

# LAKE COUNTY CLEAN WATER PROGRAM



## Fiscal Year 2011/2012 Annual Report

September 15, 2012

Submitted in compliance with State Water Resources Control  
Board Water Quality Order No. 2003-0005-DWQ,  
NPDES General Permit No. CAS000004

**County of Lake  
City of Clearlake  
City of Lakeport**

# EXECUTIVE SUMMARY

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## BACKGROUND

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 Program's Stormwater Management Plan (SWMP) is a joint project of these agencies. The Lake County Clean Water Program Stormwater Management Plan is structured to accomplish meeting the six minimum management measures through the following three step process:

- 1) Evaluation of existing activities and programs that may be used and/or revised to meet the Phase II requirements;
- 2) Revise and/or develop programs and activities as previously evaluated to meet the Phase II requirements;
- 3) Implement new and revised programs for compliance with the NPDES waste discharge requirements for storm water discharges from small municipal storm sewer systems.

In implementing the SWMP, efforts have been coordinated through the Lake County Community Development Department, acting as overall Stormwater Program Coordinator, on behalf of all Co-permittees. As Co-permittees to the Program, each agency has pursued its own local stormwater pollution prevention activities and also contributed support to the region-wide effort. Each Co-permittee is also responsible for implementing the required six minimum management measures within their municipality. In meeting the six minimum management measures, some BMPs are implemented on a region-wide basis, being jointly sponsored by all Co-permittees. Examples of region-wide efforts include public education and involvement efforts targeted to residents and businesses; development and implementation of training programs for developers, construction site operators and municipal staff; and coordinating with other countywide, regional, and state agencies.

## PROGRAM EFFECTIVENESS AT REDUCING POLLUTANTS IN STORM WATER DISCHARGES FROM THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

Program effectiveness at removing pollutants in stormwater discharges from the MS4 is generally unknown at this time. However, effectiveness measurements for each Program element will be developed and incorporated into tracking and reporting procedures as the remaining Program BMPs are completed. Co-permittees will be able to move forward with assessing program efforts and determining the effectiveness of reducing pollutants in stormwater discharges of the MS4s.

## COMPLIANCE WITH THE STATE GENERAL PERMIT FOR STORM WATER DISCHARGES

The County of Lake, City of Clearlake and City of Lakeport received notification of permit coverage in July 2004. Therefore, FY 2010/2011 is the seventh reporting period for Co-permittees for implementation of the Countywide SWMP. Implementation of the SWMP is meant to be an iterative process that builds upon past accomplishments towards a fully functional SWMP at the end of the permit term. The co-permittees have worked diligently during the past year to comply with the State General Permit and Countywide SWMP, and have completed the remaining BMPs, while setting new goals for the 2012/13 Fiscal Year.

## MOST SIGNIFICANT PROGRAM ACCOMPLISHMENTS TO DATE

- All co-permittees have designated a Stormwater Program Coordinator to provide the necessary support needed to implement the SWMP within their municipality and coordinate efforts with other Co-permittees and agencies.

- Resolutions approving the adoption of the Lake County Clean Water Program Stormwater Management Plan have been approved by the County of Lake, City of Clearlake and City of Lakeport.
- An Agreement Providing for Implementation of the Lake County Clean Water Program became effective in September 2004 with signatures by all co-permittees and the Lake County Watershed Protection District (formerly the Lake County Flood Control and Water Conservation District). This Agreement provides the necessary framework and management structure for co-permittees to implement the Lake County Clean Water Program through the Lake County Clean Water Program Advisory Council and Program working groups responsible for working on the required six minimum control measures (see Appendix 1-1 through 1-3). Although the Lake County Flood Control and Water Conservation District ended its involvement in the Program in 2008/09, the Program continues to be effective.
- Each Co-permittee has adopted a storm water ordinance designed to give each the legal authority necessary to implement the program effectively.
- The Program's Advisory Council continues to meet regularly to maintain Program BMP's. (See Appendix 3-1). The Advisory Council serves as the oversight and management entity of the Program and provides direction on policy and Program management.
- The Workgroups have been combined into three workgroups (PIP & PEOP Workgroup; CON & PCON Workgroup; and the IDDE and MUNI Workgroup), and are meeting regularly.
- The PIP & PEOP Workgroup has established a tracking system for all education and outreach activity by the co-permittees and designees.
- The Program completed numerous public education and outreach materials (see Appendix 2 of FY 06/07 Annual Report), including the Program's general storm water brochure that is designed to introduce the topic of storm water pollution and educate residents and businesses on the impacts of storm water on water quality and ways they can help prevent storm water pollution.
- The City of Lakeport has stenciled more than 100 storm drains this year. Lake County now requires all new storm drains to be stenciled.
- The City of Clearlake purchased 100 permanent storm drain markers in 2008-09, and installed all of them in May 2010. This will eliminate or reduce the need to re-stencil its drainage inlets and catch basins. In 2010-11 the City of Clearlake purchased and installed 10 Help Keep our Water Way signs marking the City's major stream/creek crossings within the City of Clearlake. See appendix 2-3 for photos and description of work.
- In 2010-11 the City of Clearlake continued with its annual Spring Clean-Up Day, which occurred on April 30, 2011 this year. The City had approximately 85 volunteers this year and removed a total of 29 cubic yard of debris from City drainage channels and street gutters. See appendix 2-1 under Public Outreach. In addition City of Clearlake Public Works crews removed approximately 200 cubic yards of silt/mud and other debris from drainage channels, catch basin, and street curb and gutters. See Exhibit A in Appendix 6-3.
- The City of Clearlake entered in negotiations for a new franchise agreement with Clear Lake Waste Solutions, our solid waste contract hauler in January 2010. The City of Clearlake was successful in negotiating street sweeping of the City's arterials, and collector streets into the new contract. City arterial, collector streets will be swept with mechanical sweepers once per month and City Park areas will be swept quarterly. The contract will be executed in August 2011. The street sweeping program will begin in September 2011. See Exhibit B showing the Streets and Parks to be included in the sweeping program and frequency in Appendix 6-1.

- The County continues to aggressively enforce the Grading and Stormwater Ordinances, and has abated a number of illegal marijuana cultivation sites that had resulted in significant stormwater violations. The County also continues to conduct annual cleanups of illegal dumpsites, and removes an average of approximately 100 cubic Yards from a number of sites each year.
- In FY 07/08, the County of Lake adopted a new Grading Ordinance that incorporates stormwater BMP requirements for construction projects.
- In August 2007 the County of Lake adopted the Municipal Operations BMP Handbook produced by CASQA which includes BMPs for various activities. A resolution establishing Post Construction Requirements was also adopted at the same time.
- Completion of assessments of Co-permittee's construction and post-construction control programs. The assessment also provided recommended next steps to achieve compliance with NPDES permit requirements.
- Plan reviewers have received "Storm Water Management During Construction" training.
- The Caltrans/CASQA training programs have been adopted by all three Permittees and Stormwater Inspector Certificates have been obtained.
- The Clean Water Program Website has been completely overhauled to be more user friendly and contains a significant amount of new public outreach and awareness information.
- The County of Lake completed a MS4 outfall map and has purchased hand-held GPS units to input data for use in a GIS layer.
- In autumn 2011 a new volunteer chairperson was appointed to lead the Public Involvement and Participation / Public Education and Outreach (PIP/PEOP) Workgroup.
- Program members have been closely following the Phase II MS4 permit renewal process since 2011 in an effort to stay ahead of changing regulations.

### PROGRAM CHALLENGES

Co-permittees have maintained compliance with the State General Permit and Countywide SWMP. However, as with all municipalities in the State of California, the biggest challenge in implementing the SWMP has been the lack of available staffing and fiscal resources. High workloads and inadequate staffing levels continue to make it difficult for departments to dedicate resources towards an unfunded federally mandated Program.

Another program challenge has been anticipating future NPDES permit requirements. The Lake County Clean Water Advisory Council members have been closely following the proposed regulatory changes through two general permit revisions. However, it is still unclear exactly what regulatory requirements will exist for the program in the future, so it is difficult for the members to plan for the future.

# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b>		<b>ES-1</b>
<b>1. INTRODUCTION</b>		
<b>BACKGROUND</b>		<b>1-1</b>
<i>Program Description</i>		1-1
<i>Program Goals and Objectives</i>		1-1
<i>Stormwater Management Plan</i>		1-2
<i>Annual Report</i>		1-2
<b>ORGANIZATION OF ANNUAL REPORT</b>		<b>1-2</b>
<b>2. PUBLIC EDUCATION AND OUTREACH</b>		
<b>BACKGROUND</b>		<b>2-1</b>
<i>Goals and Objectives</i>		2-1
<i>Public Education and Outreach BMPs</i>		2-1
<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS</b>		<b>2-1</b>
<i>General Summary</i>		2-1
<i>Public Education and Outreach Program Management</i>		2-2
<i>Tracking and Reporting</i>		2-7
<b>3. PUBLIC INVOLVEMENT AND PARTICIPATION</b>		
<b>BACKGROUND</b>		<b>3-1</b>
<i>Goals and Objectives</i>		3-1
<i>Public Involvement and Participation BMPs</i>		3-1
<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS</b>		<b>3-1</b>
<i>General Summary</i>		3-1
<i>Public Involvement and Participation Program Management</i>		3-1
<i>Public Activities and Participation</i>		3-2
<i>Public Input and Involvement</i>		3-11
<i>Tracking and Reporting</i>		3-13
<b>4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROLS</b>		
<b>BACKGROUND</b>		<b>4-1</b>
<i>Goals and Objectives</i>		4-1
<i>Construction Site Stormwater Runoff Control BMPs</i>		4-1
<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS</b>		<b>4-2</b>
<i>General Summary</i>		4-2
<i>Construction Site Stormwater Runoff Control Program Management</i>		4-2
<i>Procedure Development and Training</i>		4-6
<i>Construction Runoff Control Education and Outreach</i>		4-13
<i>Tracking and Reporting</i>		4-14
<b>5. POST CONSTRUCTION STORMWATER MANAGEMENT</b>		
<b>BACKGROUND</b>		<b>5-1</b>
<i>Goals and Objectives</i>		5-1
<i>Post-Construction Stormwater Runoff Control BMPs</i>		5-1

<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS.....</b>	<b>5-1</b>
<i>General Summary.....</i>	5-1
<i>Post-Construction Site Stormwater Runoff Control Program Management.....</i>	5-2
<i>Development Plan Review and Training.....</i>	5-6
<i>Post-Construction Runoff Control Education and Outreach.....</i>	5-11
<i>Tracking and Reporting.....</i>	5-12

**6. ILLICIT DISCHARGE DETECTION AND ELIMINATION**

<b>BACKGROUND.....</b>	<b>6-1</b>
<i>Goals and Objectives.....</i>	6-1
<i>Illicit Discharge Detection and Elimination BMPs.....</i>	6-1
<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS.....</b>	<b>6-1</b>
<i>General Summary.....</i>	6-1
<i>Illicit Discharge Detection and Elimination Program Management.....</i>	6-2
<i>Illicit Discharge Detection and Elimination Plan .....</i>	6-4
<i>Municipal Separate Storm Sewer Mapping.....</i>	6-11
<i>Illicit Discharge Detection and Elimination Education and Outreach.....</i>	6-13
<i>Tracking and Reporting.....</i>	6-14

**7. POLLUTION PREVENTION FOR MUNICIPAL OPERATIONS**

<b>BACKGROUND.....</b>	<b>7-1</b>
<i>Goals and Objectives.....</i>	7-1
<i>Municipal Operations Good Housekeeping BMPs.....</i>	7-1
<b>FISCAL YEAR 2010/11 ACCOMPLISHMENTS.....</b>	<b>7-1</b>
<i>General Summary.....</i>	7-1
<i>Municipal Operations Good Housekeeping Program Management.....</i>	7-2
<i>Stormwater Pollutant Control and Removal Programs.....</i>	7-2
<i>Municipal Operations Stormwater Management.....</i>	7-13
<i>Coordination and Training.....</i>	7-29
<i>Municipal Operations Education and Outreach.....</i>	7-32
<i>Tracking and Reporting.....</i>	7-33

**APPENDICES**

**Program Administration**

- 1-1 LCCWP Program Agreement
- 1-2 LCCWP Organizational Chart
- 1-3 Advisory Council Bylaws

**Public Education and Outreach**

- 2-1 Public Outreach & Education Materials & Brochures
- 2-2 Copies of Program Web Pages
- 2-3 Invasive Species Program Coordinator Outreach Report, Creek Identification Signs, & “In the Creek Day” New Article
- 2-4 Stormwater Drain Markers, Clearlake and County
- 2-5 Clean Water Program Brochures
- 2-6 Public Street Clean Up Day, Creek Clean Up Day, & PIP/PEOP Workgroup Activity Report

**Public Involvement and Participation**

- 3-1 Advisory Council Meeting Agendas and Minutes

- 3-2 Online Storm Water Issue Report Form
- 3-3 *Reserved*
- 3-4 Storm Water Program Awareness Survey
- 3-5 *Reserved*
- 3-6 Online Workgroup Activity Forms

**Construction and Post Construction**

- 4-1 City of Clearlake Resolution on Adopting Rules and Regulations Establishing Performance Requirements and BMPs
- 4-2 County of Lake Resolution Establishing Performance Requirements and Adopting CASQA BMP Handbook; Resolution Establishing Post Construction Requirements for New Development and Significant Redevelopment; County Best Management Practices for Post Construction
- 4-3 Grading and Stormwater Permit and Permit Violation Tracking Log

**Illicit Discharge Detection & Elimination**

- 6-1 Street Sweeping Schedules
- 6-2 County Storm Street Sweeping BMP Daily Reporting
- 6-3 County DPW Dead Animal and Appliance and Tire Removal Policies; DPW Resource Usage Report; Community Clean-up Fee Waiver
- 6-4 Sample of County MS4 Map

# **SECTION 1**

## **INTRODUCTION**

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### **BACKGROUND**

#### **PROGRAM DESCRIPTION**

The Lake County Clean Water Program (Program) is a consortium of agencies in Lake County that discharge stormwater from the Municipal Separate Storm Sewer System (MS4) into Clear Lake and local water bodies. 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 permittees consist of three (3) public agencies, the County of Lake, City of Clearlake and City of Lakeport, which submitted an application for co-coverage under the General Permit to the Central Valley Regional Water Quality Control Board (RWQCB) on October 27, 2003. The application included a Stormwater Management Plan (SWMP) which describes how pollutants in local storm water runoff will be controlled to the maximum extent practicable (MEP) through the implementation of best management practices (BMPs). In July 2004, the RWQCB approved the Program's application and coverage under the General Permit began.

The Program is organized, coordinated, and implemented in accordance with a Program Agreement that was signed by the Co-permittees and the Lake County Watershed Protection District (District) in 2004 (See Appendix 1-1). The Program Agreement covers the responsibilities of each Co-permittee, and was modified in 2008 to remove the Lake County Watershed Protection District. At the inception of the Program, the District was asked by the Co-permittees to assist in the management of the Program. The Program's Advisory Council, consisting of one designated representative from each Co-permittee is the official decision-making body for the Program (Appendix 1-2). The Advisory Council operates under Bylaws that were adopted by each of the three jurisdictions (Appendix 1-3).

#### **PROGRAM GOALS AND OBJECTIVES**

The overarching goal of the Program is to reduce pollutants from entering the MS4 and local water bodies through the effective implementation of BMPs to the MEP. More specific goals are described in Table 1.1. 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.

**Table 1.1** Lake County Clean Water Program Goals established in the Stormwater Management Plan (SWMP), 2003.

<p><b>Goal #1. Comply with the General Permit by:</b></p> <ul style="list-style-type: none"> <li>• Effectively prohibiting non-storm water discharges;</li> <li>• Protecting water quality from the impacts of storm water runoff from small MS4s; and,</li> <li>• Reducing, to the maximum extent practicable, pollutants in storm water runoff.</li> </ul> <p><b>Goal #2. Determine Success by:</b></p> <ul style="list-style-type: none"> <li>• Evaluating changes in public awareness and behavior;</li> <li>• Evaluating the effectiveness of specific control measures at pollution reduction; and,</li> <li>• Utilizing what is learned to plan next steps.</li> </ul> <p><b>Goal #3. Achieve Acceptance of SWMP Activities by:</b></p> <ul style="list-style-type: none"> <li>• Effectively facilitate public input to the Storm Water Management Plan;</li> <li>• Integrating storm water runoff goals at various intra-agency levels; and,</li> <li>• Developing and maintaining a proactive relationship with regulatory authorities.</li> </ul>
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## THE PROGRAM'S STORMWATER MANAGEMENT PLAN

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 following six minimum measures:

- 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

## THE PROGRAM'S ANNUAL REPORT

In accordance with General Permit Provision F.1, the Program must submit an Annual Report by September 15 of each year. In addition, the Annual Report serves as an important internal Program tool in the cycle of planning, implementation, evaluation and continuous improvement. The Annual Report is the mechanism for documenting the status of planned activities, evaluating the effectiveness of those activities and identifying potential improvements

The goals of this Fiscal Year 2011/2012 Annual Report are to: 1) meet specific General Permit requirements by documenting the remaining BMPs that were met; 2) Continue to refine mechanisms for reporting and self-evaluation (via measurable goals); and 3) identify new Program goals and objectives for the 2012/13 Fiscal Year while continuing to implement the ongoing BMPs established under the current General Permit.

## ORGANIZATION OF ANNUAL REPORT

The *FY 11-12 Annual Report* consists of this Introduction and six (6) Sections associated with each minimum measure. Following Section 1, measurable goal status/results, BMP effectiveness and planned activities are listed in tables and described in text for each BMP that was scheduled for implementation in FY 11-12. The reporting format is outlined below:

**Table 1.2** Fiscal Year 2011-2012 Annual Reporting Format.

ITEM	DESCRIPTION
BMP APPROPRIATENESS	Brief description of the appropriateness of the BMP for the minimum control measure.
MEASURABLE GOAL RESULTS	Results of achieving measurable goals.
PROBLEMS IN OBTAINING MEASURABLE GOALS	Description of problems in obtaining measurable goals.
BMP EFFECTIVENESS	Description of the effectiveness of Minimum Measure BMPs.
PROPOSED CHANGES TO BMPs AND MEASURABLE GOALS, INCLUDING SETTING PRIORITIES	Justification for changing the BMP and associated measurable goals if needed. If no changes are proposed, "None".
ACTIVITIES PLANNED FOR NEXT YEAR	Narrative of the activities scheduled for next fiscal year for the BMP.

Please note that some BMPs were jointly implemented by all Co-permittees and others were implemented individually<sup>1</sup>.

## Lake County Clean Water Program Definitions of Key Acronyms

<b>BMP's</b>	Best Management Practices
<b>CON</b>	Construction Site Stormwater Runoff Controls
<b>IDDE</b>	Illicit Discharge Detection and Elimination Program
<b>MEP</b>	Maximum Extent Practicable
<b>MS4</b>	Municipal Separate Storm Sewer System
<b>MUNI</b>	Stormwater Pollution Prevention Program for Municipal Operations
<b>NPDES</b>	National Pollutant Discharge Elimination System
<b>PCON</b>	Post Construction Stormwater Management
<b>PEOP</b>	Public Education, Outreach and Participation Program
<b>PIP</b>	Public Involvement and Participation
<b>RWQCB</b>	Regional Water Quality Control Board
<b>SWMP</b>	Stormwater Management Plan
<b>SWRCB</b>	State Water Resources Control Board

<sup>1</sup> Joint efforts and comments are reported as a whole for all municipalities. Efforts and comments by the County are reported as County of Lake and may include County Department descriptions. Efforts and comments by the City of Clearlake are reported as City of Clearlake. Efforts and comments by the City of Lakeport are reported as City of Lakeport.

## **SECTION 2**

### **PUBLIC EDUCATION AND OUTREACH**

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#### **BACKGROUND**

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.

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 is developing and implementing a **Public Education, Outreach and Participation (PEOP) Program**.

#### **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**

The Public Education and Outreach element is divided into two categories to effectively educate the public about storm water issues in Lake County. These categories are: (1) Public Education and Outreach Program Management (i.e., workgroup and BMP material development); and, (2) Tracking and Reporting. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

#### **FISCAL YEAR 2011/12 ACCOMPLISHMENTS**

##### **GENERAL SUMMARY**

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The Public Education, Outreach and Participation (PEOP) Workgroup first met in January 2004 to coordinate the Public Education, Outreach and Participation Minimum Control Measures. While the Workgroup has struggled to maintain regular quarterly meetings this reporting year, much effort and coordination has been spent on informing the public about new invasive species prevention programs (Quagga and Zebra Mussels) being implemented concurrently with the Clean Water Program. The recent adoption and implementation of the invasive species prevention programs has dominated the public education and outreach efforts of the three co-permittees for the majority of this reporting year.

The status of BMPs scheduled for implementation in FY 11/12 are listed in Tables 2.1 – 2.2 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described.

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**PUBLIC EDUCATION AND OUTREACH PROGRAM MANAGEMENT**

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**PEOP – 1: Public Education and Outreach Program and PEOP Workgroup*****PEOP 1a – Establish a Workgroup to Oversee the Development and Implementation of the Public Education and Outreach Program***

BMP Appropriateness - Appropriate for bringing together the various peoples involved in public education and outreach activities for a cohesive effort aimed at furthering the distribution of information regarding the Stormwater Program.

**County of Lake, City of Clearlake and City of Lakeport****Measurable Goal Results:**

- First PEOP Workgroup Meeting held on January 8, 2004
- PEOP Workgroup has been re-established and began meeting September 2009 to improve public outreach and involvement effectiveness.
- PEOP Workgroup has established tracking system to account for all education and outreach activity by the co-permittees and designees.
- Group began implementation of social media outreach (e.g. Facebook, Twitter, etc.), which have gained a strong following from the community. These sites disseminate information on upcoming events, notices, and other information.
- A new volunteer chairperson of the PIP/PEOP Workgroup was appointed in autumn 2011; a summary of the workgroup's activities are provided in Appendix 2-6.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Effective as brochures and flyers have been published, and the Program Website has been updated.

Proposed Changes to BMPs and Measurable Goals – None.

**Activities Planned for Next Year**

- Continue with the successful Public Outreach through the local watershed CRMP groups which meet monthly. The CRMP groups continue to be an integral part of program implementation and dissemination of information to the public on issues related to watershed erosion, stormwater runoff, and the affects of nutrient loading on the health of Clear Lake, the primary receiving waters within the Clear Lake Basin.
- Continue with publication of brochures, posters, flyers, and outreach material directed to children, e.g. stickers, coloring books, magnetic refrigerator items.
- Continue program using the local movie theater on-screen advertising program.
- Continue quarterly PEOP Workgroup meetings to coordinate with staff and refine strategies to garner more effective public outreach and participation.
- Continue to update the Clean Water Program Website with new educational information concerning water quality issues in the County.

***PEOP 1b – Determine Administrative Structure(s), Staffing Requirements and Fiscal Resources Needed to Develop and Implement the Public Education and Outreach Program***

BMP Appropriateness - Appropriate. Without an administrative structure and determination of the fiscal resources needed to implement the public education and outreach program, there would be no direction and long term planning to implement the program.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Completed the determination of administrative structure and fiscal resources needed to implement the PEOP program. It has been determined that County staff has the ability to reproduce and/or publish PEOP material through the contracted printing firm currently being used by the County.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - The public education and outreach component of the program continues to move forward well utilizing the revised program structure. Educational/informational brochures are available at the front counters of each co-permittee.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year

- None, this BMP is completed.

