

## Environmental Utilities Department Engineering Division

2005 Hilltop Circle Roseville, California 95747

September 15, 2011

Elizabeth Lee Central Valley Water Quality Control Board 11020 Sun Center Drive #200 Rancho Cordova, CA 95670-6114

Subject:

City of Roseville FY 2010/2011 Annual Report

Dear Ms. Lee,

In compliance with the provisions of the State General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, please find the City of Roseville's 2010-2011 Annual Progress Report. To assist with your review, we have provided a status summary table, attached, which identifies the following:

- Each best management practice (BMP) within our stormwater program.
- The annual report page number where information on that particular BMP can be found.
- The status of the BMP as either complete, in progress, or not initiated.
- Information as to whether or not the BMP is being modified in any way.

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions or comments regarding this report, please feel free to contact me at (916) 774-5552.

Sincerely.

Kelye A. Makinney Engineering Manager

## **Table of Contents**

**Section 1** Overview and Contact Information

**Section 2** Implementation Schedule

**Section 3** Minimum Control Measures

**Section 4** Responsible Party Assignments

## Section 1: Overview and Contact Information

For questions regarding this report contact:

Date Prepared: 9/15/2011

Kelye McKinney 2005 Hilltop Circle Roseville, CA 95747

### **Stormwater Program Permit Information**

1. Permitting Authority: California State Water Resources Control Board

2. Permit Number: CAS0000043. Permit Type: General

**4. Permit Name:** City of Roseville Stormwater Management Program

**5. Date Issue:** 7/6/2004 **6. Date Expire:** 6/30/2008

#### **General Information for MS4 Operator**

1. Operator Name: Rhon Herndon

2. Operator Title: Acting Public Works Director

3. Represented Entity: City of Roseville, Environmental Utilities

**4. Mailing Address:** 2005 Hilltop Circle **5. Mail City, State, Zip:** Roseville, CA 95747 **6. Phone Number:** (916) 774-5341

7. E-Mail Address: rherndon@roseville.ca.us

8. Population: 120,593 Area (sq mi): 36.3

9. Official Website: www.roseville.ca.us

### **General Information for Primary Contact Person**

Name: Kelye McKinney
 Title: Engineering Manager
 Phone Number (916) 774-5552

4. E-Mail Address: kmckinney@roseville.ca.us

#### **General Information for Secondary Contact Person**

Name: Delyn Ellison-Lloyd
 Title: Senior Engineer
 Phone Number (916) 746-1748

4. E-Mail Address: dellison-lloyd@roseville.ca.us

#### **General Information for Receiving Waters**

Receiving Water Lists: Listed below are all the identified receiving waterbodies to which identified outfalls discharge.

## Receiving Streams (creek, stream, river, etc.)

North Branch Pleasant Grove Creek Kaseberg Creek South Branch Pleasant Grove Creek Dry Creek Miners Ravine Linda Creek

# Receiving Waterbodies (lake, wetland, ocean, etc.)

**Receiving Watersheds** 

Sacramento River Watershed

## Section 2: Implementation Schedule

Public Education and Outreach		
PO-1: Early Implementation Program	7/1/2003	6/30/2008
PO-2: Strategic Outreach Program	7/1/2004	6/30/2008
PO-3: Construction, New Development, and Redevelopment Outreach	7/1/2003	6/30/2008
Public Participation/Involvement		
PI-1: Stormwater Website	7/1/2003	6/30/2008
PI-2: Watershed Management	7/1/2004	6/30/2008
PI-3: Public Body Updates	7/1/2003	6/30/2008
PI-4: Storm Drain Labeling	7/1/2004	6/30/2008
Illicit Discharge Detection and Elimination		
IDDE-1: Illicit/Non-Stormwater Discharge Detection	7/1/2003	6/30/2008
IDDE-2: Address/Eliminate Illicit Connections and Non-Stormwater Discharges	7/1/2004	6/30/2008
IDDE-3: Storm Sewer System Map	7/1/2003	6/30/2008
IDDE-4: Stormwater Ordinance	7/1/2004	6/30/2008
IDDE-5: Utilize Existing Programs	7/1/2003	6/30/2008
IDDE-6: Long-Term Outreach	7/1/2004	6/30/2008
Construction Site Runoff Control		
CSR-1: Revised Ordinances	7/1/2003	6/30/2008
CSR-2: City Standards	7/1/2004	6/30/2008
CSR-3: Design Review Guidance for City Staff	7/1/2004	6/30/2008
CSR-4: Enhanced Reporting System	7/1/2004	6/30/2008
CSR-5: Inspection and Enforcement Program	7/1/2003	6/30/2008
CSR-6: Outreach and Training Program	7/1/2003	6/30/2008

## **New Development and Redevelopment**

ND-1: Development Review Process	7/1/2005	6/30/2008
ND-2: Critical Criteria	7/1/2004	6/30/2008
ND-3: Post-Construction Ordinance	7/1/2005	6/30/2008
ND-4: Regulatory Requirements for Privately Owned Controls	7/1/2006	6/30/2008
ND-5: Outreach and Technical Assistance	7/1/2004	6/30/2008
Municipal Operations		
MO-1: Inventory and Assess the Potential for Stormwater Pollution in O&M Activities at City-Owned Facilities and in City Field Operations	7/1/2004	6/30/2008
MO-2: Review and Assess the O&M Practices Identified in MO-1 as Potential Stormwater Pollution Sources for the Selection and Incorporation of BMPs to the Maximum Extent Practicable	7/1/2006	6/30/2008
MO-3: Review Construction and Development Procedures for City-Owned Facilities for Inclusion of Stormwater BMPs as Necessary	7/1/2005	6/30/2008
MO-4: Develop and Expand City O&M Training Programs to Include Stormwater Pollution Prevention	7/1/2004	6/30/2008

## Section 3: Minimum Control Measures

## **Public Education and Outreach**

The City of Roseville educates its citizens about the importance of the stormwater program and the public's role in it. In order to elevate the public's awareness of the impacts that stormwater discharges may have on waterways, the City must develop a public education program that provides educational materials to the community within its boundaries. Based on feedback from public surveys, the City will develop a strategy for educating the public and businesses regarding the impacts of stormwater pollutants to local waterways. These educational materials will include brochures, fact sheets and alternative information outlets, which describe the proper use, storage, and disposal of materials that contribute to stormwater runoff pollution.

Non-point sources such as the residential and commercial sectors are significant sources of water quality degradation in the United States. The incremental contributions that each of these individual sources make via stormwater runoff to a receiving water body can combine to create a substantial source of water pollution.

The most effective way to elicit compliance and support from a decentralized audience such as the residential and business communities is through a targeted education and outreach program. To develop a compelling program, these dischargers should be surveyed to determine their awareness level and their preferred means of receiving stormwater pollution prevention information. The City's educational materials will be tailored to the results of an awareness survey and, therefore, the preferences of the audience will be recognized and the materials will be better received and acted upon.

Number of BMPs Associated with Control Measure: 3

## **Important Dates:**

Earliest Start Date: 7/1/2003 End Date: 6/30/2008

## **PO-1: Early Implementation Program**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

### **General Summary**

The early implementation program builds on the existing outreach activities of the City of Roseville by adding stormwater messages to those efforts. The program involves adding stormwater messages to the Water Conservation, Household Hazardous Waste, Used Oil Drop-Off, Composting Program, Dog Park, Creek Week, Fire Department Inspection, and Neighborhood Services programs, utilizing their existing avenues to disseminate this information. Early implementation also utilizes two grant-funded activities to address stormwater pollution: the construction of two signs at Mahany Park, a highly used regional park, and preparation of a creekside landowner's guide. The program also includes providing stormwater information on the City's website and implementing a storm drain stenciling program. The City has committed to:

#### a) Include Articles on Stormwater Impact and New Phase II Program in City Newsletters

The City has agreed to publish and mail directly two articles per year on stormwater impacts and the new Phase II program via the City's Roseville Reflections and Environmental Utilities Today newsletters.

#### b) Adding Stormwater Specific Information to Existing Education and Outreach Materials

The City has agreed to add a stormwater message to the education and outreach materials of existing programs such as Water Conservation, Household Hazardous Waste, Used Oil Drop-Off, Composting, Dog Park, Creek Week, Fire Department Inspection and Neighborhood Services. The City has agreed to amend or create three educational and outreach materials per year. Existing media will be used for the dissemination of this information.

#### c) Construct Two Signs at Mahany Park

The City has agreed to utilize available educational signs at Mahany Park for stormwater education.

#### d) Develop and Implement Creekside Landowner Education Materials

The City has agreed to develop and implement creekside landowner's educational materials through Roseville's Creeks Management Plan.

#### e) Expand the City Stormwater Web Page

The City has agreed to enhance and update the stormwater content on its stormwater web page on a regular basis.

#### f) Implement Storm Drain Labeling Program

The City has agreed to enact a storm drain labeling program through the City's construction standards for new development and citizen volunteers for existing development. All of the new storm drains will be stamped each year and 200 existing storm drains will be labeled each year.

#### g) Identify and Participate in Local Community Outreach Events

The City has agreed to participate in minimum of three community outreach events each year.

#### APPROPRIATENESS:

This BMP is appropriate to the City's stormwater program. Public education is critical to raising public awareness and understanding of the impacts of stormwater pollution in the community. In turn, the City's goal is to effect changes in public behavior and reduce pollutant loads on the City's local creeks. To accomplish this, the Stormwater Program employs a variety of educational avenues such as outreach events, newsletters and public service announcements.

#### **EFFECTIVENESS:**

The City performed a baseline survey to determine the current status of public awareness and behaviors in 2005. As a result, the Stormwater Program focused its outreach efforts towards the residential community and school age children. Environmental Utilities performed a follow-up survey in 2008 which included Stormwater management questions. Although the format of the two surveys differed (web based vs. telephone) and the questions were structured differently, a general trend emerged that showed more Roseville residents knew that water that enters a storm drain is not treated to remove pollution (2005-25% 2008-49%). The Environmental Utilities Department - including the Stormwater Management Program conducted a customer service survey during the 2010-2011 reporting period to determine their knowledge of stormwater management issues.

#### **PROPOSED MODIFICATIONS:**

None.

#### **Status of Measurable Goals**

#### PO-1.a: Include Articles on Stormwater Impacts and New Phase II Program in City Newsletters

#### Ongoing:

Seven stormwater related articles were published in the Environmental Utilities Today newsletter during this reporting period. An article entitled *A New Clean & Bright Idea for Charity Car Washes* published in the August 2010 issue encouraged charities to use the City's car wash kit for their fundraising events. Another article entitled *Leaf Pickup Program Begins Nov 1* in the October 2010 issue promoted the City's leaf pickup program. The February 2011 edition of EU Today advertised EU's Exploration Center's class lineup under the title of *Exploration Center Workshop Season Lineup*. In the April 2011 edition *Draining Your Swimming Pool* urged the public to call the City to obtain a one-time discharge permit to drain their pool. Another article called *Adopt-A-Creek Program Kicks Off* appeared in the April 2011 edition. It promoted volunteerism to beautify the City's creeks. Two articles highlighting a stormwater message; *Car Washing Tips* and *Integrated Pest Management: What It Is & Why It Matters* were published in the June 2011 edition. The "EU Today" newsletter is distributed to 35,000 Roseville residents. It is mailed out as an insert in the residential utility bill. It is also available on most public counters in City buildings.

The City's website is up-dated periodically to include new issues of the "EU Today" which contain aforementioned articles. To access these newsletters, go to the City's website at <a href="www.roseville.ca.us">www.roseville.ca.us</a> under the heading of "Most Visited," then go to Newsletters.

The City's Stormwater Program continues to partner with Our Water Our World (OWOW) to bring information regarding integrated pest management to the public. The City sponsors literature racks for both English and Spanish. OWOW fact sheets are located at several local retail landscape nurseries: Green Acres, Sierra Nursery and Bushnell's Nursery, and both of the Roseville Home Depots. Each rack holds approximately 24 individual fact sheets relating to specific pest management problems.

See appendix for:

EU Today August 2010, October 2010, February 2011, April 2011 and June 2011

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-1.b: Add Stormwater Specific Information to Existing Education and Outreach Materials

#### Ongoing:

The Stormwater Management Program contributed to the newly created Environmental Utilities departmental brochure. The brochure is aptly named *Environmental Utilities*. Information pertaining to the management of non-stormwater discharges such as wastewater from car washing, and chemical discharges from lawns and

gardens are mentioned. This brochure is distributed at outreach events by all of EU's divisions and is also available at EU's public counters.

