concerns	Hotline developed and implemented.		**X**	**X**	**X**	**X**
	5b.	Include hotline number on Co-permittee public education and outreach material and websites	Hotline number advertised on Co-permittee websites and education/outreach materials		**X**	**X**	**X**	**X**
PIP-6	**Public Attitude Surveys**							
	6a.	Develop and conduct general public attitude survey	General public attitude survey developed and conducted.			**X**		
Tracking and Reporting								
PIP-7	**PIP Tracking and Reporting**							
	7a.	Conduct an assessment of current tracking and reporting procedures	Assessment complete	**X**				
	7b.	Develop tracking system to annually track stenciled drain	Tracking system developed		**X**			
	7c.	Implement tracking system to annually track stenciled drains	Tracking system implemented			**X**	**X**	**X**
	7d.	Revise and implement current tracking and reporting procedures	Tracking and reporting procedures revised and implemented		**X**	**X**	**X**	**X**

Section 5
Illicit Discharge Detection and Elimination

The municipal separate storm sewer system (MS4) originates with streets and gutters, whose drainage flows through pipes and ditches, which inevitably discharges into receiving water bodies such as creeks, wetlands and lakes. Pollutants poured, spilled, dumped, washed, or discharged through illicit connections or illegal dumping into the MS4 can go undetected without an active illicit discharge detection and elimination (IDDE) program. Illicit discharges are defined as any discharge to the municipal storm drain system that is not composed entirely of storm water, with some exceptions[1]. Illicit discharges enter the system either through direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drain) or illegal dumping of materials that contain pollutants. Either way, the result is untreated discharges that may contribute elevated levels of pollutants, including heavy metals, toxics, oil and grease, solvents, trash, nutrients and bacteria to receiving water bodies. To help reduce illicit discharges to the MS4s in Lake County, the Lake County Clean Water Program (Program) is developing and implementing an **Illicit Discharge Detection and Elimination Program.**

Goals and Objectives

The goal of the Program is to effectively reduce/eliminate illicit discharges into the Program MS4's by implementing Best Management Practices (BMPs) to the maximum extent practicable (MEP). To achieve this goal, the follow objectives have been developed:

- ◊ Control illicit discharges by conducting field inspections/screenings of the MS4 and identifying and eliminating the source(s) of non-storm water discharge(s);
- ◊ Detect and eliminate illegal disposal of wastes to the MS4 through a program that combines education, alternative disposal options, and enforcement;
- ◊ Effectively coordinate spill prevention and response with existing programs;
- ◊ Optimize illicit discharge control activities through planning and prioritization; and,
- ◊ Partner with other agencies and groups to increase public awareness on how to effectively and efficiently prevent pollutant discharges to the MS4.

[1] Exceptions include authorized non-storm water discharges that are not significant contributors of pollutants to the Small MS4. These include: water line flushing; landscape irrigation; diverted stream flows; rising ground waters; uncontaminated ground water infiltration; 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; and dechlorinated swimming pool discharges.

Illicit Discharge Detection and Elimination BMPs

The IDDE element is divided into five categories to effectively address non-storm water discharges. The categories are: (1) IDDE Program Management (i.e., workgroup and ordinance development); (2) IDDE Plan development and implementation; (3) municipal separate storm sewer system mapping; (4) reporting and tracking non-storm water discharges; and, (5) public education and outreach related to IDDE. These categories associated BMPs and implementation schedules are described in further detail below and in Table 5.1.

Illicit Discharge Detection and Elimination Program Management

IDDE Workgroup - To facilitate the development and implementation of IDDE activities, the Program will develop an Illicit Discharge Detection and Elimination (IDDE) Workgroup. The Workgroup will provide guidance and oversee all aspects of the IDDE Program, including the preparation of spill response and inspection/screening procedures, mapping and tracking/reporting. Starting in fiscal year 2004/2005 (FY 04/05), the workgroup will meet regularly four times each year.

Evaluation of Existing Programs – To avoid duplicative efforts, during fiscal year 2003/2004 (FY 03/04), Co-permittees will review applicable programs currently being implemented by Lake County agencies and evaluate whether existing activities can be combined with planned IDDE Program components. Additionally, Co-permittees will review existing ordinances during FY 03/04 and determine if new regulatory authority must be developed to effectively prohibit illicit discharges to the MS4. Following the evaluation of existing programs, Co-permittees will determine the administrative structure, staffing requirements and fiscal resources needed for the implementation of the IDDE Program.

IDDE Ordinance - To effectively implement the IDDE Program, Co-permittees are required to develop and implement a regulatory mechanism that will provide them with the authority to effectively eliminate illicit discharges into their MS4 and implement appropriate enforcement procedures and actions. This authority will likely be sought through the preparation and adoption of an illicit discharge detection and elimination ordinance, or similar regulatory mechanism. The ordinance is scheduled for preparation in FY 2003/2004 and adoption in FY 2004/2005.

Illicit Discharge Detection and Elimination Plan

Under the Small MS4 NPDES Permit, Co-permittees are required to develop a program to detect and eliminate illicit discharges into their MS4's. To comply with this requirement, the Program will develop and implement an IDDE Plan, which consists of two elements; spill prevention/response and MS4 inspection/screening. Both elements are briefly described below.

Spill Prevention and Response Procedures – A key activity conducted under any IDDE Program is spill prevention and response (SPR). To effectively reduce the discharge of contaminants that are contained in material accidentally spilled or otherwise released into the MS4, spill prevention and response procedures must be developed and implemented. In FY 03/04, Program Co-permittees will evaluate spill prevention and response procedures that Lake County Public agencies are currently implementing. This evaluation will allow Co-permittee's to avoid a duplication of effort and determine if existing programs can be coordinated with Program activities. Procedure will be revised as needed and implemented in FY 04/05.

MS4 Inspection/Screening Program – During the first two years of the permit cycle (FY 03/04 to FY 04/05), the Program will develop and begin implementing a MS4 Inspection/Screening Program. The program will attempt to identify priority areas that have a high likelihood of illicit discharges/connections. Once a problem area or discharge is found, additional efforts may be necessary to determine the source of the discharge/connection. Once the source is identified, the Program will work with the discharger in an attempt to eliminate the discharge. Education and outreach will likely be a first step in solving the problem. These efforts will be coordinated through the Public Education, Outreach and Participation workgroup.

Inspection/Screening Program Staff Training - To aid in the effective implementation of the MS4 Inspection/Screening Program, Co-permitees will develop an illicit discharge, detection and elimination training program for applicable municipal employees in FY 04/05. Training will occur annually beginning in FY 05/06.

Municipal Separate Storm Sewer Mapping

To effectively implement the IDDE Program, Co-permittees must have necessary resources. An integral resource for all Co-permittees will be an accurate map of their municipal separate storm sewer system. The map is meant to demonstrate a basic awareness of the intake and discharge areas of the system. It is needed to help determine the location of storm drains where non-storm water discharges may be entering the MS4; the extent of dry weather discharges; the possible sources of non-storm water discharges; the location of outfalls where these discharges may be entering water bodies; and the particular water bodies these discharges may be affecting. The MS4 mapping element will begin in FY 03/04 with the collection of existing infrastructure records and identification of data gaps, and end in FY 07/08 with the completion of the MS4 map for urbanized areas, high growth areas and other priority built up areas within the NPDES permit boundary.

IDDE Education and Outreach

As with all the elements described in the SWMP, public education and outreach are essential first lines of defense in improving storm water quality in Lake County. In coordination with the IDDE workgroup, the PEOP workgroup will play the lead role in developing and distributing BMP materials applicable to the IDDE program. Existing public education and outreach materials will be assessed to determine applicability with the IDDE Program, and depending on the need, new education and outreach materials specific to the IDDE Program may be developed during the permit term.

IDDE Tracking and Reporting

All aspects of the IDDE Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated with NPDES permit requirements. As an outcome of the assessment, IDDE tracking and reporting procedures will be revised as necessary. The revised procedures will be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented in annual reports may include: the number of priority areas/outfalls screened; any complaints received and/or corrected; the number and types of discharges eliminated; the progress on mapping the MS4; and the number of IDDE educational materials distributed.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each IDDE best management practice (BMP). These BMPs and measurable goals are presented in Table 5.1. The agencies will maintain records to document program implementation and annual progress. This information will be included in the annual report submitted to the RWQCB.

Table 5.1

Illicit Discharge Detection and Elimination (IDDE) BMP Implementation Tables

FY 2003/2004 through 2007/2008

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Illicit Discharge Detection and Elimination Program Management								
IDDE-1	**Illicit Discharge Detection and Elimination Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the Illicit Discharge Detection and Elimination Program	Illicit Discharge Detection and Elimination Working Group formed	**X**				
	1b.	Conduct IDDE Workgroup meetings quarterly	IDDE Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
IDDE-2	**Existing Program Structure Review**							
	2a.	Summarize information on other IDDE programs	Summary of other IDDE programs complete	**X**				
	2b.	Determine administrative structure(s), staffing requirements and fiscal resources.	Staffing and fiscal resource estimates developed		**X**			
IDDE-3	**Prepare and Adopt IDDE ordinance**							
	3a.	Review existing ordinance(s) , authorities, and program structure	Summary of existing ordinance(s), authorities and program structure complete	**X**				
	3b.	Begin IDDE ordinance (or equivalent) preparation or begin revising existing ordinance to gain required authority	IDDE ordinance preparation complete		**X**			
	3c.	Adopt IDDE ordinance (or equivalent) or revise existing ordinance to gain required authority	IDDE ordinance (or equivalent) adopted or existing ordinance revised			**X**		