***PEOP 1c – Develop and Begin Implementing the Public Education and Outreach Program***

BMP Appropriateness - Appropriate to develop and implement a public education and outreach program to educate and inform the public on stormwater pollution, how they may reduce pollution, and how their activities affect the water quality of Clear Lake.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete. Ongoing. Member agencies of the Lake County Clean Water Program have continued to provide public information brochures, install creek crossing signs, and hold public cleanup events, in addition to the outreach efforts and website development efforts mentioned below. Outreach efforts have expanded to include Lake County's invasive species prevention program. A report from the Invasive Species Program Coordinator highlights some of these outreach efforts from the past fiscal year. This report is included in Appendix 2-3. Appendix 2-3 also contains photos of a typical bridge sign/marker and a news story about the "In the Creek Day" educational event.

Problems in Obtaining Measurable Goals – None. Making significant progress without increasing staff. The new workgroup chairperson has been very effective at engaging the public in outreach efforts.

BMP Effectiveness - The public education and outreach program is being steered by the PEOP& PIP Workgroup which continues to meet quarterly to review various outreach options. The focus this year has been on outreach at various local events and through the public schools. The program has been made more effective by engaging volunteers, who are assisting with public outreach, and the PEOP workgroup.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year

- Continue working with CRMP groups to educate and facilitate program compliance through personal and community-wide understanding of the processes involved with storm water pollution.
- Continue with production of brochures, posters, and flyers directed to priority targets within the public audience.
- Continue updating the Program Website with educational information.
- The City of Lakeport plans to explore the installation of informational signs on bridges and creek crossings similar to the signs posted by the County of Lake.
- Incorporate outreach BMP's from the new Phase II NPDES

***PEOP 1d – Conduct PEOP Workgroup Meeting Quarterly***

BMP Appropriateness – Appropriate to maintain a public education and outreach program and conduct quarterly PEOP Workgroup meetings to educate and inform the public on stormwater pollution causes and reduction techniques.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Ongoing. Due to staffing changes, the PEOP & PIP Workgroup did not maintain regular quarterly meetings during this reporting year, however, the two cities and county did maintain regular correspondence regarding public education and outreach materials and efforts.

Problems in Obtaining Measurable Goals - High work loads, attrition, shrinking budgets and a changing staff continue to make it increasingly difficult for those involved to meet and address the issues related to implementation of this BMP. However, with the appointment of a new volunteer chairperson of the PIP/PEOP workgroup in the fall of 2011, regular correspondence has taken place among the members of the Lake County Clean Water Program.

BMP Effectiveness – Effective as a few volunteers have been engaged in the process and the workgroup has provided direction on website development for the program. The Workgroup has tracked the efforts of its members. See appendix and 3-6.

Proposed Changes to BMPs and Measurable Goals - While reviewing minimum control measures in the new Phase II permit (to be adopted in November 2012), program members may look at alternatives to achieving this goal without having to maintain regular meetings.

Activities Planned for Next Year - Conduct quarterly meetings and continue to include stormwater education in presentations to contractors, various organizations, and the general public conduct ongoing tool box training at jobsites for construction contractors.

***PEOP 1e – Coordinate with Other Working Groups to Determine Needs for Outreach/Education Materials***

BMP Appropriateness - Appropriate to coordinate public education and outreach (PEOP) activities with the needs of other working groups dedicated towards their respective program tasks.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results –On-going. Existing County & City staff continue to assist in coordination of the PEOP activities with existing workgroups which are meeting regularly; i.e. CON and PCON workgroups and members of IDDE.

Problems in Obtaining Measurable Goals –Limited staffing and high work loads make it difficult to coordinate meetings between PEOP workgroup and other workgroups.

BMP Effectiveness - Unknown

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year - Continue coordination efforts between County & City staff and maintain quarterly meetings of the Workgroups to accomplish public education and outreach needs for the entire Program.

**PEOP - 2: Evaluation of Public Education and Outreach Activities and Materials**

***PEOP 2b – Evaluate and Revise Existing Public Education and Outreach Materials and Activities as Needed***

BMP Appropriateness - Appropriate to evaluate and revise existing materials as needed to adapt to changing local issues, social changes, and public/private concerns.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results - Ongoing. Although no formal report of findings or recommendations have been prepared, future efforts in producing and evaluating PEOP materials will continue to be performed by City and County staff, with the assistance of the PEOP Workgroup. Efforts have been focused on incorporating the Clean Water Program outreach activities with other water related outreach programs already underway by program members. Specifically, efforts have been made to incorporate the efforts of the Invasive Species Program Coordinator. Refer to Appendix 2-2 for copies from the Clean Water Program and City of Lakeport web pages. Refer to Appendix 2-3 for the report of the activities carried out by the Invasive Species Coordinator.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness –Effective.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year

- Continue evaluation of PEOP materials and website as priorities change.
- Coordinate with workgroup volunteers to evaluate and revise activities and materials.
- Develop contact information labels to use in order to update Program brochures.
- Meet with Lake County Office of Education to discuss integration of storm water materials into school curriculum
- Develop additional poster boards to display in storefronts in other communities around the County.

***PEOP 2c – Incorporate Public Education and Outreach Materials into Co-permittees Websites (Update as Appropriate)***

BMP Appropriateness - It is appropriate to educate the public on storm water issues through the Program website. A uniform message for the co-permittees has been developed into a single web site dedicated to the Lake County Clean Water Program on behalf of all co-permittees. This is currently maintained on the Lake County website home page under “Popular Links”. The County continues to modify website content.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Completed/Ongoing. The Lake County Clean Water Program website has been redesigned and is more user-friendly. Information is being kept current. The City of Lakeport manages its own independent storm water site, which is linked to the County’s Program site and contains virtually the same information as is directly applicable to its community members. The City of Lakeport’s storm water webpage has been updated and now includes various Clean Water Program brochures and informational flyers. A simplified on-line storm water complaint form has also been added to the City’s webpage.

Problems in Obtaining Measurable Goals – Prior to obtaining the new software, it was extremely difficult to maintain and upgrade the website as it required staff with HTML knowledge. Responsibility of the website was transferred from the Water Resources Division to the Community Development Department in July 2009. Refer to Appendix 2-2 for copies from the Clean Water Program website and also the City of Lakeport’s website.

BMP Effectiveness – The website serves as an effective platform to promote the Storm Water Program to the public, and has had 4,629 visits as of August 2012. Refer to Appendix 2-2 for copies from the Clean Water Program website and also the City of Lakeport’s website.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year

- Continue to maintain and update the new web page as needed.
- City of Lakeport will also maintain and update their web page as needed.

**Table 2.1** Status and effectiveness of Public Education and Outreach (PEOP) Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PEOP 1a	Establish workgroup to oversee the development and implementation of the Public Education and Outreach Program.	PEOP Workgroup formed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PEOP 1b	Determine administrative structure, staffing requirements and fiscal resources needed to develop and implement the Program.	Staffing and fiscal resource estimates developed.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
PEOP 1c	Develop and begin implementing the PEOP Program.	Program developed and implementation has begun.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PEOP 1d	Conduct PEOP Workgroup meetings quarterly.	PEOP Workgroup meeting summaries and attendees list.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PEOP 1e	Coordinate with other working groups to determine needs for outreach / education materials.	Meet with other working groups as needed to determine needs for outreach / education materials.	County of Lake	X		X			X		X
			City of Clearlake	X		X			X		X
			City of Lakeport	X		X			X		X

Table 2.1 (Continued)

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PEOP 2b	Evaluate and revise existing public education and outreach materials and activities as needed.	Public education and outreach materials evaluated and revised.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PEOP 2c	Incorporate public education and outreach materials onto co-permittees websites (update as appropriate).	Public education and outreach materials available via co-permittees websites.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## TRACKING AND REPORTING

### PEOP – 3: Public Education and Outreach Tracking and Reporting

#### *PEOP 3b – Revise and Implement Current Tracking and Reporting Procedures*

BMP Appropriateness - Appropriate to implement tracking and reporting procedures as understanding of information distributed, distribution location, and distribution method will allow an assessment of public interest.

#### County of Lake, City of Clearlake and City of Lakeport

Measurable Goal Results - Complete. Establishment of online activity reporting and tracking system. Brochures and informational material available to the public.

Problems in Obtaining Measurable Goals – None

BMP Effectiveness - Effective. The City of Lakeport and Lake County have received multiple activity reports from members of the workgroups, the community, and staff regarding their engagements over the last year. The City and County maintain records of those reports, which can be filed electronically through their respective websites or manually by mail. Appendix 3-6 contains copies of Workgroup Activity Report Forms, which can be completed and submitted online.

Proposed Changes to BMPs and Measurable Goals - None

#### Activities Planned for Next Year

- Continue to track number of informational brochures given out, events sponsored, and media coverage.

**Table 2.2** Status and effectiveness of Public Education and Outreach (PEOP) tracking and reporting procedure BMPs scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PEOP 3b	Revise and implement current tracking and reporting procedures.	Tracking and reporting procedures	County of Lake	X		X			X		X
			City of Clearlake	X		X			X		X
			City of Lakeport	X		X			X		X

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## **SECTION 3**

### **PUBLIC INVOLVEMENT AND PARTICIPATION**

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#### **BACKGROUND**

Public involvement and participation are important components of the Program. 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.

#### **GOALS AND OBJECTIVES**

The following Public Involvement and Participation (PIP) 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 EDUCATION AND OUTREACH 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) Program Tracking and Reporting. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

### **FISCAL YEAR 2011/2012 ACCOMPLISHMENTS**

#### **GENERAL SUMMARY**

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The Public Education, Outreach and Participation (PEOP) Workgroup first met in January 2004 to coordinate the Public Education and Outreach and Public Involvement and Participation Minimum Control Measures. The status of BMPs that were scheduled for implementation in FY 11/12 are listed in Tables 3.1 – 3.4 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described. Please note that some of Public Involvement and Participation BMPs scheduled for implementation in FY 11/12 were intended to be jointly implemented by all three (3) Co-permittees, while others were implemented individually.

#### **PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM MANAGEMENT**

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##### **PIP – 1: Public Education, Outreach and Participation Workgroup**

###### ***PIP 1b – Conduct PEOP Workgroup Meetings Quarterly***

BMP Appropriateness - Appropriate to bring together the various stakeholders involved in public involvement and participation activities for a cohesive effort.

**County of Lake, City of Clearlake and City of Lakeport**

**Measurable Goal Results:** The PIP/PEOP Workgroup did not conduct formal meetings over the last year due to staff turnover. However, the members of the Workgroup have maintained contact and a dialogue regarding public involvement through phone calls, emails, and public clean-up events, and presentations to local groups. Also, with the appointment of a new volunteer chairperson of the PIP/PEOP workgroup in the fall of 2011, regular correspondence has taken place among the members of the Lake County Clean Water Program.

**Problems in Obtaining Measurable Goals** – Difficulty in coordinating schedules of the workgroup members, who are all busy with other jobs. However, this workgroup has been effective even without maintaining regular meetings.

**BMP Effectiveness** – Effective.

**Proposed Changes to BMPs and Measurable Goals** - While reviewing minimum control measures in the new Phase II permit (to be adopted in November 2012), program members may look at alternatives to achieving this goal without having to maintain regular meetings.

**Activities Planned for Next Year:**

Depending on the specifics of the new Phase II permit, PEOP workgroup meetings will be held regularly on a quarterly basis.

**Table 3.1** Status and effectiveness of Public Involvement and Participation Program Management Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PIP 1b	Conduct PEOP Workgroup meetings quarterly.	PEOP Workgroup meeting summaries and attendees list.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

**PUBLIC ACTIVITIES AND PARTICIPATION****PIP – 2: Storm Drain Stenciling*****PIP 2a– Review and Update Existing Storm Drain Stenciling Program*****County of Lake**

**BMP Appropriateness** – Appropriate where applicable. The County MS4 system is predominately road-side ditches with cross culverts for immediate road related drainage issues. Stenciling is more appropriate for

curb and gutter systems facilitating ease of stencil placement as has been the case with the two cities, Lakeport and Clearlake.

Few curb and gutter systems are present within the less urbanized areas of the County, therefore the BMP is only applicable where those curb and gutter surfaces exist.

Measurable Goal Results – Incomplete. Ongoing. The County initiated research into the storm drain stenciling program, however, there are very few curbs and gutters within the County, and while the MS4 mapping has been completed, this program is not practical for the County to implement. However, the County has initiated a policy that all new drain installations will have permanent storm water markings. Appendix 2-4 includes design rendering of the storm drains now required by the County.

Problems in Obtaining Measurable Goals - This BMP can be appropriate in urban clusters and developing areas within the County. Requiring the stenciling of 25% of existing storm drains within the remainder of the permit area annually is judged to be inappropriate and relatively ineffective as these MS4's are typically comprised of road-side ditches with cross-culverts for road drainage only.

BMP Effectiveness – Unknown.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Develop a stenciling program that can be run by volunteers.

### City of Clearlake

BMP Appropriateness - Somewhat appropriate since the City of Clearlake has few storm drains along streets with curbs and gutters. The majority of storm drain inlets and catch basins are located on the City's three major streets, Old Highway 53, Olympic Drive, and Lakeshore Drive. The City of Clearlake's local and collector streets are not improved and do not have drop inlets or catch basins. The City of Clearlake has over 50 miles of unimproved streets which have no drop inlets or catch basins. The drainage system consists of roadside ditches and drainage swales.

Measurable Goal Results - The City of Clearlake purchased stencils in FY 05-06 and using existing staff stenciled all 100% of the City's storm drain inlets and catch basins along our major streets. The stencil reads, No dumping flows to Clearlake. The City re-stenciled their storm drain inlets and catch basins in 2008-09. In addition in 2008-09 the City purchased 100 permanent storm drain markers which will be installed in the fall of 2009. The permanent storm drain markers indicate No Dumping – Drains to Lake, and have a picture of a fish. In May 2010 the City installed all 100 of the permanent storm drain markers on our storm drain inlets and catch basins along the City's arterials and collector streets near Clearlake. The placement of the permanent markers will eliminate the need for 80% of the re-stenciling. See appendix 2-4 for a photo of the marker. The City installed 10 Protect our Water-Way signs on major stream/creek crossing with the City of Clearlake. Signs were installed on City Bridges at Burns Valley Creek and Old Hwy 53, at Burns Valley Road, and on Lakeshore Drive. Signs were also installed on Molesworth Creek on Old Highway 53, and on Miller Creek at Lakeshore Drive. See photo in appendix 2-3.

Problems in Obtaining Measurable Goals – The City has not had a problem implementing stenciling or in the placing of permanent markers on its storm drain inlets and catch basins along its improved major streets. While stenciling or the permanently marking of storm drain inlets and catch basins is an effective tool for educating the public about not dumping into storm drains, it is not conducive for marking drainage ditches and drainage swales throughout the City, that are not along improved streets. This situation is found all over the City of Clearlake.

BMP Effectiveness – Now that the City has placed permanent storm drain markers at our stenciled storm drain inlets and catch basins as well as protect our waterway signs on our bridges at major stream/creek

crossings along the City's major streets, the general public will be more aware of where our storm water flows to, and the importance of not polluting our creeks and lake.

Proposed Changes to BMPs and Measurable Goals - As the City budget allows additional permanent markers will be purchased and installed on storm drain inlets and catch basins in the more remote areas of the City's Street system, which will eliminate totally the need to do any re-stenciling. In addition the City plans to permanently mark major storm drain channels where they cross major City streets within Clearlake. The signs will indicate the creek or channel name, with the words "Protect our Waterways" on the sign. Due to budget restraints, this will be done in phases. The first phase proposed to be completed in 2010-2011 will include the permanent marking of Burns Valley Creek, Miller Creek, and Molesworth Creek.

Activities Planned for Next Year:

The City plans to permanently mark major storm drain channels where they cross major City streets within Clearlake. The signs will indicate the creek or channel name, with the words "Protect our Waterways" on the sign. Due to budget restraints, this will be done in phases. The first phase proposed to be completed in 2010-2011 will include the permanent marking of Burns Valley Creek, Miller Creek, and Molesworth Creek. The second and final phase of the "Protect our Waterway" sign project will install signs on Cash Creek at Lake Street and on Olympic Drive at Miller Creek.

**City of Lakeport**

Measurable Goal Results – The City's stenciling program was initiated in FY 2009-2010 when over 100 storm drain inlets were marked in the downtown area and nearby neighborhoods. The highest priority drains were those around creeks and surface water drainage channels, including storm water catch basins in Library Park, situated immediately on the shores of Clear Lake.

Problems in Obtaining Measurable Goals – Lack of staff/time that is necessary to adequately manage formal stenciling program.

BMP Effectiveness – Unknown.

Proposed Changes to BMPs and Measurable Goals - The City plans to begin using permanent markers that can be affixed to the street/curb surface near storm drain inlets rather than painted markings

Activities Planned for Next Year: Continue the stencil/marker program in downtown area and move outward to other areas of the City.

***PIP 2b –Conduct Storm Drain Stenciling***

**County of Lake**

BMP Appropriateness – Appropriate where hard surfaces exist which are conducive to stenciling.

Measurable Goal Results – Incomplete. County now requires all new storm drains and replacement storm drains to have permanent storm water markings instead of regular stenciling.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing has delayed completion of this BMP.

BMP Effectiveness - Unknown, behind schedule.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Work on PIP 2a- Review and Update Existing Storm Drain Stenciling Program;

- Refine the MS4 inventory to reveal attributes applicable to stenciling (hard surfaces) and continue in attempts to conduct storm drain stenciling activities where appropriate, through the use of volunteers.

### **City of Clearlake**

**BMP Appropriateness** – This BMP is appropriate for those areas of the City where there are improved streets with a formalized drainage system, where the drainage inlets and catch basins can be stenciled.

**Measurable Goal Results** –In May 2010 the City installed all 100 of the permanent storm drain markers on our storm drain inlets and catch basins along the City’s arterials and collector streets near Clearlake. The placement of the permanent markers will eliminate the need for 80% re-stenciling. See Appendix 2-4 for a photo of the City’s permanent storm drain markers. As the City budget allows additional permanent markers will be purchased and installed on storm drain inlets and catch basins in the more remote areas of the City’s Street system, which will eliminate totally the need to do any re-stenciling. The City installed 10 Protect our Water-Way signs on major stream/creek crossing with the City of Clearlake. Signs were installed on City Bridges at Burns Valley Creek and Old Hwy 53, at Burns Valley Road, and on Lakeshore Drive. Signs were also installed on Molesworth Creek on Old Highway 53, an on Miller Creek at Lakeshore Drive. See photo in appendix 2-3.

**Problems in Obtaining Measurable Goals** – None

**BMP Effectiveness** – Now that the City has placed permanent storm drain markers at our stenciled the storm drain inlets and catch basins as well as protect our waterway signs on our bridges at major stream/creek crossings along the City’s major streets, the general public will be more aware of where our storm water flows to, and the importance of not polluting our creeks and lake.

**Proposed Changes to BMPs and Measurable Goals:** The City plans to permanently mark major storm drain channels where they cross major City streets within Clearlake. The signs will indicate the creek or channel name, with the words “Protect our Waterways” on the sign. Due to budget restraints, this will be done in phases. The first phase proposed to be completed in 2010-2011 will include the permanent marking of Burns Valley Creek, Miller Creek, and Molesworth Creek.

**Activities Planned for Next Year:** The City plans to permanently mark major storm drain channels where they cross major City streets within Clearlake. The signs will indicate the creek or channel name, with the words “Protect our Waterways” on the sign. Due to budget restraints, this will be done in phases. The first phase proposed to be completed in 2010-2011 will include the permanent marking of Burns Valley Creek, Miller Creek, and Molesworth Creek. The second and final phase of the “Protect our Waterway” sign project will install signs on Cash Creek at Lake Street and on Olympic Drive at Miller Creek.

### **City of Lakeport**

**BMP Appropriateness** – Appropriate where impervious surfaces exist (i.e. concrete curb or grate border) which are conducive to stenciling or marker installation.

**Measurable Goal Results** –Over 100 storm drains have been stenciled in the City of Lakeport. The City hopes to add the stenciling information to the City’s storm sewer GIS layer, which will assist staff in tracking the number of drains stenciled or marked.

**Problems in Obtaining Measurable Goals** - Fiscal and staffing resources continue to be a challenge, but cooperation between City departments is positive and productive. Community Development staff will work with Public Works staff to continue the program.

**BMP Effectiveness** - Effective. Anecdotal evidence suggests public awareness for the proper use of storm drains appears to be increasing. Staff has noted that some of the painted stencils are beginning to fade.

Proposed Changes to BMPs and Measurable Goals - The City plans to use permanent markers that can be affixed to the street/curb surface near storm drain inlets. The County has begun using permanent "button"-style markers and the City hopes to use the same type of marker.

Activities Planned for Next Year: More coordination of staff to continue the City's stencil/marker efforts. City intends to add permanent markers to the storm drains that were previously marked with painted stencils then and eventually move out to other areas of the City.

### ***PIP 2c – Investigate Opportunities for Using Volunteers to Stencil Storm Drains***

#### **County of Lake**

BMP Appropriateness – Appropriate to help reduce fiscal costs of implementation and for education of public with respect to the County Stormwater Program.

Measurable Goal Results - In the future the County will work with youth groups and other volunteers to stencil (paint) the County's Storm Drain inlets and Catch basins where concrete curbs are present.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing to reach volunteers and accomplish the measurable goal. Therefore, County Department of Public Works has instigated a program to require all new storm drains and replacement storm drains to have permanent storm water markings so that the need for stenciling is reduced.

BMP Effectiveness – Unknown.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Continue working on the storm drain stenciling program.
- Seek volunteers from local youth groups, and thru PEOP tasks or through the County web page.
- Continue to require all new storm drains, public and private, to be stenciled.

#### **City of Clearlake**

BMP Appropriateness – It would be appropriate to enlist volunteers, such as a Boy Scout group, to help the City install permanent storm drain markers and re-stencil it's drainage inlets and at the same time provide the awareness to such a volunteer group.

Measurable Goal Results – Enlist volunteers to assist the City in its drainage inlet-stenciling program.

Problems in Obtaining Measurable Goals – Providing the staff time at the management level to seek volunteers. In addition installing the permanent markers requires some special skills in using power equipment which may make it difficult for groups such as the boy scouts to volunteer for such work.

BMP Effectiveness – Effective in providing awareness of the importance of not polluting the City's streams, drainage channels, and Clearlake.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year: None, the work has been completed, see 2a & 2b above.

**City of Lakeport**

BMP Appropriateness – Appropriate to help reduce fiscal costs of implementation and for education of public with respect to the County Stormwater Program.

Measurable Goal Results – The City was unable to attract capable volunteers during FY 2010/2011 and as a result the stenciling program was not expanded. However, City staff has been assigned to continue the program until a volunteer corps can be assembled to enhance the City's efforts.

Problems in Obtaining Measurable Goals - Lack of interest from the public to volunteer. New approaches are being considered to generate interest by the public, including a revitalization of the City's volunteer program and possibly additional coordination with other workgroups.

BMP Effectiveness – Effective since stenciling responsibilities have been assumed by City staff.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Continue working on the storm drain stenciling program.
- Work with the City's Volunteer Coordinator to establish a formal volunteer stencil/marker program.
- Advertise for volunteers on City's website ([www.cityoflakeport.com](http://www.cityoflakeport.com)) and note that stenciling can be an effective service-related project.

**PIP – 3: Develop and Support Local Partnerships*****PIP 3a – Coordinate with Local Organizations and Develop Partnerships (as appropriate)*****County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to coordinate common efforts with other individuals and organizations with common goals.

Measurable Goal Results - Current partnerships have been established between:

- East Lake and West Lake Resource Conservation District
- Lake County Watershed Groups (CRMPs')
- Clearlake Chamber of Commerce

Problems in Obtaining Measurable Goals - None.

BMP Effectiveness – Effective. Cooperative efforts between the CRMPs and County have resulted in significant clean ups of creek corridors.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Coordinate with the PEOP workgroup to refine direction for the public education and outreach/public involvement and participation program, between municipalities, before developing additional partnerships with other agencies and organizations.
- Develop and distribute BMP brochures for car washing and landscaping services.
- Inquire about volunteers from other workgroups who may be able to assist with PIP activities such as the stenciling program
- Look for new opportunities for partnerships in light of the new Phase II permit scheduled for approval in November 2012.