The Stormwater Management Program continued to promote a stormwater message in the 2010 City Services Guide. This guide is mailed out to all Environmental Utilities and Roseville Electric's residential customers once a year. The purpose of the guide is to acquaint Roseville residents with the services available to them and to give them the means to contact the City for assistance. A stormwater message and a number to report illicit discharges were included in the brochure.

The City Building Department also distributes the "Need to Drain Your Pool" brochure via building permits for pools. This is done on an ongoing basis and continued between July 1st, 2010 and June 30<sup>th</sup>, 2011.

The Stormwater Program also coordinates with the City's Water, Wastewater, Solid Waste and Electric Departments to design and construct indoor and outdoor educational displays at the Mahany Center. The new outdoor facility is in the design phase at the Mahany Complex. This facility houses the Martha Riley library and the new Roseville Utility Education Center (RUEC). This center takes an integrated approach to educating the public about sustainable lifestyles and their impact to environment and consumption of resources. Currently, the target audience is elementary school students and Roseville residents. Concepts specific to the stormwater program such as the connection between discharges to the storm drains and the creeks and the relationship between runoff and infiltration are also demonstrated at the RUEC. Stormwater staff participated in the development of the indoor and outdoor exhibits at the RUEC, the Keepin" It Clean presentation (water cycle portion of the RUEC's school tours), and special events held at the facility.

The Stormwater Program continues to work on a stormwater model that depicts Roseville during a rain event, and the pollutants associated with various land uses such as residential, commercial and construction. The City of Sacramento donated their old stormwater model to Roseville's program and the Stormwater Program is in the process of updating its internal components and its external appearance to reflect Roseville topography and morphology. Initially, this model will be placed in City buildings in areas that the public can access such as public counters in the Corporation Yard and the Civic Center as well as the City libraries.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-1.c: Construction of Two Signs at Mahany Park

#### Completed, No Change:

Two signs, incorporating the Trina Trout mascot, were installed at Mahany Park during the 2005-2006 reporting period. These signs read, "Hi! I'm Trina Trout. This is Kaseberg Creek. Roseville's creeks and fields are home to me, and all my furry and feathered friends. Please keep our home clean by tossing your trash in this can. Thank you, Stormwater Management Program." These signs are located at a creek bridge that is heavily traveled by pedestrians accessing both sides of the Park. This bridge is located behind Mahany Center and is part of the City's bike trail system.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-1.d: Develop and Implement Creekside Landowner Educational Materials

#### Completed, No Change:

The "Roseville Creek Awareness Map" and the "Roseville Creek Stewardship Resource Guide" were updated to conform to City's outreach standards during the 2005-2006 reporting period. Seventeen hundred and fifty of the "Roseville Creek Awareness Maps" and five hundred of the "Roseville Creek Stewardship Resource Guides" were printed. The Creek Awareness Map is designed to be a wall poster and a brochure. The Stewardship Resource Guide is designed to be a tri-fold. Both discuss the City's Stormwater Management Program and its implications to activities in the residential community.

The City's Open Space Division created a brochure in last year's permit reporting period. This Division lies within the City's Parks Department and is responsible for managing the City's 4,000 acres of open space. Much of this land lies immediately adjacent to the City's creeks. The Open Space brochure was intended for distribution to the landowners immediately adjacent to the open space. The Stormwater Management Program contributed to this brochure with tips regarding the proper management of non-stormwater discharges.

Date: 7/1/2003 Responsible Party: Brian Castelluccio, Open Space Manager

#### PO-1.e: Expand the City Stormwater Web Page

#### Ongoing:

The City's Stormwater website is updated periodically to provide both the residential and business communities with the most recent information on the City's Stormwater Management Program. During this permit term, new links for volunteer sign-up information and maps of the newly developed "Adopt-a-Creek" program were added to the Public Involvement Opportunities section. The Upcoming Events and Workshops section was also updated with the program's schedule of outreach events.

Public Works also up-dated their section of the stormwater webpage with information pertaining to the Construction Stormwater Runoff Program and the New Development & Redevelopment Program. The new information included the proposed Stormwater Ordinance changes for the Stormwater Quality Maintenance Program.

Appendix: Screen shot of Adopt-a-Creek page

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-1.f: Implement Storm Drain Labeling Program

#### Ongoing:

All newly constructed storm drain inlets are required under the City's Construction Standards to have the "Do Not Dump" message stamped into the adjacent concrete sidewalk. Therefore, stormdrain markers are not installed at these new drain inlets.

The Stormwater Management Program continues to implementation of a volunteer program to install rugged metal storm drain markers on existing storm drains. Unlike the painted stencils that wore away in less than two years, these new metal markers are expected to last 30 years or longer. The City provides the volunteer with all the necessary materials. The markers are installed using a metal fastener and adhesive glue. First a hole is drilled in the concrete curb. Then, a metal sleeve is inserted in the hole. Next, adhesive is applied to the back of the marker. Finally, the marker is secured to the concrete by driving a nail through a pre-drilled hole in the marker into the metal sleeve below. Due to the use of power tools and the City's risk management stipulations, the number of volunteers that meet these requirements are limited.

At the on-set of the program, there were approximately 5,500 publicly-held and 1,000 privately-owned storm drains in need of labeling; over 4,350 markers have been installed over the seven years this permit has been in effect. Volunteers have installed approximately 3,500 of these markers. However, to provide for the safety of the City volunteers, City crews install markers on storm drain inlets located on busy streets where traffic control is required. In the spring months of 2011, city crews installed around 175 storm drain markers, thereby completing the labeling of unmarked storm drains on city right of way. Our stormwater volunteer installed just under 500 markers, and completed those remaining on Roseville's residential right of ways. There are approximately 2,000 storm drains in private residential subdivisions where the City does not have jurisdiction. The Stormwater Management Program will continue to utilize volunteers to label any remaining unmarked drains such as those in its parks and golf courses.

See appendix for: Map of installed storm drain markers to date

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-1.g: Identify and Participate in Local Community Outreach Events

#### Ongoing:

The City's Stormwater Management Program (SWMP) participated in sixteen (16) community and school outreach events during this reporting period. See table below.

The Stormwater Management Program coordinates and participates in "Creek Friendly Landscaping" events at two local nurseries; Sierra Nursery (4/30/11) and Green Acres (4/02/11). These events were held during the spring season in 2011. The Stormwater Management Program sponsors the "Our Water Our World" (OWOW) program at the nurseries listed above. This program includes literature, product identification and nursery staff training.

The Creek Friendly events promote a multi-media message to the general public that cross program lines. The message follows the seven "River Friendly Landscaping" principles which follow the "Bay Friendly" guidelines. The Stormwater Management Program touts an integrated pest management message. The Water Conservation Division promotes water efficient irrigation and the use of drought tolerant native plants. The Solid Waste Division addresses green waste composting in order to reduce the volume of waste going to the landfill. The City's Exploration Center advertises the department's environmentally-friendly landscaping classes.

The Stormwater Management Program participated in five community events including three Roseville Downtown Tuesday Nights during this reporting period. The Stormwater Program booth was used on three nights (7/13/10, 5/10/11, and 6/14/11). The booth includes a "carnival" type game, which visually demonstrates the connection between a storm drain and Roseville's creeks. Participants are rewarded for making the shot into a storm drain which comes out in a model creek. Then a stormwater staff member reinforces the message with saying that whatever goes into the storm drain goes out into the creek and asks the participant to repeat the phrase. Fish bubbles for children were distributed as prizes for the stormwater game in addition to a newly created stormwater activity booklet created in March 2011. The booklet "Trina Trout's Fabulous Fish Tales" was developed in-house by stormwater staff and utilizes dot-to-dots, mazes, crossword puzzles, and other activities to describe the water cycle, stormwater pollutants, creek life, and fish migration through the watershed. Trina Trout hotline magnets were distributed at these events as well as dog waste clean-up bags. Prizes were awarded at each of the events. The City determined the total average attendance for each Downtown Tuesday Night events to be 3,500.

The Stormwater Program made six presentations to the City's Adventure Clubs during this reporting period. These clubs provide before and after school care as well as care for holiday vacations for the elementary-age school children the Roseville Unified School District. The City operates these childcare facilities which are located at each of the district's schools. The Enviroscape watershed model was used at each presentation to demonstrate the processes of the water cycle, how water moves through the urban and natural environment and the impact of non-stormwater discharges to receiving waters. Over 350 children participated in these Adventure Club presentations and those after March 2011 were given the new stormwater activity booklet.

The Stormwater Program participated in several Earth Day events around the month of April. The "Celebrate the Earth" festival took place on April 16, 2011, at Roseville's Utility Exploration Center in the Mahany Sports Complex. The Stormwater Program displayed three Creek Friendly exhibits; the Integrated Pest Management bug, the Poop Loop composting display, the demonstration Rain Garden, as well as the stormwater creek game. Creek Friendly information was distributed at this event. SWMP also staffed an outreach booth at the Roseville campus of Hewlett Packard's (HP) Earth Day events on May 3, 2011. The attendees were primarily HP employees Creek Friendly information which included OWOW booklets and spray bottles were distributed at this event. SWMP took the Integrated Pest Management display to the Kaiser's Earth Day event on April 22, 2011. This event was held at the Kaiser Hospital on Douglas Blvd. in Roseville. Most of the attendees were either Kaiser staff or patients. Our Water Our World literature and spray bottles were distributed at this event as well.

As a result of the Stormwater Management Program's participation in the outreach events listed above, approximately 1360 outreach materials were distributed to the public during this permit term. Over 225 newly created stormwater activity booklets were given out at Adventure Club presentations as well as Downtown Tuesday Nights. Give-aways such as the hotline magnets, dog waste bags, general stormwater brochure and other game prizes were also given away at these events. All these items were intended to reinforce the Stormwater Program's central message of preserving the water quality Roseville's creeks through the management of stormwater runoff.

See appendix for: Earth Day 2011 - Gold Country Media Insert Trina Trout's Fabulous Fish Tales Booklet

#### Stormwater Program Outreach Events FY 2010 - 11

**Creek Friendly Events** 

4/02/2011 Green Acres Nursery

4/30/2011 Sierra Nursery

**Community Events** 

7/13/2010 Downtown Tuesday Night 8/3/2010 National Night Out 10/6/2010 LID conference

4/16/2011 Celebrate the Earth
4/22/2011 Kaiser Earth Day
5/3/2011 HP Earth Day

5/10/2011 Downtown Tuesday Night 6/14/2011 Downtown Tuesday Night

**Adventure Club Presentations** 

 11/18/2010
 Woodbridge AC

 11/21/2010
 Coyote Ridge AC

 3/14/2011
 Sargeant AC

 3/30/2011
 Heritage Oaks AC

 4/4/2011
 Blue Oaks AC

5/2/2011 Thomas Jefferson AC

Number of Impressions: 1360

Number of Events: 16

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## PO-2: Strategic Outreach Program

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

The Strategic Outreach program is meant to educate the community on the impacts of stormwater pollution and the steps people can take to reduce or eliminate pollution from reaching area waterways. The program is also intended to assess which outreach materials are most appropriate for use within the community, including residents and businesses. The City has committed to:

#### a) Work with Neighboring Communities to Develop Partnerships

The local stormwater program managers from Placer County (Placer Regional Stormwater Coordinating Group) conduct monthly meetings at which the group which includes the City of Roseville evaluates opportunities to partner in the education and outreach efforts.

#### b) Conduct a Public Stormwater Awareness Survey

The City will use a public awareness survey to evaluate the community's existing level of stormwater knowledge, determine the need for additional stormwater information, identify target audiences, and establish effective messages. In addition, the City has agreed to use the survey to gather data on how the community obtains knowledge on stormwater issues and the effectiveness and desirability of various educational media.

#### c) Update the SWMP Public Outreach Program to Reflect the Strategic Plan

The City will revise the Public Outreach MCM of the SWMP based on the findings of the community awareness survey and the resulting strategic outreach plan. Outreach activities that include identified key messages, targeted audiences, and preferred media will be implemented. The new education and outreach program will capitalize on already developed materials wherever possible.

#### **APPROPRIATENESS:**

The City has found that building partnerships with neighboring communities is an appropriate method of information-sharing. However, each of the municipal programs have varied the BMP implementation schedule, making project coordination difficult.

#### **EFFECTIVENESS:**

The City completed a public awareness survey in 2005. This survey serves a baseline to gauge the appropriateness and the effectiveness of the City's BMPs in the Public Outreach Minimum Control Measure. The City conducted a follow-up survey in 2008 which indicated that public knowledge of stormwater issues had increased.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

#### PO-2.a: Work with Neighboring Communities to Develop Partnerships

#### Ongoing:

The City attends local stormwater meetings such as those of the American River Basin Council of Watersheds (ABCW) and the Placer Regional Stormwater Coordinating Group (PRSCG) to develop partnerships with other watershed stakeholders and Phase II communities in the area. The City has determined that creating a memorandum of understanding (MOU) with PRSCG membership to provide a mechanism for funding coordinated activities infeasible at this time due to the variation in the BMP implementation schedule of each MS4s.