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Illicit Discharge Detection and Elimination Plan								
IDDE-4	**Spill Prevention and Response Procedures**							
	4a.	Compile and review information from existing spill prevention and response programs and procedures	Information from existing spill prevention and response programs and procedures compiled and reviewed	**X**				
	4b.	Revise existing spill prevention and response programs and procedures as needed	Existing spill prevention and response programs and procedures revised to be applicable to Co-permitees		**X**			
	4c.	Begin implementing revised spill prevention and response procedure	Spill prevention and response procedures implemented			**X**	**X**	**X**
IDDE-5	**Storm Drain System Inspection/Screening Program**							
	5a.	Compile and review information from existing Storm Drain System Inspection/Screening Programs	Information from existing Storm Drain System Inspection/Screening Programs compiled and reviewed	**X**				
	5b.	Revise existing Storm Drain System Inspection/Screening Programs as needed	Existing Storm Drain System Inspection/Screening Programs revised to be applicable to Co-permitees		**X**			
	5c.	Begin Storm Drain System Inspection/Screening Program implementation	Storm Drain System Inspection/Screening Programs implemented			**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
IDDE-6	**Storm Drain System Inspection/Screening Program Staff Training**							
	6a.	Develop an illicit discharge, detection and elimination training program for applicable municipal employees	Training program and associated materials developed		**X**			
	6b.	Conduct annual training for applicable staff	One training conducted per year			**X**	**X**	**X**
Municipal Separate Storm Sewer System (MS4) Mapping								
IDDE-7	**Collect and Assess Existing Information on MS4**							
	7a.	Collect existing MS4 infrastructure records	Existing records collected	**X**				
	7b.	Assess existing information and identify data gaps	Existing information assessed and data gaps identified	**X**				
IDDE-8	**MS4 Mapping**							
	8a.	Input existing information into the GIS database	GIS database with existing information complete		**X**			
	8b.	Conduct MS4 outfall data collection and input into the GIS database	Steady improvement annually. (MS4 mapping complete by end of permit term)		**X**	**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
IDDE Education and Outreach								
IDDE-9	**Public Education and Outreach / Involvement Participation**							
	9a	Collect and assess existing public education and outreach information applicable to IDDE	Existing public education and outreach information collected and assessed	**X**				
	9b	Develop new education and outreach materials as appropriate and make available to the public (in collaboration with the PEOP workgroup)	New education and outreach materials developed and made available to the public via public agency counters, websites, and/or public events		**X**	**X**	**X**	**X**
Tracking and Reporting								
IDDE-10	**Illicit Discharge Detection and Elimination Tracking and Reporting**							
	10a.	Conduct an assessment of current tracking and reporting procedures	Assessment complete	**X**				
	10b.	Revise and implement tracking and reporting procedures	Tracking and reporting procedures revised and implemented		**X**	**X**	**X**	**X**

Section 6
Construction Site Storm Water Runoff Control

Construction sites can generate a variety of pollutants that may be discharged (via storm water) and adversely affect beneficial uses of receiving water bodies (Figure 6.1). Of particular concern are the impacts of sediment. Sediment can be detrimental to aquatic life (primary producers, benthic invertebrates, and fish) by interfering with photosynthesis, respiration, growth, reproduction, and oxygen exchange in water bodies. In addition to impacts directly associated with sediment, various pollutants can also be transported along with sediment particles leaving construction sites. Such pollutants include metals, nutrients, pesticides and pathogens.

Figure 6.1 - Construction Site Pollutants of Concern

- Sediment
- Solid and sanitary wastes
- Phosphorous (fertilizer)
- Nitrogen (fertilizer)
- Pesticides
- Oil and grease
- Concrete
- Construction chemicals and debris

The process by which sediment is transported off a construction site and causes impacts to water bodies entails three-steps: (1) soil disturbance, (2) erosion, and (3) sedimentation. Construction activities such as grading inherently disturb soils. If not properly kept on-site, disturbed soils can then be transported through soil erosion. Soil erosion is the process by which soil particles are removed from the land surface by wind, water (i.e., storm water), or gravity. Once transported to a water body, eroded soil may settle when the velocity of water is slowed sufficiently. This process is called sedimentation and can cause many adverse effects to water bodies, including smothering of aquatic habitat and filling of reservoirs or lakes. In addition to sediment, other pollutants can originate from construction sites. These may include: trash, pesticides, construction debris, construction chemicals and oil and grease.

In order to control erosion and discharge of other pollutants on receiving waters, the State Water Resources Control Board (SWRCB) developed Waste Discharge Requirements for Discharges of Storm water Runoff Associated with Construction Activity and issued a statewide general NPDES permit (Construction General Permit). The primary objective of the Construction General Permit is to reduce erosion and minimize or eliminate sediment and non-storm water discharges from construction sites by implementing appropriate measures to reduce potential impacts on water bodies. Individuals or entities that own land where one acre or greater of soil is planned to be disturbed must seek coverage under the Construction General Permit.

Under the Municipal Phase II General Permit, which this SWMP addresses, and in collaboration with the Construction General Permit, Co-permittees are required to develop, implement, and enforce a program to reduce pollutants in any storm water runoff to their MS4 from construction activities that result in a land disturbance of greater or equal to one acre.[3] Section six describes BMPs and measurable goals designed to comply with the construction site storm water runoff control requirement through the development and implementation of a **Construction Site Storm Water Runoff Control Program.**

[3] Phase II NPDES Permit requirement also includes any construction activity that disturbs that is a part of a larger common plan of development or sale that would disturb one acre or more. erosion and sediment control program for construction activities that disturb one or more acres of land.

Goals and Objectives

The goal of the Construction Site Storm Water Runoff Control (CON) Program is to reduce the discharge of storm water pollutants to the maximum extent practicable by: (1) requiring construction sites to reduce sediment in site runoff; and (2) requiring construction sites to reduce other pollutants such as litter and concrete wastes through good housekeeping procedures and proper waste management. To achieve this goal, the following objectives have been developed:

- ◊ Effectively prohibit non-storm water discharges and require controls to reduce the discharge of pollutants during construction;
- ◊ Minimize land disturbance at construction sites;
- ◊ Protect water quality from pollutants generated by construction activities;
- ◊ Require BMP implementation at construction sites; and,
- ◊ Develop and implement measurable goals to evaluate the success of the BMPs

Construction Site Storm Water Control BMPs

The CON element is divided into four categories to effectively address storm water issues related to construction site runoff. These categories are: (1) CON Program Management (i.e., workgroup, ordinance and BMP development); (2) Construction Site Plan Review and Inspections; (3) Construction Site Education and Outreach; and, (4) Tracking and Reporting. These categories, BMPs and associated implementation schedules are described in further detail below and in Table 6.1.

Construction Site Runoff Control Program Management

CON/PCON Workgroup - To facilitate the development and implementation of construction activities, the Program will develop a Construction and Post-construction Runoff Control (CON/PCON) Workgroup. The workgroup will provide guidance and oversee all aspects of the construction program. The workgroup will consist of at least one representative from each Co-permittee. Starting in fiscal year 2003/2004 (FY 03/04), the CON workgroup will meet quarterly each year.

CON Ordinance, Authority and Program Structure – To effectively implement the Program, Co-permittees are required to develop and implement a regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance. This authority will likely be sought through the preparation and adoption of a construction site storm water runoff control ordinance, or similar regulatory mechanism. To determine the extent of their current authority, Co-permittees will collect and document existing ordinances and authorities in FY 03/04. Co-permittees will then either prepare a construction site storm water runoff control ordinance or revise an existing ordinance in FY 04/05 and adopt the new or revised ordinance in FY 05/06.

Sediment and Erosion Control BMPs – Co-permittees are required to develop, implement and enforce requirements for construction site operators to implement appropriate erosion and

sediment controls and controls for construction debris/waste. As a first step, in FY 03/04 Co-permittees will collect, evaluate and document existing sediment and erosion control BMPs and BMPs for construction debris/waste that are currently required on construction sites in their respective jurisdictions. Existing BMPs will then be revised as needed in FY 04/05. Revised BMP materials/information will be made available to the public via service counters and the Internet starting in FY 04/05. Development of all applicable public education material will occur in coordination with the PEOP workgroup.

Procedure Development and Training

Plan Review and Site Inspection Procedures – Co-permittees are required to develop and implement procedures for construction site plan reviews that incorporate the consideration of potential water quality impacts. To avoid duplicative efforts, during FY 04/05 Co-permittees will review and evaluate existing site plan review and construction site inspection procedures. Following the evaluation, existing procedures will be revised as appropriate and begin to be implemented in FY 05/06.

Site Inspection and Plan Review Training – To ensure that effective sediment, erosion and non-storm water discharge BMPs are implemented on all applicable construction projects, Co-permittees will develop a training program for site inspectors and plan review staff. In FY 03/04, Co-permittees will review and evaluate existing training programs to determine if their applicability. Depending on the outcome of the evaluation, either existing training programs (if applicable) will be revised, or a new training program will be developed in FY 04/05. The program will be designed to inform construction site inspectors and plan review staff of approved plan review procedures, site inspection procedures, and appropriate construction site storm water runoff control BMPs. Construction site inspection and plan review training will occur annually, beginning in FY 05/06, and may be in concert with construction site operator training.

Construction Site Operator Training – In collaboration with training on site inspection and plan review, Co-permittees will develop a training program for construction site operators to help ensure that effective sediment, erosion and non-storm water discharge BMPs are implemented on all applicable construction projects. In preparation, Co-permittees will review and evaluate existing training programs to determine their applicability. Following the evaluation, either the existing training program (if applicable) will be revised, or a new training program will be developed. The program will be designed to educate construction site operators of required construction site storm water runoff controls and proper implementation, maintenance and inspection of BMPs. Construction site operator training will occur annually, beginning in FY 04/05, and may be in concert with construction site inspection and plan review training.

Construction Runoff Control Education and Outreach

As with all the elements described in the SWMP, public education and outreach are pivotal elements in improving storm water quality in Lake County. In coordination with the CON/PCON workgroup, the public education outreach and participation (PEOP) Workgroup will play the lead role in developing and distributing applicable public education materials. Existing public education and outreach materials will be assessed to determine applicability with the CON Program, and depending on the need, new education and outreach materials specific to the CON Program may be developed during the permit term.

Tracking and Reporting

All aspects of the CON Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated to satisfy Phase II NPDES permit requirements. As an outcome of the assessment, CON tracking and reporting procedures will be developed/revised as necessary. The revised procedures will be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented in annual reports may include: the number of construction sites greater than 1 acre; the number of construction sites inspected; number of individuals trained; evaluation of trainings; number of sanctions issued; and number of CON educational materials distributed.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each CON best management practice (BMP). These BMPs and measurable goals are presented in Table 6.1. Co-permittees will maintain records to document CON Program implementation and annual progress. This information will be included in the annual report submitted to the Central Valley RWQCB.