***PIP 3b – Assist in Coordinating Creek Cleanup Events with Local Organizations*****County of Lake**

BMP Appropriateness - Appropriate. Illegal dumping in creeks is a widespread problem in Lake County and a major concern of many residents.

Measurable Goal Results - The County has been coordinating annual creek clean up events with the East Lake and West Lake Resource Conservation Districts (RCD) for many years. The RCD coordinates all field activities with active watershed groups in the area. Lake County Public Works (Road Dept.) picks up collected refuse and transports to the closest permitted facility. Lake County Public Services has waived the gate fees for approved community clean up events in past years. In addition, the County has been aggressively cleaning up illegal dump sites through its Code Enforcement Division, removing trash from streams and watersheds through its own abatement programs. These abatements include sites that have illegal encampments for marijuana cultivation, and the County has used its Stormwater Ordinance to Summary Abate several sites this year due to the severity of the stormwater violations.

Problems in Obtaining Measurable Goals – More difficult this year due to staffing cutbacks and reorganizations within the Community Development Department. Clean –up events were scheduled late this year, in September, for the clean up of 5 sites within the County. Estimated total amount of trash and junk being removed is 75 cubic yards.

Proposed Changes to BMPs and Measurable Goals - None.

**Activities Planned for Next Year:**

- Continue the coordination of creek clean up events through the Resource Conservation District (RCD) and the Code Enforcement Division as requested by watershed groups and concerned citizens.

**City of Clearlake**

BMP Appropriateness – It is appropriate to clean-up illegal dumping and the natural filling of creeks with debris to maintain adequate flood capacity and to reduce the amount of sediment that reaches Clearlake, however the majority of clean-up involves using heavy machinery, backhoes and bulldozers which does not lend itself, from a safety standpoint, of working with private citizens.

Measurable Goal Results - City maintenance crews have performed their annual inspection and cleaning of all creeks, culverts and drop inlets to remove sediment and debris, for flood proofing and to prevent or reduce the amount of sediment that can reach Clearlake. During 2011-2012 City Public Works crews removed approximately 860 cubic yards of silt and mud, debris, and trash from storm drain ditches, channels, storm drain inlets and catch basin and our streets. The city sponsored an annual street clean-up day on April 28, 2012, and approximately 140 people came out to help remove trash and debris from city streets and storm drainages immediately adjacent to the City's arterial streets. A photo from the event can be viewed in Appendix 2-6.

Problems in Obtaining Measurable Goals - Lack of staffing at the administrative level. The City Engineer is in charge of carrying out much of the Storm Water Management Plan. Currently the City Engineers position is filled on an interim part-time basis. No other management staff from the City of Clearlake is available for this task at this time.

BMP Effectiveness - The cleaning of creeks with the city's maintenance forces is the most effective and safest way to remove illegal dumping and removal of sediment from our drainage channels and creeks to provide flood proofing. The use of citizen volunteer groups for this task is not considered effective by the City of Clearlake.

Proposed Changes to BMPs and Measurable Goals - None

Activities Planned for Next Year:

Schedule another annual clean up day in the Spring of 2013. City Public Works crews will continue to clean the City's drainage channels and creeks using City Street maintenance personnel.

**City of Lakeport**

BMP Appropriateness –Appropriate. Illegal dumping in creeks is a periodic problem in Lakeport but does not appear to be a widespread problem. Very few public complaints are received by the Community Development Department. The City's Public Works Department responds to complaints related to debris and trash in some of the City's creeks.

Measurable Goal Results – No community creek cleanup events were held in FY 2011-2012.

The City participated in an annual downtown street clean-up day on May 19, 2012. Trash and debris was removed from curb areas and near storm drain inlets in the City's core downtown area. The remaining portions of the drainages, inlets, and catch basins were cleaned by Public Works crews and inmates prior to the heavy rainy season. Approximately 40 cubic feet of trash and other materials were removed from the streets of Lakeport during the event. This trash would have otherwise ended up in the local waterways.

See Appendix 2-6 for a photo montage of this cleanup event.

Problems in Obtaining Measurable Goals - The City relies on volunteer organization and motivation to get cleanup events scheduled and managed. Finding committed volunteer coordinators to lead this effort remains challenging.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals - City continues to work to establish partnerships with the community-based organizations and local businesses.

Activities Planned for Next Year:

- Contact local environmental organizations such as the West Lake Resource Conservation District to try to establish an annual creek clean up event in Lakeport
- Volunteer drive to establish core group to move clean-up efforts forward
- Continue forming partnerships with local businesses to provide promotional resources and possible financial resources aimed at creek clean-up activities

***PIP 3c – Support Adopt-a-Creek Programs*****County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - This has been determined to be no longer appropriate or necessary. PIP 3b has proven to be effective, and considerable constraints exist regarding private property and access issues.

Measurable Goal Results - The issue has been previously discussed in the previous fiscal year among the PEO/PIP workgroup participants. The primary constraint is that private property and access issues may make this program component difficult to implement. Creek clean up events hosted by volunteer groups, primarily CRMP serve the same purpose with measurable results.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and access to private property by volunteers. Changing priorities between the co-permittees provides considerable obstacles to accomplishing this program task.

BMP Effectiveness - Not effective or practical. Replace with PIP 3b

Proposed Changes to BMPs and Measurable Goals - Replace with PIP 3b and continue to work with CRMP's and Support Code Enforcement clean up efforts in watersheds.

Activities Planned for Next Year:

- This BMP has redundancy with respect to the CRMP and Code Enforcement creek cleanup events which are on-going and successful.

**Table 3.2** Status and effectiveness of Public Activities and Participation Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PIP 2a	Review and update existing storm drain stenciling program.	Current stenciling program reviewed and updated (as needed) to achieve measurable goals.	County of Lake		X	X			X	X	
			City of Clearlake	X		X			X	X	
			City of Lakeport	X					X		X
PIP 2b	Conduct storm drain stenciling.	Stencil 25% of existing storm drains.	County of Lake		X	X			X	X	
			City of Clearlake	X		X	X			X	
			City of Lakeport	X		X	X				X
PIP 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.	County of Lake		X	X			X	X	
			City of Clearlake	X		X		X		X	
			City of Lakeport	X		X	X			X	
PIP 3a	Coordinate with local organizations and develop partnerships (as appropriate).	Discuss coordination with local organizations and collaborate as appropriate.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PIP 3b	Assist in coordinating creek clean up events with local organizations.	Number of creek clean up events conducted.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PIP 3c	Support adopt-a-creek programs.	The primary constraint is that private property and access issues may make this program component difficult to implement. Creek clean up events hosted by volunteer groups, primarily CRMP serve the same purpose with measurable results	County of Lake		X			X		X	
			City of Clearlake		X			X		X	
			City of Lakeport			X		X		X	

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**PUBLIC INPUT AND INVOLVEMENT**

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**PIP – 4: Public Notice SWMP and Receive Public Input*****PIP 4b – Develop and Facilitate Advisory Council Meetings to Receive and Record Public Input*****County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to receive public input for a program that affects the public to help guide program changes which reflect the public involvement.

Measurable Goal Status - The County Stormwater Website includes the Clean Water Advisory Council meeting agendas. In addition, the agendas are emailed to a number of members of the public who have been attending the meetings. Ample opportunities for public input are provided during Council meetings. These meetings are open to the public and meeting announcements and agendas are posted at the County Courthouse, the City Halls of Lakeport and Clearlake, and on the County web site.

Measurable Goal Results – County website redesigned and includes meeting agendas and minutes. Agendas posted in appropriate locations at Courthouse and both City Halls, consistent with legal noticing requirements of the State of California. Appendix 3-1 includes the Advisory Council meeting agendas and minutes for FY 2011/12.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective. Members of the public have attended recent meetings.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Continue with scheduled quarterly meetings and special meetings as required.
- Continue to publish upcoming meetings and Agenda on the Clean Water Program Web page-

**PIP-5: Stormwater Telephone Hotline*****PIP 5a – Develop and Implement Hotline for Public Comments/Concerns*****County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to have a mechanism where the public can express concerns, ask questions, report illegal dumping and report water quality violations.

Measurable Goal Results - The Lake County Clean Water Program had been using a dedicated phone number (707-263-2309) for the hotline, maintained by the Community Development Department for the County of Lake. However, budget restrictions forced the department to combine this number with the main Code Enforcement phone number. In addition, the front desk lines for the Cities of Clearlake and Lakeport are being maintained. The hotline number can be used by anyone, and for problems reported on the hotline that are located within either city, the Community Development Department contacts the appropriate City staff and forwards all the information.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective. The hotline is operational and calls have been received. The hotline number is listed in brochures and the County Clean Water Program website, in addition to the County Building and Safety Division’s main number.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year:

- Maintain hotline.

***PIP 5b – Include Hotline Numbers on Co-permittees Public Education and Outreach Materials and Websites***

**County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to advertise the stormwater hotline so it will get used.

Measurable Goal Results –Complete. The “hotline” number through County Community Development Department is listed on the Clean Water Program web page. Education and outreach materials which have been produced and include the co-permittees “hotline” numbers. The City of Lakeport and the County have also developed online reporting forms so that members of the community can report a storm water issue or incident in writing for immediate and receipt and response by staff. In FY 2010/2011 City of Lakeport modified their storm water website to include phone numbers for all three jurisdictions in the County, including the County of Lake “hotline” number.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective. The hotline is operational and calls have been received. The hotline number is listed in brochures and the County Clean Water Program website, in addition to the Building and Safety Division’s main number.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Increase public awareness for the Stormwater Program “hotline” by increased distribution of brochures and flyers.

**PIP-6: Public Attitude Surveys**

***PIP 6a – Develop and Conduct General Public Attitude Survey***

**County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to have a mechanism whereby the public viewpoint can be monitored.

Measurable Goal Results - The City of Lakeport has drafted a survey to gauge public interest, understanding, and perspective about storm water quality issues and the stormwater program. The survey is available on the City’s website and is included in Appendix 3-4.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing to complete program tasks. Allocation of limited staff resources has been more effective in updating website, maintaining hotline, and aggressively addressing grading violations.

BMP Effectiveness - Unknown. No public feedback mechanism is in-place. New survey will be completed by the end of the calendar year.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Develop an on-line survey and post to the Clean Water Program web page.
- The City of Lakeport plans to post the storm water survey on the City's website.

**Table 3.3** Status and effectiveness of Public Input and Involvement Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PIP 4b	Develop and facilitate Advisory Council meetings to receive and record public input.	Public input recorded in quarterly meeting summaries.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PIP 5a	Develop and implement hotline for public comments / concerns.	Hotline developed and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PIP 5b	Include hotline number on Co-permittee public education and outreach material and websites.	Hotline number advertised on Co-permittee websites and education and outreach materials	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
PIP 6a	Develop and conduct general public attitude survey.	Develop an on-line survey and post to the Clean Water Program	County of Lake		X				X		X
			City of Clearlake		X				X		X
			City of Lakeport	X		X			X		X

## **TRACKING AND REPORTING**

### **PIP – 7: PIP Tracking and Reporting**

#### ***PIP 7b – Develop a Tracking System to Annually Track Stenciled Storm Drains***

#### **County of Lake**

BMP Appropriateness – No longer appropriate as the County has adopted a program of requiring permanent storm drain markers on all new storm drains.

Measurable Goal Results – Incomplete.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing to stencil and maintain. Therefore, this BMP has been modified.

BMP Effectiveness – Unknown, as not yet implemented.

Proposed Changes to BMPs and Measurable Goals – County now requires permanent storm drain markers to be installed on all new storm drains.

Activities Planned for Next Year:

- Complete the development of a tracking system to annually track storm drains that are permanently marked.

### **City of Clearlake**

BMP Appropriateness - Not appropriate. The city does not need to track its annual stenciling program. As the storm drain inlets and catch basins are cleaned annually, the stenciling of our inlets will be checked annually and re-painted as necessary to maintain readability. In 2009-10 the City installed 100 permanent storm drain markers on the majority of its inlets and catch basins. Once permanent markings are installed monitoring and tracking will not be needed.

Measurable Goal Results – None

Problems in Obtaining Measurable Goals – None

BMP Effectiveness – Tracking will not be needed for stenciling, as the City has installed permanent storm drain markers.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year: The city installed permanent storm drain markers on its inlets and catch basins in May 2010. Only minimal monitoring or tracking will be needed.

### **City of Lakeport**

BMP Appropriateness - Appropriate to track storm drain stenciling to assess what has been completed and what remains for public involvement and volunteer efforts. Unknown if this BMP will be appropriate in the future as the City plans to use permanent markers that can be affixed to the street/curb surface near storm drain inlets. Once permanent markings are installed, monitoring and tracking may not be needed.

Measurable Goal Results – Complete.

Problems in Obtaining Measurable Goals – City budget issues have resulted in the loss of a dedicated GIS manager who maintained the storm water system layer. Existing staff will try to maintain current records of stenciling and marking activities.

BMP Effectiveness - Effective with respect to painted stencil markings.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Install permanent markers on storm drains which were previously painted with stencils. Continue to expand installation of permanent markers on other storm drains in the City. Compile data into database which can be integrated into the City's GIS system. Maintain tracking system to annually inspect stenciled or marked storm drains.

### ***PIP 7c Implement Tracking System to Annually Track Stenciled Storm Drains***

#### **County of Lake**

BMP Appropriateness - Appropriate to track storm drain stenciling as a measure of program completeness and to assess public awareness of the program.

Measurable Goal Results – Incomplete.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing to implement the program tasks. Inventory of storm drains was delayed, which delayed the ability to implement this BMP.

BMP Effectiveness - Unknown.

Proposed Changes to BMPs and Measurable Goals – County moving away from concept of stenciling, and now requiring new storm drains to be marked with permanent markers.

Activities Planned for Next Year:

Add a GIS layer to the MS4 maps for tracking of storm drains that have had permanent markers installed.

#### **City of Clearlake**

BMP Appropriateness – Not appropriate

Measurable Goal Results – None

Problems in Obtaining Measurable Goals – None

BMP Effectiveness – Not required, therefore not effective.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - None

#### **City of Lakeport**

BMP Appropriateness - Appropriate to track storm drain stenciling as a measure of program completeness and to assess public awareness of the program.

Measurable Goal Results –Complete.

Problems in Obtaining Measurable Goals - Funding for the program remains a constant issue with the City Council; however, staff has been successful in justifying the need and reasons to maintain the program.

BMP Effectiveness - Effective

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year- See response to 7b. Also continue to develop GIS layer for tracking of storm drains that have had stencils or permanent markers installed.

***PIP 7d – Revise and Implement Current Tracking and Reporting Procedures for the Public Involvement and Participation Program*****County of Lake, City of Clearlake and City of Lakeport**

BMP Appropriateness - Appropriate to revise existing tracking and reporting procedures so that information tracked is useful in determining the effectiveness of measures implemented and aids in the annual reporting process.

Measurable Goal Results - Modified Lake County Clean Water Program web page to use a “counter” to track the number of “hits”; now stands at 4,629 hits. Clean Water Advisory Council meeting agendas are posted to website and in conspicuous locations at Courthouse and City Halls. Members of the public are attending meetings. Clean Water Program Hotline is operational and 10 to 20 calls are received annually (not including calls to main County Building and Safety Division number).

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective. Public participation reflected in Council meeting minutes and website counter.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

- Maintain website
- Continue to make meeting agendas available to public in advance of Advisory Council meetings.
- City of Lakeport plans to add a “page counter” to track number of site visits to the City’s Clean Water Program web page.

**Table 3.4** Status and effectiveness of PIP Tracing and Reporting Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PIP 7a	Conduct an assessment of current tracking and reporting procedures.	Assessment complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
PIP 7b	Develop tracking system to annually track stenciled drains.	Develop tracking system	County of Lake		X	X			X	X	
			City of Clearlake							X	
			City of Lakeport	X		X					X
PIP 7c	Implement tracking system to annually track stenciled drains	Implement tracking system	County of Lake		X				X	X	
			City of Clearlake					X		X	
			City of Lakeport	X		X	X				X
PIP 7d	Revise and implement current tracking and reporting procedures.	Tracking and reporting procedures revised and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X					X
			City of Lakeport	X		X	X				X

## **SECTION 4**

# **CONSTRUCTION SITE STORMWATER RUNOFF CONTROLS**

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### **BACKGROUND**

Construction sites can generate a variety of pollutants that may be discharged (via storm water) and adversely affect beneficial uses of receiving water bodies. Of particular concern are the impacts of sediment. 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. In order to control the impact of erosion, sedimentation, and 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 stateside 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 NPDES Permit 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.<sup>1</sup> To comply with the construction site storm water runoff control requirement, the Program is developing and implementing a **Construction site Runoff Control (CON) Program**.

### **GOALS AND OBJECTIVES**

The goal of the CON Program is to reduce the discharge of storm water pollutants to the maximum extent practicable (MEP) 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 washout 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 STORMWATER RUNOFF CONTROLS**

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. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

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<sup>1</sup> Phase II NPDES Permit requirement also includes any construction activity that disturbs one acre or more of soil, or is a part of a larger common plan of development or sale that would disturb one acre or more.

## FY 11/12 BMP STATUS AND ACCOMPLISHMENTS

### GENERAL SUMMARY

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The status of BMPs scheduled for implementation in FY 2011/12 are listed in Tables 4.1- 4.4 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described.

### CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM MANAGEMENT

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#### **CON-1: Construction and Post Construction Runoff Control (CON) Workgroup**

##### ***CON 1b – Conduct CON Workgroup Meetings Quarterly***

BMP Appropriateness – This BMP is appropriate for facilitating discussion among those parties involved in the construction plan review and inspection process. The CON tasks are a high priority due to the development pressures on the County during this reporting period.

##### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Status - On going. The CON and PCON Working Group has maintained a regular meeting schedule for this reporting period. Given the prioritization of the CON and PCON program elements, regularly scheduled Workgroup meetings will continue. This workgroup was combined in September 2009 and began meeting at that time. The workgroup is chaired by the Lake County Chief Building Official. CON/PCON Workgroup Meeting Agendas are attached in Appendix 4-1.

Measurable Goal Results - Regular meetings have been difficult to maintain, but staff is committed to ensuring meetings happen regularly. The group met regularly during this reporting year.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective, The Workgroup has adopted BMP and training materials provided by CALTRANS and CASQA, and will continue to develop checklists and brochures. The workgroup will also spend time discussing stormwater aspects of projects currently under review.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Continue meeting quarterly to further review and develop CON & PCON procedures.

#### **CON-2: Ordinance, Authority and Program Structure Review, Preparation and Adoption**

##### ***CON 2b – Begin CON Ordinance (or equivalent) preparation or begin revising existing ordinance (e.g., grading ordinance) to gain required authority***

Measurable Goal Status –Complete. An equivalent ordinance has been adopted by the Lake County Board of Supervisors. The County grading ordinance was adopted by the Board of Supervisors in 2007.

BMP Appropriateness - Appropriate to have an ordinance or other mechanism to gain the required legal authority to implement this program.

**County of Lake**

Measurable Goal Results – Complete; An equivalent ordinance (Storm Water Management Ordinance 2772) was adopted on May 16, 2006. The Grading Ordinance was adopted on July 16, 2007 by the Board of Supervisors.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – None.

**City of Clearlake**

Measurable Goal Results – The City of Clearlake City Council adopted Ordinance No. 126-2006 on January 25, 2007 adding Chapter 14.0 the Clearlake Municipal Code regarding Storm Water Management.

Problems in Obtaining Measurable Goals - None.

BMP Effectiveness – Adoption of a Stormwater ordinance by the City of Clearlake is effective tool as a part of Clearlake's overall Clean Water Program.

Proposed Changes to BMPs and Measurable Goals - None

Activities Planned for Next Year - None.

**City of Lakeport**

Measurable Goal Results – Complete. An equivalent ordinance (Storm Water Management Ordinance No. 853) was adopted by the City of Lakeport in June 2006. Said Ordinance has been incorporated into the Lakeport Municipal Code at Chapter 8.40.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – None.

***CON 2c – Adopt CON Ordinance (or equivalent) prepare or revise existing ordinance to gain required authority***

Measurable Goal Status – Complete. The Storm Water Management Ordinance (2772) has been adopted by the County; City of Clearlake has adopted an Ordinance adding Chapter 14.0 to the Clearlake Municipal Code regarding Storm Water Management; the City of Lakeport has adopted Ordinance No. 853 adding Chapter 8.40 to the Lakeport Municipal Code regarding Storm Water Management.

BMP Appropriateness - Appropriate to have an ordinance or other mechanism to gain the required legal authority to implement and enforce this program.

**County of Lake**

Measurable Goal Results – Complete. The Lake County Storm Water Management Ordinance No. 2772, adding Chapter 29 to the Lake County Code regarding Storm Water Management, was adopted during the FY 05/06 reporting period.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – None.

### **City of Clearlake**

#### Measurable Goal Results

Complete. The City of Clearlake City Council adopted ordinance 126-2006 on January 25, 2007 adding chapter 14.0 to the Clearlake Municipal Code regarding storm water management.

Problems in Obtaining Measurable Goals -None

BMP Effectiveness –Adoption of the City's Stormwater ordinance will provide an excellent tool in implementing Clearlake's Clean Water Program.

Proposed Changes to BMPs and Measurable Goals –None

Activities Planned for Next Year -None

### **City of Lakeport**

Measurable Goal Results – Complete. The City of Lakeport adopted Ordinance No. 853 adding Chapter 8.40 to the Lakeport Municipal Code regarding Storm Water Management.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – Continue to monitor construction activities involving soil disturbance and enforce the provisions of the storm water ordinance.

## **CON-3: Sediment and Erosion Control BMPs**

### ***CON 3b – Revise Sediment and Erosion Control BMP Materials as Appropriate***

BMP Appropriateness - Appropriate to revise materials as needed to keep current with technology and regulatory guidelines/constraints.

### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete. Ongoing; Lake County & City staff have prepared several brochures addressing the overall Stormwater Program; Minimum Erosion Control Measures for Single Family Home Construction to address in-fill sites less than 1 acre of ground disturbance; Concrete Waste and Clean Up brochure addressing the need to educate public and contractors about the need for

containing concrete wastes. These brochures have been made available to all co-permittees for use and distribution. Most of this information is also available on the Program Website.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue to evaluate existing materials for potential updates and revisions. Distribute applicable brochures to the City of Lakeport for inclusion on their storm water website.

### ***CON 3c – Make BMP Information Available to Developers, Construction Site Staff and the General Public***

BMP Appropriateness - Appropriate. If information is not made available to developers, construction site operators and the general public, those individuals and entities cannot be informed about the Storm Water Management Program, the need for a SWPPP, and the implications for non-compliance.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete. Ongoing. BMP information for developers, construction site staff and the general public is readily available at front desk counters without asking. Accessing BMP information which may be project specific, the interested party(ies) are being directed to the Lake County Clean Water Program web site and to the CASQA web site. The CASQA BMP Handbooks have been adopted by the City of Clearlake, the City of Lakeport, and the Lake County Department of Public Works and Community Development Department.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective. The BMP material made available has resulted in some feedback from staff and the general public indicating it is well received.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Continue making BMP information available to developers, construction site operators and the general public through handouts, the Lake County web page, and through Public Education and Outreach programs. Distribute applicable brochures to the City of Lakeport for inclusion on their storm water website.