Roseville stormwater program staff attended the PRSCG meetings in November 2010, February 10, 2011 and June 2011. The topics discussed included regulatory dates, construction stormwater runoff permit, the new MS4 permit update, and the addition of a stormwater compliance inspection program to Placer County Environmental Health's already existing food facility inspection program. Attending participants include representatives from the City of Rocklin, Town of Loomis, City of Lincoln, City of Auburn, Placer County, as well as the City of Roseville. These meetings provide the City with an opportunity to benefit from information sharing. The frequency of these meetings has been reduced due to limitations in staff time of the participating agencies.

See appendix for: Dec 1, 2010 ABCW agenda Mar 2, 2011 ABCW agenda April 6, 2011 ABCW agenda May 4, 2011 ABCW agenda February 10, 2011 PRSCG agenda November 2010 PRSCG update

Date: 7/1/2004 Responsible Party: Kelye McKinney, Engineering Manager

#### PO-2.b: Conduct a Public Stormwater Awareness Survey

#### Completed, No Change:

Roseville's residents were surveyed in April 2005 regarding their awareness of stormwater quality issues. The survey was developed and the results compiled by Data Cycles. The survey was administered via Roseville's website to citizens who had previously agreed to respond to a wide variety of Roseville related topics. The survey questionnaire assessed the knowledge level of approximately 300 residents on the following subjects:

Drainage in their neighborhood

Use and disposal of auto maintenance materials

materia

Use and disposal of building materials

Sources of stormwater information

Use and disposal of landscaping materials and/or pool maintenance

Business/government/resident responsibility

Individual comments were solicited for several survey questions. The survey demographics were also compiled through a series of general household questions.

Generally speaking, the survey results of that web-based survey indicate that the public was not knowledgeable about the specifics of the final destination of stormwater discharged from their neighbor (i.e., which creek). Most of the respondents seemed to believe that government and business should bear the responsibility of preventing stormwater pollution rather than the residential community. Most described their waste disposal practices as environmentally responsible. These results will be given the utmost consideration when formulating the program's long term public outreach strategy. This best management practice has been completed.

The Stormwater Program participated in Environmental Utilities" customer service survey conducted in 2008. This survey measured EU's residential customer program awareness and satisfaction for the entire Environmental Utilities Department, which houses the Water, Wastewater, Solid Waste and Stormwater Divisions. To manage the length of the survey, the number of questions that directly applied to each division was limited. An independent contractor conducted the survey by phone. A statistically significant number of responses were obtained and the survey results validated.

Several comparisons can be drawn from the 2005 and 2008 surveys although the methods of data collection varied. The number of respondents familiar with the fact that stormwater is not treated prior to release to a waterway has increased from 25% to in 2004 to 49% in the 2008 when the "strongly disagree" and "somewhat disagree" categories are combined. Furthermore, the number of respondents that were unsure decreased from 68% in 2004 to 18% in 2008. Although respondents believing stormwater is treated did increase slightly from 25% in 2004 to 28% in 2008, the general trend appears to show that more of Roseville's residents are aware that stormwater is not treated prior to release to a creek.

The Environmental Utilities Department will conduct a follow-up survey in the 10-11 reporting year to further trend customer awareness of and satisfaction with core programs. The Stormwater Management Program participated in this customer survey as well. Customers were asked about their awareness of the Stormwater Management Program, called the Stormwater Pollution Prevention Program in the survey for clarification, and the Integrated Pest Management Program as well. A question asking whether stormwater is treated prior to disposal was also asked. The survey showed that about half of all respondents are aware that everything that enters storm drains is not treated and filtered. One third felt it was treated and 18% did not know.- Younger (under 65 years old) respondents were more likely to be aware that what goes down the stormdrains is not treated or filtered. The level of awareness of stormwater treatment was nearly identical to that found in the 2008 survey.

#### See appendix for:

"Draft Report of Residential Telephone Survey about Environmental Utilities"

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PO-2.c: Update the SWMP Public Outreach Program to Reflect the Strategic Plan

#### Completed, No Change:

The Stormwater Program contracted with a consultant, Lucy and Co. to develop a long-term public outreach strategy based on the public stormwater awareness survey. The long- term outreach strategy is being used to guide the efforts of the Public Education and Outreach minimum control measure of the City's Stormwater Management Plan.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# PO-3: Construction, New Development, and Redevelopment Outreach

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

The Construction, New Development, and Redevelopment Outreach Program each contain an outreach component directed to construction professionals and other interested parties during development of the Construction Site Runoff (CSR) and the New Development/Redevelopment (ND) programs. It also involves training construction professionals and City staff on the specifics of the two newly adopted programs. The City has committed to:

## a) Conduct Workshops During Construction Stormwater Runoff and New Development/Redevelopment Programs Creation.

The City has agreed to conduct three half-day workshops to solicit public input during the creation of the Construction Stormwater Runoff and New Development/Redevelopment programs for a total of six workshops.

## b) Conduct Annual Training Workshops on Construction and Improvement Standards During New Development Program Creation.

The City has agreed to conduct annual training workshops on the City's Construction Stormwater Runoff and New Development programs once they are in place.

#### **APPROPRIATENESS:**

The workshops conducted by the City are an appropriate way to educate and receive input from the construction and development community about the stormwater management program and their responsibilities to prevent stormwater pollution from construction site and new development projects.

#### **EFFECTIVENESS:**

Initial indicators tend to validate the presumed effectiveness of this BMP. Through tailgate workshops, detailed information specific to Roseville's Construction Stormwater Management program is distributed to a number of field staff in the construction industry making the financial resources committed to this BMP very effective. The public workshops also provide an excellent opportunity for the development community to have input into the City's new stormwater quality design manual.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

## PO-3.a: Conduct Workshops during Construction Stormwater Runoff and New Development/Redevelopment Program Creation

#### Ongoing:

The City hosted tailgate training sessions for contractors working in the area suffered some due to staffing reductions. The City conducted multiple pre-job SWPPP information presentations for the development community. Expanded comments were developed to enhance and provide awareness of the City's expectations of compliance.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

## b) Conduct Annual Training Workshops on Construction and Improvement Standards During New Development Program Creation.

#### Ongoing, No Change:

The City has provided information to those responsible for compliance--landowners, project designers, project developers, and contractors--via the City's website and publications that are available at the City's Permit Center. In addition, City staff mailed out letters to existing stormwater treatment device owners, design engineers, and developers inviting them to attend one of two public outreach sessions designed to introduce the proposed Stormwater Ordinance Amendment and new maintenance requirements for owners of stormwater treatment devices. Sessions were held on August 6, 2009.

About 30 people attended the two public outreach sessions, staff also received in excess of 30 phone calls seeking further information on proposed maintenance requirement for stormwater BMP's. Once staff was able to give attendees and callers a clear background on the Clean Water Act and the City's MS4 permit, there seemed to be a willingness to comply with future maintenance requirements. The biggest concerns seemed to focus on how the whole process would work and what exactly they needed to do to be in compliance. Public Works Staff provided handouts, web addresses and phone numbers of Roseville staff that could help walk them through the process.

City stormwater representatives are always available to meet with landowners or consultants upon request. Formal trainings will be developed and scheduled for both City employees and other groups and individuals responsible for compliance in the sixth year of the permit.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

## **Public Participation/Involvement**

The City must implement a minimum control measure (MCM) designed to engage and involve the regulated community in the development, implementation and periodic review of its stormwater management program. This MCM is intended to alleviate the legal challenges and the acceptance issues usually accompanying a newly implemented regulatory program. The Public Participation and Involvement Minimum Control Measure accomplishes this by providing the public an opportunity to play an active role in the stormwater management program, thereby creating ownership in the outcomes of the program.

The public can provide valuable input and support to a regulated small MS4's municipal stormwater management program. Therefore, inclusion of the public in the creation and stewardship of its stormwater management program is critical to the MS4. Public participation and involvement ensures broader public support since citizens who participate in the development and decision-making process are partially responsible for the success of the program and, therefore, they may be less likely to raise legal challenges to the program and more likely to take an active role in its implementation. Usually, shorter program implementation schedules are realized due to fewer obstacles in the form of public opposition and legal challenges. In addition, citizen volunteers provide increased resources to implement program components. Citizens can bring enhanced expertise and economic benefits to the program.

In addition, citizens can act as a conduit to other programs to provide important cross-connections and relationships with other community and government programs. This benefit is particularly valuable when trying to implement a stormwater program on a watershed basis, as encouraged by EPA.

Number of BMPs Associated with Control Measure: 4

## **Important Dates:**

Earliest Start Date: 7/1/2003 End Date: 6/30/2008

### PI-1: Stormwater Website

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

The City's stormwater website is an important aspect of its Public Involvement Program. The website provides an opportunity to keep the public updated on the stormwater program and offering a forum for educating the public on pollution prevention techniques. It also provides a way for the community to get involved in the program through feedback and the reporting of illicit discharges. The City has committed to:

#### a) Create Stormwater Content for Web Page

The City has agreed to develop stormwater pollution prevention content for the stormwater web page and post information as it becomes available.

#### b) Post Technical Assistance Documents

The City has agreed to post technical documents relating to the Construction Stormwater Runoff Minimum Control Measure (MCM), the New Development and Redevelopment MCM, and the Illicit Discharge Detection and Elimination MCM on the stormwater web page. To further assist the regulated community, the City has agreed to post documents relating to the City's policies and procedures pertaining to each MCM.

#### c) Provide for the Submittal of E-mails via the Web Page

The City has agreed to establish a link on the stormwater web page to allow the regulated community to submit comments regarding the program and to report illicit discharges and connections.

#### **APPROPRIATENESS:**

The stormwater website is an appropriate outreach mechanism for cost-effective public education. It provides an excellent conduit of information between the City and the residential and business communities.

#### **EFFECTIVENESS:**

The City has received numerous reports of illicit discharges via the website from the regulated community. The Stormwater Management Staff has responded to these reports and mitigated the non-stormwater discharge. In addition, the website provides a good mechanism to provide the public with detailed information regarding the program.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

#### PI-1.a: Create Stormwater Content for Web Page

#### **Ongoing**

This minimum control measure has been accomplished. A web page for the stormwater program has been created and content has been posted. There are eleven pages including the stormwater home page under the Environmental Utilities Departments header. The "Meet Trina Trout" page introduces the public to the City's stormwater mascot and includes information about Roseville's native fish population in a fairy tale fashion. The "About Our Program" speaks to the regulatory structure and the history of the stormwater program. This page allows the public the opportunity to review the City's Stormwater Management Program plan. The "Essential Business Tips" section provides the business community access to the stormwater ordinance and BMP fact sheets. Under the "Public Involvement Opportunities" section, the community can sign up to install storm drain markers and reserve a charity car wash kit. The "Stormwater At Your Home" is aimed at the residential discharger and suggests ways to properly manage non-stormwater discharges generated by typical household activities. There is also a page for links to additional information from other stormwater programs and a page for the public to check on up-coming workshops and events. The SWMP continues to update the web page with new and pertinent information as necessary.

The Stormwater Management Department updated the webpage four times during this reporting period by adding a link to Public Works Department's stormwater page, updated the current events section with the Creek Friendly event dates, uploaded the 2009-2010 Annual Progress Report and updated Clean Water Act and Construction General Permit links. Google analytics reports that there were a more than 3,200 views of the entire site during this reporting period.

The Public Works Department also has a stormwater webpage that is updated regularly with information to the stormwater programs under their purview, Construction Stormwater Runoff and the New Development & Redevelopment program. To enable the public to access the post-construction best management manual, a link to Sacramento's Stormwater Quality Partnership was added to the stormwater website. The proposed revision of the City's Stormwater Ordinance with the new post-construction BMP maintenance program requirements is also posted on the website for public review. A link to the State Water Resources Control Board's website for updates and workshops on the draft general construction permit was also added to the stormwater webpage.