Table 6.1

Construction Site Storm Water Runoff Controls
BMP Implementation Tables

FY 2003/2004 through 2007/2008

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
Construction Site Storm Water Runoff Control Program Management								
CON - 1	**Construction and Post Construction Runoff Control (CON/PCON) Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the Construction Site Storm Water Runoff Control Program	CON/PCON Workgroup formed	**X**				
	1b.	Conduct CON/PCON Workgroup meetings quarterly	CON/PCON Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
CON-2	**Ordinance, Authority and Program Structure Review, Preparation and Adoption**							
	2a.	Review existing ordinance(s) , authorities, and program structure(s)	Summary of existing ordinance(s), authorities and program structure complete	**X**				
	2b.	Begin CON ordinance (or equivalent) preparation or begin revising existing ordinance (e.g., grading ordinance) to gain required authority	CON ordinance preparation complete		**X**			
	2c.	Adopt CON ordinance (or equivalent) or revise existing ordinance to gain required authority	CON ordinance (or equivalent) adopted or existing ordinance revised			**X**		
CON-3	**Sediment and Erosion Control BMPs**							
	3a.	Compile and review existing information on sediment and erosion control BMPs	Existing information from on sediment and erosion control BMPs compiled and reviewed	**X**				
	3b.	Revise sediment and erosion control BMPs materials as appropriate	Existing information revised		**X**			
	3c.	Make BMP information available to developers, construction site staff and the general public	Materials made available via agency counters and links on Co-permittees websites		**X**	**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
Procedure Development and Training								
CON-4	**Plan Review and Inspection Procedures and CON Program Funding**							
	4a.	Compile and review information on existing plan review and site inspection procedures and fee structures	Information from existing plan review and site inspection procedures and fee structures compiled and reviewed		**X**			
	4b.	Revise existing plan review and inspection procedures and fee structure (as appropriate)	Existing plan review and inspection procedures and fee structure revised (as appropriate)			**X**		
	4c.	Implement plan review and inspection procedures and revised fee schedule	Plan review and site inspection procedures and fee structure implemented			**X**	**X**	**X**
CON-5	**Site Inspectors and Plan Reviewer Training**							
	5a.	Review and document existing training program	Existing training programs documented	**X**				
	5b.	Revise training program for site inspectors and plan reviewers and develop training manual	Training manual developed		**X**			
	5c.	Implement an annual training program	Training program conducted			**X**	**X**	**X**
CON-6	**Construction Site Operator Training**							
	6a.	Review and document existing training program	Existing training programs documented	**X**				
	6b.	Revise training program for site operators and develop training manual	Training manual developed		**X**			
	6c.	Implement an annual training program	Training program conducted			**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
Construction Runoff Control Education and Outreach								
CON- 7	**Public Education and Outreach / Involvement Participation**							
	7a	Assess existing education and outreach activities related to the CON Program	Existing education and outreach activities related to the CON Program assessed	**X**				
	7b	Develop new education and outreach material as necessary and make available to the public	New education and outreach materials related to the CON Program activities developed and made available to the public		**X**	**X**	**X**	**X**
Tracking and Reporting								
CON-8	**Construction Site Storm Water Runoff Control Program Tracking and Reporting**							
	8a.	Conduct an assessment of current tracking and reporting procedures	Assessment complete	**X**				
	8b.	Revise and implement tracking and reporting procedures	Tracking and reporting procedures revised and implemented		**X**	**X**	**X**	**X**

Section 7
Post-Construction Storm Water Management

New development and significant redevelopment[4] projects can adversely affect receiving water bodies for decades if post-construction storm water management elements are not implemented and maintained over the life span of the project. These impacts can generally occur in two ways. First, new and redevelopment can cause an increase in the type and quantity (e.g., concentration and/or volume) of pollutants in storm water runoff. As runoff flows over areas altered by development, it picks up harmful sediment and chemicals such as oil and grease, pesticides, heavy metals, and nutrients (e.g., nitrogen and phosphorus). These pollutants often become suspended in runoff, where they can adversely affect aquatic organisms (i.e., toxicity), and are eventually carried to receiving waters, such as lakes, ponds, and streams. When deposited in water bodies, pollutants can enter the food chain through small aquatic life, eventually entering the tissues of fish and humans and cause harmful effects.

The second kind of post-construction runoff impact occurs by changing the natural hydrology of a land area through the creation of new impervious surfaces during development. Increased impervious surfaces interrupts the natural cycle of gradual percolation of water through vegetation and soil by altering the timing and quantity of peak flows. Instead, water is collected from surfaces such as asphalt and concrete and routed to drainage systems where large volumes of runoff quickly flow to the nearest receiving water. The effects of this process include stream bank scouring, bank erosion and downstream flooding, which often lead to a loss of aquatic life and damage to property.

Several studies have shown that controlling pollutants once they have entered into the storm drain system is more difficult and expensive than preventing or reducing the pollutants at the source. If areas proposed for new development or redevelopment are planned, designed, and constructed in a manner that considers storm water runoff issues, then future pollutant loading from these areas will be reduced.

Under the Municipal Phase II NPDES Permit, which this SWMP addresses, Co-permittees are required to develop, implement, and enforce a program to address storm water runoff from new and redevelopment projects that disturb greater than or equal to one acre of soil. Section seven describes BMPs and measurable goals designed to comply with the post-construction storm water management in new and redevelopment requirements through the development and implementation of a **Post-construction storm water management (PCON) Program.**

[4] The term "significant redevelopment" refers to alterations of a property that change the "footprint" of a site or building in such a way that there is a disturbance of equal to or greater than 1 acre of land, including projects less than one acre that are part of a larger common plan of development or sale. The term does not include such activities as exterior remodeling. Because redevelopment projects may have site constraints not found on new development sites, the rule provides flexibility for implementing post-construction controls on redevelopment sites that consider these constraints.

Goals and Objectives

The goal of the PCON Program is to reduce the long-term adverse impacts of significant new and redevelopment on storm water and receiving water bodies. To achieve this goal, the following objectives have been developed:

- ◊ Develop and implement strategies, which include a combination of structural and non-structural BMPs as appropriate;
- ◊ Minimize and/or mitigate for the increase of impervious surfaces at new and redevelopment projects;
- ◊ Control pollutants by eliminating or reducing potential new sources through the implementation of BMPs;
- ◊ Adopt and implement an ordinance or other regulatory mechanism to address post-construction runoff from significant new and redevelopment projects;
- ◊ Ensure adequate long-term operation and maintenance of BMPs; and,
- ◊ Develop and implement measurable goals to evaluate the success of the BMPs.

Post-Construction Storm Water Management BMPs

The PCON element is divided into four categories to effectively address storm water issues related to runoff from new development and redevelopment projects. These categories are: (1) PCON Program Management (i.e., workgroup, ordinance and BMP development); (2) Development Plan Review and Training; (3) Post-Construction Education and Outreach; and, (4) Tracking and Reporting. These categories, BMPs and associated implementation schedules are described in further detail below and in Table 7.1.

Post-Construction Site Runoff Control Program Management

PCON Workgroup - To facilitate the development and implementation of post construction storm water management in new development and redevelopment activities, the Program will develop a Construction and Post-construction Runoff Control (CON/PCON) Workgroup. The workgroup will provide guidance and oversee all aspects of the PCON Program. The workgroup will consist of at least one representative from each Co-permittee. Starting in fiscal year 2003/2004 (FY 03/04), the CON/PCON Workgroup will meet regularly four times each year.

PCON Ordinance - To effectively implement the PCON Program, Co-permittees are required to use an ordinance or other regulatory mechanism to address post-construction runoff from significant new and redevelopment projects to the extent allowable under State or local law. This authority will likely be sought through the preparation and adoption of a post-construction storm water management ordinance, or similar regulatory mechanism. To determine the extent of their current authority, Co-permittees will collect and document existing ordinances and authorities in FY 03/04. Co-permittees will then either prepare a post-construction storm water management ordinance or revise an existing ordinance in FY 04/05 and adopt the new or revised ordinance in FY 05/06.

Storm Water Management BMPs – In FY 03/04, Co-permittees will collect, evaluate and document existing storm water management BMPs. Existing BMPs will then be revised as needed in FY 04/05 in coordination with the PEOP Workgroup. Revised BMP materials/information will be made available to the public via service counters and the Internet in FY 04/05. In addition, BMPs will be implemented into the development plan review and permitting process beginning in FY 05/06.

Development Plan Review and Training

Plan Review and Permitting– Runoff problems can be addressed efficiently with sound development planning and permitting procedures. To achieve the objectives of the PCON Program, Co-permittees may need to revise their plan review and permitting procedures related to new and redevelopment to include the consideration of post-construction storm water management BMPs. As a first step in FY 03/04, each Co-permittee will evaluate existing plan review and permitting procedures and requirements to determine if they include provisions aimed at reducing the impacts to storm water runoff from new and significant redevelopment projects. Existing plans and procedures will be modified accordingly in FY 04/05. Revised requirements will begin to be implemented in FY 05/06.

Post Construction Storm Water Management Training – To ensure that effective plan review, permitting, maintenance and operations requirements and procedures are effectively implemented, Co-permittees will develop a training program applicable staff, developers, and engineers. As a first step, in FY 03/04 Co-permittees will review and evaluate existing training programs to determine their applicability. Depending on the outcome of the evaluation, either existing training programs (if applicable) will be revised, or a new training program will be developed in FY 04/05. Training will occur annually beginning in FY 04/05

PCON Education and Outreach

As with all the elements described in the SWMP, public education and outreach are pivotal elements in improving storm water quality in Lake County. In coordination with the CON/PCON Workgroup, the PEOP workgroup will play the lead role in developing and distributing materials applicable to the PCON Program. Existing public education and outreach materials will be assessed to determine applicability with the PCON Program, and depending on the need, new education and outreach materials specific to the PCON Program may be developed during the permit term.

PCON Tracking and Reporting

All aspects of the PCON Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated with NPDES permit requirements. As an outcome of the assessment, PCON tracking and reporting procedures will be revised as necessary. The revised procedures will be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented in annual reports may include: number of new development and redevelopment projects submitted for review and/or approved; the number and type of structural and non-structural BMPs implemented; area of impervious surfaces avoided through site planning; BMP operation and maintenance records and/or agreements; and the number of PCON educational materials developed an/or distributed.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each PCON best management practice (BMP). These BMPs and measurable goals are presented in Table 7.1. The agencies will maintain records to document program implementation and annual progress. This information will be included in the annual report submitted to the Central Valley RWQCB.