**Table 4.1** Status of construction site stormwater runoff control program management BMPs for each Lake County Clean Water Program Co-permittee scheduled for implementation in Fiscal Year 2011/12.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
CON 1b	Conduct CON Workgroup meetings quarterly.	CON Workgroup meeting summaries and attendees list.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
CON 2b	Begin CON ordinance (or equivalent) preparation or begin revising existing ordinance (e.g. grading ordinance) to gain required authority.	CON ordinance preparation complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
CON 2c	Adopt CON ordinance (or equivalent) or revise existing ordinance to gain required authority.	COC ordinance (or equivalent) adopted or existing ordinance revised.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
CON 3b	Revise sediment and erosion control BMP material as appropriate.	Existing information revised.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
CON 3c	Make BMP information available to developers, construction site staff and the general public.	Materials made available via agency counters and links on County website.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## PROCEDURE DEVELOPMENT AND TRAINING

### **CON-4: Plan Review and Inspection Procedures and CON Program Funding**

#### **CON 4a – Compile and Review Information on Existing Plan Review and Site Inspection Procedures and Fee Structures**

**County of Lake**

Measurable Goal Results – Complete-Ongoing. Continue to review and update information on existing grading plan review and site inspection procedures with respect to slopes and drainage BMPs and soil stabilization.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue to evaluate existing plan review and site inspection procedures and pursue a construction permit fee surcharge ordinance as soon as the local economy recovers.

**City of Clearlake**

Measurable Goal Results – Complete-Ongoing. Continue to review and update information on existing grading plan review and site inspection procedures with respect to slopes and drainage BMPs and soil stabilization.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – The ongoing review and improvement of the City’s planning and inspection procedures are effective in meeting the goals of Lake County’s Storm Water Plan.

Proposed Changes to BMPs and Measurable Goals – None, continue the City’s ongoing review of our planning and inspection procedures.

Activities Planned for Next Year – Continue the City’s ongoing review and improvements of the City’s planning and inspection review process. In addition the City of Clearlake will work in coordination with Lake County and the City of Lakeport to maintain and improve training capabilities. As time and fiscal resources allow the City will take advantage of any on-line training seminars or webinars on Storm Drain Management Programs.

**City of Lakeport**

Measurable Goal Results – Complete-Ongoing. Storm water impacts are addressed in conjunction with plan review/plan check activities.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue to utilize stormwater-related checklist when conducting plan reviews and site inspections.

**CON 4b – Revise Existing Plan Review and Site Inspection Procedures and Fee Structures (as appropriate)****County of Lake**

Measurable Goal Results – Complete, Ongoing. Continue reviewing existing plan review procedures and seek approval by the Board of Supervisors for a fee ordinance amendment to add a stormwater surcharge to new construction once the local economy recovers.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Revise as necessary plan review and site inspection procedures.

**City of Clearlake**

Measurable Goal Results – Complete, Ongoing. Continue reviewing existing plan review procedures. The City Administrator reviewed all building fees in 2007-08, and made changes where appropriate to conform to state and local government laws. No additional changes have occurred since then. The City Engineer continues to provide in-house training of the City's building inspector and permit technician on the implementation of BMP's for all new building construction, grading permits, and public works construction to meet City Standards.

Problems in Obtaining Measurable Goals – The City Engineer continues to provide in house training to the City's building inspector and permit technician.

BMP Effectiveness –Improvements in the City's Planning review and construction inspection procedures aid the City in the implementation of the Lake County Storm Water Management Plan.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year – The City will continue its ongoing review of planning and inspection procedures and where appropriate make the necessary revisions to the City's procedures. As time and fiscal resources allow the City will take advantage of any on-line training seminars or webinars on Storm Drain Management Programs

**City of Lakeport**

Measurable Goal Status – Complete. Ongoing. Fee structures related to general building permits and plan reviews have been revised and implemented.

Measurable Goal Results – Ongoing.

Problems in Obtaining Measurable Goals – None; however, City continues to evaluate how to implement the fee structure component of this BMP.

BMP Effectiveness – Our efforts are deemed effective based on the low number of storm water-related complaints/problems logged by the Community Development Department.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – None; however, City staff will revise existing plan review and site inspection procedures if necessary. If determined to be necessary, the City will consider the adoption of

construction-related storm water program fees that can aid in recovery of costs related to inspection/enforcement efforts.

***CON 4c – Implement Plan Review and Site Inspection Procedures and Revised Fee Schedule***

**County of Lake**

Measurable Goal Results – Completed, ongoing. Plan review and site inspection procedures have been updated based upon CON 4a & 4b. Revisions to these review and inspection procedures are ongoing. County continues to maintain a Grading and certified Stormwater Inspector.

Problems in Obtaining Measurable Goals – None at this time.

BMP Effectiveness - Effective. Plan review and site inspection procedures have been updated and implemented.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year -Continue to streamline plan review and inspection processes for grading and stormwater issues.

**City of Clearlake**

Measurable Goal Results – Complete. See section 4a, & 4b.

Problems in Obtaining Measurable Goals – Lack of fiscal resources and manpower has impeded the City in working on this program goal, however the City will continue to assess its planning and inspection procedures and make improvements and make changes as appropriate.

BMP Effectiveness – On going improvements in the City's Planning review and construction inspection procedures will improve implementation of the Lake County Storm Water Management Plan.

Proposed Changes to BMPs and Measurable Goals –None

Activities Planned for Next Year –Continue the City's on going program.

**City of Lakeport**

Measurable Goal Results – Complete. Ongoing. The City of Lakeport has adopted new (higher) fees for building permits and Planning applications. The majority of these fees are tied to the Consumer Price Index and are increased annually consistent with the increase in the CPI.

Problems in Obtaining Measurable Goals – None

BMP Effectiveness - The low number of storm water-related complaints/problems logged by the Community Development Department during FY 2011-2012 would indicate that the City's current efforts are effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue existing procedures and protocols.

**CON-5: Site Inspectors and Plan Reviewer Training*****CON 5b – Revise Training Program for Site Inspectors and Plan Reviewers and Develop Training Manual***

BMP Appropriateness - Appropriate to have a training program for site inspectors and plan reviewers and an associated training manual so that municipal staff is aware of current regulations and technologies and understand the responsibilities and interactions of all departments involved in the plan review and inspection process.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete. Ongoing. The CALTRANS / CASQA training program has been adopted and three individuals have obtained Stormwater Inspector Certification.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and manpower to accomplish program tasks, including layoffs within County Building and Safety Division, are still slowing progress.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Continue monitoring training program and insure agency staff are attending training sessions as available, and budget will allow.

***CON 5c – Implement an Annual Training Program for Site Inspectors and Plan Reviewers***

BMP Appropriateness - Appropriate to have a training program for site inspectors and plan reviewers and to implement the program so that all appropriate County staff understand the Program, understand the inspection procedures, and are informed about the specifics of BMPs related to CON as they relate to water quality in the receiving water body.

**County of Lake**

Measurable Goal Results – Complete. Ongoing. The CALTRANS / CASQA training programs have been adopted and one individual has obtained Stormwater Inspector Certification.

Problems in Obtaining Measurable Goals - As fiscal resources and manpower allow the County will continue to improve training to staff involved in the planning review and inspection.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue to train and develop department personnel.

**City of Clearlake**

Measurable Goal Results –Continue to implement in house training of plan reviewers and building site inspectors as fiscal resources and manpower allows. During this reporting year (2011-2012) building and site inspectors from Lake County, City of Clearlake, and the City of Lakeport met on a regular basis to review and evaluate existing BMPs for potential updates and revisions. The three (3) agencies have adopted the CASQA Handbooks and the Caltrans Training manuals for inspectors and plan reviewers.

Problems in Obtaining Measurable Goals – As fiscal resources and manpower allow the City will continue to improve training to staff involved in the planning review and inspection.

BMP Effectiveness – Improving training to plan reviewers and site inspectors will help the City implement it's planning and construction standards and implement the Lake County Stormwater Management Plan.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – Continue the City's ongoing in-house training program as time and staff permit. The City will continue to work in cooperation with Lake County and the City of Lakeport to provide cross training of inspectors and technicians between the entities through joint workshops. As time and fiscal resources allow the City will take advantage of any on-line training seminars or webinars on Storm Drain Management Programs.

### **City of Lakeport**

Measurable Goal Results – Ongoing. The City's Building Official continues to participate in the CON/PCON workgroup with other county and city inspectors. The Building Official will continue to participate in storm water-related training activities.

Problems in Obtaining Measurable Goals – Budget constraints have placed greater difficulties on the City Building Official to attend training opportunities. Additional training is a goal in FY 2012/2013.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – The City will continue to participate in the CON/PCON workgroup in cooperation with Lake County and the City of Clearlake. In-house training is also proposed. As time and fiscal resources allow the City will take advantage of any on-line and low-cost training related to Storm Water Management.

### **CON-6: Construction Site Operator Training**

#### ***CON 6b – Revise Training Program for Site Operators and Develop Training Manual***

BMP Appropriateness - Appropriate to have a training program for construction site operators so that they are aware of current technologies and regulations.

### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Incomplete and ongoing. A formal training program for site operators has not been established. However, the development officials in all jurisdictions regularly advise site operators of proper stormwater BMPs when conducting site inspections where grading or other site disturbances are taking place.

Problems in Obtaining Measurable Goals – Lack of fiscal resources and staffing to establish a formal training program.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Lake County agencies intend to continue to coordinate ongoing training workshops for site operators. The CON/PCON workgroup will continue to discuss training site operators at its regular meetings. Since development and construction has slowed significantly in Lake County, the

cities and county have found it to be more efficient to discuss stormwater BMPs directly with site operators when permits are being issued rather than conducting formal training workshops.

### ***CON 6c – Implement an Annual Training Program for Site Operators***

BMP Appropriateness - Appropriate to have a training program for construction site operators to make them aware of current technologies, regulations, and compliance issues.

#### **County of Lake**

Measurable Goal Results – Incomplete and ongoing. A formal training program for site operators has not been established. However, the City's Building Official regularly advises site operators of proper stormwater BMPs when conducting site inspections where grading or other site disturbances are taking place.

Problems in Obtaining Measurable Goals – Lack of fiscal resources and staffing to establish a formal training program.

BMP Effectiveness - Unknown. However, the County of Lake Building Official indicates that site operators working in the county have a good understanding of appropriate storm water BMPs.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Lake County intends to continue to coordinate ongoing training workshops for site operators with both Cities.

#### **City of Clearlake**

Measurable Goal Results – Incomplete and ongoing. A formal training program for site operators has not been established. However, the City's sole Building Official regularly advises site operators of proper stormwater BMPs when conducting site inspections where grading or other site disturbances are taking place.

Problems in Obtaining Measurable Goals – Lack of fiscal resources and staffing to establish a formal training program.

BMP Effectiveness – Unknown. However, the City Building Official indicates that site operators working in the county have a good understanding of appropriate storm water BMPs.

Proposed Changes to BMPs and Measurable Goals – None.

Activities Planned for Next Year – City intends to follow County lead with adoption of an annual training program for site operators. City Building Official shall continue to engage in training opportunities with site operators while conducting on-site inspections.

#### **City of Lakeport**

Measurable Goal Results – Incomplete and ongoing. A formal training program for site operators has not been established. However, the City's sole Building Official regularly advises site operators of proper stormwater BMPs when conducting site inspections where grading or other site disturbances are taking place.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing to establish a formal training program.

BMP Effectiveness - Unknown. However, the Lakeport Building Official indicates that site operators working in Lakeport have a good understanding of appropriate storm water BMPs. Storm water problems related to site operator's activities are typically minor according to the Building Official.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – City intends to follow County lead with adoption of an annual training program for site operators. City Building Official shall continue to engage in training opportunities with site operators while conducting on-site inspections.

**Table 4.2** Status of procedure development and training BMPs for each Lake County Clean Water Program Co-permittee scheduled for implementation in Fiscal Year 2011/12.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
CON 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 completed and reviewed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
CON 4b	Revise existing plan review and site inspection procedures and fee structure (as appropriate).	Existing plan review and site inspection procedures and fee structures revised (as appropriate).	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X			X		X
CON 4c	Implement plan review and site inspection procedures and revised fee structures.	Plan review and site inspection procedures and fee structure implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X			X		X
CON 5b	Revise training program for site inspectors and plan reviewers and develop training manual.	Training manual developed.	County of Lake	X		X	X				X
			City of Clearlake	X			X				X
			City of Lakeport		X	X			X		X
CON 5c	Implement training programs for construction site operator training.	Training program implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X			X		X
CON 6b	Revise training program for site operators and develop training manual.	Training manual developed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X			X		X
CON 6c	Implement an annual training program.	Training program implemented.	County of Lake		X	X			X		X
			City of Clearlake		X	X			X		X
			City of Lakeport		X	X			X		X

**CONSTRUCTION RUNOFF CONTROL EDUCATION AND OUTREACH****CON – 7: Public Education/Outreach and Involvement/Participation*****CON 7b – Develop New Education and Outreach Material as Necessary and Make Available to the Public***

BMP Appropriateness - Appropriate to revise existing materials and develop new education and outreach materials as appropriate to keep up to date with regulations, current technologies and the needs of the construction community.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete, Ongoing. Several brochures, such as **Keep Clear Lake...** brochure have been developed. These brochures are posted at the front counters at the City of Clearlake, City of Lakeport and Lake County Community Development Department. Each agency also distributes the BMP's for residential construction that was developed by Lake County, and keeps the **Concrete Waste and Clean up** brochure available at the counters. Display racks have been installed in the lobby of the County Community Development Department for ease of access to information, and these brochures can be downloaded from the Clean Water Program Website operated by the County.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year –

- Revise and update existing materials as required and develop or obtain new materials.
- Continue to update the Clean Water Program website with educational information pertaining to construction stormwater runoff management.
- Distribute all applicable brochures and other outreach material to the City of Lakeport for inclusion on the City's Storm Water web page.

**Table 4.3** Status of procedure development and training BMPs for each Lake County Clean Water Program Co-permittee scheduled for implementation in Fiscal Year 2011/12

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
CON 7b	Develop new education and outreach materials 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.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

**TRACKING AND REPORTING****CON – 8: Construction Site Stormwater Runoff Control Program Tracking and Reporting*****CON 8b – Revise and Implement Reporting and Tracking Procedures***

BMP Appropriateness - Appropriate to revise tracking and reporting procedures, if needed, before implementation.

**County of Lake, City of Clearlake, and City of Lakeport**

Measurable Goal Results –Complete, ongoing. Reporting of stormwater runoff complaints is done proactively by building inspection and planning staff of the three co-permittees. In addition, the stormwater hotline operated by the County Community Development Department provides a venue for the public to report illicit discharges and grading violations. Tracking systems exist within each of the three co-permittees electronic permit systems for building and grading permits. In addition, the County Community Development Department has created and implemented a separate Grading and Stormwater Tracking Log that contains all relevant information for each site, whether under permit or in violation. A sample of this Log is included in Appendix 4-3.

The City of Lakeport's Storm Water web site includes a new storm water issue complaint form that can be submitted electronically. See Appendix 4-4 for a copy of the online storm water complaint form.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – None.

**Table 4.4** Status of tracking and reporting BMPs for each Lake County Clean Water Program Co-permittee scheduled for implementation in Fiscal Year 2011/12

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
CON 8b	Revise and implement tracking and reporting procedures.	Tracking and reporting procedures revised and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## **SECTION 5**

# **POST CONSTRUCTION STORMWATER MANAGEMENT**

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### **BACKGROUND**

New development and significant redevelopment<sup>1</sup> projects can adversely affect receiving water bodies for decades if post-construction storm water management elements are not implemented and maintained over the life of the project. Under the General Permit, 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. This program is named the **Post Construction Stormwater Management Program (PCON)**.

### **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 the creation 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 STORMWATER MANAGEMENT BMPs**

The PCON element is divided into four categories to effectively address storm water issues related to construction site runoff. 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. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

### **FISCAL YEAR 2011/12 ACCOMPLISHMENTS**

#### **GENERAL SUMMARY**

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The initial objectives of the PCON program element were to educate County and City (co-permittees) departments that would be involved within the Post-Construction Storm Water Management portions of the SWMP.

Included with the primary objectives of the program element are the evaluation and revision of existing ordinance(s), authorities, activities and programs structures. The PCON Workgroup has traditionally met concurrently with the CON Workgroup; and continued to do so this year. Development and implementation of the program requirements for post-construction storm water management moved forward as each of the responsible parties has adopted the CASQA "Best Management Practices

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<sup>1</sup> 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. 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.

Handbook” and is implementing its BMP’s.

The status of BMPs scheduled for implementation in FY 2011/12 are listed in Tables 5.1 – 5.4 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described. Please note that many PCON BMPs scheduled for implementation in FY 2011/12 were implemented jointly by all three (3) Co-permittees.

## **POST CONSTRUCTION SITE STORM WATER RUNOFF CONTROL PROGRAM MANAGEMENT**

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### **PCON-1 Post Construction Runoff Control (PCON) Work Group**

#### ***PCON 1b – Conduct PCON Workgroup meetings quarterly***

##### BMP Appropriateness

Appropriate to bring together the various people involved in the development, construction plan review and inspection process for a cohesive effort.

##### County of Lake, City of Clearlake and City of Lakeport

Measurable Goal Status- Complete. Ongoing. The PCON Working Group was combined with the CON Workgroup in September 2009, and has maintained a regular meeting schedule. CON/PCON Workgroup agendas are attached in Appendix 4-1.

Measurable Goal Results – Adopted the CASQA “Best Management Practices Handbook” to address new development and redevelopment projects.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness- Meetings are effective. The Workgroup meets quarterly and all jurisdictions have adopted the CASQA “Best Management Practices Handbook”.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to schedule and hold regular meetings.

### **PCON-2: Ordinance, Authority and Program Structure Review, Preparation and Adoption**

#### ***PCON 2b – Begin PCON ordinance (or equivalent) preparation or begin revising existing ordinances to gain required authority***

BMP Appropriateness - Appropriate to have an ordinance or equivalent mechanism to gain the required authority to implement the program.

##### County of Lake

Measurable Goal Status- Complete. An ordinance amending Chapter 29 of the Lake County Code (Storm Water Ordinance) was adopted on August 28, 2007. The amending ordinance adopted the CASQA “Best Management Practices Handbook” to address new development and redevelopment projects.

Measurable Goal Results - The County has adopted a Stormwater Ordinance which provides for the authority required to implement PCON Ordinances and/or Resolutions. An amendment to the Stormwater Ordinance has been adopted as the County BMP Manual, pertaining to ground disturbance of one acre or more to read: “one acre or more of new impervious surfaces”.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective. CASQA BMP Handbook is used in the review of new development and redevelopment projects, and applicable BMP's incorporated into project design.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None needed.

### **City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- The City of Lakeport adopted Ordinance No. 853 in 2006 which is incorporated into Chapter 8.40 of the Lakeport Municipal Code. The ordinance requires the provision of BMPs related to water quality during the construction and post-construction phases of a development project. The City also adopted Resolution No. 2272 (2006) which includes rules and regulations establishing performance requirements and BMPs to prevent or minimize the discharge of stormwater pollutants and related water quality impacts. This resolution also references the official adoption of stormwater BMP handbooks developed by CASQA. Copies of Chapter 8.40 and Resolution No. 2272 are included in Appendix 4-1.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None.

### **City of Clearlake**

Measurable Goal Results – Complete. The City of Clearlake adopted Storm Water Ordinance No. 126-2006 on January 25, 2007 adding Chapter 14.0 to the Clearlake Municipal Code regarding Storm Water Management.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Adoption of an ordinance will provide an effective and legal way to implement Lake County's Water Management Plan.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - None

### ***PCON 2c – Adopt PCON ordinance (or equivalent) or revise existing ordinance to gain required authority***

BMP Appropriateness- Appropriate to adopt an ordinance or equivalent mechanism to gain the required authority to implement the program.

### **County of Lake**

Measurable Goal Status- Complete - An ordinance amending Chapter 29 of the Lake County Code (Storm Water Ordinance) was adopted on August 28, 2007. The amending ordinance adopted the CASQA "Best Management Practices Handbook" to address new development and redevelopment projects.

Measurable Goal Results- County has adopted Stormwater Ordinance #2772 providing for the authority required to implement PCON elements. County has also adopted an amending ordinance that adopted the CASQA "Best Management Practices Handbook" to address new development and redevelopment projects.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective. CASQA BMP Handbook is used in the review of new development and redevelopment projects, and applicable BMP's incorporated into project design.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None

### **City of Clearlake**

Measurable Goal Results – Complete. The City of Clearlake adopted Storm Water Ordinance No. 126-2006 on January 25, 2007 adding Chapter 14.0 to the Clearlake Municipal Code regarding Storm Water Management.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Effective. Adoption of an ordinance provides an effective and legal way to implement Lake County's Water Management Plan.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - None

### **City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- The City of Lakeport adopted Ordinance No. 853 and Resolution No. 2272 in 2006 which are related to storm water management.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective. The ordinance and related resolution adopted by the City provide the authority needed to implement the Storm Water Management program. See response to PCON 2b above.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None.

### **PCON-3: Post-Construction Storm Water Management BMPs**

***PCON 3b – Revise post-construction storm water management BMP materials as appropriate***

BMP Appropriateness- Appropriate to revise existing materials or create new materials as appropriate to keep current with regulations and educate the development and construction community.

### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Status- Complete- Ongoing.

Measurable Goal Results – The County has adopted a guidance manual for post construction stormwater management requirements. Appendix 4-2 includes an excerpt from the Department of Public Works' BMP manual for post construction. The City of Lakeport continues to utilize the *New Development and Redevelopment Handbook* developed by CASQA which includes post-construction BMPs.

Problems in Obtaining Measurable Goals - None.

BMP Effectiveness - Effective. BMP information for developers, construction site staff and the general public is available at City(s) / County front desk counters without asking.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year- None

***PCON 3c – Make BMP information available to developers, construction site staff and the general public***

BMP Appropriateness- Appropriate. Information should be made available to the public, construction site staff, and developers to ensure an understanding of the Stormwater Program and mitigation measures available to them.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- BMP information for developers, construction site staff and the general public is available at City(s) / County front desk counters without asking.

The County Community Development Department has a Stormwater Program link from the County web page on behalf of the co-permittees. The Stormwater Program web page is continuously undergoing revisions in order to stay up to date with the new information.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective. The County Clean Water Program web page has a counter to register the number of accesses (hits) on the web page (currently at 4,629). In this manner the Co-Permittees can track the relative effectiveness of program efforts. The City of Lakeport also recently installed a page counter on its main stormwater web page:

<http://www.cityoflakeport.com/departments/page.aspx?deptID=91&id=127>

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue making BMP information available to developers, construction site operators and the general public.

**Table 5.1** Status and effectiveness of **Post Construction Site Stormwater Runoff Control Program Management** Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PCON 1b	Conduct PCON Workgroup meetings quarterly.	PCON Workgroup meeting summaries and attendees list.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PCON 2b	Begin PCON ordinance (or equivalent) preparation or begin revising existing ordinance to gain required authority.	PCON ordinance preparation complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
PCON 2c	Adopt PCON ordinance (or equivalent) revise existing ordinance to gain required authority.	PCON ordinance (or equivalent) adopted or existing ordinance revised.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
PCON 3b	Revise post-construction stormwater management BMP materials as appropriate.	Existing information revised.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PCON 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.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

#### **DEVELOPMENT PLAN REVIEW AND TRAINING**

#### **PCON-4: Plan Review, Permitting and Storm Water Management BMP Implementation**

#### ***PCON 4b – Revise plan review, permitting, and maintenance/ operation requirements and procedures (as appropriate)***

BMP Appropriateness- Appropriate to revise existing plan review, permitting and maintenance/ operation requirements and procedures.

**County of Lake**

Measurable Goal Status- Complete. Ongoing. A formal revision has been partially completed in that the plan review and permitting processes have been revised. Staff continue to provide language for conditions of approval related to stormwater management in accordance with Construction General Permits and the requirements of the Stormwater Ordinance.