See appendix for: Google analytics report

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PI-1.b: Post Technical Assistance Documents

### Ongoing:

Currently, there are more than a dozen "technical compliance" related documents posted on the website, either directly or by link. These resources provide public and regulated industries with information on topics such as the City policies and procedures, annual reporting, general/municipal permits, pollution prevention, stormwater compliance, required forms, BMPs, and industry specific issues.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PI-1.c: Provide for the Submittal of E-mails Via the Web Page

Completed, No Change:

The "Contact Stormwater" page of the website provides several options for making contact with Stormwater Management staff. They are as follows:

Report a current stormwater-related incident: Stormwater Hotline (916) 746-1000

Contact the Stormwater Management Program (916) 774-5751 or stormwater@roseville.ca.us"

All emails from the public were received during this reporting period were addressed by City staff.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## PI-2: Watershed Management

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

### **General Summary**

The Watershed Management Program includes the development of several regional watershed management plans, including the Dry Creek Coordinated Resource Management Plan and the Pleasant Grove Creek Coordinated Management Plan. Although both these plans are being developed by Placer County, stakeholder coordination occurs through the Dry Creek Watershed Council (DCWC). The City has committed to:

#### a) Attend Dry Creek Watershed Council Meetings

The City has agreed to attend at least two DCWC meetings per year.

#### b) Support Efforts to Establish a Coordinated Resource Management Plan

The City has agreed to support all efforts to establish a Coordinated Resource Management Plan for the Pleasant Grove Creek watershed (PG CRMP).

#### c) Develop a Citywide Creek and Riparian Management and Restoration Plan

The City has agreed to develop a Citywide Creek and Riparian Management and Restoration Plan. This plan is to be directed at urban watershed issues unique to the City.

#### d) Support Pollution Prevention Programs

The City has agreed to actively promote water quality protection by co-sponsoring stormwater pollution prevention activities such as Creek Week cleanups and citizen monitoring programs.

#### **APPROPRIATENESS:**

The Watershed Management is a particularly appropriate best management practice in the stormwater management program. This BMP has tangible implications to the protection of the City's waterways. By supporting the City's Creek Restoration Plan and the Open Space Management Program, the Stormwater Management Program can have direct impact to the health of Roseville's creeks.

#### **EFFECTIVENESS:**

Anecdotal evidence (i.e. trash removal and fish barrier passage removal) points to a positive impact to the water quality of Roseville's creeks.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

#### PI-2.a: Attend Dry Creek Watershed Council Meetings

#### Ongoing:

City staff regularly attend the monthly American Basin Council of Watersheds (formerly the Dry Creek Watershed Council). The responsibility has shifted between several City departments; the Environmental Utilities Department, Open Space and Public Works. Staff members from the listed departments attend the meetings on an as needed basis depending on agenda topics.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PI-2.b: Support Efforts to Establish a Coordinated Resource Management Plan

#### Completed, No Change:

The City has supported efforts by Placer County to develop a Coordinated Resource Management Plan for Pleasant Grove Creek. This included attending and commenting on the Plan at Dry Creek Watershed Council meetings where the draft plan was discussed and debated. The City's Environmental Coordinator also served on the Technical Advisory Committee (TAC) for the Coordinated Resource Management Plan. This TAC provided direction on key issues during plan development.

The City continues to support the Pleasant Grove Creek Plan and other watershed planning efforts lead by the County by attending monthly meetings for the American Basin Council of Watersheds. This is a newly created watershed group has a regional emphasis. The City intends to remain engaged in these watershed processes by continuing to attend monthly American Basin Council of Watersheds meetings.

Date: 7/1/2004 Responsible Party: Brian Castelluccio, Open Space Manager

#### PI-2.c: Develop a Citywide Creek and Riparian Management and Restoration Plan

#### Completed, No Change:

The City's Creek and Riparian Management Plan was completed and approved by the City Council on June 1, 2005. This year the Plan was used as a guidance document for City programs and activities that occur within the creek zone.

Date: 7/1/2004 Responsible Party: Brian Castelluccio, Open Space Manager

#### PI-2.d: Support Pollution Prevention Programs

#### Ongoing:

The Stormwater Management Program and the Open Space Division continue to participate in Dry Creek Conservancy's planning meetings for Creek Week. Dry Creek Conservancy (DCC) helped coordinate and promote the new "Adopt-a-Creek" program, a volunteer group activity to remove litter and invasive plants from "adopted" creek sections within Roseville at the City's "Celebrate the Earth" festival in April 2011.

DCC plans to move their creek week activities to the Fall in 2011 to be more conducive to creek restoration plantings.

We continue to collaborate with Dry Creek Conservancy (DCC) regarding water quality monitoring and restoration activities through out the year such as the demonstration of a grassy swale/water conservation garden at Mahany Park.

In addition, the City has established an MOU with Sacramento County's Business Environmental Resource Center (BERC) to implement a Sustainable Business recognition program in Placer County. Staff from the City as well as other surrounding jurisdictions have contributed to the development of a pollution prevention checklist for a variety of mediums; energy and water conservation, solid waste reduction, transportation and air quality, green building as well as stormwater pollution prevention. BERC will act as the lead agency in certifying businesses that implement the listed best management practices as sustainable. This is a pilot program.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## PI-3: Public Body Updates

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

Providing updates on the stormwater program to the general public is another important step in both educating the public on the City's stormwater program and also offering a forum for public feedback. This BMP consists of providing periodic updates during Public Utilities Commission, Planning Commission, and City Council Meetings. The City has committed to:

#### a) Provide Public Body Updates

The City has agreed to provide two updates per year to the public regarding the activities conducted under the SWMP.

#### **APPROPRIATENESS:**

Public body updates are appropriate to the stormwater management program because they provide an opportunity for the City's governing bodies and the public in general to hear about the activities of the program and to comment on them.

#### **EFFECTIVENESS:**

This minimum control measure is an effective means of communicating to the City's decision makers. As with most Phase II programs, the City's program is funded by the general fund. Therefore, the program must compete with other general fund activities such as emergency response and safety activities. It is important that the elected officials and the general electorate are acquainted with the goals and activities of the Stormwater Management Program when making funding decisions.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

#### PI-3.a: Provide Updates

No Change:

Due to the City's current economic status, City Council's and Public Utilities" agendas have been filled with urgent budgetary issues leaving no room for more routine updates such as the SWMP. Therefore, no updates were made this reporting period.

Date: 7/1/2003 Responsible Party: Kelye McKinney, Engineering Manager

## PI-4: Storm Drain Labeling

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

The Storm Drain Labeling program is aimed at raising the public's awareness of direct connection between the storm drain inlet and the receiving water it serves. It is presumed that once armed with this knowledge, the public will be less likely to dump waste into the storm drains. The program is an effort to label all of the City's storm drains with a message alerting the public that water discharged to storm drains flows directly to creeks and streams. In addition to raising public awareness, the program provides an opportunity for local citizens and community service groups to get involved in the stormwater management plan. The City has committed to:

#### a) Label or Stencil Storm Drains

The City has agreed to label or stencil 200 storm drains per year in areas of existing development using community groups.

#### b) Evaluate Storm Drain Labeling Versus Stenciling

The City has agreed to evaluate the longevity and cost effectiveness of storm drain labeling versus storm drain stenciling that has been traditionally used in the past.

#### **APPROPRIATENESS:**

The storm drain labeling program is an appropriate way of continuously reminding the public of the connection between the storm drain inlets and the City's creek. In addition, it is important for the residential and business communities to realize non-stormwater discharges pose a threat to the City's waterways.

#### **EFFECTIVENESS:**

The City has not performed a follow-up survey in a statistically significant manner to ascertain the effectiveness of the storm drain labeling program. Program staff often hears anecdotal accounts of the impact of the storm drain labels on prohibiting non-stormwater discharges.

#### **PROPOSED MODIFICATIONS:**

The City will continue to require that all storm drain inlets in new communities are labeled by the project proponent and will continue to solicit volunteers to assist with labeling efforts in the established communities.

#### **Status of Measurable Goals**

#### PI-4.a: Label or Stencil Storm Drains

#### Ongoing:

All newly constructed storm drain inlets are required under the City's Construction Standards to have the "Do Not Dump" message stamped into the adjacent concrete sidewalk. Therefore, storm drain markers are not installed at these new drain inlets.

The Stormwater Management Program continues implement a volunteer program to install rugged metal storm drain markers on existing storm drains. Unlike the painted stencils that wore away in less than two years, these new metal markers are expected to last 30 years or longer. The City provides the volunteer with all the necessary materials. The markers are installed using a metal fastener and adhesive glue. First a hole is drilled in the concrete curb. Then, a metal sleeve is inserted in the hole. Next, adhesive is applied to the back of the marker. Finally, the marker is secured to the concrete by driving a nail through a pre-drilled hole in the marker

into the metal sleeve below. Due to the use of power tools and the City's risk management stipulations, the number of volunteers that meet these requirements are limited.

At the on-set of the program, there were approximately 5,500 publicly-held and 1,000 privately-owned storm drains in need of labeling; over 4,350 markers have been installed over the seven years this permit has been in effect. Volunteers have installed approximately 3,500 of these markers. However, to provide for the safety of the City volunteers, City crews install markers on storm drain inlets located on busy streets where traffic control is required. In the spring months of 2011, city crews installed around 175 storm drain markers, thereby completing the labeling of unmarked storm drains on city right of way. Our diligent stormwater volunteer installed just under 500 markers, and completed those remaining on Roseville's residential right of ways. There are approximately 2,000 storm drains in private residential subdivisions where the City does not have jurisdiction. The Stormwater Management Program will continue to utilize volunteers to label any remaining unmarked drains such as those in its parks and golf courses.

#### See appendix for:

Map of areas where storm drain markers were installed for "10 - "11

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### PI-4.b: Evaluate Storm Drain Labeling Versus Stenciling

#### Completed, No Change:

The Stormwater Management Program conducted an anecdotal study at the beginning of the permit term to determine the durability and effectiveness of stenciling storm drains. It was found that the painted stencil wore off in 12 to 18 months and it was presumed that the paint went down the storm drain. Therefore, it was determined that stenciling is an unacceptable method of storm drain labeling and it was replaced by a new method; stainless steel storm drain discs, which have and estimated life span of 30 years.

During the 06-07 reporting period, City staff developed a pilot study that involved the installation of 500 of these new storm drain markers. Approximately, half (220) of the markers were to be installed using adhesive only and the rest (280) were installed using a nail and the adhesive. The markers were evaluated for their overall durability and their rate of removal.

The markers were installed an Eagle Scout project by a Boy Scout volunteer. He installed a total of 500 markers. Approximately two hundred and eighty (280) of them were installed using adhesive and two hundred twenty (220) were installed using adhesive and a nail. City staff performed a spot check to verify proper installation of the markers. The Eagle Scout also provided an electronic spreadsheet delineating the location and the type of materials used to install each marker. Approximately four hundred and ninety six markers remained in place and in good condition with all the writing legible over one year after installation. The four markers that were removed were installed using adhesive only, so the Stormwater Management Program has decided use a nail and adhesive to install the markers in the future.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## **Illicit Discharge Detection and Elimination**

The IDDE Program is intended to identify and eliminate all discharges and connections to the Small Municipal Separate Storm Sewer Systems (MS4) that are not composed entirely of stormwater, except for discharges allowed under a National Pollutant Discharge Elimination System (NPDES) permit, authorized non-stormwater discharges or emergency fire fighter flows.

IDDE-1, detecting illicit/non-stormwater discharges, and IDDE-5, utilizing existing City programs, were the focus of the program's first permit year 2003/2004. The goal of IDDE-1 is to detect illicit/non-stormwater discharges by incorporating stormwater pollution prevention in the activities of both City personnel and the public. IDDE-1 is also meant to increase public awareness. The goal of IDDE-5 is to inform public employees, businesses, and the general public of environmental impacts associated with illicit discharges.

The minimum control measures, IDDE-2, address/eliminate illicit connections and non-stormwater discharges, IDDE-4, stormwater ordinance, and IDDE-6, long-term outreach were implemented in the 2004/2005-permit year. The goal of IDDE-2 is to address or eliminate illicit connections and non-stormwater discharges. This includes instituting policies and procedures for their detection, providing technical guidance for staff, enacting proper enforcement, and improving spill response and cleanup activities.

IDDE-3, storm sewer system map was not assigned a specific implementation schedule. The City already developed a storm sewer map prior to receiving its stormwater NPDES permit from the State and the implementing the Stormwater Management Program. Therefore, under IDDE-3, the City's storm sewer map will be continually updated and refined over the entire permit term.

Discharges from MS4s often contain discharges from non-stormwater sources. Significant portions of these dry-weather flows are from illicit and/or inappropriate discharges and connections to the MS4. Illicit discharges may enter the system through either a direct connection (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or an indirect connection (e.g., infiltration into the MS4 from cracked sanitary systems, spills collected by drain outlets, or pollutants such as paint or used oil dumped directly into a drain). The result is untreated discharges that contribute high levels of pollutants, including heavy metals, toxics, oil and grease, solvents, nutrients, viruses, and bacteria to receiving water bodies. Pollutant levels from these illicit discharges have been shown in EPA studies to be high enough to significantly degrade receiving water quality and threaten aquatic, wildlife and human health.