Table 7.1

Post Construction Storm Water Management BMP Implementation Tables

FY 2003/2004 through 2007/2008

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
Post Construction Site Storm water Runoff Control Program Management								
PCON-1	**Construction and Post Construction Runoff Control (CON/PCON) Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the Post Construction Site Storm Water Runoff Control Program	CON/PCON Workgroup formed	**X**				
	1b.	Conduct CON/PCON Workgroup meetings quarterly	CON/PCON Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
PCON-2	**Ordinance, Authority and Program Structure Review, Preparation and Adoption**							
	2a.	Review existing ordinance(s) , authorities, and program structure(s)	Summary of existing ordinance(s), authorities and program structure complete	**X**				
	2b.	Begin PCON ordinance (or equivalent) preparation or begin revising existing ordinance to gain required authority	PCON ordinance preparation complete		**X**			
	2c.	Adopt PCON ordinance (or equivalent) or revise existing ordinance to gain required authority	PCON ordinance (or equivalent) adopted or existing ordinance revised			**X**		
PCON-3	**Post-Construction Storm Water Management BMPs**							
	3a.	Compile and review existing information on Post-Construction Storm Water Management BMPs	Existing information from on Post-Construction Storm Water Management BMPs compiled and reviewed	**X**				
	3b.	Revise Post-Construction Storm Water Management BMP materials as appropriate	Existing information revised		**X**			
	3c.	Make BMP information available to developers, construction site staff and the general public	Materials made available via agency counters and links on Co-permittees websites		**X**	**X**	**X**	**X**

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Development Plan Review and Training								
PCON-4	**Plan Review, Permitting and Storm Water Management BMP Implementation**							
	4a.	Evaluate and document existing plan review, permitting and maintenance/operation requirements and procedures	Information from existing plan review, permitting, maintenance/operation requirements and procedures compiled and reviewed	**X**	**X**			
	4b.	Revise plan review, permitting and maintenance/operation requirements and procedures (as appropriate)	Existing plan review, permitting, maintenance/operation requirements and procedures revised (as appropriate)			**X**		
	4c.	Begin implementing plan review, permitting, maintenance/operation requirements and storm water management BMPs	Plan review, permitting, and maintenance/operation requirements and procedures implemented			**X**	**X**	**X**
PCON-5	**Training on Post Construction Storm Water Management**							
	5a.	Review and document existing training program	Existing training programs documented	**X**				
	5b.	Revise training program for appropriate staff, developers, and engineers and develop training manual	Training manual developed		**X**			
	5c.	Implement an annual training program	Training program conducted			**X**	**X**	**X**
Post-Construction Education and Outreach								
PCON-6	**Public Education and Outreach / Involvement Participation**							
	6a	Assess existing education and outreach activities related to the PCON Program	Existing education and outreach activities related to the PCON Program assessed	**X**				
	6b	Develop new education and outreach material as necessary and make available to the public	New education and outreach materials related to the PCON Program activities developed and made available to the public		**X**	**X**	**X**	**X**

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Year)				
				03/04	04/05	05/06	06/07	07/08
Tracking and Reporting								
PCON-7	**Post-Construction Site Storm Water Runoff Control Program Tracking and Reporting**							
	7a.	Conduct an assessment of current tracking and reporting procedures	Assessment complete	**X**				
	7b.	Revise and implement tracking and reporting procedures	Tracking and reporting procedures revised and implemented		**X**	**X**	**X**	**X**

Section 8

Pollution Prevention/Good Housekeeping for Municipal Operations

The Pollution Prevention/Good Housekeeping for Municipal Operations minimum control measure is a key element of this Storm Water Management Plan (SWMP). Storm water quality can be impacted by pollutants (e.g., sediment, oil and grease, heavy metals, and pesticides) discharged while conducting municipal operation and maintenance activities, such as; repair and maintenance of road/street surfaces and sidewalks; park and recreation area maintenance; and corporation yard operations. To reduce the impacts of municipal operation and maintenance activities on storm water quality, Co-permittees will evaluate current activities that may be significant sources of pollutants and develop appropriate measures to reduce the discharge of pollutants from these sources to the maximum extent practicable (MEP). In addition, under this program element, operation and maintenance activities, such as street sweeping, litter control and storm drain facility maintenance that collect and remove significant quantities of storm water pollutants will be implemented.

Implementation of the municipal operations element will involve municipal maintenance staff, which are typically comprised of a large group of employees whose everyday work may help to prevent storm water pollution. In addition, the maintenance field personnel may play an essential role in reporting illicit discharges and pollution problems that need to be addressed.

Section eight describes BMPs and measurable goals designed to comply with the Pollution Prevention/Good Housekeeping for Municipal Operations requirement in the Phase II Permit through the development and implementation of a **Storm Water Pollution Prevention Program for Municipal Operations (MUNI).**

Goals and Objectives

The goal of the MUNI Program is to reduce pollutants generated by municipal operation and maintenance activities from entering the MS4s under the jurisdiction of Program Co-permittees. To achieve this goal, the following objectives have been developed:

- ◊ Optimize pollutant removal during routine maintenance activities such as street sweeping and maintenance of storm drainage facilities;
- ◊ Prevent or minimize discharges to the MS4 from road maintenance, parks, corporation yards and other publicly owned facilities;

- ◊ Provide information and education about municipal operation and maintenance BMPs and the Program to Co-permittee employees;

- ◊ Develop and implement measurable goals to evaluate the success of the BMPs; and,

- ◊ Facilitate tracking and reporting of activities conducted under the municipal operations and maintenance element.

Municipal Operations and Maintenance BMPs

The MUNI Program is divided into six categories to effectively address storm water issues related to municipal operation and maintenance activities. These categories are: (1) MUNI Program Management; (2) Storm Water Pollutant Control/Removal Programs; (3) Municipal Operations Storm Water Management; (4) Coordination and Training; (5) Public Education and Outreach; and, (6) Tracking and Reporting. These categories, BMPs and associated implementation schedules are described in further detail below and in Table 8.1.

Management of Storm Water Pollution Prevention Program for Municipal Operations

MUNI Workgroup - To facilitate the development and implementation of MUNI activities, the Program will develop a Municipal Operations (MUNI) workgroup. The workgroup will provide guidance and oversee all aspects of the MUNI Program. The workgroup will consist of at least one representative from each Co-permittee and meet at least twice each year during the permit term. As a start, in FY 03/04 the MUNI workgroup will evaluate and document existing pollution prevention/good housekeeping activities that are applicable to storm water and coordinate revisions to existing, and the development of additional BMPs for municipal operation and maintenance activities outlined below.

Storm Water Pollutant Control/Removal Programs

Street Sweeping – Sweeping streets and municipal parking lots can help reduce the volume of pollutants entering the Co-permittee's MS4. In FY 03/04, each Co-permittees will evaluate and document their existing street sweeping practices. Existing practices will then be revised as needed in FY 04/05, establishing a street sweeping frequency based on factors such as traffic volume, land use, field observations of sediment and trash accumulation, and proximity to water courses. Each Co-permittee will begin advertising their adopted street sweeping schedule to the public in FY 04/05.

Green Waste Collection Programs and Activities - To reduce yard and landscaping waste from entering the MS4, Co-permittees will assess and document existing green waste collection programs and activities in Lake County during FY 03/04. Each Co-permittee will begin advertising information to the public in FY 03/04 regarding green waste programs.

Litter Control Programs and Activities - To reduce trash and litter from entering the MS4, Co-permittees will assess existing litter control programs and activities in Lake County during FY 03/04. All existing or proposed litter control programs will be documented in FY 04/05. Each Co-

permittee will begin advertising information to the public in FY 03/04 regarding litter control programs.

MS4 Inspection and Maintenance - A variety of storm water pollutants can be carried into and accumulate in storm drain facilities. Often the season's first heavy storm flushes out large amounts of pollutants into the receiving waters potentially resulting in adverse effects on aquatic life and water quality. To reduce pollutants captured in each MS4, each Co-permittees will review and document current storm MS4 inspection and maintenance practices in FY 03/04. MS4 inspection and maintenance BMPs will be developed and distributed in FY 04/05. BMPs will begin to be implemented and problems areas will begin to be documented in FY 05/06.

Municipal Operations Storm Water Management

Road Repair and Maintenance Activities - Activities to repair and replace pavement surfaces can lead to storm water pollution. Pollutants of concern include broken-up asphalt and concrete debris, saw-cutting slurry of concrete and asphalt concrete, concrete truck washout, sediment, fuel, oil and other fluids from construction equipment. Urban runoff pollution can also result from other municipal activities that include removing graffiti and building cleaning (e.g., power washing, sand blasting). To reduce these types of pollutants form entering MS4s, each Co-permittees will begin reviewing and documenting existing road repair and maintenance activities in FY 04/05. BMPs for these activities will be developed and distributed to applicable staff FY 05/06. Road repair and maintenance BMPS will begin to be implemented in FY 06/07.

Material Storage Practices – Many materials that are potentially hazardous to storm water quality are associated with municipal operation and maintenance activities. Therefore, existing material storage practices will be reviewed and documented in FY 03/04. If current BMPs are inadequate, additional material storage BMPs will be developed and information regarding the BMPs will be distributed to applicable persons in FY 04/05. Additional BMPs will begin to be implemented in FY 05/06.

Chemical and Oil/Grease Controls – A variety of chemicals (e.g., solvents) are typically used in municipal operation and maintenance activities. Additionally, oil and grease can be inadvertently discharged into storm water from municipal vehicles and/or equipment during operation and/or maintenance. Therefore, Co-permittees will review and document existing chemical and oil/grease controls that are currently implemented. If current BMPs are determined to be inadequate for controlling discharges to storm water, additional BMPs for chemical and oil/grease will be developed and information regarding the BMPs will be distributed to applicable persons in FY 04/05. Co-permittees will begin to implement additional BMPs in FY 05/06.

Corporation Yard Drainage - Due to the nature of activities conducted at corporation yards, pollutants could be released into storm water. Therefore, each Co-permittee in FY 04/05 will evaluate and map the drainage system and patterns at their corporation yard (or equivalent). Resulting from the evaluation, in FY 05/06 each Co-permittee will develop and distribute information on BMPs to applicable staff. In FY 06/07 new BMPs (as needed) will begin to be implemented to help ensure pollutant discharges are reduced from their corporation yards. Figure 8.1 illustrates the types of municipal operation and maintenance activities that may contribute pollutants to storm water from routine corporation yard activities.

Figure 8.1 - Sources of Pollutants from Municipal Operations & Maintenance Activities	
Activity/Source	**Storm Water Concerns**
Vehicle washing, equipment cleaning, engine steam cleaning	Discharge of soap, cleansers, heavy metals, and sediments to the storm drain
Changing auto fluids	Spills of fluids, especially in outdoor or uncovered areas
Vehicle fueling	Fuel spills
Parked vehicles and equipment	Fuel leaks and drips outdoors
Outdoor materials/waste storage	Release/spill of stored materials

Parks, Open Space, Building and Grounds Operations -The primary pollutants of concern from parks, open space, building and grounds operations, are sediment from erosion, nutrients from fertilizer use and organic matter (grass clippings and leaves), and heavy metals and toxic organics from pesticide/herbicide use. Fertilizers applied in excessive amounts could run off with irrigation. Pesticides used in parks and around structures could run off into storm drains and streams. Litter and illegal dumping can also be problems in parks. To reduce the potential impacts on storm water from parks, open space, building and grounds operations, each Co-permittee in FY 03/04 will review and document existing activities and potential impacts to storm water. If current existing activities are determined to have a high potential to impact storm water quality, in FY 04/05 BMPs for these activities will be developed/adopted and information regarding the BMPs will be distributed to applicable persons. Co-permittees will begin to implement these BMPs in FY 05/06.

Coordination and Training

Municipal maintenance staff are comprised of a large group of employees whose everyday work can directly help prevent storm water pollution. Therefore, MUNI program coordination and training are essential to ensure that employees are aware of and able to implement BMPs. In addition, the maintenance field personnel may play an essential role in reporting illicit discharges and pollution problems that need to be fixed. To effective coordinate the MUNI program, Co-permittees will evaluate the feasibility of providing internet and email capabilities to municipal maintenance employees beginning in FY 04/05. Furthermore, Co-permittees will develop a pollution prevention training program for municipal staff in FY 04/05. A training workshop focusing on the MUNI program and associated BMP implementation will be conducted in FY 05/06. Areas of focus may include: (1) equipment maintenance and washing; (2) pesticide application practices; (3) waste storage and disposal; (4) MS4 inspection and cleaning practices; and (5) road repair and activities.