Measurable Goal Results- The County of Lake has reviewed the plan review, permitting, and maintenance/operation requirements and procedures. The review revealed that a more coordinated plan review process is needed between CDD, Lake County Watershed Protection District, and Engineering and Inspection Divisions of Public Works. The County has adopted the CASQA BMP Guidance Manual.

Problems in Obtaining Measurable Goals- Lack of fiscal resources, staffing, and coordination between County Departments has hampered progress.

BMP Effectiveness - Effective. The County incorporates post construction BMP's into its use permit and tentative subdivision map processes, and includes appropriate BMP's on construction plan approvals.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year- Continue developing City policies/procedures related to storm water plan review, permitting, and maintenance/ operation requirements and procedures.

**City of Clearlake**

Measurable Goal Status- Complete.

Measurable Goal Results – The City has evaluated its plan review process and is implementing BMPS on all residential, commercial and public works construction projects. The City has adopted the CASQA Stormwater Best Management Practice Handbooks and implements practices recommended in those handbooks. Those handbooks are on file at the City for use by municipal staff and available to the general public as well. See City of Clearlake Resolution No. 32-2007 included in Appendix 4-1.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness – Unknown

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Continue the current program

**City of Lakeport**

Measurable Goal Status- Complete. Ongoing.

Measurable Goal Results- Policies and procedures related to BMP implementation have been reviewed. No significant changes have been deemed necessary. The City has adopted the CASQA Stormwater Best Management Practice Handbooks and continues to implement the recommended practices.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Review City policies/procedures related to storm water plan review, permitting, and maintenance/ operation requirements and procedures. Revise if deemed necessary.

***PCON 4c – Begin implementing plan review, permitting, and maintenance/ operation requirements and stormwater management BMPs.***

BMP Appropriateness- Appropriate to implement revised plan review, permitting and maintenance/ operation requirements and procedures.

**County of Lake**

Measurable Goal Status- Complete, Ongoing. A formal revision of the plan review and permitting has been completed. Maintenance/operation BMP's are included in use permit and tentative subdivision map approvals, and are included on construction plan approvals when appropriate.

Measurable Goal Results- Stormwater management BMPs included as conditions of approval for Subdivisions, Use Permits and grading and construction permits on sites of one acre or more.

Problems in Obtaining Measurable Goals - Lack of fiscal resources, staffing, and coordination between County Departments had delayed progress on completion of maintenance and operational requirements. County is unsure how to quantify/analyze these issues.

BMP Effectiveness - Effective. The County incorporates post construction BMPs into its use permit and tentative subdivision map processes, and includes appropriate BMPs on construction plan approvals.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Monitor PCON Stormwater BMP Maintenance.

**City of Clearlake**

Measurable Goal Status- Complete, Ongoing

Measurable Goal Results – The City is implementing BMPs on all residential, commercial and public works construction projects. The City has adopted the CASQA Stormwater Best Management Practice Handbooks and the extent possible implements practices recommended in those handbooks. Those handbooks are on file at the City for use by municipal staff and available to the general public as well.

Problems in Obtaining Measurable Goals - Lack of financial resources and administrative staff

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year Continue the current program.

**City of Lakeport**

Measurable Goal Status- Complete, Ongoing.

Measurable Goal Results- Plan review, permitting and maintenance/ operation requirements and procedures have been implemented. Post-construction stormwater management BMPs are included as conditions of approval for Subdivisions and other projects subject to Architectural and Design Review, Environmental Review and/or Use Permits. BMPs are also imposed when site grading and construction activities result in soil disturbances.

Problems in Obtaining Measurable Goals- BMP guidelines and resource materials are available to the public and any construction permit applicant. The City refers new permit applicants to these documents on a regular basis.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to incorporate appropriate post-construction stormwater BMPs as conditions of approval and/or mitigation measures in conjunction with new commercial and residential development projects.

### **PCON-5: Training on Post Construction Storm Water Management**

#### ***PCON 5b – Revise training program for appropriate staff, developers, and engineers and develop training manual***

BMP Appropriateness- Appropriate to have a training program for site inspectors and plan reviewers and an associated training manual so that municipal staff is aware of current regulations and technologies and understand the responsibilities and interactions of all departments involved in the plan review and inspection process.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results- Complete. Ongoing. The County of Lake, City of Lakeport and City of Clearlake have adopted the CASQA Storm Water Management practice handbooks and CASQA training program.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to implement training program annually.

#### ***PCON 5c – Implement an annual training program***

BMP Appropriateness- Appropriate to have a training program for site inspectors and plan reviewers and an associated training manual so that municipal staff is aware of current regulations and technologies and understand the responsibilities and interactions of all departments involved in the plan review and inspection process.

#### **County of Lake**

Measurable Goal Status- Complete. Ongoing. The County has adopted the CASQA Storm Water Management practice handbooks and CASQA training program. The Lake County Board of Supervisors approved a new position within the Community Development Department for a Grading and Stormwater Inspector in 2009. The incumbent is responsible for assisting the Chief Building Official with coordinating and implementing an annual training program. The County has lost two certified stormwater inspectors, but has hired new staff that will become certified.

Measurable Goal Results- One individual has been certified as a stormwater inspector.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staff continue to slow efforts.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to coordinate training efforts with the Cities of Clearlake and Lakeport in addition to training newly hired staff at the County.

### **City of Clearlake**

Measurable Goal Status – Complete

Measurable Goal Results – The City has initiated an in house training program for municipal staff involved in plan review and inspection of new development associated with residential and commercial construction. The City has adopted the CASQA Storm Water Management practice handbooks and the City uses those as a guide to require the installation of BMPs on residential and commercial projects. During construction the City evaluates the effectiveness of the required BMPs and requires modifications as appropriate. On large residential and commercial developments and public works construction projects the city contracts with civil engineering firms to perform plan review and construction inspection. Those contract firms are aware of the City's standards and the Lake County Storm Water Management Plan, SWMP, and their plan review comments and construction inspection procedures incorporate Lake County's SWMP requirements. During this reporting year (2011-2012) building and site inspectors from Lake County, City of Clearlake, and the City of Lakeport met on a regular basis to review and evaluate existing BMPs for potential updates and revisions. The three (3) agencies have adopted the CASQA Handbooks and the Caltrans Training manuals for inspectors and plan reviewers.

Problems in Obtaining Measurable Goals - The City has limited financial resources, and manpower, but is implementing municipal staff training so that the City and its consultants are using BMPs to meet the intent of Lake County's SWMP.

BMP Effectiveness – The better the BMPs used by the City's Public Works Department, contractors and private development the better the end product, which is less erosion and sedimentation into our creeks and ultimately Clearlake.

Proposed Changes to BMPs and Measurable Goals – Continue on going in house training of municipal staff as manpower and financial resources permit.

Activities Planned for Next Year - Continue to work with Lake County, the City of Lakeport and other agencies to improve training and procedures use by on-site inspectors on the installation of BMPs used to reduce or eliminate erosion from new development and Public Work's construction projects.

### **City of Lakeport**

Measurable Goal Status- Complete/Ongoing

Measurable Goal Results- The City Building Official receives updated training regularly in BMPs and inspection practices. The City will participate in all future training opportunities offered by the County.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Effective. City Building Official and Planning Services Manager are informed of current storm water BMPs. Ongoing annual training will ensure that local construction activities use appropriate BMPs so that erosion, sedimentation and other water quality impacts are minimized.

Proposed Changes to BMPs and Measurable Goals- None

Activities Planned for Next Year- Continue regular training and continue effort to complete a training manual. Participate in all training opportunities coordinated by the County of Lake.

**Table 5.2** Status and effectiveness of **Post Construction Site Stormwater Runoff Control Program Development Plan Review and Training** Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PCON 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)	County of Lake	X		X	X				X
			City of Clearlake	X		X	X		X		X
			City of Lakeport	X		X	X		X		X
PCON 4c	Begin Implementing plan review, permitting, and maintenance/ operation requirements and stormwater management BMPs.	Plan review, permitting, and maintenance/operation requirements and procedures implemented	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PCON 5b	Revise training program for appropriate staff, developers and engineers and develop training manual.	Training manual developed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
PCON 5c	Implement an annual training program	Training program implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## POST-CONSTRUCTION EDUCATION AND OUTREACH

### PCON-6: Public Education and Outreach / Involvement Participation

***PCON 6b – Develop new education and outreach material as necessary and make available to the public***

BMP Appropriateness- Appropriate to revise existing materials and develop new education and outreach materials as appropriate to keep up to date with regulations, current technologies and the needs of the development and construction community.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results- Complete. Ongoing. The Lake County Community Development Department maintains the Clean Water Program web page that has a section dedicated towards post construction stormwater management in new development and redevelopment projects. The brochure “Keep Clear Lake Free of Pollution” also addresses post construction issues; see brochure in Appendix 2-5.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective. The program is making progress, particularly with the distribution of brochures.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to revise and update available materials as required and develop or secure new materials. City of Lakeport will add applicable information related to post-construction stormwater management to its website or provide links to the materials posted on the County’s website.

**Table 5.3** Status and effectiveness of **Post Construction Site Stormwater Runoff Control Program Education and Outreach** Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PCON 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.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

**TRACKING AND REPORTING****PCON-7: Post-Construction Site Storm Water Runoff Control Program Tracking and Reporting*****PCON 7b – Revise and implement tracking and reporting procedures***

BMP Appropriateness- Appropriate to revise tracking and reporting procedures, if needed, before implementation.

**County of Lake**

Measurable Goal Results- Complete. Ongoing. The Community Development Department continues to coordinate and implement Post – Construction stormwater inspection based on each sites permitted use conditions. In addition, a grading permit and storm water violation tracking log has been developed and implemented (see Appendix 4-3).

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to track and coordinate efforts with the Cities of Clearlake and Lakeport.

**City of Clearlake**

Measurable Goal Results- In 2009 City developed a tracking form to document construction and grading activity throughout the City to cover the maintenance of post construction BMPs. Post construction structural BMPs include grease interceptors, drainage detention/treatment basins, and operation, maintenance agreements, as well as non structural BMPs such as grassy swales. The facilities outlined above are inspected annually by the City's Building Inspector and Director of Public Works and an inspection log is kept of those inspections.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Review the tracking procedures in place and make improvements where necessary.

**City of Lakeport**

Measurable Goal Status- Complete/ongoing.

Measurable Goal Results- Section 17.35.020 of the City of Lakeport Municipal Code (Mitigation Monitoring) requires City staff to conduct a post-construction review of development projects and the related mitigation measures/conditions of approval. The post-construction report must indicate the status of all conditions, remedial action necessary, and other observations and recommendations. City staff also uses a checklist form that is used in conjunction with the post-construction review activities.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective based on the level of compliance observed in the field.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue existing reporting and tracking procedures.

**Table 5.4** Status and effectiveness of **Post Construction Site Stormwater Runoff Control Program Tracking and Reporting** Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
PCON 7b	Revise and implement tracking and reporting procedures.	Tracking and reporting procedures revised and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## **SECTION 6**

### **ILLCIT DISCHARGE DETECTION AND ELIMINATION**

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#### **BACKGROUND**

The Municipal Separate Storm Sewer System (MS4) includes streets and gutters, whose drainage flows through pipes and ditches, discharging 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<sup>1</sup>. 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. To help reduce illicit discharges to the MS4 in Lake County, the Lake County Clean Water Program (LCCWP) is developing and implementing an **Illicit Discharge Detection and Elimination (IDDE) Program**.

#### **GOALS AND OBJECTIVES**

The goal of the IDDE program is to effectively reduce/eliminate illicit discharges into the LCCWP 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.

#### **ILLCIT 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) public education and outreach related to IDDE; and (5) reporting and tracking. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

#### **FISCAL YEAR 2011/12 ACCOMPLISHMENTS**

##### **GENERAL SUMMARY**

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The primary objectives for FY 2011/12 were to develop tracking procedures and forms for the IDDE program element by compiling survey responses and meeting (phone or email) summaries. The Lake County Department of Environmental Health has implemented the draft Hazardous Spills and Response Plan after it was evaluated by State and Federal Agency in October 2009. Maintaining program BMP's continues to be challenging due to staffing and budgetary constraints.

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<sup>1</sup> 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.

The status of BMPs scheduled for implementation in FY 2011/12 are listed in Tables 6.1 – 6.5 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described.

## **ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM MANAGEMENT**

### **IDDE-1: Illicit Discharge Detection and Elimination Workgroup**

#### ***IDDE 1b – Conduct IDDE Workgroup meetings quarterly.***

BMP Appropriateness - Appropriate to bring together the various entities involved in illicit discharge, illegal dumping, and waste management activities for a coordinated effort towards these tasks.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Status –Ongoing. The IDDE Working Group conducted regular meetings during this reporting period that met concurrently with the Advisory Council. The IDDE Workgroup activities have been focused on following and preparing for the changes pertaining to IDDE in the new Phase II MS4 Permit to be adopted by the end of 2012.

Measurable Goal Results: Complete and ongoing.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness –Effective, as meetings are being held quarterly.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Continue to conduct quarterly workgroup meetings.

### **IDDE-2: Existing Program Structure**

#### ***IDDE 2b – Determine Administrative Structure(s), Staffing Requirements and Fiscal Resources***

BMP Appropriateness – Appropriate to determine administrative structure(s), staffing requirements and fiscal resources needed to implement the program.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete. Ongoing.

Problems in Obtaining Measurable Goals – The Clean Water Program members have been closely watching the permit approval process for the new Phase II MS4 permit to be adopted in November 2012. The future permit requirements relating to IDDE have been in a high state of flux and make it difficult for the jurisdictions to make investments in IDDE with confidence that the regulations won't change.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year:

Review and implement IDDE provisions from the new Phase II MS4 permit.

### **IDDE-3: Prepare and Adopt IDDE Ordinance**

***IDDE 3a- Review existing ordinance(s), authorities, and program structure for the Illicit Discharge Detection and Elimination Program.***

**BMP Appropriateness** - Appropriate to evaluate the many parallel efforts of all municipal departments that compliment the intent of the Illicit Discharge and Elimination Program before developing the Program.

**County of Lake**

**Measurable Goal Results** – Complete (see FY 04/05 Annual Report).

**City of Clearlake**

**Measurable Goal Results** - Complete (see FY 04-05 Annual Report).

**City of Lakeport**

**Measurable Goal Results** – Complete (see FY 04-05 Annual Report).

***IDDE 3b – Begin IDDE Ordinance (or equivalent) Preparation or Begin Revising Existing Ordinance to Gain Required Authority***

**BMP Appropriateness** - Appropriate to have an ordinance or equivalent to gain the required authority to implement the program.

**County of Lake**

**Measurable Goal Results** – Complete. (see FY 06-07 Annual Report).

**City of Clearlake**

**Measurable Goal Results**- Complete. (see FY 06-07 Annual Report).

**City of Lakeport**

**Measurable Goal Results**- Complete. (see FY 06-07 Annual Report).

***IDDE 3c – Adopt IDDE Ordinance (or equivalent) or Begin Revising Existing Ordinance to Gain Required Authority***

**BMP Appropriateness** - Appropriate to have an ordinance or equivalent to gain the required authority to implement the IDDE program.

**County of Lake**

**Measurable Goal Results** – Complete. (see FY 06-07 Annual Report).

**City of Clearlake**

**Measurable Goal Results** – Complete. (see FY 06-07 Annual Report).

**City of Lakeport**

**Measurable Goal Results** – Complete. (see FY 06-07 Annual Report).

**Table 6.1** Status and effectiveness of Illicit Discharge Detection and Elimination (IDDE) Program Management Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
IDDE 1b	Conduct IDDE Workgroup meetings quarterly.	IDDE Workgroup meeting summaries and attendees list.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
IDDE 2b	Determine administrative structure(s), staffing requirements and fiscal resources.	Staffing and fiscal resource estimates developed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
IDDE 3a	Review existing ordinance(s), authorities, and program structure for the Illicit Discharge Detection and Elimination Program.	Summary of existing ordinance(s), authorities and program structure(s) complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
IDDE 3b	Begin IDDE ordinance (or equivalent) preparation or begin revising existing ordinance to gain required authority.	IDDE ordinance preparation complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
IDDE 3c	Adopt IDDE ordinance (or equivalent) or begin revising existing ordinance to gain required authority.	IDDE ordinance preparation complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X

## ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN

### IDDE-4: Spill Prevention and Response Procedures

#### ***IDDE 4b – Revise Existing Spill Prevention and Response Programs and Procedures as Needed***

BMP Appropriateness - Appropriate to revise existing programs if deficiencies are found with respect to addressing illicit discharges, prevention and/or response.

### County of Lake

Measurable Goal Results – Complete. The draft Lake County Hazardous Materials Response Plan was reviewed and evaluated in October 2009 by the State OES, Ca. EPA, and DTSC. Original development of this plan included monthly meetings with the local Fire Chiefs and other first responders. The Lake County Environmental Health Division follows the protocols outlined in the Plan by notifying various agencies immediately upon learning of a hazardous spill. In addition, the Community Development Department is notified so that the MS4 map can be consulted and the drainage map of the particular event can be printed and converted to a PDF file for immediate distribution back to the Environmental Health Division. The Division is currently seeking funding to upgrade its computer hardware and software to be able to store and access electronic copies of the County MS4 maps, as the Division currently relies on the County Department of Public Works or Community Development Department for copies of these maps.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Environmental Health Division will continue to seek funding to purchase hardware and software to support GIS layer of County MS4 Maps.

### City of Lakeport

Measurable Goal Results –Complete/Ongoing. The City has a Hazardous Materials Incident Response Plan in place.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing remains a persistent challenge.

BMP Effectiveness – Effective. City of Lakeport has developed a Hazardous Materials Incident Response Plan, which includes a Spill Prevention Plan for its corporation yard. Resources can be shared with County, if needed. The Hazardous Materials Incident Response Plan has been reviewed and approved by the Lake County Environmental Health Division according to the City's Utilities Director.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue to coordinate spill prevention and response activities with the County of Lake and other responsible agencies. Conduct training as necessary.

### City of Clearlake

Measurable Goal Results – The City of Clearlake has very basic spill prevention and response procedures in place at this time. Currently there is no formal hazardous material spill response Clean-up team in Lake County. Our City Public Works Department works with the local Fire Department and our Clearlake Police Department to clean-up non hazardous spills generally associated with traffic accidents. The City's Public Works also works in cooperation with the Lake County Environmental Health Department, and Lake County Sanitation District when sewage spills occur within our City. The goal is to contain the spill or contaminate using accepted BMPs, and remove it in a safe and efficient manner.

Problems in Obtaining Measurable Goals - The City has very limited staffing within the Public Works Department, and relies on working in cooperation with the various agencies within the City and County to respond to hazardous spills.

BMP Effectiveness - Spill prevention and adequate response and clean up of spills once they occur is certainly effective in reducing or eliminating contamination of our creeks and ultimately eliminating contaminants from entering Clearlake.

Proposed Changes to BMPs and Measurable Goals - None

Activities Planned for Next Year – Work with the City of Lakeport and Lake County Agencies to improve our spill prevention, response and clean-up procedures.

### ***IDDE 4c – Begin Implementing Revised Spill Prevention and Response Procedures***

BMP Appropriateness - Appropriate to implement the revised programs to address illicit discharges.

#### **County of Lake**

Measurable Goal Results - Complete. Revisions to the existing spill prevention and response procedures have been completed and implemented by the Environmental Health Division as of October 2009.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - None

#### **City of Clearlake**

Measurable Goal Results - The City of Clearlake has very basic spill prevention and response procedures in place at this time. Currently there is no formal hazardous material spill response Clean-up team in Lake County. Our City Public Works Department works with the local Fire Department and our Clearlake Police Department to clean-up non hazardous spills generally associated with traffic accidents. The City's Public Works also works in cooperation with the Lake County Environmental Department, and Lake County Sanitation District when sewage spills occur within our City. The goal is to contain the spill or contaminate using accepted BMPs, and remove it in a safe and efficient manner.

Problems in Obtaining Measurable Goals - The City has very limited staffing within the Public Works Department, and relies on working in cooperation with the various agencies within the City and County to respond to hazardous spills.

BMP Effectiveness – Spill prevention and adequate response and clean up of spills once they occur is certainly effective in reducing or eliminating contamination of our creeks and ultimately Clearlake.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Work with the City of Lakeport and Lake County Agencies to improve our spill prevention, response and clean-up procedures.

#### **City of Lakeport**

Measurable Goal Results – Complete. Training on the spill response plan and related procedures has taken place according to the City's Utilities Director. The Utilities Director explained that the Utilities Division uses a variety of chemicals and potentially hazardous materials in conjunction with water and sewer treatment activities. Public Works and Utility employees are trained in the proper response and cleanup protocols.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective. Staff is more aware and informed on response procedures and emergency protocols. Readiness has been enhanced.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - Review spill prevention and response procedures as needed. Revise if necessary. Conduct training as needed.

#### **IDDE – 5: Storm Drain System Inspection/Screening Program**

##### ***IDDE 5b – Revise Existing Storm Drain System Inspection/Screening Program as Needed***

BMP Appropriateness - Appropriate to revise existing procedures if any deficiencies are found in existing procedures.

#### **County of Lake**

Measurable Goal Results – Complete. Department of Public Works continues to program resources for inspection and maintenance of the County's MS4. In FY 2011/12 227 equipment hours, and 447.25 staff hours were spent on drainage system inspection and maintenance. Appendix 6-3 includes Department of Public Works Resource Usage and Activity Tracking reports.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Continue to track maintenance of County MS4.

#### **City of Clearlake**

Measurable Goal Results – The City of Clearlake Public Works Department has identified several specific areas near natural creeks where hazardous spills have either occurred or have a stronger likelihood to occur. They are: Molesworth Creek in the Meadowbrook area, Burns Valley Creek along Burns Valley Road, just north of Turner Street, and Miller Creek at Olympic Drive. Molesworth Creek and Burns Valley Creek at the above locations are near Lake County Sewer District lift stations, where sewer spills have occurred in the past, and Miller Creek is in commercial/industrial area where illicit discharges could occur.

Problems in Obtaining Measurable Goals – The City Public Works Department has a total of 4 employees to maintain its parks, storm drain system and over 150 miles of streets. Lack of adequate staffing and financial resources is a major problem for the City in meeting all of its goals.

BMP Effectiveness –Unknown, however identifying and screening problem areas will assist the City in developing a response and clean-up of any spill that occurs.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Develop better response plans and procedures for the containment and cleanup of spills that occur in the three areas cited above under 5b.

#### **City of Lakeport**

Measurable Goal Results – Complete. The City's Public Works department continues the inspection/screening program of the City's MS4 according to the Public Works Director. No changes have been needed according to the Director.

Problems in Obtaining Measurable Goals - None.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Continue to track maintenance of the City's MS4

### ***IDDE 5c – Begin Storm Drain System Inspection/Screening Program Implementation***

BMP Appropriateness - Appropriate to implement revised inspection and screening program once the revisions have been made.

#### **County of Lake**

Measurable Goal Results – Complete.

Problems in Obtaining Measurable Goals – None. Department of Public Works continues to program resources for inspection and maintenance of the County's MS4. In FY 2010/11 227 equipment hours, and 447.25 staff hours were spent on drainage system inspection and maintenance. See Appendix 6-3 for Resource Usage Report.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Continue to track maintenance of County MS4.

#### **City of Clearlake**

Measurable Goal Results - The City of Clearlake Public Works Department has identified several specific areas near natural creeks where hazardous spills have either occurred or have a stronger likelihood to occur. They are: Molesworth Creek in the Meadowbrook area, Burns Valley Creek along Burns Valley Road, just north of Turner Street, and Miller Creek at Olympic Drive. Molesworth Creek and Burns Valley Creek at the above locations are near Lake County Sewer District lift stations, where sewer spills have occurred in the past, and Miller Creek is in commercial/industrial area where illicit discharges could occur.

Problems in Obtaining Measurable Goals - The City Public Works Department has a total of 4 employees to maintain its parks, storm drain system and over 150 miles of streets. Lack of adequate staffing and financial resources is a major problem for the City in meeting all of its goals.