Number of BMPs Associated with Control Measure: 6

### <u>Important Dates:</u>

Earliest Start Date: 7/1/2003
End Date: 6/30/2008

### IDDE-1: Illicit/Non-Stormwater Discharge Detection

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

### **General Summary**

The Illicit/Non-Stormwater Discharge Detection program involves inspection of discharge sources throughout the City that may contribute pollutants to the City's creeks such as businesses and outfalls. This BMP is targeted towards commercial and industrial facilities, businesses, residential neighborhoods, construction sites, and municipal facilities. The program also includes a means of responding to these illicit discharges and a means of enabling citizens to report illicit discharges. The City has committed to:

#### a) Perform Inspections

The City has agreed to incorporate a stormwater component into the Fire Department's existing hazardous materials/waste inspection program. While on-site, fire inspection staff reviews operating procedures at businesses throughout the City with the intent of locating and curtailing illicit discharges. The City committed to a minimum of 250 inspections per year.

#### b) Create Spill Response Procedure

The City has agreed to create a procedure to respond to illicit discharges that coordinates the City's response programs with the stormwater program to report location, frequency, and number of spills.

#### c) Create a Means of Enabling Citizen Reporting

The City has agreed to expand the City's website and create a hotline to provide for citizen reports of observed illicit stormwater discharges.

#### d) Review Site and Building Plans for Possible Illicit Connections

The City has agreed to review all site and building plans to detect and mitigate illicit connections and places where illicit discharges are most likely to occur.

#### e) Provide Annual Training to Appropriate City Departments and Staff

The City has agreed to provide annual training to the Streets, Water, Wastewater, Parks, Fire, and Police Departments as well as to Utility Meter Readers and other appropriate personnel to observe and report illicit discharges and connections while performing their normal field duties.

#### f) Assess Dry Weather Flows

The City has agreed to commit two full-time equivalent staff from EU and/or Public Works to perform visual or chemical monitoring one day per month during the dry weather season (May-October).

#### **EFFECTIVENESS:**

By performing inspections at commercial and industrial facilities and responding to illicit discharge complaints, the City's Stormwater Management Program is able to reduce the number of non-stormwater discharges that reach the local creeks. In addition, both of these activities provide opportunities to educate the residential and business communities about the impacts of non-stormwater discharges to local waterways. Overall, this minimum control measure's effectiveness outcome is at a level 4 reducing loads from sources.

#### PROPOSED MODIFICATIONS:

None.

#### **Status of Measurable Goals**

#### **IDDE-1.a: Perform Inspections**

#### Ongoing:

The City's Fire Department inspected a total of 329 businesses for illicit stormwater discharges. These inspections are conducted as a component to the Fire Department's Unified Program for hazardous materials storage and hazardous waste generators. The Fire Department refers stormwater dischargers requiring indepth assistance with BMP implementation to the Stormwater Management Program (SMP) for follow-up.

The Stormwater Management Program (SMP) has developed an enforcement policy and procedures to allow for the issuance of penalties for non-stormwater discharges. Under the City's stormwater ordinance, a city representative may issue an infraction citation or a compliance order for violations. An infraction citation is issued for one-time discharges while a compliance order is for on-going discharges. The enforcement policy specifies the steps SMP staff must take to issue an enforcement action. Upon finding a violation of the stormwater ordinance, SMP staff will require the discharger to cease the discharge and issue a Notice of Non-Compliance in cases of on-going discharges. In addition, the discharger will be required to submit an Action Plan that delineates BMPs that the dischargers will implement to mitigate the discharge in the future and the timeframe of their implementation. SMP staff reviews and comments on the proposed BMPs and forward the plan on to other affected City departments for their comment as well if necessary. SMP staff also inspects the facility after the proposed BMP implementation date to verify installation and BMP effectiveness. If the BMP is deficient in either of these areas, then SMP will issue a Compliance Order. This Order reiterates the requirements of the Notice of Non-Compliance with new compliance dates. A city issued Compliance Order carries a monetary penalty of \$50 to \$500 a day retroactive to the day of issuance for non-compliance. The average compliance term is thirty days in length. If the dischargers fails to implement effective BMP as delineated in the action plan within the timeframes specified by the Compliance Order monetary penalties may be assessed. In addition, the discharger may request a hearing before the City's hearing panel if the requirements and penalties of the Compliance Order are contested.

#### **Effectiveness**

Performing inspections at business facilities has shown a level 4, reducing loads from sources, during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-1.b: Create Spill Response Procedure

#### Completed, No Change:

During the '05-'06 reporting period, a spill response procedure was created for all incidents reported via 911, the city's stormwater hotline, the Stormwater Management Program (SMP) office number, and the Stormwater website email. A flow chart of the response procedure indicates the appropriate responder for each of the following categories: known substances with no personal protective equipment (PPE), hazardous materials or unknowns, and wastewater. The Environmental Utilities Department will respond to service requests that involve known substances or sanitary sewer overflows. The Fire Department will respond to incidents that involve hazardous materials or unknowns. Public Works Department will respond to service requests that involve construction sites. The City's Streets Division will provide mutual aid to all City departments in the event clean up of the stormwater conveyance system is necessary.

The Stormwater Management Program created a more detailed Incident Response Procedure for City responders during the 06-07 reporting period. This procedure defines responsibilities and appropriate notifications once SMP receives notification of an incident. It describes the steps that SMP will follow when City Fire refers a discharger to SMP for enforcement or compliance assistance. It also defines the steps to determine the type of spill (hazardous vs. non-hazardous) and which department with clean-up oversight responsibility. SMP budgeted a modest amount to pay for the clean up of both types spills when a responsible party cannot be identified. Provisions have also been made for cost recovery from the discharger where appropriate.

The Stormwater Program developed an incident report form to document the details of the discharge and the enforcement actions taken by EU staff at each event. Each incident is then logged into the Hansen and GIS databases for tracking, trending and reporting purposes.

SMP worked with staff from the City's Wastewater and Streets Departments during the '07-'08 reporting period to identify disposal options for waste streams generated as a result of a spill on public property.

During the 09-10 reporting period, the Stormwater Management Program coordinated with the Streets, Fire and Open Space Departments to develop an on-call contract with two private clean-up contractors, one hazardous waste and one non-hazardous waste. In order to expedite clean-ups of spills to the stormwater conveyance system and provide for spills beyond the clean-up capability of the City, the Stormwater Management Program established a contract with two vendors that could respond to a spill within two hours of notification. In addition, these contractors have equipment and resources at their disposal that the City would not ordinarily have available. These contractors are also able to access properly permitted disposal facilities. The Stormwater Management Program has entered into a contract that can be renewed at the City's discretion for up to five years. Both contracts are funded at \$10,000 each fiscal year.

#### **Effectiveness**

Creating spill response procedures has shown a level 4, reducing loads from sources, during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-1.c: Create Means of Enabling Citizen Reporting

#### Completed, No Change:

As of April 2005, Roseville citizens have been able to report illicit discharges to the City's Stormwater Hotline (916-746-1000). The hotline number has been posted on the website for widespread reference. Additionally, it is promoted in print through the distribution of public outreach materials such as the Trina Trout magnets.

The stormwater hotline is located at the City's emergency dispatch center. This allows for a central intake of calls 24 hours a day 7 days a week. Additionally, this set up provides for the dispatch of emergency personnel in the event of a hazardous materials spill.

Roseville residents may also report illicit discharges and request information about the program through the contact us link on the stormwater webpage.

#### **Effectiveness**

Creating a means of enabling citizen reports of illicit discharges has shown a level 1, documenting activities, during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-1.d: Review Site and Building Plans for Possible Illicit Connections

#### Ongoing:

The plan check staff of the City's Public Works and Environmental Utilities Engineering Divisions review building site plans for potential illicit connections to the stormwater conveyance system such as decorative fountains and swimming pool connections. The Public Works Engineering and Building Division plan to work together to review civil site plans and building plans to eliminate the occurrences of illicit connections. The Stormwater Management Program also coordinates with Environmental Utilities' plan check staff to identify potential illicit connections and possible illicit discharge points.

#### **Effectiveness**

Reviewing site and building plans for illicit connections has shown a level 4, reducing loads from sources, during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-1.e: Provide Annual Training for Appropriate City Departments and Staff

#### Ongoing

Per the specifications of the Municipal Operations Minimum Control Measure (BMP MO-4), City staff is trained on the specifics of the Stormwater Management Program including the definition of an illicit discharge and how to report a discharge to the proper authorities. Stormwater awareness training was provided to the Facilities Maintenance (12/7/2006), Streets Maintenance (5/17/2007), and Wastewater Collections Staff (6/21/2007) during the 06-07 reporting period. Training was given to the Water Division (2/5/2008), and Electric Department (10/23/2007) during the 07-08 reporting year. Wastewater and Water Department staff were given a refresher course (2/12/09 and 2/11/09 respectively). SWMP provided stormwater compliance training to the Water Department staff (8/4/09) regarding the stormwater program's status and specifically pool discharge program. The Electric Department was given stormwater review training on April, 11, 2011. These trainings are tailored to each group's specific activities and include specific BMPs to prevent prohibited discharges to the storm drain system.

#### **Effectiveness**

Providing annual training for appropriate City departments has shown a level 2, raising awareness, during this reporting period. The Stormwater Program receives the majority of illicit discharge notifications from City staff that are routinely in the field. This is a direct result of the increase awareness of staff of the nature of an illicit discharge.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### **IDDE-1.f: Assess Dry Weather Flows**

#### Ongoing:

During the 2010/2011 dry season, two staff members spent six days evaluating stormwater outfalls for discharges to the receiving waters. A total of 23 stormwater outfall evaluations were performed. Evaluation dates and number of outfalls observed were as follows:

Evaluation Date	Number of Outfalls
7/21/2010	3
8/30/2010	5
9/28/2010	6
10/19/2010	5
5/10/2011	3
6/14/2011	1
6 Days	23 Outfalls

The data collected includes condition of outfall and surrounding area, equipment accessibility, illicit discharges, digital photograph, and GPS location.

#### **Effectiveness**

Assessing dry weather flows for illicit discharges has shown a level 4, reducing loads from sources, during this reporting period.

See appendix for: Map of outfalls evaluated

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# IDDE-2: Address/Eliminate Illicit Connections and Non-Stormwater Discharges

Responsible Party: Kelye McKinney, Engineering Manager

End Date: 6/30/2008

Start Date: 7/1/2004

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

This program is intended to address or eliminate illicit connections and non-stormwater discharges detected in IDDE-1. The program includes two general activities, investigation and enforcement. The City has committed to:

#### a) Create New Investigation Procedures

The City has agreed to create new investigation procedures to address and track illicit discharges and connections.

#### b) Create Enforcement Procedures

The City has agreed to conduct annual training for enforcement staff to help eliminate illicit discharges. The City has also agreed to develop and implement different levels of enforcement actions such as: a warning citation, Notice of Violation (NOV), Cease & Desist, administrative fines, and possible referral to the District Attorney.

#### c) Enhance existing spill response activities to include the cessation and remediation of illicit/nonstormwater discharges,

The City has agreed to enact through local ordinance the means to improve stormwater discharge response by including the means to cease and remediate non-stormwater discharges.

#### **EFFECTIVENESS:**

Addressing illicit connections and non-stormwater discharges is an effective way to improve water quality in the City's creeks. By mitigating the discharge points of various non-stormwater discharges the pollutant load on local waterways is reduced thereby rendering a level 4 effectiveness outcome, reducing loads from sources.

#### PROPOSED MODIFICATIONS:

None.

#### **Status of Measurable Goals**

#### IDDE-2.a: Develop Policy to Address Illicit/Non-Stormwater Discharges and Connections

#### Completed, No Change:

On July 7, 2006, the Roseville Municipal was amended to include Chapter 14.20 of Title 14, the "Urban Stormwater Quality Management and Discharge Control Ordinance" The development of new policy pertaining to illicit/non-stormwater discharges and connections has been tied to the adoption of new Roseville Stormwater Ordinance.