Education and Outreach

As with all the elements described in the SWMP, public education and outreach are pivotal elements in improving storm water quality in Lake County. In coordination with the MUNI workgroup, the PEOP workgroup will play the lead role in developing and distributing materials applicable to the MUNI Program. Existing public education and outreach materials will be assessed to determine applicability with the MUNI Program elements, and depending on the need, new education and outreach materials specific to the MUNI Program may be developed during the

permit term. For example, development of fact sheets, performance standards, and procedure manuals for common activities will help ensure that pollutant prevention practices are followed.

MUNI Tracking and Reporting

All aspects of the MUNI Program will be tracked and documented throughout each fiscal year during the permit term. An assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated with NPDES permit requirements. As an outcome of the assessment, MUNI tracking and reporting procedures will be revised as necessary. The revised procedures will begin to be implemented in FY 04/05 and documented actions will be included in annual reports. Actions documented may include: the number of curb miles swept; the number of catch basins inspected/cleaned; amount of material removed from storm drain facility; the number of staff trained; and the number of MUNI educational materials developed and/or distributed.

Element Evaluation and Documentation

Measurable goals will be used to annually assess each Co-permittee's efforts to reduce storm water pollution and to evaluate the overall success of the Program. At least one measurable goal has been established for each MUNI BMP. These BMPs and measurable goals are presented in Table 8.1. Co-permittees will maintain records to document program implementation and annual progress. This information will be included in the annual report submitted to the Central Valley RWQCB.

Table 8.1

Pollution Prevention/Good Housekeeping for Municipal Operations BMP Implementation Tables

FY 2003/2004 through 2007/2008

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
Municipal Maintenance Good Housekeeping Program Management								
MUNI-1	**Municipal Operations Workgroup**							
	1a.	Establish a workgroup to oversee the development and implementation of the MUNI Program	MUNI Workgroup formed	**X**				
	1b.	Conduct MUNI Workgroup meetings twice per year	MUNI Workgroup meeting summaries and attendees list	**X**	**X**	**X**	**X**	**X**
Storm Water Pollutant Control/Removal Programs								
MUNI-2	**Street Sweeping Program**							
	2a.	Evaluate and document current street sweeping practices	Street sweeping practices evaluated	**X**				
	2b.	Develop/revise street sweeping BMPs	BMPs developed		**X**			
	2c.	Implement street sweeping BMPs	BMPs implemented			**X**		
	2d.	Advertise street sweeping schedule	Street sweeping schedule advertised on websites and other appropriate mechanisms		**X**	**X**	**X**	**X**
MUNI-3	**Green Waste Collection Programs and Activities**							
	3a.	Assess current green waste collection activities and programs	Existing green waste programs and activities assessed	**X**				
	3b.	Document and revise as appropriate green waste collection activities and programs	Activities and programs documented in Annual Report	**X**				
	3c.	Advertise green waste collection activities and programs available to the public	Green waste program activities advertised on websites and other appropriate mechanisms	**X**	**X**	**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
MUNI-4	**Litter Control Programs and Activities**							
	4a.	Assess current litter control activities and programs	Assessment complete	**X**				
	4b.	Document litter control activities and programs	Activities and programs documented in annual report		**X**			
	4c.	Advertise litter control activities and programs available to the public	Litter control activities advertised on websites and other appropriate mechanisms	**X**	**X**	**X**	**X**	**X**
MUNI-5	**MS4 Inspection and Maintenance Activities**							
	5a.	Review and document current MS4 inspection and maintenance practices	Existing practices reviewed and documented	**X**				
	5b.	Develop MS4 inspection and maintenance BMPs	BMPs developed and documented		**X**			
	5c.	Distribute MS4 inspection and maintenance BMP information	Inspection and maintenance information distributed to applicable staff		**X**			
	5d.	Implement MS4 inspection and maintenance BMPs to the maximum extent practicable	BMPs implemented			**X**	**X**	**X**
	5e.	Document problem areas	Problem areas documented and BMPs revised as appropriate			**X**	**X**	**X**
Municipal Operations Storm Water Management								
MUNI-6	**Review and evaluate impacts to storm water from existing road repair and maintenance activities**							
	6a.	Review and document existing road repair and maintenance practices	Existing practices reviewed and documented	**X**	**X**			
	6b.	Develop road repair and maintenance BMPs	BMPs developed and documented			**X**		
	6c.	Distribute road repair and maintenance BMP information	Inspection and maintenance information distributed to applicable staff			**X**		
	6d.	Implement road repair and maintenance BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate				**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
MUNI-7	**Material Storage Practices**							
	7a.	Review and document existing material storage practices	Existing practices reviewed and documented	**X**				
	7b.	Develop material storage BMPs	BMPs developed and documented		**X**			
	7c.	Distribute material storage BMP information	Material storage information distributed to applicable staff		**X**			
	7d.	Implement material storage BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate			**X**	**X**	**X**
MUNI-8	**Review and evaluate existing chemical, solvents, and oil and grease controls**							
	8a.	Review and document existing oil, grease and chemical controls	Existing controls reviewed and documented	**X**				
	8b.	Develop Appropriate BMPs	BMPs developed and documented		**X**			
	8c.	Distribute BMP information	Information distributed to applicable staff		**X**			
	8d.	Implement BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate			**X**	**X**	**X**

#	BMP		Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
MUNI-9	**Corporation Yard Drainage**							
	9a.	Evaluate and map site drainage at corporation yards	Site drainage map and evaluation		**X**			
	9b.	Based on issues revealed in site drainage evaluation and mapping, develop appropriate BMPs	BMPs developed			**X**		
	9c.	Implement BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate				**X**	**X**
MUNI-10	**Parks, open space, building and grounds operations**							
	10a.	Review and document existing activities and potential impacts to storm water	Existing activities reviewed and documented	**X**				
	10b.	Develop BMPs as needed	BMPs developed and documented		**X**			
	10c.	Distribute BMP information	Information distributed to applicable staff		**X**			
	10d.	Implement BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate			**X**	**X**	**X**
Coordination and Training								
MUNI-11	**Keep municipal maintenance employees informed on storm water related issues and stream line communication**							
	11a.	Investigate the feasibility of providing internet and email capabilities to county municipal maintenance employees	Internet and email capabilities for county municipal maintenance employees investigated		**X**			
	11b.	Develop or revise a pollution prevention training program for Municipal Staff	Training program and associated materials developed		**X**			
	11c.	Conduct training workshops focusing on the storm water program and BMP implementation	Municipal maintenance workshop conducted			**X**		

#		BMP	Measurable Goals	Implementation Schedule (Fiscal Years)				
				03/04	04/05	05/06	06/07	07/08
MUNI Public Education and Outreach								
MUNI-12	**Public Education and Outreach / Involvement Participation**							
	12a	Assess existing education and outreach activities related to the MUNI Program	Existing education and outreach activities related to the MUNI Program assessed	**X**				
	12b	Develop new education and outreach material as necessary and make available to the public	New education and outreach materials related to the MUNI Program activities developed and made available to the public		**X**	**X**	**X**	**X**
Tracking and Reporting								
MUNI-13	**MUNI Program Tracking and Reporting**							
	13a	Conduct an assessment of current tracking and reporting procedures	Assessment complete	**X**				
	13b.	Revise and implement tracking and reporting procedures	Tracking and reporting procedures revised and implemented		**X**	**X**	**X**	**X**

Section 9
Program Tracking and Reporting

Program Activities Tracking

All aspects of the Program will be tracked and documented throughout each fiscal year during the permit term. For most elements of the SWMP, an assessment of current tracking and reporting procedures will be conducted in FY 03/04 to determine if new and existing tracking and reporting requirements can be integrated with NPDES permit requirements. As an outcome of the assessments, tracking and reporting procedures for each applicable element will be revised as necessary. Effective tracking of activities throughout each fiscal year will allow Co-permittees to annually document compliance with the requirements of the General Permit.

Annual Reporting

At the end of each permit year (i.e., fiscal year) the SWMP Coordinators will coordinate the development of an Annual Report(s). During FY 03/04 Co-permittees will develop and implement an annual reporting format. Annual Reports submitted to the Central Valley Regional Water Quality Control Board (CVRWQCB) by Program Co-permittees, as required in the General Permit, will document the Co-permittee accomplishments in the previous permit year and evaluate progress toward reaching the goals in completing the proposed activities. Annual Reports will also describe the goals, activities, and performance/effectiveness measures proposed for the upcoming permit year. To provide information for these reports, records and data from various departments and divisions may be compiled and analyzed. Annual Reports are must be submitted to the Central Valley RWQCB by September 15th of each year, beginning in 2004.