BMP Effectiveness – Unknown, however identifying and screening problem areas will assist the City in developing a response and clean-up of any spill that occurs.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year: Develop better response plans and procedures for the containment and cleanup of spills that occur in the three areas sited above under 5b.

#### **City of Lakeport**

Measurable Goal Results – Complete and ongoing for the City of Lakeport.

Problems in Obtaining Measurable Goals - Lack of fiscal resources and staffing is a persistent challenge.

BMP Effectiveness - Effective. Storm drains are inspected and cleaned regularly by the City's Public Works department. No observable debris or trash is to be found in drains before the start of the wet-weather season.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Continue regular inspections of the storm drain system throughout the City and attempt to develop modern tracking system for storm drain inspection and maintenance activities.

### **IDDE-6: Storm Drain System Inspection/Screening Program Staff Training**

#### ***IDDE 6a – Develop an Illicit Discharge Detection and Elimination Training Program for Applicable Municipal Employees***

BMP Appropriateness - Appropriate to develop a training program for applicable municipal employees to detect and address illicit discharges which yields results which can be tracked, addressed and reported on.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results –Ongoing.

Problems in Obtaining Measurable Goals – Overcoming a lack of fiscal resources and staffing remains a persistent challenge.

BMP Effectiveness – Effective. Staff is maintaining storm water controls at municipal yards, including installation and maintenance of silt fencing, and removing sediment from drainages as needed.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year - In addition to the public works and utilities staff, the City's Building Official and Planning Services Manager are involved with issues related to illicit discharges into the MS4.

#### ***IDDE 6b – Conduct Illicit Discharge Detection and Elimination Annual Training***

BMP Appropriateness - Appropriate to annually train all applicable municipal employees to detect and address illicit discharges.

#### **County of Lake**

Measurable Goal Results – Complete, Ongoing

Problems in Obtaining Measurable Goals –The County does not have a formal training program for IDDE at this time. The County Public Works Department works in cooperation with the other County Agencies to improve its procedures to respond to or address illicit discharges and accidental spills when they occur.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Develop a more formal annual training program for applicable municipal staff.

#### **City of Clearlake**

Measurable Goal Results –Incomplete. The City does not have a formal training program for IDDE at this time. The City's Public Works Department works in cooperation with the City of Lakeport and various Lake County Agencies to improve its procedures to respond to or address illicit discharges and accidental spills when they occur.

Problems in Obtaining Measurable Goals - Developing training programs in a small city with limited staff is difficult and financial resources are very limited for travel and training.

BMP Effectiveness – Unknown, however identifying and screening problem areas will assist the City in developing a response and clean-up of any spill that occurs.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Work with Lake County Agencies and the City of Lakeport in the development of a training program for applicable municipal staff to detect and address illicit discharges

### **City of Lakeport**

Measurable Goal Results –Complete

Problems in Obtaining Measurable Goals – Overcoming a lack of fiscal resources and staffing remains a persistent challenge.

BMP Effectiveness - Training efforts have been sufficient thus far. Training allows personnel to adequately identify and respond to illicit discharges or other similar spills.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year- City staff will continue to be attentive to storm water issues throughout the City and responsive to citizen concerns and complaints.

**Table 6.2** Status and effectiveness of Illicit Discharge Detection and Elimination (IDDE) Plan Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
IDDE 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-permittees	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X			X				X
IDDE 4c	Begin implementing revised spill prevention and response procedures.	Spill prevention and response procedures implemented.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X			X				X
IDDE 5b	Revise existing storm drain system inspection / screening programs as needed.	Existing storm drain system inspection / screening programs revised to be applicable to Co-permittees.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X			X				X
IDDE 5c	Begin storm drain system inspection / screening program implementation.	Storm drain system inspection / screening program implemented.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X		X	X				X
IDDE 6a	Develop an illicit discharge detection and elimination training program for applicable municipal employees.	Training program and associated materials developed.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
IDDE 6b	Conduct annual training for illicit discharge detection and elimination for applicable municipal employees.	Training program conducted at least once per year.	County of Lake	X		X	X				X
			City of Clearlake		X	X			X		X
			City of Lakeport	X		X	X		X		X

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**MUNICIPAL SEPARATE STORM SEWER SYSTEM MAPPING**

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**IDDE-7: Collect and Assess Existing Information on MS4**

- **IDDE 7a**– Completed-see FY 04/05 Annual Report
- **IDDE 7b**– Completed-see FY 04/05 Annual Report

**IDDE – 8: MS4 Mapping*****IDDE 8a – Input Existing MS4 Information into the GIS Database***

BMP Appropriateness - Appropriate to include all MS4 information in a central location for ease of use and for potential use on other projects that may require information on the infrastructure.

**County of Lake**

- Completed-see FY 04/05 Annual Report

**City of Clearlake**

Measurable Goal Results - Incomplete. Currently the City does not have a GIS layer for its storm drain system. Crews depend on organizational memory to locate certain underground storm drain lines, and in some cases have to trace them down with water from a flusher truck. As this has occurred in the past, the City Public Works crew sketches out the location and size of the storm drain pipes and location of inlets. As time permits this information will be transferred over to existing City street maps, and eventually digitized for our GIS mapping when it can be funded. Currently, the City has no employee that is proficient in GIS software applications.

Problems in Obtaining Measurable Goals - Lack of staffing and financial resources.

BMP Effectiveness – Unknown

Proposed Changes to BMPs and Measurable Goals - None

Activities Planned for Next Year - Continue to explore the possibility of the City obtaining a grant to contract the collection of the raw data for the City's Storm Drain System, and digitizing it onto the City's existing GIS maps. Due to financial constraints at this time, unless a grant is secured, it will be very difficult for the City of Clearlake to complete this goal under the current economic situation. The City will continue to collect any raw storm drain data that it obtains from field reconnaissance so that it can be digitized in the future. The City and County may consider partnering on incorporating the raw MS4 data collected into a GIS database.

**City of Lakeport**

- Completed-see FY 04/05 Annual Report

***IDDE 8b – Conduct MS4 Outfall Data Collection and Input into the GIS Database***

BMP Appropriateness- Appropriate. MS4 outfall location is a crucial piece of information that is needed to monitor for illicit discharges.

**County of Lake**

Measurable Goal Results – Complete. The draft MS4 Map/GIS Layer was completed in September 2010. The County has purchased hand held data GPS data collection units to assist in the Inspection and Maintenance program. The County expects to continue to refine and update the storm water infrastructure database in the coming year. Appendix 6-4 contains a sample of the MS4 map now in use.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing have delayed completion of program tasks.

BMP Effectiveness- Effective in that information is now readily available, and overlaid on aerial photos.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year - Update the storm water infrastructure database

### **City of Clearlake**

Measurable Goal Results - Incomplete. Currently the City does not have a GIS layer for its storm drain system. Crews depend on organizational memory to locate certain underground storm drain lines, and in some cases have to trace them down with water from a flusher truck. As this has occurred in the past, the City Public Works crew sketches out the location and size of the storm drain pipes and location of inlets. As time permits this information will be transferred over to existing City street maps, and eventually digitized for our GIS mapping when it can be funded. Currently the City has no employee that is proficient in GIS software applications

Problems in Obtaining Measurable Goals- Lack of fiscal resources and manpower to accomplish program tasks.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year – Continue to explore the possibility of City obtaining a grant to contract the collection of the raw data for the City's Storm Drain System, and digitizing it onto the City's existing GIS maps. Due to financial constraints at this time, unless a grant is secured, it will be very difficult for the City of Clearlake to complete this goal under the current economic situation. The City will continue to collect any raw storm drain data that it obtains from field reconnaissance so that it can be digitized in the future. The City and County may consider partnering on incorporating the raw MS4 data collected into a GIS database.

### **City of Lakeport**

- Completed-see FY 04/05 Annual Report

**Table 6.3** Status and effectiveness of MS4 Mapping Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
IDDE 8a	Input existing information into the GIS data base.	GIS data base with existing information complete.	County of Lake	X			X				X
			City of Clearlake		X				X		
			City of Lakeport	X			X				X
IDDE 8b	Conduct MS4 outfall data collection and input into the GIS data base.	Steady improvement annually. (MS4 mapping complete by end of permit term).	County of Lake	X			X				X
			City of Clearlake		X	X			X		X
			City of Lakeport	X			X				X

## **IDDE EDUCATION AND OUTREACH**

### **IDDE – 9: Public Education/Outreach and Involvement/Participation**

#### ***IDDE 9b – Develop New Education and Outreach Materials as Appropriate and Make Available to the Public (in collaboration with the PEOP Workgroup)***

BMP Appropriateness - Appropriate to develop new education and outreach materials if existing materials are out of date or inadequate to meet program needs for public education and outreach.

#### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results – Complete-Ongoing. The County developed a mercury brochure for public education and outreach on behalf of all Co-permittees. A general storm water brochure and a concrete waste brochure are also available to the general public. Brochures are available at each Co-Permittee's public counters, and are available for download at the Clean Water Program Website maintained by the Lake County Community Development Department. The City of Lakeport developed a storm sewer use guide for local businesses which is available online. Appendixes 2-1 and 2-5 contain samples of Program brochures in use.

Problems in Obtaining Measurable Goals – None.

BMP Effectiveness - Effective.

Proposed Changes to BMPs and Measurable Goals - None.

Activities Planned for Next Year – Continue regular meetings of all workgroups and revise educational materials in response to new information.

**Table 6.4** Status and effectiveness of IDDE Education and Outreach Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
IDDE 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.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## TRACKING AND REPORTING

### **IDDE – 10: Illicit Discharge Detection and Elimination Tracking and Reporting**

#### ***IDDE 10a- Conduct an assessment of current reporting and tracking procedures***

BMP Appropriateness - Appropriate to determine the methodology and formats used for current tracking and reporting of illicit discharges and related issues between the various County departments before developing new reporting and tracking procedures for the Lake County Stormwater Program.

#### **County of Lake, City of Clearlake, City of Lakeport**

Measurable Goal Status – Complete (See FY 06/07 Annual Report).

#### ***IDDE 10b – Revise and Implement Tracking and Reporting Procedures***

BMP Appropriateness- Appropriate to revise tracking and reporting procedures, as needed, before implementation such that a consistent and coordinated format is utilized.

#### **County of Lake**

Measurable Goal Results- Complete. County Department of Public Works tracks maintenance efforts of the storm drain system and street sweeper effectiveness. Community Development Department tracks permitted and unpermitted grading projects and stormwater violations. See Appendix 4-3 for example of tracking log.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Continue to track IDDE data.

**City of Clearlake**

Measurable Goal Results- The City of Clearlake Public Works Department has identified several specific areas near natural creeks where hazardous spills have either occurred or have a stronger likelihood to occur. They are: Molesworth Creek in the Meadowbrook area, Burns Valley Creek along Burns Valley Road, just north of Turner Street, and Miller Creek at Olympic Drive. Molesworth Creek and Burns Valley Creek at the above locations are near Lake County Sewer District lift stations, where sewer spills have occurred in the past, and Miller Creek is in commercial/industrial area where illicit discharges could occur. These are high priority areas, and the City has developed a tracking system to improve the inspection/maintenance BMP's for these areas.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year Review current tracking procedures and make improvements as required.

**City of Lakeport**

Measurable Goal Results- Complete and ongoing. Illicit discharge violations are investigated by City staff and followed up on if deemed necessary. Complaints and other violations are logged in a database maintained by the Community Development Department.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing remains a persistent challenge.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals -None.

Activities Planned for Next Year - Coordinate with our Public Works and Utilities departments to complete and submit the storm water violation complaint forms that are posted on the City's website. This will help with tracking activities.

**Table 6.5** Status and effectiveness of IDDE Tracking and Reporting Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
IDDE 10a	Conduct an assessment of current tracking and reporting procedures.	Assessment complete.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
IDDE 10b	Revise and implement tracking and reporting procedures.	Tracking and reporting procedures revised and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X			X		X
			City of Lakeport	X		X	X				X

## **SECTION 7**

# **POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS**

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### **BACKGROUND**

The Pollution Prevention/Good Housekeeping for Municipal Operations minimum control measure is a key element of the Program's Stormwater Management Plan (SWMP). Stormwater quality can be impacted by pollutants (e.g., 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 stormwater quality, the Program is developing and implementing a **Stormwater 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 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 LCCWP 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 stormwater issues related to municipal operation and maintenance activities. These categories are: (1) MUNI Program Management; (2) Stormwater Pollutant Control/Removal Programs; (3) Municipal Operations Stormwater Management; (4) Coordination and Training; (5) Public Education and Outreach; and, (6) Tracking and Reporting. For each category, specific BMPs and associated implementation timelines were adopted in the Program's SWMP.

### **FISCAL YEAR 2011/12 ACCOMPLISHMENTS**

#### **GENERAL SUMMARY**

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The initial objectives of the MUNI program element were intended to educate the departments that would be involved with the Pollution Prevention Good Housekeeping Program and to solicit comments for the preparation and adoption of the SWMP. The 2011/12 fiscal year objectives included:

- an assessment and evaluation of existing activities and programs and to guide the MUNI Workgroup membership to allow their efforts to move forward in developing an appropriate suite of pollution prevention BMPs for day to day operations;
- training manuals and/or training programs to keep municipal employees abreast of current regulations, current technologies and practices;
- Identify appropriate BMPs related to the operations and maintenance of County facilities.

## Section 7 Pollution Prevention and Good Housekeeping for Municipal Operations

The status of BMPs scheduled for implementation in FY 2011/12 are listed in Tables 7.1 – 7.6 and briefly described in this section. Additionally, BMP effectiveness and activities planned for next fiscal year are also described.

### MUNICIPAL MAINTENANCE GOOD HOUSEKEEPING PROGRAM MANAGEMENT

#### MUNI-1: Municipal Operations Workgroup

##### ***MUNI 1b– Conduct MUNI Workgroup meetings twice per year***

###### BMP Appropriateness

Appropriate to keep municipal maintenance staff informed about current regulations and technologies and to coordinate efforts between all municipalities to reduce duplication of effort and associated program costs.

###### County of Lake, City of Clearlake and City of Lakeport

Measurable Goal Status- Complete/Ongoing.

Measurable Goal Results- The Municipal Operations Working Group met twice during the past year rather than quarterly. However workers from each jurisdiction continued to coordinate water quality protection activities performed by their respective agencies.

Problems in Obtaining Measurable Goals- Reduced staff and fiscal resources makes maintaining regular MUNI Workgroup meetings challenging. Past priority had been given to CON/PCON and PEOP related tasks earlier in the Program, as these have had the greatest immediate impact upon the receiving waters of Clear Lake and provide the greatest potential use for limited human and fiscal resources.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Strive to continue with regular meetings among the co-permittees.

**Table 7.1** Status and effectiveness of MUNI Program Management Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
MUNI 1b	Conduct MUNI Workgroup meetings twice per year.	MUNI Workgroup meeting summaries and attendees list.	County of Lake	X		X			X		X
			City of Clearlake	X		X			X		X
			City of Lakeport	X		X			X		X

### STORMWATER POLLUTANT CONTROL / REMOVAL PROGRAMS

#### MUNI-2: Street Sweeping Program

##### ***MUNI 2a – Evaluate and document current street sweeping practices.***

**County of Lake, City of Lakeport and City of Lakeport**

Measurable Goal Status- Complete (See FY 06/07 Annual Report).

***MUNI 2b – Develop / revise street sweeping BMPs***

BMP Appropriateness- Revising or development of street sweeping BMPs is appropriate to be adaptable to seasonal fluctuations and public use patterns, to respond to high dust generative areas, to assess street sweeping effectiveness, and minimize potential pollutants in roadways.

**County of Lake**

Measurable Goal Results- Complete. An ordinance amending Chapter 29 of the Lake County Code (Storm Water Ordinance) was adopted on August 28, 2007. The amending ordinance adopted the CASQA "Best Management Practices Handbook" includes numerous street sweeping BMPs. The County continues to regularly sweep streets.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Unknown, due to a lack of a baseline prior to street sweeping operations. However, this BMP is believed to be effective as many tons of debris are removed from the streets and gutters annually which otherwise would enter the MS4.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Completed.

**City of Clearlake**

Measurable Goal Results- Complete.

Measurable Goals Results – The City of Clearlake adopted resolution 126-2006, on January 25, 2007, which by separate resolution adopted the Municipal Operations BMP Handbook produced by the California Stormwater Quality Association (CASQA). The handbook includes numerous street sweeping BMPs. On July 12, 2007 the, City of Clearlake City Council adopted Resolution No. 32-2007 adopting the CASQA handbooks which establishes performance requirements and best management practices (BMPs) to prevent or minimize discharged of Stormwater pollutants and storm water quality impacts.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness- Street sweeping is a very effective way to reduce the amount of pollutants entering the City's storm drain system and ultimately reaching creeks and Clearlake.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None – Complete

**City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- City of Lakeport adopted Resolution No. 2272 in 2006 which, by reference, adopted the Municipal Operations BMP Handbook produced by the California Stormwater Quality Association (CASQA). Said handbook includes numerous street sweeping BMPs. The City purchased a new street sweeper in fiscal year 2009/10, and continues to maintain a regular street sweeping schedule.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None- complete.

### ***MUNI 2c – Implement Street sweeping BMPs***

BMP Appropriateness- Very appropriate to implement street sweeping BMPs as streets, roads, and parking lots accumulate significant amounts of pollutants which potentially contribute to stormwater runoff into surface waters. Street sweeping can also minimize dust and decrease accumulation of debris in catch basins.

### **County of Lake**

Measurable Goal Status- Complete. Ongoing.

Measurable Goal Results- The street sweeping program has been in effect for several years on the county's paved roadways. This year the street sweeping program swept 2,463 miles of paved roadways, diverting 1,894 cubic yards of debris from the county's streams and lakes. Refer to Appendix 6-2 for the street sweeping reporting log for FY 2011/12.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- The Department of Public Works has implemented a system for tracking the cubic yards of sweeping debris accumulated and miles of streets swept. Continue with data collection.

### **City of Clearlake**

Measurable Goal Results – In 2011-12 the City continued to use Lake County inmates to hand clean streets on its major arterial streets. The curb, gutters and sidewalks were hand cleaned to remove all debris and sediment. On April 28, 2012 the City had its fifth annual City wide clean up day. Approximately 85 Volunteers from all over City participated in this major spring clean-up campaign. See the clean up day announcement and photos in the appendix 2-6. The City plans to continue this street cleaning program in the spring of each year. Both of these programs have been very successful and have substantially reduced sediment into our storm drain system and into Clearlake.

The City entered in negotiations for a new franchise agreement with Clear Lake Waste Solutions, our solid waste contract hauler in January 2010. The City of Clearlake was successful in negotiating street sweeping of the City's arterials, and collector streets into the new contract. City arterial, collector streets will be swept with mechanical sweepers once per month and City Park areas will be swept quarterly. The contract was executed in August 2011. The street sweeping program began in September 2011. A total of 33.9 tons of debris was removed from the streets of Clearlake. See Appendix 6-1 for the volumes of debris collected in FY 11-12 through the street sweeping program by month.

Problems in Obtaining Measurable Goals - The City does not have a street sweeper and has to contract with a private sweeping contractor to meet this goal.

BMP Effectiveness – Street sweeping and hand cleaning of gutters and sidewalks is a very effective way to reduce pollutants into our streams and Clear Lake.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year – Continue with the street sweeping program. The City also plans to continue to support the annual Clearlake volunteer cleanup day and the use of Lake County inmates, as they are available, to hand clean the City's streets.

### **City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- City Public Works Director reports that the street sweeping BMPs set forth in the CASQA handbook for municipal operations have been implemented. Street sweeping takes place according to a set schedule and accumulated debris is properly disposed of. A concrete wash area is used to wash out the street sweeper.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue utilizing appropriate street sweeping BMPs. Update and modernize street sweeping reporting log to include volume counts. Create a database that can be used for future tracking.

### ***MUNI 2d – Advertise street sweeping schedule***

BMP Appropriateness- It is appropriate to advertise street sweeping schedules to the general public while maintaining a flexible, proactive/reactive, approach can increase program effectiveness. A measured response to areas of concern such as those areas requiring increased sweeping schedules due to high dust or debris generation is required for maximum efficiency and efficacy of this program.

### **County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Results- Complete-Ongoing. The Lake County Clean Water Program web site has street sweeping schedules advertised for Lake County. The City of Lakeport also has a street sweeping schedule and route map posted in the lobby at Lakeport City Hall. Appendix 2-2 contains copies of these webpages and the City of Lakeport schedule/route map.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing to evaluate and execute other advertising mechanisms for the sweeper program.

BMP Effectiveness- Effective. The County Department of Public Works receives inquiries and requests to revise the schedule from time to time, and the Department makes accommodations for special requests. The City of Lakeport also receives similar inquiries and requests and tries to accommodate them as much as possible.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Evaluate other options for advertising street sweeping schedules along with helpful hints on what homeowners can do to help keep streets clean. City of Lakeport— Revise/update the GIS-based street sweeper route/schedule map and post on City's website.

### **MUNI-3: Green Waste Collection Programs and Activities**

#### ***MUNI 3c– Advertise green waste collection activities and programs available to the public***

BMP Appropriateness- Appropriate to advertise green waste collection activities and programs available to the general public. Increased public awareness of available green waste collection activities and programs results in increased used of said programs and reduced illegal dumping.

### County of Lake, City of Clearlake and City of Lakeport

Measurable Goal Status- Complete-Ongoing.

#### Measurable Goal Results

- County of Lake  
Green Waste Collection Programs are advertised through radio, TV, newspapers, handouts, Public Services web page (<http://recycling.co.lake.ca.us/index.asp>), community events, and through its existence as curb side pickup.
- City of Clearlake  
City of Clearlake contracts green waste collection with franchise hauler, Clearlake Waste Solutions. As a part of the new franchise agreement Clearlake Waste Solutions, the City's waste hauler will be increasing the public awareness for residential as well as commercial customers on all phases of re-cycling including the collection of green waste required by CalRecycle. Additionally, the City of Clearlake public access channel has outreach programming that advertises the green waste pickup services and availability of the landfill to accept green waste.
- City of Lakeport  
City of Lakeport contracts green waste collection with its franchise hauler, Lakeport Disposal. Lakeport Disposal has a weekly curbside green waste collection program as part of the City's mandatory trash service. As of FY 11-12, green waste pickup service is provided year-round. This service was previously suspended during the winter months. Furthermore, households can request additional collection totes if necessary during the fall months. Lakeport Disposal also provides a free drop off collection spot for Christmas trees in late December/early January. Traditional advertising may not be necessary given that each residential household is provided with a 90-gallon green waste container. Green waste collection information is provided on the City's website and on Lakeport Disposal's website. Copies of these web pages are included in Appendix 2-2.

Problems in Obtaining Measurable Goals- Staff typically prioritize and concentrate on a portion of the program at any one time due to limited resources, including but not limited to, staffing level, fiscal resources, and Departmental priorities.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue advertise green waste collection programs available to the public.

### **MUNI-4: Litter Control Programs and Activities**

#### ***MUNI 4c- Advertise litter control activities and programs available to the public***

BMP Appropriateness- Appropriate to advertise litter control activities and programs available to the general public and also educate the public of the impacts litter has on stormwater quality. Increased public awareness about the impacts of litter on stormwater and what they can do, such as volunteering in community clean up events, using ashtrays and public garbage receptacles, will most likely increase use of using the already-provided garbage receptacles.