The Stormwater Management Program (SMP) also developed an enforcement policy that allows for the issuance of penalties for non-stormwater discharges. Under the City's newly adopted stormwater ordinance, a city representative may issue an infraction citation or a compliance order for violations. The Stormwater Management Program may issue an infraction citation for one-time discharges or a compliance order for ongoing discharges. This enforcement policy specifies the steps required to issue an enforcement action. Upon finding a violation of the stormwater ordinance. SMP staff will require the discharger to cease the discharge and issue a Notice of Non-Compliance in cases of on-going discharges. In addition, the discharger will be required to submit an Action Plan that delineates BMPs that the dischargers will implement to mitigate the discharge and the timeframe of their implementation. SMP staff reviews and comments on the proposed BMPs and distributes the plan to other affected City departments for their comment. SMP staff also inspects the facility after the proposed BMP implementation date to verify BMP installation and effectiveness. If the BMP is deficient in either of these parameters, then SMP will issue a Compliance Order. This Order reiterates the requirements of the Notice of Non-Compliance with new compliance dates. A city issued Compliance Order carries a monetary penalty of \$50 to \$500 a day retroactive to the day of issuance for non-compliance. The average compliance term is thirty days in length. If the dischargers fails to implement effective BMP as delineated in the action plan within the timeframes specified by the Compliance Order monetary penalties may be assessed. In addition, the discharger may request a hearing before the City's hearing panel if the requirements and penalties of the Compliance Order are contested.

#### **Effectiveness**

Developing policy to address illicit discharges and connection has shown a level 1, documenting activities, during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-2.b: Develop Monitoring Guidelines for Inspection Staff

#### Completed, No Change:

Outfall monitoring criteria for the detection and elimination of illicit discharges has been developed in conjunction with the City's weekly dry weather monitoring. An "Illicit Discharge & Detection Elimination" form was created to document and report findings. Staff performs See IDDE-1.f for dates and other information regarding outfall monitoring.

#### **Effectiveness**

Developing monitoring guidelines for inspection staff has shown a level 1, documenting activities, during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## IDDE-2.c: Enhance Existing Spill Response Activities to Include the Cessation and Remediation of Illicit/Non-stormwater Discharges

#### Ongoing:

In order to effectively apply the mandates of the stormwater ordinance, the City has developed incident response and tracking procedures. Incidents coming into the Environmental Utilities Department via the website, hotline, or City staff are routed via an incident report form to a staff member for immediate response. Staff then travels to the discharge location. Once on site, the discharger is directed to stop the discharge and, based on the nature of the discharge, the discharger is given information on alternative disposal methods and BMP implementation. If necessary, a follow-up visit is made to the site to verify compliance.

Hard copy documentation is maintained on each incident. Pertinent information for each incident such as location and discharge type is also logged electronically in a Hansen database along with a narrative. Incidents are also entered into a GIS database. This allows for incident tracking and categorization to detect trending in discharge types and location. Associated enforcement actions are also tracked in this database.

During this reporting period, July 1, 2010 through June 30, 2011, the Environmental Utilities Department responded to a total of eighty (70) discharge incidents during this reporting period. These discharges are broken into the following discharge types:

### **Incident Response 10/11**

Discharge Type		Number
Chemical		2
Concrete		4
Dirt/Sediment		8
Food Waste		1
Landscape Debris		8
Miscellaneous		6
Paint		3
Pesticide / Fertilizer		1
Pet Waste		0
Pool Discharge		17
Trash		0
Wash Water		7
Waste Oil/Petroleum Hydrocarbons		13
•	Total	70

This incident data aids in the development of outreach and education programs for the residential and business communities. This will assist the Stormwater Management Program in formulating a long-term outreach program.

#### **Effectiveness**

Enhancing existing spill response activities to include the cessation and remediation of illicit discharges has shown a level 4, reducing loads from sources, during this reporting period.

See appendix for: IDDE Incident Chart IDDE Location Map Map of Pool Inspections

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

## **IDDE-3: Storm Sewer System Map**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

#### **General Summary**

Mapping the storm sewer system is important to stormwater management because it provides the locations of all the outfalls that drain into the City's creeks and the name of the U.S. receiving water each outfall discharges into. Mapping the storm sewer system and the outfalls can be beneficial in helping the City to maintain the outfalls and search for any illicit discharges entering the creeks. The City has committed to:

#### a) Update the City's Storm Sewer Map

The City has agreed to update the storm sewer map, including the location of all outfalls and the name and location of the waters of the U.S. that receive discharges from the outfalls.

#### **EFFECTIVENESS:**

The updated City Storm Sewer map is an effective tool for the Stormwater Management Program. It aids in tracing the path an illicit discharge may take as it makes its way to the receiving water. Staff uses the map to track and abate illicit discharges. However, this activity has a level 1, documenting activities, outcome in that this minimum control measure merely documents where the stormwater conveyance infrastructure is located and is only a tool to prevent stormwater discharges.

#### PROPOSED MODIFICATIONS:

None.

#### **Status of Measurable Goals**

#### IDDE-3.a: Update City's Storm Sewer Map

#### Ongoing:

The City continues to up-date its storm sewer map using a Global Positioning System device to refine the accuracy of the mapped outfalls and to add unmapped outfalls and infrastructure to the map. This update of the stormwater map is performed in conjunction with the City's dry weather outfall monitoring program. Dates and number of outfalls observed and mapped during the dry season were as follows:

Evaluation Date	Number of Outfalls
7/21/2010	3
8/30/2010	5
9/28/2010	6
10/19/2010	5
5/10/2011	3
6/14/2011	1
6 Days	23 Outfalls

The data collected include condition of outfall and surrounding area, equipment accessibility, illicit discharges, digital photograph and GPS location. This information is forwarded on to the Environmental Utilities Mapping Section which maintains the City's comprehensive stormwater conveyance system map.

Appendix: Map of new stormwater outfalls

Date: 7/1/2003 Responsible Party: Roy VanNess, Mapping Manager

#### **IDDE-4: Stormwater Ordinance**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

### **General Summary**

Roseville Municipal Code Section 14.12.025, Storm Drains, states that it is unlawful to discharge any illicit waste, discharge, or garbage into any storm drain. Using this existing ordinance as a basis, the City plans to create a separate stormwater ordinance. Creating a stormwater ordinance is important to the stormwater management program because it provides guidelines for inspection of facilities that may discharge to the storm sewer system and enforcement of any discharge violations. The City has committed to:

#### a) Create a Stormwater Ordinance

The City has agreed to create a comprehensive stormwater ordinance that addresses the following:

- 1) Prohibition of discharges to the storm drains other than stormwater or authorized non-stormwater discharges, or a cross-reference to an existing discharge prohibition ordinance.
- 2) Prohibition of unauthorized connections to the storm drain system, with a requirement to eliminate or secure approval for any non-stormwater connection.
- Right of access for inspections and monitoring of facilities suspected of illicit discharges and connections.
- 4) Cross-reference to the State's General Permit for industrial and construction stormwater discharges.
- 5) Requirements and procedures for notification of spill and emergency response
- 6) Enforcement procedures, e.g., NOV, public nuisance, and public hearing
- 7) Remedies, e.g., recovering the cost of abatement, monetary penalties, and suspension of storm drain service

#### **EFFECTIVENESS:**

The Stormwater Management Program has used the criteria specified by the City's stormwater ordinance to effectively curtail stormwater discharges from businesses and residential properties thereby lessen the pollutant load on the City's receiving waters. However, this minimum control measure is just a tool to prevent illicit stormwater discharges. Therefore, it has a level one, documenting activities, outcome of its adoption and periodic updates.

#### **PROPOSED MODIFICATIONS:**

None.

#### **IDDE-4.a: Create Stormwater Ordinance**

Completed, No Change:

On July 7, 2006, the Roseville Municipal Code was amended to include Chapter 14.20 of Title 14, the "Urban Stormwater Quality Management and Discharge Control Ordinance." This best management practice has been accomplished.

The Stormwater Ordinance was revised on with provisions to provide for the permitting and maintenance requirements of post-construction best management practices as required by Attachment 4 of the General MS4 Permit. City Council adopted the amendment on May 5, 2010.

#### **Effectiveness**

Creating a stormwater ordinance has shown a level 1, documenting activities, during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# **IDDE-5: Utilize Existing Programs**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

This program is meant to inform employees, businesses, and the general public of hazards to water quality associated with illicit discharges by including stormwater information in appropriate existing outreach programs. The City has committed to:

#### a) Publish Stormwater Articles

The City has agreed to include articles addressing stormwater impacts and the new Phase II program in the Roseville Reflections and Environmental Utilities Today newsletters.

#### b) Add Stormwater Information to Inspection Programs

The City has agreed to add stormwater specific information to the Water Conservation, Fire Department inspection and Neighborhood Services programs and utilize their existing media for disseminating information. In addition, the City will add stormwater specific information to the education and outreach materials of the City's existing programs that do not involve inspections such as Household Hazardous Waste, Used Oil Drop-Off, Compost Bin, Dog Park, and Creek Week activities.

#### c) Utilize Educational Signs

The City has agreed to install two stormwater information education signs at Mahany Park.

#### d) Develop and Implement Creekside Land Owner Education

The City has agreed to educate creekside landowners through the Citywide Creek and Riparian Management and Restoration plans.

#### e) Expand City Stormwater Web Page

The City has agreed to expand the City's Stormwater Web Page to include information on illicit discharges and other stormwater issues.

#### f) Implement Storm Drain Stenciling

The City has agreed to implement storm drain labeling through the requirements for concrete stamping in the City's Construction Standards for new development and storm drain stenciling by citizen volunteers for existing development.

#### **EFFECTIVENESS:**

It is an effective use of City resources to disseminate information regarding the City's Stormwater Management Program using existing City programs. The cost to the City of those outreach programs would be the same whether a stormwater message was included or not.

#### PROPOSED MODIFICATIONS:

None.

#### IDDE-5.a: Publish Stormwater Articles

#### Ongoing:

Seven stormwater related articles were published in the Environmental Utilities Today newsletter during this reporting period. An article entitled A New Clean & Bright Idea for Charity Car Washes published in the August 2010 issue encouraged charities to use the City's car wash kit for their fundraising events. Another article entitled Leaf Pickup Program Begins Nov 1 in the October 2010 issue promoted the City's leaf pickup program. The February 2011 edition of EU Today advertised EU's Exploration Center's class lineup under the title of Exploration Center Workshop Season Lineup. In the April 2011 edition Draining Your Swimming Pool urged the public to call the City to obtain a one-time discharge permit to drain their pool. Another article called Adopt-A-Creek Program Kicks Off appeared in the April 2011 edition. It promoted volunteerism to beautify the City's creeks. Two articles highlighting a stormwater message; Car Washing Tips and Integrated Pest Management: What It Is & Why It Matters were published in the June 2011 edition. The "EU Today" newsletter is distributed to 35,000 Roseville residents. It is mailed out as an insert in the residential utility bill. It is also available on most public counters in City buildings. Due to budgetary constraints, the City no longer produces the Roseville Reflections newsletter.

The City's website is up-dated periodically to include new issues of the "EU Today" which contain aforementioned articles. To access these newsletters go to the City's website at www.roseville.ca.us under the heading of "Most Visited," go to Newsletters.

The City's Stormwater Program continues to partner with Our Water Our World to bring information regarding integrated pest management to the public. The City has sponsors literature racks at two retail landscape nurseries: Green Acres, Sierra Nursery and Bushnell's Nursery. Two new outlets were added to the list during the 09-10 permit term; Home Depot on North Sunrise and Home Depot on Fairway. Each rack holds approximately 24 individual fact sheets relating to specific pest management problems.

#### **Effectiveness:**

Including articles on stormwater impacts has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:

Copy of EU Today Articles (see in PO-1.a appendix)

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-5.b: Add Stormwater Information to Inspection Programs

#### Onaoina:

The City's Fire Department inspected more than 329 businesses for illicit stormwater discharges during this reporting period. These inspections were conducted as a component to the Fire Department's hazardous materials business plan and hazardous waste generator inspections. The Fire Department refers stormwater dischargers requiring assistance with BMP implementation to the Stormwater Management Program (SMP) for follow-up and further site review.

The Stormwater Program has created a series of Best Management Practices (BMP) fact sheets tailored to industrial/commercial dischargers. All together, there are nine fact sheets for nine specific industries; auto body repair, auto repair, landscapers, painting contractors, pool contractors, power washers, ready mix concrete suppliers, rental yards and the food service industry. These business categories were selected due to the fact that they generally represent the most prevalent discharge types encountered in the illicit discharge detection and elimination program. When combined, these fact sheets will serve as the City's Industrial/Commercial BMP Manual as referenced by the City's Stormwater Ordinance. These fact sheets will be distributed during inspections or at discharge incidents as necessary.