FIGURES

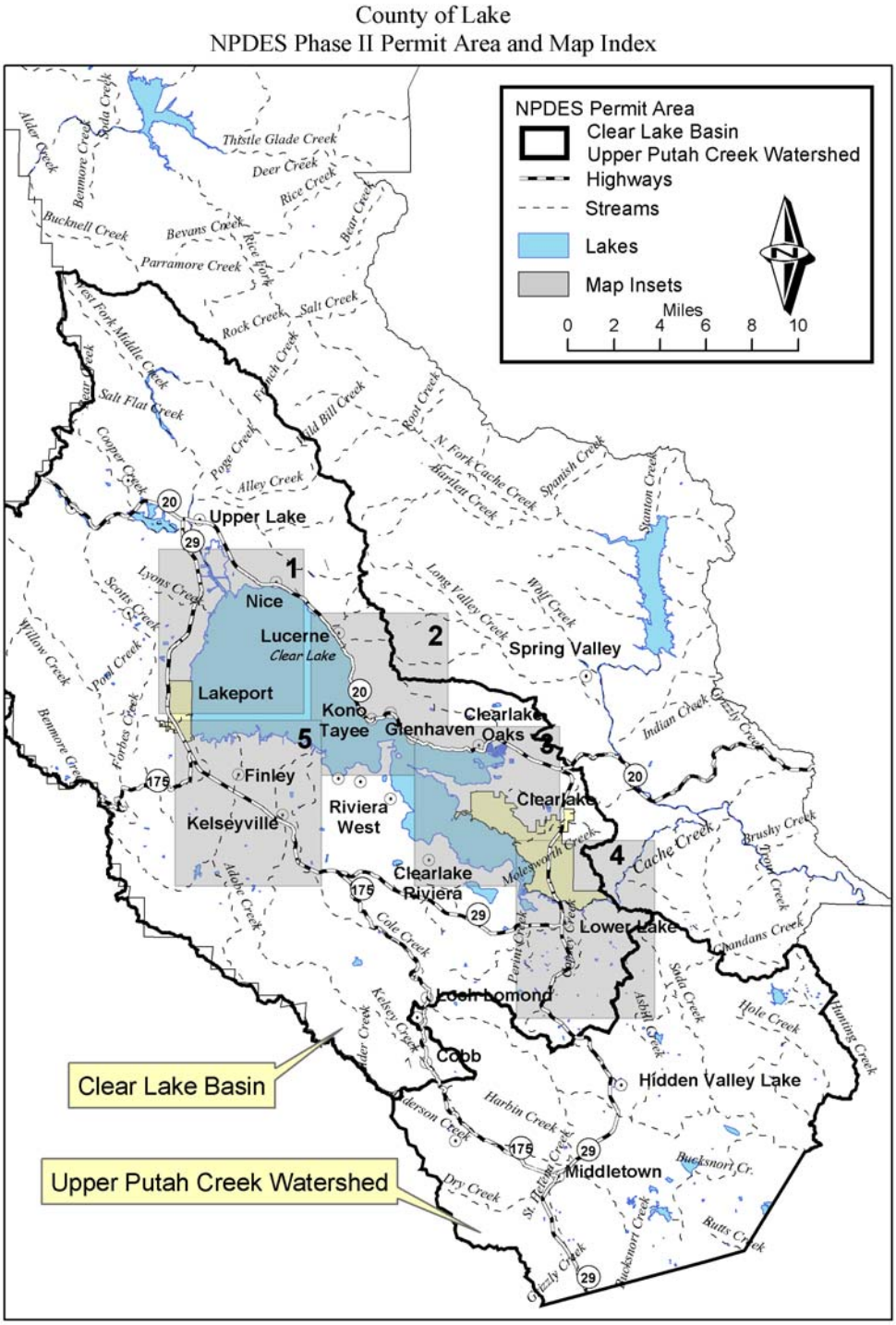


Figure 2.2. Lake County Clean Water Program (Program) overall NPDES Phase II permit area (i.e., Clear Lake Basin and Upper Putah Creek Watershed). County of Lake (2003).

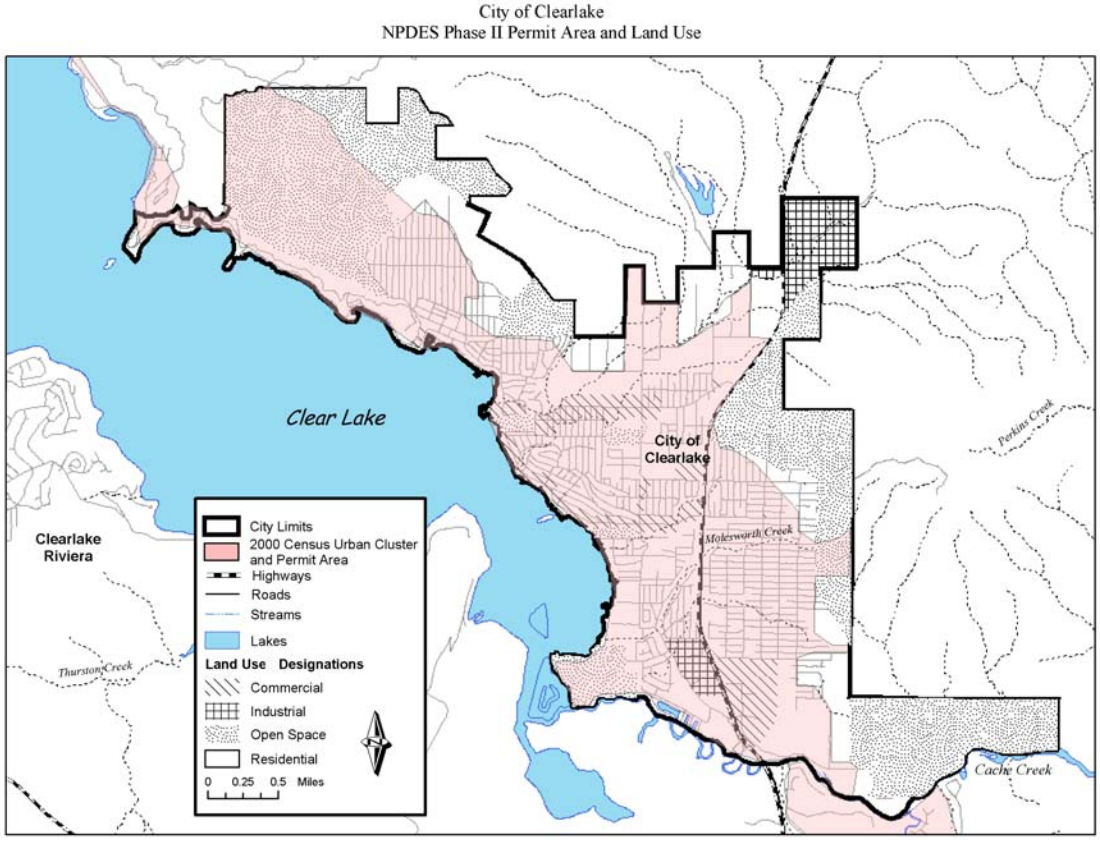


Figure 2.3 City of Clearlake individual NPDES permit area and land use designations (2003)

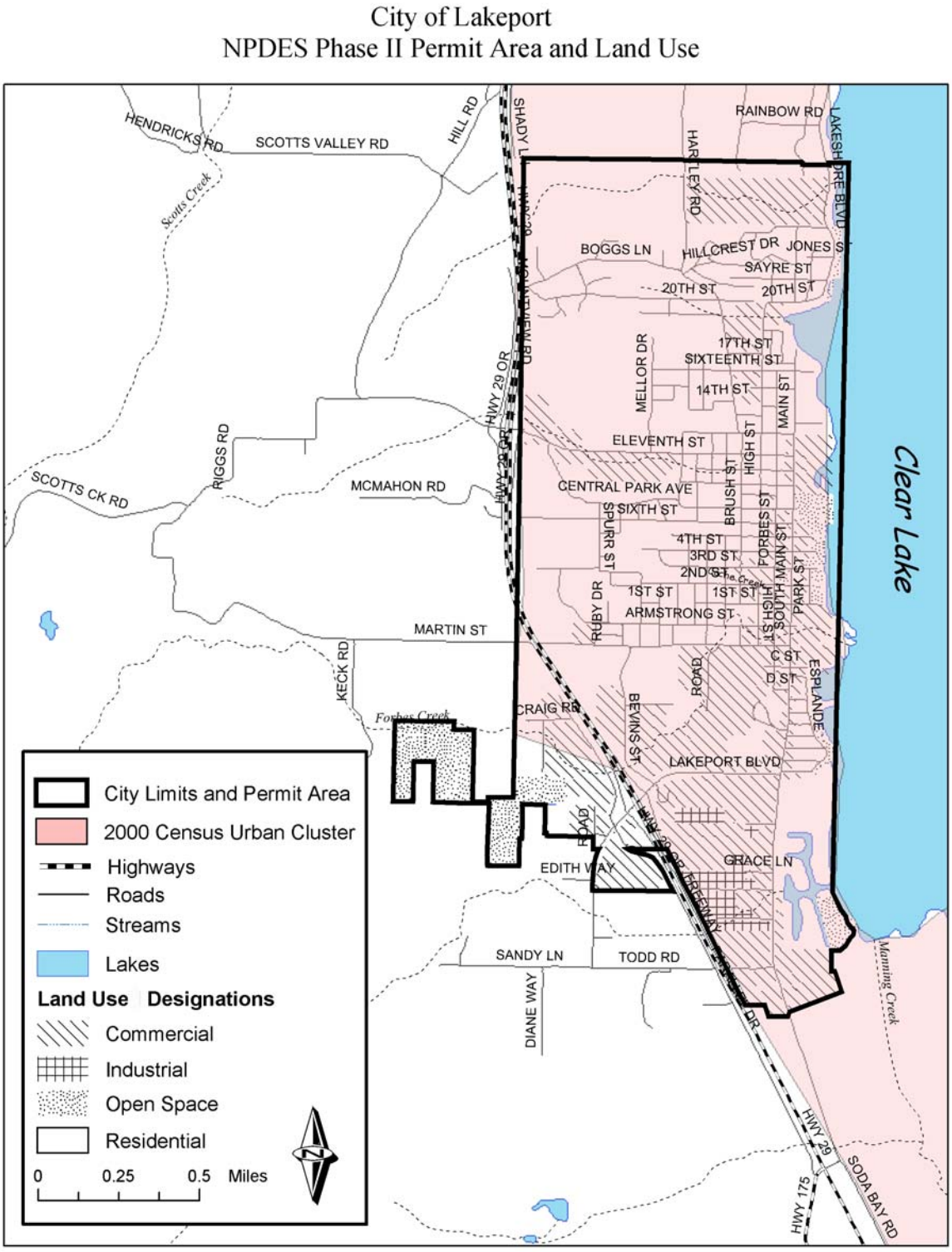


Figure 2.4 City of Lakeport individual NPDES permit area and land use designations (2003).