### **County of Lake, City of Clearlake, and City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

#### Measurable Goal Results

- **Lake County Public Works** advertises the Adopt-A-Road Program during Public Works Week and by posting signs at road segments in need of volunteers. Road sections that are adopted are also posted Lake County Adopt-A-Road with the volunteer's name.
- **Lake County Public Works, Water Resources Division** advertises Creek Clean up events sponsored by the East Lake and West Lake Resource Conservation District on the Water Resources Division web page.
- **Lake County Public Services** advertises various litter control activities and programs at public events. The nature of programs advertised is dependent upon the timing of event with scheduled litter control programs.
- **City of Lakeport Public Works** staff participates in the annual Downtown Lakeport Clean Up Day which typically takes place in May preceding the Memorial Day holiday.
- **City of Lakeport Public Works** coordinates solid waste needs with applicants/sponsors of all special community events and ensures that an adequate number of receptacles are provided. The City also provides recycling containers at all community events.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue advertising litter control activities and programs available to the public. Work on the development of a brochure, on behalf of all co-permittees for the stormwater program, dedicated to litter control activities and programs available to the public.

### **MUNI-5: MS4 Inspections and Maintenance Activities**

#### ***MUNI 5b – Develop MS4 inspection and maintenance BMPs***

BMP Appropriateness- Appropriate to develop MS4 inspection and maintenance BMPs to be in-line with what is required under increasing water quality regulations.

#### **County of Lake**

Measurable Goal Status: Complete. The MS4 Map/GIS Layer was completed in September 2010. The County has purchased hand held GPS data collection units to assist in the Inspection and Maintenance program. The County expects to update the storm water infrastructure database in the coming year. The Department of Public Works has developed, and follows standard operating procedures for inspection and maintenance of the County storm water system, based upon the CASQA Best Management Practices Handbook BMPs.

Measurable Goal Results- The County has adopted the CASQA Best Management Practices Handbook for storm drain maintenance BMPs. During the fall of the year, DPW cleans every drop inlet with the vacuum attachment of the street sweeper. During each rain storm DPW staff inspects as many storm drains as possible, looking to remove debris. The County spent 227 equipment hours, and 447.25 staff hours in FY 2011/12 cleaning and maintaining the County storm drain system.

Problems in Obtaining Measurable Goals- None at the present time. Lack of fiscal resources and staffing had delayed completion of this program in the past.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Update the storm water infrastructure database.

### City of Clearlake

Measurable Goal Status: Complete

Measurable Goal Results: The City has the following inspection and maintenance BMPs: Annually the City inspects all of its storm drain facilities including catch basin inlets, culvert crossings, storm drain pipe lines and drainage ditches. Catch basins, area drains, and culvert crossings, are cleaned each fall to remove silt and other debris that has collected to prevent pollutants from entering the City's storm drains, and ultimately reaching Clearlake. During the 11-12 reporting period the City of Clearlake's Public Works crews, inmates and public volunteers removed 860.75 cubic yards of silt and mud, and another 18 cubic yards of debris and trash and 3 cubic yards of mixed recycling from the City's storm drainage ditches, creeks, inlets and catch basins and City streets.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- The annual inspection and cleaning of storm drainage facilities prevents or minimizes the discharge of Stormwater pollutants into the City's storm drain system and Clearlake.

Proposed Changes to BMPs and Measurable Goals- It is the City's intent to work with Lake County Public Works Department to use their vacuum equipment to clean storm drain outlets, and catch basins within the City of Clearlake as time and labor sharing can occur. Otherwise this work element will continue to be done by hand to assure that sediment collected in our storm drain system is cleaned each fall before the rain season begins.

Activities Planned for Next Year- Continue the existing inspection and maintenance BMPs. It is the City's intent to work with Lake County Public Works Department to have our street sweeping contractor use their vacuum equipment to clean storm drain outlets, and catch basins, as time and labor sharing allows. Otherwise this work element will continue to be done by hand to assure that sediment collected in our storm drain system is cleaned each fall before the rain season begins. Using Public Works Crews, California Conservation crews or Lake County inmates the City plans to hand clean Burns Valley Creek, Miller Creek, and Molesworth Creek of debris and litter, from the creek's entrances into Clearlake, upstream approximately 1,500 to 2,000 feet. This work will be scheduled in September, October and November before the start of the heavy rainy season.

### City of Lakeport

Measurable Goal Status- Complete.

Measurable Goal Results- City Public Works Director reports that MS4 inspection and maintenance BMPs as set forth in the CASQA handbook for municipal operations have been implemented. The PW Director stated that in FY 11-12 approximately 75 cubic yards of debris was removed from streams and creeks in Lakeport by Public Works staff and contracted labor from the Californian Department of Forestry (CDF). Approximately 10 cubic yards of silt, debris and other materials were removed from storm drains and catch basins in FY 10-11. City records indicate that 500.75 man-hours were spent on these activities in FY 10-11.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

***MUNI 5c – Distribute MS4 Inspection and maintenance BMP information***

BMP Appropriateness- Appropriate to distribute information to applicable staff so that they are informed of proper municipal maintenance responsibilities to the Stormwater Program.

**County of Lake**

Measurable Goal Status- Complete.

Measurable Goal Results- Storm drain inspection and maintenance BMPs as set forth in the CASQA handbook for municipal operations have been distributed to appropriate Public Works Department staff.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Department of Public Works will finalize the MS4 GIS Layer and inspect and update the infrastructure database and distribute revised BMPs to staff based upon infrastructure inspection. The County is considering making the GIS layer available via the internet through the County's GIS website.

**City of Clearlake**

Measurable Goals Status – Complete

Measurable Goal Results - City Public Works Foreman indicates that storm drain inspection and maintenance BMPs as set forth in the CASQA handbook for municipal operations have been and/or will be distributed to appropriate Public Works Department personnel

Problems in Obtaining Measurable Goals – None

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year – To ensure that all City Public Works personnel involved in storm drain inspection and maintenance activities are knowledgeable on storm water BMPs they will be discussed during regular staff safety and training meetings.

**City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- City Public Works Director reports that MS4 inspection and maintenance BMPs as set forth in the CASQA handbook for municipal operations have been and/or will be distributed to appropriate Public Works Department personnel.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City's Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Ensure that all City Public Works personnel involved in MS4 inspection and maintenance activities are provided with the appropriate BMPs. Ongoing training takes place according to the City's Public Works Director.

***MUNI 5d – Implement MS4 Inspection and maintenance BMP to the maximum extent practicable.***

BMP Appropriateness- Appropriate to implement MS4 inspection and maintenance BMPs to increase the program effectiveness through regular inspections and maintenance procedures.

**County of Lake**

Measurable Goal Results- Complete. Ongoing. In the fall of the year, DPW cleans every drop inlet with the vacuum attachment of the sweeper. During each rain storm DPW staff is inspecting as many storm drains as possible, looking to remove debris.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing continue to make it difficult to accomplish 100 percent of this program task.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue with current BMP by using street sweeper vacuum attachment to clean drop inlets and utilize DPW staff to monitor storm drains during rain events.

**City of Clearlake**

Measurable Goal Results – Inspection and maintenance BMPs have been implemented as indicated in section 5b.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Continue the City's existing inspection and maintenance BMPs. To Ensure that all City Public Works personnel involved in storm drain inspection and maintenance activities are knowledgeable on storm water BMPs they will be discussed during regular staff safety and training meetings. It is the City's intent to have our street sweeping contractor use vacuum equipment to clean storm drain outlets, and catch basins, as funding allows. Otherwise this work element will continue to be done by hand to assure that sediment collected in our storm drain system is cleaned each fall before the rain season begins. Annually using Public Works crews, California Conservation crews or Lake County inmates the City plans to hand clean Burns Valley Creek, Miller Creek, and Molesworth Creek of debris and liter, from creek's entrances into Clearlake, upstream approximately 1,500 to 2,000 feet. This work will be scheduled in September, October and November before the start of the heavy rainy season.

**City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- City Public Works Director reports that appropriate MS4 inspection and maintenance BMPs have been implemented. One notable BMP is the annual inspection, maintenance and cleaning of all MS4 drop inlets and catch basins prior to the rainy season. Drop inlets and catch basins are also monitored for sediment accumulations during the rainy season.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City's Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue using MS4 inspection and maintenance BMPs as appropriate.

### ***MUNI 5e - Document Problem Areas***

BMP Appropriateness- Appropriate to document problem areas as revealed through the MS4 inspection and maintenance program. Problem areas may require a modified approach to maintenance, maintenance scheduling, or a change in BMP used.

### **County of Lake**

Measurable Goal Results- Incomplete. The Department of Public Works has identified the problem areas in the MS4, but has struggled to document their locations. Documentation has been delayed because the Department is able to identify problem areas without documentation, but rather through institutional knowledge.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing to accomplish program tasks.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Document problem areas revealed during implementation of BMP inspection and maintenance of BMPs.

### **City of Clearlake**

Measurable Goal Status – Complete

Measurable Goal Result – The storm drainage systems along Lakeshore Drive are considered a potential problem area, because Lakeshore Drive fronts onto Clearlake, and thus given a higher priority in maintaining a higher level of inspection and maintenance BMPs. The City Public Works Department has identified the following natural creeks that flow into Clearlake along Lakeshore Drive, or Old Highway 53: Burns Valley Creek, Miller Creek, and Molesworth Creek.

Problems in Obtaining Measurable Goals – None

Proposed Changes to BMPs and Measurable Goals – The City of Clearlake has established a higher priority to the following creeks that drain into Clearlake: Burns Valley Creek, Miller Creek, and Molesworth Creek. Using Lake County inmates the City of Clearlake plans to hand clean Burns Valley Creek, Miller Creek, and Molesworth Creek of debris and litter, from creek's entrance into Clearlake, upstream approximately 1,500 to 2,000 feet. This work will be scheduled in September, October, and November before the start of the heavy rainy season.

Activities Planned for next Year – Continue the City's annual inspection and maintenance BMP program. Investigate the possibility obtaining grants to allow the City to add a GIS layer of the City's Stormwater System to its existing GIS mapping system.

### **City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- According to the City Public Works Director, all MS4 facilities in the City's historic downtown area and near water bodies such as Clear Lake and Forbes Creek are considered "problem areas" that warrant extra consideration.

**Section 7**

**Pollution Prevention and Good Housekeeping for Municipal Operations**

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City’s Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue the City’s annual inspection and maintenance program. Budget issues have prevented the City from integrating MS4 “problem areas” into the City’s GIS database.

**Table 7.2** Status and effectiveness of MUNI Stormwater Pollutant Control/Removal Programs Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
MUNI 2a	Evaluate and document current street sweeping practices.	Street sweeping practices evaluated.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
MUNI 2b	Develop/revise street sweeping BMPs.	BMPs developed.	County of Lake	X					X		X
			City of Clearlake	X		X	X				X
			City of Lakeport	X					X		X
MUNI 2c	Implement street sweeping BMPs.	Implement street sweeping BMPs.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 2d	Advertise street sweeping schedule.	Street sweeping schedule advertised on websites and other appropriate mechanisms.	County of Lake	X		X	X				X
			City of Clearlake	X		X			X		X
			City of Lakeport	X		X	X				X
MUNI 3c	Advertise green waste collection activities and programs available to the public.	Green waste program activities advertised on websites and other appropriate mechanisms.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 4c	Advertise litter control activities and programs available to the public.	Litter control activities advertised on websites and other appropriate mechanisms.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 5b	Develop MS4 inspection and maintenance BMPs.	BMPs developed and documented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X			X	

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
			City of Lakeport	X		X	X				X
MUNI 5c	Distribute MS4 inspection and maintenance BMP information.	Inspection and maintenance information distributed to applicable staff.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				
MUNI 5d	Implement MS4 inspection and maintenance BMPs to the maximum extent practicable.	BMPs implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				
MUNI 5e	Document problem areas.	Problem areas documented and BMPs revised as appropriate.	County of Lake		X	X			X		X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				

## **MUNICIPAL OPERATIONS STORMWATER MANAGEMENT**

### **MUNI-6: Review and evaluate impacts to stormwater from existing road repair and maintenance activities**

#### ***MUNI 6b Develop road repair and maintenance BMPs***

**BMP Appropriateness-** Appropriate to develop road repair and maintenance BMPs as traffic use and climatic conditions place demands on road maintenance and repair. Pollutants found on roads and streets vary depending upon the presence of roadside vegetation, herbicide use, vehicle spills, and winter de-icing applications. Pollution constituents include heavy metals, particulates, petroleum products, and herbicides.

#### **County of Lake**

**Measurable Goal Status-** Complete

**Measurable Goal Results:** Complete. An ordinance amending Chapter 29 of the Lake County Code (Storm Water Ordinance) was adopted on August 28, 2007. The amending ordinance adopted the CASQA “Best Management Practices Handbook”, which includes road maintenance and repair BMPs.

**Problems in Obtaining Measurable Goals-** None

**BMP Effectiveness-** Unknown, Effective.

**Proposed Changes to BMPs and Measurable Goals-** None.

Activities Planned for Next Year-. None needed.

### City of Clearlake

Measurable Goal Results –The City of Clearlake performs very little asphalt repair and maintenance due to funding constraints. The City has over 50 miles of unpaved streets that it maintains. The unpaved roads are graded and additional road base is added to the surface of the road annually during the summer months. The impacts to stormwater are minimal from the asphalt patching and paving that the City performs on a regular basis. To reduce the impacts from the road grading operation moisture is added and the surface is compacted to tighten the surface and reduce the potential of loose sediment from enter the City's drainage channels and streams and ultimately Clear Lake. As labor and time permit the City is adding asphalt street grindings removed from recent street rehabilitation projects to the City's unimproved streets which help reduce the amount of silt entering our drainage channels and streams from these unimproved dirt roads.

Problems in Obtaining Measurable Goals - It is difficult to determine a measurable goal when you impacts are minimal, as is the case with out street patching and grading operation. A minimum goal should be to reduce small particles of asphalt and small gravel from reaching the City's drainage channels and creeks.

BMP Effectiveness –Unknown—probably minimally effective.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year -Reduce as much as possible the amount of pollutants from asphalt patching and paving mix and small gravels and sand from the City's grading operations from entering the City's drainage channels and creeks. The City Public Works crews will continue to place asphalt grindings on its unimproved roads to improve the overall condition of the road and reduce erosion.

### City of Lakeport

Measurable Goal Status- Complete.

Measurable Goal Results: City of Lakeport adopted Resolution No. 2272 in 2006 which, by reference, adopted the Municipal Operations BMP Handbook produced by the California Stormwater Quality Association (CASQA). Said handbook includes BMPs related to road repair and maintenance.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

### ***MUNI 6c Distribute road repair and maintenance BMP Information***

BMP Appropriateness- Appropriate to distribute road repair and maintenance BMPs information to maintenance personnel charged with road repair/maintenance to provide an understanding of the constituents affecting water quality and to increase awareness regarding the efficacy of the appropriate BMPs.

### County of Lake

Measurable Goal Status-The Department of Public Works has adopted the Caltrans storm water management plan BMPs and is distributing this along with training materials to staff in the three road yards, Central Garage/ISF and the Paint and Sign shop. Appendix 4-2 includes an excerpt from the BMP handbook adopted and implemented by the Department of Public Works.

Measurable Goal Results: Complete, Ongoing as methods and technologies continue to evolve.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to distribute road maintenance and repair BMP information by way of training CD's or videos and hands on trainings.

### **City of Clearlake**

Measurable Goal Results - The City should follow its existing procedures for reducing pollutants from asphalt patching and paving projects. In 2007 the City adopted the CASQA handbook for municipal operations and the BMPs recommended in that handbook has been and/ or will be distributed to the appropriate Public Works Department personnel and discussed at regular staff briefings and meetings.

Problems in Obtaining Measurable Goals - None.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Ensure that Public Works personnel involved in street repair and maintenance are provide with the appropriate BMP information and that those BMPs are implemented.

### **City of Lakeport**

Measurable Goal Status- Complete. Ongoing as BMPs are revised and distributed to appropriate personnel.

Measurable Goal Results: City Public Works Director reports that road repair and maintenance BMPs as set forth in the CASQA handbook for municipal operations have been and/or will be distributed to appropriate Public Works Department personnel. BMPs are also discussed amongst Public Works personnel at weekly safety briefings and at quarterly “awareness” meetings. “Project Meetings” are held in conjunction with major municipal projects. Every project that has the potential to impact water quality has a pre-construction meeting to review BMPs that will be used on the project.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to provide Public Works personnel involved with road repair and maintenance activities with the appropriate BMPs.

## **MUNI 7: Material Storage Practices**

### ***MUNI 7b – Develop material storage BMPs***

BMP Appropriateness- Appropriate to develop material storage BMPs for the protection of water quality. Effective material storage and management requires the proper selection of products, the correct usage of the product, accurate inventory of hazardous material, an up-to-date MSDS library, and responsible disposal of the product(s).

**County of Lake**

Measurable Goal Results- In August 2007 the County adopted the Municipal Operations BMP Handbook produced by CASQA which includes oil, grease and chemical control BMPs for the protection of water quality.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None Complete

**City of Clearlake**

Measurable Goal Results- In 2007 City adopted the Municipal Operations BMP Handbook produced by CASQA which includes material storage BMPs.  
Adopter

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None Complete

**City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results: In 2006 the City adopted Resolution No. 2272 which references the Municipal Operations BMP Handbook produced by CASQA which includes material storage BMPs.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

***MUNI 7c – Distribute material storage BMP information*****County of Lake**

BMP Appropriateness- Appropriate to distribute material storage BMP information to applicable staff to inform staff about the safe storage of potentially polluting and hazardous material.

Measurable Goal Results- Complete. The Department of Public Works has adopted the Caltrans storm water management plan, which includes material storage BMP information, and has distributed it to muni staff.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective as staff will follow well established BMP's for materials storage.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year – None.

### **City of Clearlake**

Measurable Goal Status – Complete.

Measurable Goal Results: The City Public Works Foreman reports that storage BMPs as set for the in the CASQA handbook for municipal operations have been and/or will be distributed to the appropriate Public Works personnel and that BMPs are and will be discussed in staff briefings and meetings.

Proposed Changes to BMPS and Measurable Goals – None

Activities Planned for Next Year – Ensure that Public Works personnel involved in the storage of materials at the City's Corporation Yard are provided with the appropriate BMP information, and that the BMPs are implemented.

### **City of Lakeport**

Measurable Goal Status- Complete. Ongoing.

Measurable Goal Results: City Public Works Director reports that material storage BMPs as set forth in the CASQA handbook for municipal operations are distributed to appropriate Public Works Department personnel. BMPs are also discussed amongst Public Works personnel at weekly safety briefings and at quarterly "awareness" meetings.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to ensure that Public Works personnel involved with storage material activities are provided with the appropriate BMPs.

### ***MUNI 7d – Implement material storage BMP to the maximum extent practicable***

BMP Appropriateness- Appropriate to implement material storage BMPs to reduce the potential of accidental spills or releases of hazardous materials during storm events. By implementation, health and safety at the facility, and water quality will be ensured.

### **County of Lake**

Measurable Goal Results – Complete. Ongoing. The Department of Public Works has implemented BMPs as outlined in the Caltrans Storm Water Plan, the Department has also purchased BMPs for each road yard.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing to accomplish program tasks.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year –

- Continue the deployment of material storage BMPs.
- Assess BMP effectiveness and modify as needed.

**City of Clearlake**

Measurable Goal Status – Complete - Ongoing

Measurable Goal Results – Complete-Ongoing.

Problems in Obtaining Measurable Goals -The City Public Works Foreman reports that appropriate material storage BMPs have been implemented at the City's Corporation Yard.

BMP Effectiveness – Effective.

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Use the material storage BMPs as appropriate and recommended in the CASQA handbooks.

**City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- City Public Works Director reports that appropriate material storage BMPs have been implemented at the City's corporation yard.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City's Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue using material storage BMPs as detailed in the CASQA handbook as appropriate. Assess BMP effectiveness and modify as needed.

**MUNI-8: Review and evaluate existing chemical, solvents, oil and greases controls*****MUNI 8b- Develop appropriate oil, grease and chemical control BMPs***

BMP Appropriateness- Appropriate to develop appropriate oil, grease and chemical control best management practices for the protection of water quality.

**County of Lake**

Measurable Goal Results- In August 2007 the County adopted the Municipal Operations BMP Handbook produced by CASQA which includes oil, grease and chemical control BMPs for the protection of water quality.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year-. None. Complete

**City of Clearlake**

Measurable Goal Results: In 2007 the City adopted the Municipal Operations BMP Handbook produced by CASQA which includes oil, grease and chemical control BMPs for the protection of water quality.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

### **City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results: In 2006 the City adopted the Municipal Operations BMP Handbook produced by CASQA which includes oil, grease and chemical control BMPs for the protection of water quality.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

### ***MUNI 8c- Distribute oil, grease and chemical control BMP information***

BMP Appropriateness- Appropriate to distribute information to applicable staff so that they are informed of proper oil, grease and chemical control BMPs and how they relate to the protection of water quality.

### **County of Lake**

Measurable Goal Results- Complete. The Department of Public Works has implemented BMPs as outlined in the Caltrans Storm Water plan for corporation yards. These BMPs were distributed to appropriate staff in October 2009.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective as staff will follow well established BMPs for yard operations

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Assess effectiveness of BMPs and modify if needed.

### **City of Clearlake**

Measurable Goal Status – Complete

Measurable Goal Result: The City Public Works Foreman has indicated that oil, grease and chemical BMPs as set forth in the CASQA handbook for municipal operations have been and/or will be distributed to the appropriate Public Works personnel. BMPs are also discussed during staff briefings and meetings.

Problems in Obtaining Measurable Goals – None

BMP Effectiveness – Effective in assuring knowledge and awareness of the BMPs.

Proposed Changes to BMPs and Measurable Goals - None

Activities Planned for Next Year – Provide all Public Works personnel responsible for oil, grease and chemical control activities with information on the appropriate BMPs.

### **City of Lakeport**

Measurable Goal Status- Complete. Ongoing.

Measurable Goal Results: City Public Works Director reports that oil, grease and chemical BMPs as set forth in the CASQA handbook for municipal operations are distributed to appropriate Public Works Department personnel. BMPs are also discussed amongst Public Works personnel at weekly safety briefings and at quarterly “awareness” meetings.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to ensure that Public Works personnel responsible for oil, grease and chemical control activities are provided with the appropriate BMPs.

### ***MUNI 8d- Implement oil, grease and chemical control BMP***

BMP Appropriateness- Appropriate to implement oil, grease and chemical control BMPs for the protection of water quality.

### **County of Lake**

Measurable Goal Status – Complete.

Measurable Goal Results- Staff has been trained in spill control and has implemented BMPs around corporation yards, as defined in the adopted Caltrans storm water pollution control manual.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing had previously delayed accomplishment of program tasks.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Monitor oil, grease and chemical control BMPs to ensure effectiveness.

### **City of Clearlake**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results – City Public Works Foreman indicates that appropriate oil, grease and chemical control BMPs have been implemented at the City’s corporation yard. Oil, grease and similar products are stored in accordance with the recommended BMPs. Oil, grease, etc. are also properly recycled. Other BMPs are used as needed.

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - The City will continue using oil, grease and chemical control BMPs as appropriate.

**City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- City Public Works Director reports that appropriate oil, grease and chemical control BMPs have been implemented at the City's corporation yard. Oil, grease and similar products are stored in accordance with the recommended BMPs. Oil, grease, etc. are also properly recycled. Other BMPs are used as needed. In FY 10-11, the City purchased secondary containment pallets for the storage of 55-gallon drums containing petroleum products. Two fireproof storage cabinets for paints and solvents were also installed at the corporation yard in FY 10-11. The Public Works Director notes that the corporation yard is inspected annually by the Lake County Environmental Health Department and that there were no issues associated with the FY 10-11 inspection.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City's Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue using oil, grease and chemical control BMPs as appropriate. Assess BMP effectiveness and modify as needed

**MUNI-9: Corporation Yard Drainage*****MUNI 9a – Evaluate and map site drainage at corporation yards***

BMP Appropriateness- Appropriate to have an understanding of drainage patterns at corporation yards so that municipal maintenance staff are able to respond to spills more effectively, plan outside work in areas less subject to stormwater run-off and place material stockpiles in more appropriate locations away from stormwater run-off.