#### Effectiveness:

Adding stormwater information to existing inspection programs has shown a level 3, Changing Behavior, outcome during this reporting period. By distributing information to the business community on the impacts to receiving waters of illicit stormwater discharges and BMP implementation, the City has seen industrial/commercial businesses change the way they handle their wastes.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### **IDDE-5.c: Utilize Educational Signs**

#### Completed, No Change:

Two signs, incorporating the Trina Trout mascot, were installed at Mahany Park during the 2005-2006 reporting period. These signs read, "Hi! I'm Trina Trout. This is Kaseberg Creek. Roseville's creeks and fields are home to me, and all my furry and feathered friends. Please keep our home clean by tossing your trash in this can. Thank you, Stormwater Management Program." These signs are located at a creek bridge that is heavily traveled by pedestrians accessing both sides of the Park. This bridge is located behind Mahany Center and is part of the City's bike trail system.

#### **Effectiveness:**

Utilizing educations signs has shown a level 2, Raising Awareness, outcome during this reporting period. There have been anecdotal comments made to the staff of Mahany Park facilities regarding the Trina Trout signs.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-5.d: Develop and Implement Creekside Land Owner Education

#### Completed, No Change:

The "Roseville Creek Awareness Map" and the "Roseville Creek Stewardship Resource Guide" were updated to conform to City's outreach standards during the 2005-2006 reporting period. Seventeen hundred and fifty of the "Roseville Creek Awareness Map" and five hundred of the "Roseville Creek Stewardship Resource Guides" were printed. The Creek Awareness Map is designed to be a wall poster and a brochure. The Stewardship Resource Guide is designed to be a tri-fold. Both discuss the City's Stormwater Management Program and its implications to activities in the residential community.

In addition, the City's newly created Open Space Division created an Open Space brochure during the 07-08 reporting period. This Division lies within the City's Parks Department and is responsible for managing the City's 4,000 acres of open space. Much of this land lies immediately adjacent to the City's creeks. The Open Space brochure was intended for distribution to the landowners immediately adjacent to the open space. The Stormwater Management Program contributed to this brochure with tips regarding the proper management of non-stormwater discharges.

#### Effectiveness:

Develop and implement creekside land owner education has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2004 Responsible Party: Brian Castelluccio, Open Space Manager

#### IDDE-5.e: Expand City Stormwater Web Page

#### Completed, No Change:

The City's Stormwater website is updated periodically to provide both the residential and business communities with the most recent information on the City's Stormwater Management Program. A web page for the stormwater program has been created and content has been posted. There are eleven pages including the stormwater home page under the Environmental Utilities Departments header. The "About Our Program" speaks to the regulatory structure and the history of the stormwater program. This page allows the public the opportunity to review the City's Stormwater Management Program plan. The "Essential Business Tips" section provides the business community access to the stormwater ordinance and BMP fact sheets. Under the "Public Involvement Opportunities" section, the community can sign up to install storm drain markers and reserve a charity car wash kit. The "Stormwater At Your Home" is aimed at the residential discharger and suggests ways to properly manage non-stormwater discharges generated by typical household activities. There is also a page for links to additional information from other stormwater programs and a page for the public to check on upcoming workshops and events. The SWMP continues to up-date the web page with new and pertinent information as necessary.

The Stormwater Management Department updated the webpage four times during this reporting period by adding a link to Public Works Department's stormwater page, updated the current events section with event dates, uploaded the 2009-2010 Annual Progress Report and updated Clean Water Act and Construction General Permit links. Google analytics reports that there were more than 2,766 views of the entire site during this reporting period.

Public Work's also up-dated their stormwater webpage with information pertaining to the Construction Stormwater Runoff Program and the New Development & Redevelopment Program. The new information included the adopted Stormwater Ordinance changes for the Stormwater Quality Maintenance Program.

#### Effectiveness:

Expanding the City's Stormwater web page has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-5.f: Implement Storm Drain Stenciling

### Completed, No Change:

Over the course of the permit term, the City has ceased to use storm drain stenciling to label existing storm drains instead the city uses stainless steel markers. These markers stating "No Dumping Flows to Creek" to the concrete immediately adjacent to the storm drain inlet. These markers have a 30-year life span and are a viable replacement for painted stencils, which tend to wear off within a year or two. The markers are fastened directly to the concrete using adhesive and a nail. This increases the resistance of the marker to wear and tear and vandalism. It is a highly effective method of marking existing storm drains.

The Stormwater Management Program continues implement a volunteer program to install rugged metal storm drain markers on existing storm drains. Unlike the painted stencils that wore away in less than two years, these new metal markers are expected to last 30 years or longer. The City provides the volunteer with all the necessary materials. The markers are installed using a metal fastener and adhesive glue. First a hole is drilled in the concrete curb. Then, a metal sleeve is inserted in the hole. Next, adhesive is applied to the back of the marker. Finally, the marker is secured to the concrete by driving a nail through a pre-drilled hole in the marker into the metal sleeve below.

At the on-set of the program, there were approximately 5,500 publicly-held and 1,000 privately-owned storm drains in need of labeling; over 4,350 markers have been installed over the seven years this permit has been in effect. Volunteers have installed approximately 3,500 of these markers. However, to provide for the safety of the City volunteers, City crews install markers on storm drain inlets located on busy streets where traffic control is required. There are approximately 200 unmarked drains remaining in the public right of way and approximately 2,000 in private residential subdivisions where the City does not have jurisdiction. The Stormwater Management Program will continue to utilize volunteers to label the remaining unmarked drains.

Volunteers installed more than 660 storm drain markers during this reporting period. During the third quarter, staff from a local engineering company installed approximately 50 storm drain markers on existing unlabeled storm drain inlets in Roseville. The remaining markers were installed by a single dedicated volunteer. Due to the use of power tools and the City's risk management stipulations, the number of volunteers that meet these requirements are limited.

All newly constructed storm drain inlets are required under the City's Construction Standards to have the "Do Not Dump" message stamped directly into the adjacent concrete sidewalk. Therefore, a storm drain marker will not be installed at these new drain inlets.

#### **Effectiveness:**

Implementation of a storm drain labeling program at a minimum has been at level 1, Documenting Activities, outcome during this reporting period.

#### See appendix for:

Map of areas where storm drain markers were installed for '10-'11 (see in PI-4a appendix)

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# **IDDE-6: Long-Term Outreach**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The Long-Term Outreach Program is intended to develop a focused, strategic program to educate the community on the impacts of stormwater and the steps people can take to reduce pollutants in stormwater. This BMP addresses activities that develop a variety of educational products, media outreach campaigns, and business outreach. The City has committed to:

#### a) Work to Develop Partnerships

The City has agreed to work to develop partnerships with neighboring communities.

#### b) Evaluate the Level of Stormwater Knowledge

The City has agreed to conduct a survey to evaluate the level of stormwater knowledge in the community and find out how the public gets their stormwater knowledge.

#### c) Identify Needs for Stormwater Information

The City has agreed to identify the needs for general stormwater information in the community.

#### d) Identify Target Audiences

The City has agreed to identify the target audiences, e.g., industry, businesses, and minority communities, and determine the specific messages and appropriate media to reach those audiences.

#### e) Update the SWMP Public Outreach Program

The City has agreed to use the survey and demographic information identified in items c and d above to update the Stormwater Public Outreach Program.

#### **EFFECTIVENESS:**

A long-term outreach strategy will increase the effectiveness of the Stormwater Management Program's outreach program. By defining target audiences and their associated stormwater knowledge level, SMP can more effectively deliver a stormwater pollution prevention message.

The City has completed a baseline public awareness survey as well as a follow-up. Both surveys measured the residential community's knowledge of fate of stormwater runoff. The results of the surveys showed an increase from 25% to 49% in the number of respondents who knew Stormwater is not treated to remove contaminants prior to release. This tends to indicate that the Stormwater Program's Public Outreach minimum control measure has had a level 2, Raising Awareness, outcome during this reporting period.

#### PROPOSED MODIFICATIONS:

None.

#### IDDE-6.a: Work to Develop Partnerships

# Ongoing:

The City attends local stormwater meetings such as those of the Dry Creek Water Council (DCWC) and the Placer Regional Stormwater Coordinating Group (PRSCG) and the Integrated Water Management Plan for the Regional Water Authority in an attempt to develop partnerships with other watershed stakeholders and Phase II communities in the area. The City has determined that creating a memorandum of understanding (MOU) with PRSCG membership to provide a mechanism for funding coordinated activities infeasible due to the variation in the implementation schedule for the BMPs of each MS4.

City staff regularly attend the monthly American Basin Council of Watersheds formerly the Dry Creek Watershed Council. The responsibility has shifted between several City departments; the Environmental Utilities Department, Open Space and Public Works. Staffs from the listed departments attend the meetings on an as needed basis depending on agenda topics.

Roseville stormwater program staff attended the PRSCG meetings on November 3, 2010 and February 10,, 2011. The topics discussed included regulatory dates, construction stormwater runoff permit, and draft MS4 permit update. Attending participants include representatives from the City of Rocklin, Town of Loomis, City of Lincoln, City of Auburn, Placer County, as well as the City of Roseville. These meetings provide the City with an opportunity to benefit from information sharing. The frequency of these meetings has been reduced due to limitations in staff time of the participating agencies.

#### Effectiveness level:

Working with neighboring communities has shown a level 2, Raising Awareness, outcome during this reporting period in that the participating agencies are kept informed of the activities of adjacent municipalities.

See appendix for:

PRSCG Agendas (see in PO-2.a appendix)

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-6.b: Evaluate Level of Stormwater Knowledge

#### Ongoing:

Roseville's residents were surveyed regarding their awareness of stormwater quality issues during the 2003-2004 reporting period. The results of the survey were tabulated by Data Cycles in April 2005. The survey was administered via Roseville's website to citizens who had previously agreed to respond to a wide variety of Roseville related topics. The survey questionnaire assessed the knowledge level of approximately 300 residents on the following subjects:

Drainage in their neighborhood
Use and disposal of building materials
Use and disposal of landscaping materials and/or pool maintenance
Use and disposal of auto maintenance materials
Sources of stormwater information
Business/government/resident responsibility

Individual comments were solicited for several survey questions. The survey demographics were also compiled through a series of general household questions.

Generally speaking, the survey results of the web-based survey indicate that the majority of the public (75%) is not knowledgeable about the specifics of the final destination of stormwater discharged from their neighbor (i.e., which creek). Most of the respondents seemed to believe that government and business should bear the responsibility of preventing stormwater pollution rather than the residential community. Most described their waste disposal practices as environmentally responsible.

The Environmental Utilities Department in conjunction with the Stormwater Program conducted a survey in 2008 that served as a follow-up to the stormwater program 2004 survey. This survey measured residential

customer program awareness and satisfaction for the entire Environmental Utilities Department, which houses the Water, Wastewater, Solid Waste and Stormwater Divisions. To manage the length of the survey, the number of questions that directly applied to each division was limited. An independent contractor conducted the survey by phone. A statistically significant number of responses were obtained and the survey results validated.

Several comparisons can be drawn from the 2004 and 2008 surveys although the methods of data collection varied. The number of respondents familiar with the fact that stormwater is not treated prior to release to a waterway has increased from 25% to in 2004 to 49% in the 2008. Although, respondents believing stormwater is treated did increase slightly from 25% in 2004 to 28% in 2008, the general trend appears show that more of Roseville's residents are aware that stormwater is not treated prior to release to a creek.

There are several differences in question phrasing between the two surveys. In the 2004 survey, respondents were not asked about their awareness regarding the stormwater or integrated pest management programs. However, these questions were posed in the 2008 survey. This survey indicates that more than 60% of respondents were aware of the stormwater management program and they consider its services to be helpful (combining the excellent, good and fair categories). However, most respondents (68%) were not aware of the integrated pest management program. This can be explained due to the relative newness of the program.

Environmental Utilities will be conducting a follow-up survey during the next reporting period 10-11. The questions posed in the up-coming survey will be virtually identical to the 2008 survey to allow for consistency in comparison. The results of the 2010 survey indicated that about half of all respondents are aware that everything that enters storm drains is not treated and filtered. One third felt it was treated and 18% did not know. Younger (under 65 years old) respondents were more likely to be aware that what goes down the stormdrains is not treated or filtered. The level of awareness of stormwater treatment was nearly identical to that found in the 2008 survey.

#### Effectiveness level:

Evaluate level of stormwater awareness has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-6.c: Identify Needs for Stormwater information

The 2008 Environmental Utilities customer service survey indicates slightly more than half of Roseville's residents are not aware of the final destination of stormwater discharged from their neighborhoods In general; a trend appears show that more of Roseville's residents are aware that stormwater is not treated prior to release to a creek. These results are given the up-most consideration when formulating the program's outreach activities

#### Effectiveness level:

Identifying needs for stormwater information has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### **IDDE-6.d: Identify Target Audiences**

Completed: No Change.