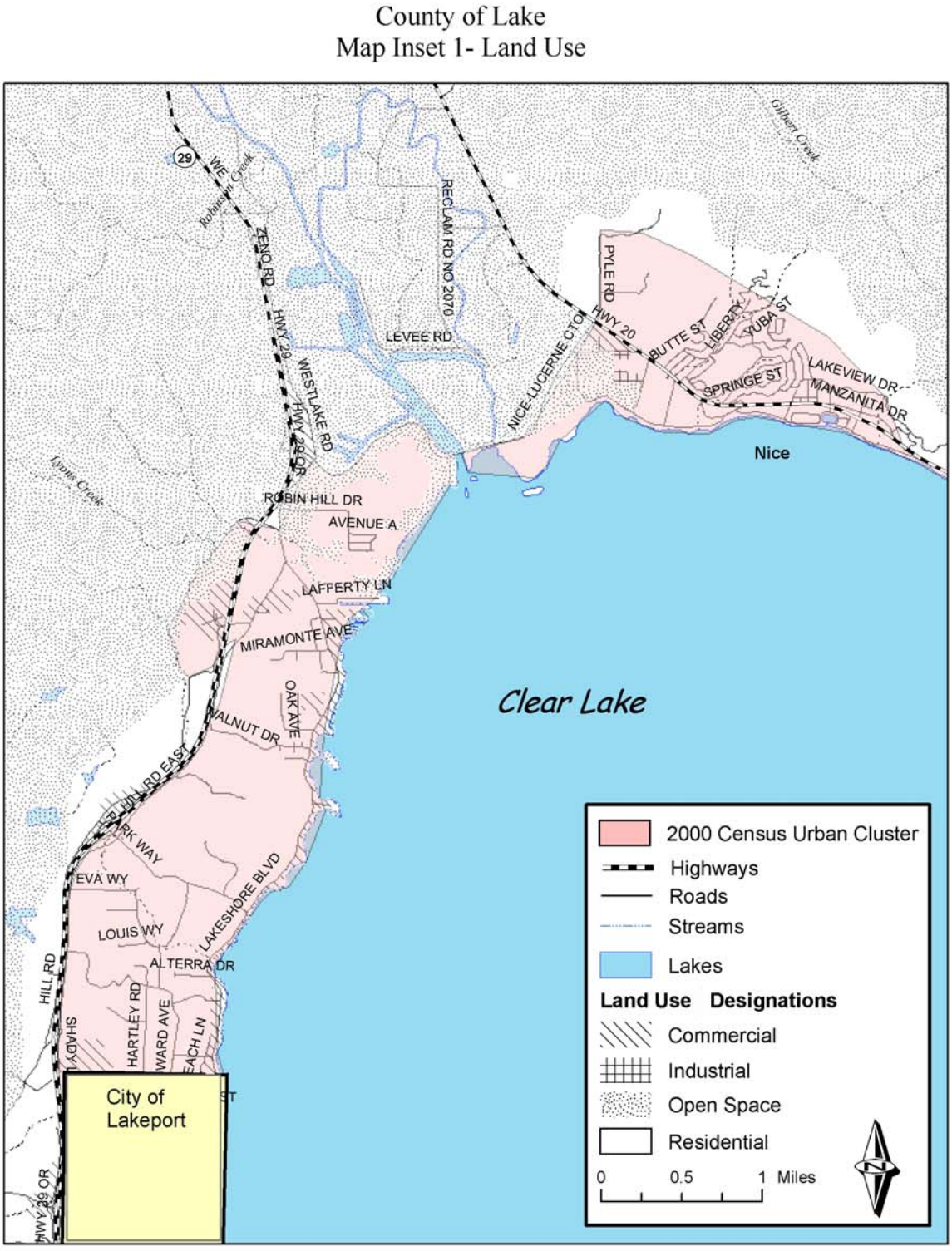


Figure 2.5 Lake County designated urbanized area, North side of Clear Lake (2003).

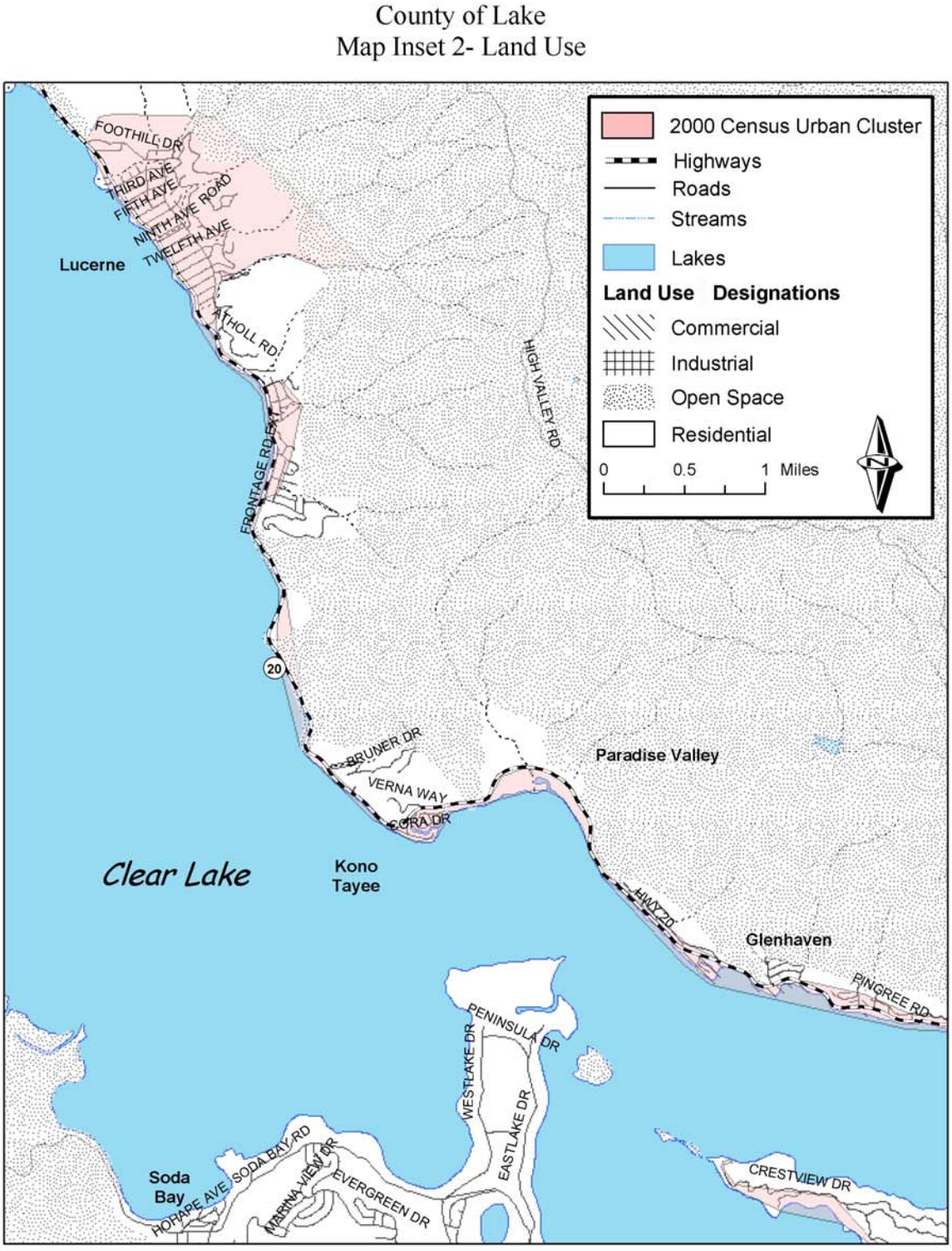


Figure 2.6 Lake County designated urbanized area, Northeast side of Clear Lake (2003).

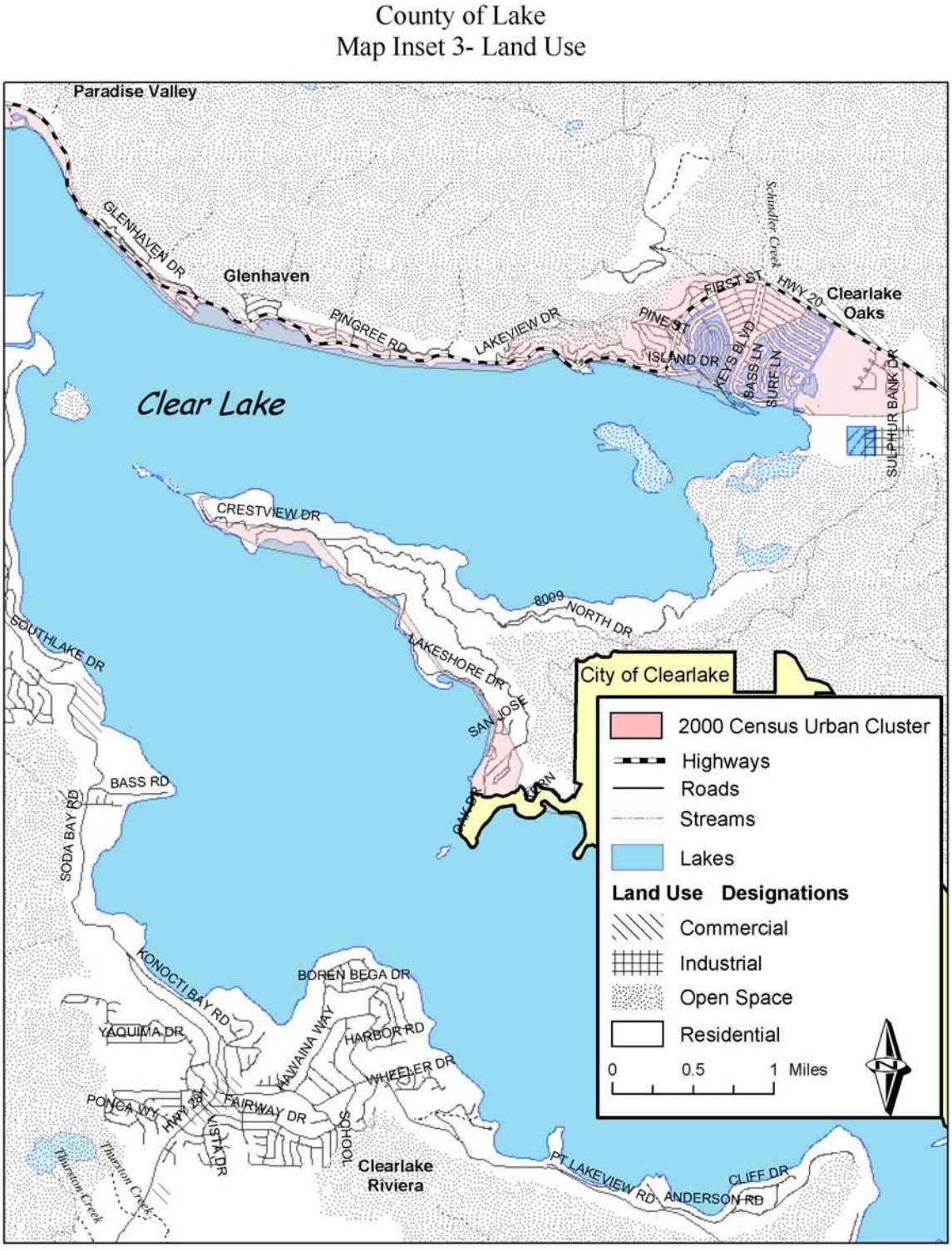


Figure 2.7 Lake County designated urbanized area, Eastside of Clear Lake (2003).