**County of Lake**

Measurable Goal Results- Complete. Site drainage maps have been prepared for each of the road yards and Central Garage/ISF.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Attempt to obtain topographical maps of site drainage at corporation yards.

**City of Clearlake**

Measurable Goal Status – Complete

Measurable Goal Results - The City has a GIS topographic map of its City Corporation Yard which provides Public Works staff with a general knowledge of the corporation yard's drainage patterns.

Problems in Obtaining Measurable Goals – None

BMP Effectiveness – Effective

Activities Planned for Next Year - None

### **City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- The City of Lakeport has detailed topographic data of its Martin Street corporation yard. Said data provides staff with an adequate knowledge of the site's drainage patterns.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None.

### ***MUNI 9b – Based on issues revealed in site drainage evaluation and mapping, develop appropriate BMPs.***

BMP Appropriateness- Appropriate to have an understanding of drainage patterns at corporation yards to develop BMPs for stormwater run-off.

### **County of Lake**

Measurable Goal Results- Complete. The Department of Public Works has implemented BMPs as outlined in the Caltrans Storm Water plan for corporation yards.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective as staff will follow well established BMPs for yard operations.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Attempt to obtain topographical maps to evaluate site drainage patterns and characteristics at corporation yards for development of appropriate BMPs.

### **City of Clearlake**

Measurable Goal Status - Complete

Measurable Goal Results – The City's Corporation Yard is in compliance with BMPs as set forth in the CASQA handbook adopted by the City.

Problems in Obtaining Measurable Goals – None

BMP Effectiveness – Unknown

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Ensure that site drainage patterns are taken into consideration when implementing BMPs in the City's Corporation Yard.

**City of Lakeport**

Measurable Goal Status- Complete.

Measurable Goal Results- The drainage patterns at the corporation yard resulted in the relocation of the street sweeper washout area. All washouts are now done in a contained area that is provided with a concrete surface.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to take site drainage patterns into consideration in conjunction with typical corporation yard work activities.

***MUNI 9c – Implement BMPs to the maximum extent practicable.***

BMP Appropriateness- Appropriate to implement BMPs at corporation yards to prevent storm water pollution.

**County of Lake**

Measurable Goal Results- Complete. The Department has installed BMPs around the perimeter of the corporation yards and drainage structures within the corporation yards.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective. Installed BMPs are based upon Caltrans standards.

Proposed Changes to BMPs and Measurable Goals-None.

Activities Planned for Next Year- Assess effectiveness of BMPs and modify as needed.

**City of Clearlake**

Measurable Goal Results – The City's Public Works Foreman indicates that appropriate BMPs as set forth in the CASQA handbook for municipal operations have been implemented

Problems in Obtaining Measurable Goals - None

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Continue incorporating BMPs into the typical activities at the City of Clearlake's Corporation Yard.

**City of Lakeport**

Measurable Goal Status- Complete. Ongoing. City Public Works Director reports that appropriate BMPs as set forth in the CASQA handbook for municipal operations have been implemented and will continue to be implemented and reviewed for effectiveness.

## **Section 7                      Pollution Prevention and Good Housekeeping for Municipal Operations**

Measurable Goal Results- Certain practices at the City's corporation yard have been modified in order to prevent storm water pollution. See City of Lakeport responses to Muni 7d, Muni 8d and Muni 9b for details.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Effective

Proposed Changes to BMPs and Measurable Goals- None

Activities Planned for Next Year- Continue practice of incorporating BMPs into typical activities at the City of Lakeport corporation yard. Perform a review of current BMPs and determine if changes are needed to prevent storm water pollution.

### **MUNI-10: Parks, open space, building and grounds operations**

#### ***MUNI 10b- Develop BMP information for parks, open space, and building and grounds operations***

BMP Appropriateness- Appropriate to develop appropriate best management practices for parks open space and building and grounds operations for the protection of water quality.

#### **County of Lake**

Measurable Goal Results: Complete. In August 2007 the County adopted the Municipal Operations BMP Handbook produced by CASQA, which includes BMPs related to maintenance of parks and open space areas as well as building and grounds.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None.

#### **City of Clearlake**

Measurable Goal Results- In 2007 the City adopted the Municipal Operations BMP Handbook produced by CASQA which includes BMPs related to maintenance of parks and open space areas as well as building and grounds operations.

Problems in Obtaining Measurable Goals- None

BMP Effectiveness- Effective

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete

#### **City of Lakeport**

Measurable Goal Status- Complete.

## **Section 7                      Pollution Prevention and Good Housekeeping for Municipal Operations**

Measurable Goal Results: In 2006 the City adopted the Municipal Operations BMP Handbook produced by CASQA which includes BMPs related to maintenance of parks and open space areas as well as building and grounds operations.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None. Complete.

### ***MUNI 10c- Distribute BMP information for parks, open space, and building and grounds operations***

BMP Appropriateness- Appropriate to distribute information to applicable staff so that they are informed of and practice water quality friendly practices for parks, open space and building and grounds maintenance activities.

#### **County of Lake**

Measurable Goal Results- Complete. The Department of Public Services has developed "Municipal Housekeeping Practices" based upon the adopted CASQA Handbook, and has distributed these in the form of a checklist for use by their field staff for Parks and Buildings and Grounds.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None.

#### **City of Clearlake**

Measurable Goal Status – Complete

Measurable Goal Results: City Public Works Foreman reports that BMPs related to parks, open space and building and grounds maintenance activities have been and/or will be distributed to appropriate Public Works Department personnel. BMPs are set forth in the CASQA handbook for municipal operations. Water quality BMPs are also discussed with Public Works personnel at staff briefings and meetings.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Ensure that Public Works personnel and volunteers responsible for maintenance activities at the City's parks, open space areas, and municipal buildings/grounds are provided with the appropriate BMPs.

#### **City of Lakeport**

Measurable Goal Status- Complete. Ongoing.

Measurable Goal Results: City Public Works Director reports that BMPs related to parks, open space and building and grounds maintenance activities are distributed to appropriate Public Works Department

personnel. BMPs are also provided to citizen members of the Westside Park Committee who are involved with the maintenance/operation of the Westside Community Park. Said BMPs are set forth in the CASQA handbook for municipal operations. Water quality BMPs associated with these activities are also discussed amongst Public Works personnel at weekly safety briefings and at quarterly "awareness" meetings.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Presumably effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to ensure that Public Works personnel and volunteers responsible for maintenance activities at the City's parks, open space areas, and municipal buildings/grounds are provided with the appropriate BMPs. Follow up to ensure that all employees and volunteers have current BMPs.

### ***MUNI 10d- Implement BMPs to the maximum extent practicable***

BMP Appropriateness- Appropriate to implement BMPs to the maximum extent practicable for parks, open space and building and grounds maintenance activities.

#### **County of Lake**

Measurable Goal Results- Complete, Ongoing. The County Public Services Department has indicated that appropriate BMPs are implemented in conjunction with maintenance of the County's parks and municipal buildings. A checklist was also developed to aid field staff with following all applicable BMPs.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue using appropriate BMPs in conjunction with maintenance activities at the County's parks, open space areas, and municipal buildings/grounds.

#### **City of Clearlake**

Measurable Goal Results Complete - Ongoing.

Problems in Obtaining Measurable Goals - City Public Works Foreman reports that appropriate BMPs are used in conjunction with maintenance activities at the City's parks, open space areas, and municipal buildings/grounds.

BMP Effectiveness – Effective

Proposed Changes to BMPs and Measurable Goals – None

Activities Planned for Next Year - Continue using appropriate BMPs in conjunction with maintenance activities at the City's parks, open space areas, and municipal buildings/grounds.

#### **City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

**Section 7**

**Pollution Prevention and Good Housekeeping for Municipal Operations**

Measurable Goal Results- City Public Works Director reports that appropriate BMPs are used in conjunction with maintenance activities at the City’s parks, open space areas, and municipal buildings/grounds. Appropriate BMPs are also provided at the Westside Community Park, portions of which are still being improved.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective per the City’s Public Works Director.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue using appropriate BMPs in conjunction with maintenance activities at the City’s parks, open space areas, and municipal buildings/grounds.

**Table 7.3** Status and effectiveness of Municipal Operations Stormwater Management Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
MUNI 6b	Develop road repair and maintenance BMPs	BMPs developed and documented	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
MUNI 6c	Distribute road repair and maintenance BMP Information	Inspection and maintenance information distributed to applicable staff	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 7b	Develop material storage BMPs.	BMPs developed and documented.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
MUNI 7c	Distribute material Storage BMP information.	Material storage information distributed to applicable staff.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 7d	Implement material storage BMP to the maximum extent practicable	BMPs implemented and revised as appropriate	County of Lake	X		X	X				X
			City of Clearlake	X			X				X
			City of Lakeport	X		X	X				X
MUNI	Develop appropriate oil, grease and	BMPs developed and documented.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X

Section 7

Pollution Prevention and Good Housekeeping for Municipal Operations

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
8b	chemical control BMPs.		City of Lakeport	X			X				X
MUNI 8c	Distribute oil, grease and chemical control BMP information.	Information distributed to applicable staff.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 8d	Implement oil, grease and chemical control BMP	BMPs implemented and revised as appropriate	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 9a	Evaluate and map site drainage at corporation yards.	Site drainage map and evaluation.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X			X				X
MUNI 9b	Based on issues revealed in site drainage evaluation and mapping, develop appropriate BMPs	BMPs developed	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 9c	Implement BMPs to the maximum extent practicable	BMPs implemented and revised as appropriate	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 10b	Develop BMPs as needed.	BMPs developed and documented.	County of Lake	X			X				X
			City of Clearlake	X			X				X
			City of Lakeport	X			X				X
MUNI 10c	Distribute BMP information.	Information distributed to applicable staff.	County of Lake	X			X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 10d	Implement BMPs to the maximum extent practicable.	BMPs implemented and revised as appropriate	County of Lake	X		X	X				X
			City of Clearlake	X			X				X
			City of Lakeport	X		X	X				X

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**COORDINATION AND TRAINING**

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**MUNI-11: Keep municipal maintenance employees informed on stormwater related issues and stream line communications*****MUNI 11a – Investigate the feasibility of providing internet and email capabilities to county municipal maintenance employees***

BMP Appropriateness- Appropriate to have internet and email capabilities for County municipal maintenance employees. Internet access allows employees to research current technologies and trends for all aspects of their work. Email capabilities enable information exchange in an efficient manner.

**County of Lake**

Measurable Goal Results – Complete - All road yards and central garage have internet and email capability.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- None-complete.

**City of Clearlake and City of Lakeport** – Not Applicable

***MUNI 11b – Develop or revise a pollution prevention training program for municipal staff***

BMP Appropriateness- Appropriate to develop a pollution prevention training program for municipal maintenance staff. Through an appropriate training program municipal maintenance staff can be kept informed of current regulations and the County SWMP, new requirements on how to conduct day to day operations with consideration of protecting water quality, and record keeping and reporting protocols to track program pitfalls and successes for adaptive management and aid in the annual reporting process.

**County of Lake and City of Lakeport**

Measurable Goal Results- Complete. Ongoing. The County and Lakeport have implemented the Municipal Maintenance Practices Guidance Manual (Caltrans stormwater manual).

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing to accomplish program tasks.

BMP Effectiveness- Effective.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue training with Municipal Maintenance Practices Guidance Manual (Caltrans stormwater manual).

**City of Clearlake**

Measurable Goal Results- The City of Clearlake has formally adopted the CASQA BMP handbooks, including the handbook for Municipal Operations. The CASQA handbook is used by our Public Works Director in training our public works employees during regular staff and safety meetings on the BMPs for

the maintenance and washing of equipment, pesticide application practices, waste and storage disposal, storm drain inspection and cleaning practices, and street repair activities.

Problems in Obtaining Measurable Goals- Due to the City's very small Public Works Department staff, and financial resources it is difficult to provide formal training programs. The City does the best it can in providing proper training for its employees engage in municipal operations and maintenance.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to provide regular training using the CASQA handbooks on the BMPs for the maintenance and washing of equipment, pesticide application practices, waste and storage disposal, storm drain inspection and cleaning practices, and street repair activities. In addition the City should work with the City of Lakeport and Lake County to develop any additional training aides that may be appropriate.

### ***MUNI 11c – Conduct training workshops focusing on the storm water program and BMP implementation***

BMP Appropriateness- Appropriate to conduct training workshops for MUNI staff focusing on the storm water program and BMPs.

#### **County of Lake**

Measurable Goal Results- Complete. The Department of Public Works has adopted the BMPs outlined in the Caltrans Storm Water Pollution Manual, and distributed these to appropriate staff in October 2009.

Problems in Obtaining Measurable Goals- Lack of fiscal resources and staffing make it difficult to coordinate meetings.

BMP Effectiveness- Effective in coordinating information and assuring that all appropriate staff are aware of and implementing the same BMPs.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Conduct a training workshop once per year.

#### **City of Clearlake**

Measurable Goal Results- The City of Clearlake has formally adopted the CASQA BMP handbooks, including the handbook for Municipal Operations. The CASQA handbook is used by our Public Works Director in training our public works employees during regular staff and safety meetings on the BMPs for the maintenance and washing of equipment, pesticide application practices, waste and storage disposal, storm drain inspection and cleaning practices, and street repair activities.

Problems in Obtaining Measurable Goals- Due to the City's very small Public Works Department staff, and financial resources it is difficult to provide formal training programs. The City does the best it can in providing proper training for its employees engage in municipal operations and maintenance.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue to provide regular training using the CASQA handbooks on the BMPs for the maintenance and washing of equipment, pesticide application practices, waste and storage

disposal, storm drain inspection and cleaning practices, and street repair activities. In addition the City should work with the City of Lakeport and Lake County to develop any additional training aides that may be appropriate.

**City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- According to the City’s Public Works Director, issues pertaining to the storm water program and the use of related BMPs are discussed at regular staff meetings rather than formal training workshops. Some staff members also attend outside training/seminars related to water quality issues. In FY 10-11, two Public Works employees attended annual pesticide application training where water quality BMPs are discussed.

Problems in Obtaining Measurable Goals- According to the City’s Public Works Director, issues pertaining to the storm water program and the use of related BMPs are discussed at regular staff meetings rather than formal training workshops. Some staff members also attend outside training/seminars related to water quality issues.

BMP Effectiveness- Unknown.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Ongoing BMP training using the appropriate CSAQA handbook. Encourage attendance at all relevant training seminars.

**Table 7.3** Status and effectiveness of MUNI Coordination and Training Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED		
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No	
MUNI 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.	County of Lake	X			X				X	
			City of Clearlake	<b>Not applicable</b>								
			City of Lakeport									
MUNI 11b	Develop or revise a pollution prevention training program for Municipal Staff.	Training program and associated materials developed.	County of Lake	X		X	X				X	
			City of Clearlake	X		X			X		X	
			City of Lakeport	X		X	X		X		X	
MUNI 11c	Conduct training workshops focusing on the storm water program and BMP implementation.	Municipal training workshops conducted.	County of Lake	X		X	X				X	
			City of Clearlake	X		X			X		X	
			City of Lakeport	X		X	X				X	

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**MUNI PUBLIC EDUCATION AND OUTREACH**

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**MUNI-12: Public Education and Outreach / Involvement Participation*****MUNI 12b – Develop new education and outreach materials as necessary and make available to the public***

BMP Appropriateness- Appropriate to develop new public education and outreach materials as necessary related to the Pollution Prevention / Good Housekeeping for Municipal Operations Program. Existing programs that municipalities implement on behalf of the public are important and need to be advertised for optimal effect and efficiency. Furthermore, BMPs used in day to day operations may also be used by other businesses and organizations that conduct similar activities.

**County of Lake, City of Clearlake and City of Lakeport**

Measurable Goal Status- Complete-Ongoing.

Measurable Goal Results- The City of Clearlake, the City of Lakeport and Lake County have adopted the CASQA handbooks for Stormwater Best Management Practices. While these handbooks cannot be distributed to the general public, they provide the best information on BMPs at the present time. In addition the Lake County Clean Water Program developed an overall brochure called Keep Clear Lake --- Free of Pollution. The Keep Clear Lake Pollution Free brochure is an excellent educational document outlining BMPs from construction activities, landscape maintenance, vehicle washing, and commercial and industrial activities. This brochure is available at all building permit counters in both Cities and Lake County. Appendixes 2-1 and 2-5 contain samples of Program brochures currently in use.

Problems in Obtaining Measurable Goals- None. This brochure was the product of the co-permittees, Regional Water Board representatives, and the public, and it took several years to reach a consensus on the final document

BMP Effectiveness- Effective. It is effective in educating the public as to what the Lake County Clean Water Program is all about. A brochure was developed and distributed by the City of Lakeport to local businesses about the proper use of the storm drain. Several have indicated greater awareness of the proper use of the municipal storm sewer system, including what not to put down the drain.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Work towards developing additional materials as appropriate and as the storm water pollution prevention program continues to be implemented.. The Keep Clear Lake Pollution Free brochure should be added to Lake County's Clean Water Program Web Page and to the City of Lakeport's clean water web page.

The City of Lakeport plans to install permanent markers ("No Dumping/Drains to Lake") on drop inlets/catch basins to replace the painted stencil notice. It is believed that this program will help further educate the public regarding the relationship between the City's storm drain system and the waters of Clear Lake.

**Table 7.4** Status and effectiveness of MUNI Public Education and Outreach Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
MUNI 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.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X

## TRACKING AND REPORTING

### MUNI-13: MUNI Programs Tracking and Reporting

#### ***MUNI 13a- Conduct an assessment of current tracking and reporting procedures***

BMP Appropriateness- An assessment of current reporting activities is important because the stormwater program will need to develop its own tracking procedures for reporting purposes. If there are current reporting information, formats and procedures required by other agencies and departments, it makes sense to use existing information as much as possible to reduce duplication of effort for multiple reports and avoid the need to create more information.

#### County of Lake

Measurable Goal Status- Complete. On-line tracking forms have been developed and are in use for tracking labor and equipment use, and street sweeper yardage.

#### Measurable Goal Results

- Lake County Public Works  
Labor and equipment hours are tracked, along with volumes of material cleaned up with the street sweeper. See Appendix 6-2.
- Lake County Public Services  
Materials collected, including information from franchise waste haulers, is maintained in Microsoft Excel.

#### Problems in Obtaining Measurable Goals

In general, all department staff have high work loads and lack of funding to dedicate time to understanding and putting time into this unfunded program. This situation has made it difficult to receive complete information for planning purposes such as; format of information, specific information collected and the process by which information is input.

BMP Effectiveness- Effective. Effective in tracking storm drain operations so that they can be reported in the annual Storm Water Management Report.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Obtain a more detailed assessment so that reporting and tracking procedures can be developed and implemented.

#### City of Clearlake

2009-2010 the City did start tracking information on street sweeping, and storm drain maintenance activities, such as cleaning catch basins and reaches of storm drain channels. The amount of debris, trash, silt and dirt measured in cubic yards is tracked whenever Public Works Crews clean storm drain ditches, creeks, storm drain inlets and catch basins and cleaning of the City's streets. See the tracking log for street and drainage cleaning performed in 2011-12 in Appendix 6-3.

Problems in Obtaining Measurable Goals It has been difficult with all maintenance jobs and special projects that a very small Public Works Maintenance Crew has in a City the size of Clearlake to perform additional tasks.

BMP Effectiveness- Effective in tracking storm drain operations so that they can be reported in the annual Storm Water Management Report.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Provide documentation of Municipal Operations tasks such as street cleaning (miles swept), storm drain inlet/catch basin cleaned, storm drain channel reaches cleaned, and on going training at staff and safety meetings.

#### City of Lakeport

Measurable Goal Status- Complete and ongoing.

Measurable Goal Results: At the present time, there is no formal method of tracking activities and programs for reporting purposes, but the City of Lakeport continues to explore the development of these tracking mechanisms. A GIS tracking system for the storm drain stenciling program has been developed by the City and is operational. The City is exploring other potential methods of using GIS for tracking activities related to the storm water program. .

Problems in Obtaining Measurable Goals: In general, high workloads and lack of dedicated personnel have prevented the City from further developing a comprehensive tracking and reporting system. Certain activities are tracked, including man hours, equipment usage, and the storm drain stenciling program. Additional tracking is needed for street sweeping accumulations and other activities.

BMP Effectiveness- Effective. It is evident that a tracking database will need to be developed to track efforts, man hours, costs and other necessary information so programs can be assessed for effectiveness and also to aid in annual reporting requirements.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Obtain a more detailed assessment so that reporting and tracking procedures can be developed and implemented. Contact County of Lake and determine if their tracking methods (forms, logs, etc.) can be modified for use by the City of Lakeport.

### ***MUNI 13b- Revise and implement tracking and reporting procedures***

BMP Appropriateness- Appropriate to revise tracking and reporting procedures, if needed, before implementation.

#### County of Lake

## **Section 7                      Pollution Prevention and Good Housekeeping for Municipal Operations**

Measurable Goal Results- Complete. Tracking forms have been developed, for tracking of labor and equipment hours, and effectiveness of street sweeper. See Appendixes 6-2 and 6-3.

Problems in Obtaining Measurable Goals- None.

BMP Effectiveness- Effective in that a better tracking system has been developed that can be used by various departments.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Encourage Special Districts and Public Services to utilize the new tracking forms.

### **City of Clearlake**

Measurable Goal Results-. In 2009-2010 the City did start tracking information on street sweeping, and storm drain maintenance activities, such as cleaning catch basins and reaches of storm drain channels. The amount of debris, trash, silt and dirt measured in cubic yards is tracked whenever Public Works Crews clean storm drain ditches, creeks, storm drain inlets and catch basins and cleaning of the City's streets. See the tracking log for street and drainage cleaning performed in 2011-12 in Appendix 6-3.

Problems in Obtaining Measurable Goals- It is just difficult with all maintenance jobs and special projects that a very small Public Works Maintenance Crew has in a City the size of Clearlake to perform additional tasks.

BMP Effectiveness- Effective in tracking storm drain operations so that they can be reported in the annual Storm Water Management Report.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Provide documentation of Municipal Operations tasks such as street cleaning (miles swept), storm drain inlet/catch basin cleaned, storm drain channel reaches cleaned, and on going training at staff and safety meetings.

### **City of Lakeport**

Measurable Goal Results- Incomplete and ongoing.

Problems in Obtaining Measurable Goals-. High workloads, lack of adequate staff, and lack of dedicated funding have impacted the City's ability to thoroughly implement tracking and reporting procedures. In FY 10-11 the City lost its "Compliance Officer" position due to a budget shortfall. The storm water program was a major component of that position and its loss has impacted the City's ability to complete this task.

BMP Effectiveness- Effective. The GIS tracking system for the storm drain stencil program is accurate and comprehensive.

Proposed Changes to BMPs and Measurable Goals- None.

Activities Planned for Next Year- Continue efforts to implement an adequate system for tracking and reporting activities. Continue to update the GIS tracking system for the storm drain stencil program.

**Section 7**

**Pollution Prevention and Good Housekeeping for Municipal Operations**

**Table 7.5** Status and effectiveness of MUNI Tracking and Reporting Best Management Practices (BMPs) scheduled for implementation in Fiscal Year 2011/2012.

BMP #	DESCRIPTION	MEASURABLE GOAL	CO-PERMITTEES	STATUS			EFFECTIVE			MODIFIED	
				Complete	Incomplete	Ongoing	Effective	Not Effective	Unknown	Yes	No
MUNI 13a	Conduct an assessment of current tracking and reporting procedures.	Assessment complete.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X
MUNI 13b	Revise and implement tracking and reporting procedures.	Tracking and reporting procedures revised and implemented.	County of Lake	X		X	X				X
			City of Clearlake	X		X	X				X
			City of Lakeport	X		X	X				X