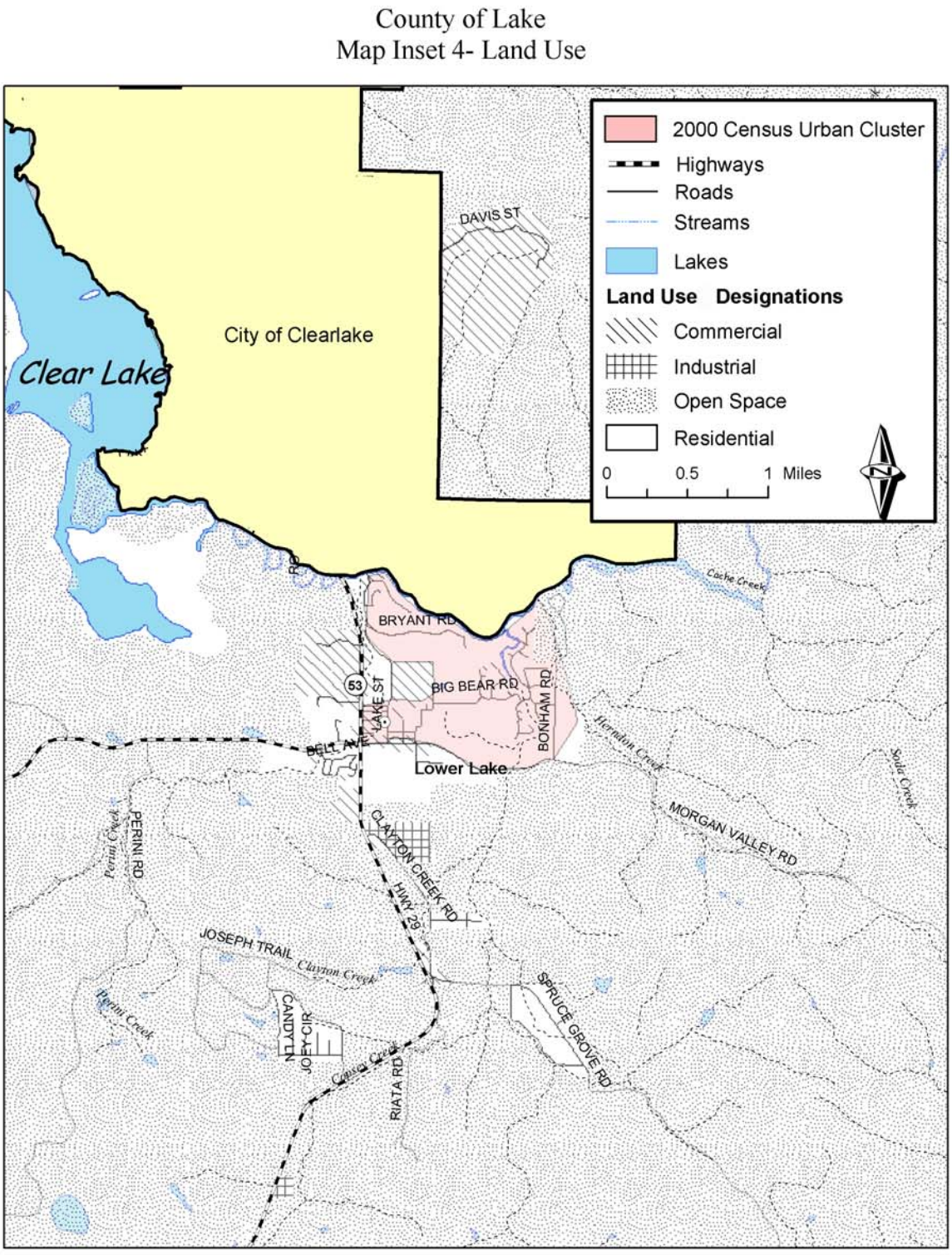


Figure 2.8 Lake County designated urbanized area, South side of Clear Lake (2003).

County of Lake
Map Inset 5- Land Use

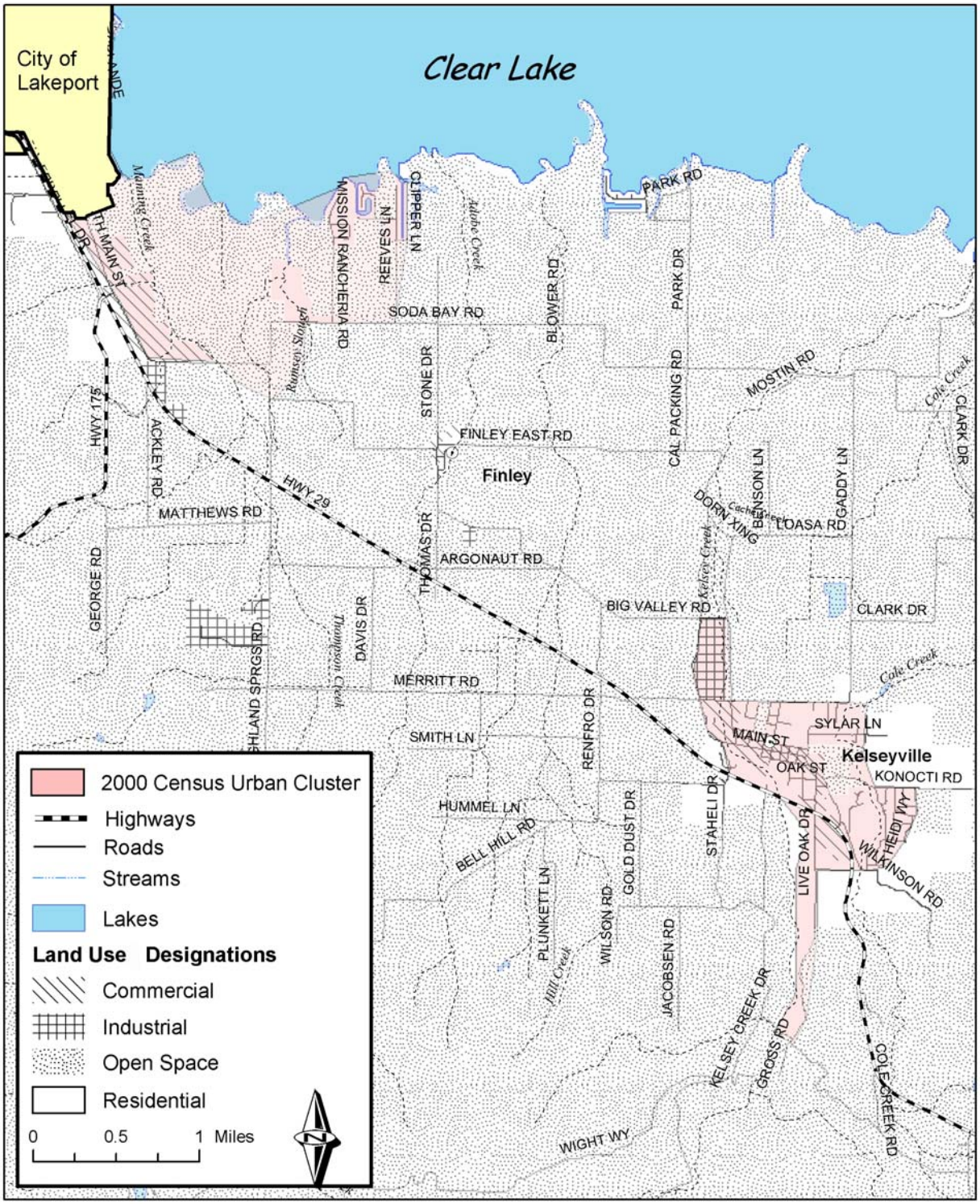
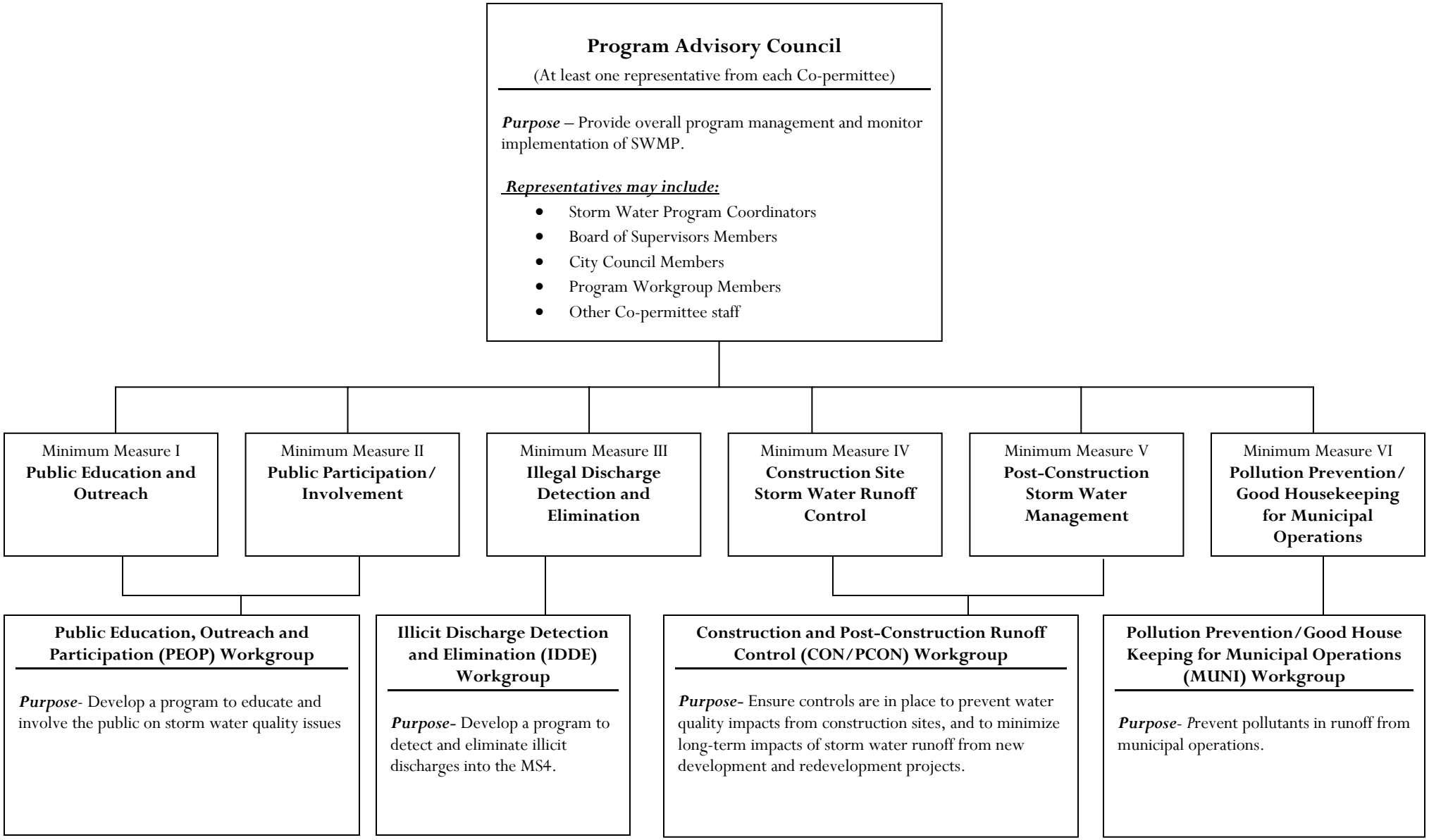


Figure 2.9 Lake County designated urbanized area, Westside of Clear Lake (2003)

Figure 2.10 - Lake County Clean Water Program (Program) Departmental Interaction / Program Structure



APPENDIX A

PLACE HOLDER FOR PROGRAM AGREEMENT(S)

APPENDIX B

PLACE HOLDER FOR ORDINANCES

APPENDIX C

PLACE HOLDER FOR FUNDING MECHANISM(S)