Target audiences for long-term public outreach efforts were identified based on the discharge types noted as a result of the City's incident response as shown in IDDE-2.c. It appears that pool discharges (16%), wash water discharges (18%) and waste oil discharges (20%) were observed most frequently by the City's incident response program during this permit term. Therefore, these waste streams will receive the greatest focus for public outreach efforts during the next reporting period.

#### Effectiveness level:

Identifying target audiences has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### IDDE-6.e: Update the SWMP Public Outreach Program

#### Completed, No Change:

The Stormwater Program contracted with a consultant to develop a long-term public outreach strategy based on the 2004 public stormwater awareness survey. Staff has reviewed and commented to the consultant's proposed plan. City comments have been incorporated into the plan. The newly developed long-term outreach strategy along with new trends delineated by the 2008 will be used to guide the efforts of the Public Education and Outreach minimum control measure of the City's Stormwater Management Plan.

The Environmental Utilities' customer service phone survey was completed this reporting period and the results have been tabulated. The survey indicated that bill inserts, and written materials were well received by the public. As such these outreach mechanisms will continue to be a mainstay of the Stormwater Management Program outreach activities. Based on the availability of resources, the outreach efforts will be expanded to reflect these long-term outreach strategies.

#### Effectiveness level:

Updating the Stormwater Management Program's Public Outreach Program to reflect the strategic plan has shown a level 1 outcome, Documenting Activities, during this reporting period.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# **Construction Site Runoff Control**

The Construction Site Runoff Control element of the Stormwater Program is intended to reduce pollutants in stormwater runoff due to construction activities. This Minimum Control Measure (MCM) includes development of a new Stormwater Ordinance, revision to existing City standards, as well as the guidance, outreach, and training to implement the revised standards. In addition, the program will improve the complaints reporting system and modify the inspection and enforcement program. The construction site runoff program will also determine appropriate best management practices (BMPs) for construction site related activities and create sanctions to ensure their implementation. The program will establish measures for inspecting and enforcing the use of BMPs on construction sites and for imposing proper erosion and sediment controls.

Polluted stormwater runoff from construction sites often flows directly to the storm drains and into our waterways impacting aquatic life. In fact, the amount of sediment that flows into the creeks from construction sites can contribute more silt than naturally accumulates over many decades. Excessive amounts of sediment in the water can destroy the aquatic habitat. In addition, the non-stormwater discharges from construction sites are not naturally occurring, e.g., concrete washout, fertilizers and pesticides, and can cause serious harm to City waterways.

The use of BMPs on construction sites can greatly reduce the amount of sediment and other pollutants that enter the stream through stormwater runoff, better preserving the aquatic habitat for wildlife in and around creeks and streams.

Number of BMPs Associated with Control Measure: 6

# **Important Dates:**

Earliest Start Date: 7/1/2003 End Date: 6/30/2008

# **CSR-1: Revised Ordinances**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 X Year 3 X Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The goal of stormwater ordinance development is the development of regulatory requirements for the management of construction sites to reduce the runoff of sediments and various pollutants from construction activities. The City has committed to:

## a) Develop and Adopt a Stormwater Ordinance

The City has agreed to develop and adopt a stormwater ordinance that:

- 1) Sets performance standards for construction site runoff
- 2) Covers grading, land clearing, or other disturbances of greater than or equal to one acre
- 3) Requires BMPs for erosion, sediment control, construction materials and wastes
- 4) Requires financial guarantees for compliance and site stabilization
- 5) Refers to technical guidance, e.g., Construction Standards
- 6) References enforcement mechanisms

#### **APPROPRIATENESS:**

Revising current ordinances and writing a new Stormwater Ordinance provide an appropriate first step in preventing polluted stormwater runoff from entering the City's waterways.

#### **EFFECTIVENESS:**

The City is currently in the initial stages of its newly adopted Stormwater Ordinance management program, yet has observed positive indicators associated with better effectiveness, less State Regional Board involvement, and quicker response from the development community in terms of BMP compliance.

#### PROPOSED MODIFICATIONS:

None.

### **Status of Measurable Goals**

# CSR-1.a: Develop and Adopt a Stormwater Ordinance

Completed:

The City's Stormwater Ordinance was adopted by the Roseville City Council. For more information, please see IDDE-4.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

# **CSR-2: City Standards**

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The City Standards BMP is intended to provide technical and regulatory guidance to City staff and project applicants on City requirements for construction site runoff control. This BMP includes reviewing existing technical guidance for construction site BMPs, analyzing its current suite of BMPs and adopting changes to the standards. The City has committed to:

# a) Update Existing CSR Control Measures in City Standards

The City has agreed to update its Design/Construction Standards to include provisions for construction site runoff control measures, including submittal requirements, erosion and sediment control BMPs, and materials. Additionally, the City created a Stormwater Quality BMP Guidance Manual for Construction.

#### b) Implement CSR Control Measures

The City has agreed to implement these construction site runoff control measures through City development review process.

#### **APPROPRIATENESS:**

It is appropriate to establish construction standards to provide technical and regulatory guidance to City staff and the development community for compliance with construction site runoff control requirements.

#### **EFFECTIVENESS:**

The City has generated documents providing necessary direction to the development community for minimum BMP guidelines and Stormwater requirements.

#### PROPOSED MODIFICATIONS:

Recently completed, the City "cleaned up" the design/construction standards and plans to amend the latest version to include four years of amendments, spelling and grammatical errors and technical necessities. The new document was distributed in March, 2010. This link is located at <a href="http://www.roseville.ca.us/civica/filebank/blobdload.asp?BlobID=10580">http://www.roseville.ca.us/civica/filebank/blobdload.asp?BlobID=10580</a>

#### CSR-2.a: Update Existing CSR Control Measures in City Standards

#### Completed:

The City has revised its Design/Construction Standards to include provisions for construction site runoff control measures, including submittal requirements, erosion and sediment control BMPs, and materials. Additionally, the City created a Stormwater Quality BMP Guidance Manual for Construction. The BMP Guidance Manual was completed in March, 2007. The design/construction standards were amended March, 2010, and made available on the City's website.

Date: 7/1/2004 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-2.b: Implement CSR Control Measures**

#### Ongoing:

The City implemented a Stormwater Quality BMP Guidance Manual for Construction and revised the Design/Construction Standards. Both documents were made available on the City's website. The Stormwater Quality BMP Guidance Manual for Construction was amended to include policy and procedures for "Abandoned / Inactive Construction Sites" as well as guidance to obtaining permit coverage under the States Construction General Permit.

Date: 7/2004, 1/2009, 2/2011 Responsible Party: Guy Howes, Senior Engineer

# **CSR-3: Design Review Guidance for City Staff**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

This BMP is intended to develop guidance for City staff to implement the revised ordinance and standards. The program is also intended to assist the City Planning and Public Works staff in implementing construction site runoff control during development review. The City has committed to:

#### a) Create Submittal Requirements Checklist

The City has agreed to create a submittal requirement checklist.

#### b) Create Plan Review Checklist

The City revised the SWPPP review documents/policy to include more definitive requirements of the current General Permit and City Ordinance.

#### c) Provide Staff Training

The City has agreed to provide training to staff on the use of guidance documents.

#### **APPROPRIATENESS:**

The development of design review guidance materials is an appropriate means to assist City Planning and Plan Review staff in evaluating projects and implementing construction site runoff control measures at those projects.

#### **EFFECTIVENESS:**

The City has not yet gathered enough data to gauge the effectiveness of its programs.

#### PROPOSED MODIFICATIONS:

Yes. With the revised procedures and processes, continuing education of staff will be implemented.

#### **CSR-3.a: Create Submittal Requirements Checklist**

#### Completed:

The City initially developed a seven item Stormwater Pollution Prevention Plan (SWPPP) review checklist during the last permit reporting year. This checklist was initially derived from Regional Board staff guidance. The checklist review document and policy were revised to include more definitive requirements of the current General Permit. The City requires SWPPPs be submitted in a three ring binder concurrent with improvement plan submittal for projects with disturbance of one acre or more. A City acknowledgement sheet and inspection form binder tab is added to each reviewed SWPPP. SWPPPs are logged in as received.

Review of SWPPPs has been transferred from Stormwater Inspection staff to the City's Public Works Engineering Land Development staff. The Development staff now reviews submittal requirements for new developments over one acre.

Date: 7/1/2004 Responsible Party: Guy Howes. Senior Engineer

#### CSR-3.b: Create Plan Review Checklist

# Completed:

The Public Works Engineering Land Development staff has assumed responsibility for enforcing submittal requirements of development SWPPPs. This transition was made since they are knowledgeable of drainage patterns and familiar with the entire development under review including the projects' drainage characteristics. Staff utilized the SWPPP review checklist update revised this permit year.

Date: 7/1/2004 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-3.c: Provide Staff Training**

#### Ongoing:

Stormwater Inspection staff currently trains new staff in inspecting and enforcing stormwater quality compliance. This ongoing procedure will continue to be expanded to include training of staff from other City departments such as Parks and Recreation, as well as staff managing Capital Improvement Projects and hired consulting firms with the goal of providing continuity and consistency within the City. Stormwater compliance revisions to the City's special provisions for CIP's are individually drafted and incorporated into each specific CIP.

Date: 7/1/2004 Responsible Party: Guy Howes, Senior Engineer

# **CSR-4: Enhanced Reporting System**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The goal of this BMP is to provide ways for the public to report suspected violations of the City's regulatory stormwater programs, including the construction site runoff control program. The City has committed to:

# a) Establish Telephone Line

The City has agreed to establish a telephone line answered by City staff where citizens can report suspected violations at construction sites.

#### b) Establish an E-Mail Link

The City has agreed to establish an e-mail link on the stormwater webpage where citizens can e-mail suspected violations at construction sites.

#### c) Provide Procedures for Referral to Public Works

The City has agreed to provide procedures for referral to Public Works for the investigation of construction site violations.

#### d) Track Reports and Follow-Up Actions

The City has agreed to track reports and follow-up actions for construction site violations.

#### e) Advertise Telephone Line and E-Mail Address

The City has agreed to advertise its reporting telephone line and e-mail address so citizens will know how to report suspected construction site violations.

#### **APPROPRIATENESS:**

A reporting system is an effective means for the public to report suspected violations of the City's stormwater program, including the construction site runoff control element.

# **EFFECTIVENESS:**

The City has not yet gathered enough data to gauge the effectiveness of its programs.

# PROPOSED MODIFICATIONS:

None.

#### CSR-4.a: Establish Telephone Line

#### Completed, No Change:

The City has created a stormwater incident complaint hotline in the City's police dispatch. It is a non-emergency line that is staffed 24 hours per day 7 days per week. Based on the type of the discharge, the appropriate City staff will be dispatched. The Public Works Department has been identified as the first responder for stormwater discharges that originate from a construction site and/or construction related activities. The Public Works Stormwater Inspection staff met with the committee to develop incident response procedures with regards to the hotline.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### CSR-4.b: Establish E-Mail Link

#### Completed, No Change:

The City's Stormwater webpage includes a link to a stormwater e-mail address where citizens can comment on the stormwater program and report illicit discharges to the storm sewer system.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### CSR-4.c: Provide Procedure for Referral to Public Works

#### Completed, No Change:

The City has developed policies and procedures for the intake of stormwater complaints from City residents through a non-emergency hotline number located in City police dispatch. There are also procedures in place that delineate the referral of complaints to the appropriate City department based on discharge type. Public Works is listed as the department responsible for responding to construction site related stormwater discharges.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### CSR-4.d: Track Reports and Follow-Up Actions

#### Ongoing, No Change:

The City responds to all reports of illicit stormwater discharges to the stormwater hotline. Those requests for service received by the Environmental Utilities Department are tracked in a Hansen database. Staff findings and enforcement actions are logged on hardcopy incident forms and input in the database when the incident is concluded.

To date, the City Public Works Department does not have a specific mechanism of tracking incidents which are responded to from the hotline or otherwise. However, Public Works does track SWPPP required projects through stormwater inspection reports. When inspection staff determines two consecutive non-compliant stormwater events at a construction site, he/she will then initiate standard enforcement procedures, i.e. citations or Roseville notices of violation (RNOV). If compliance is still not met, City Stormwater staff then contacts the SWRCB for assistance.

Date: 7/1/2005 Responsible Party: Guy Howes, Senior Engineer

#### CSR-4.e: Advertise Telephone Line and E-Mail Address

#### No Change:

The City advertises the stormwater hotline through its public outreach materials. The City promotes the stormwater hotline and the stormwater email on the program general outreach brochure. This outreach brochure is distributed at all of the outreach events attended by Stormwater Management staff. It is also given to dischargers at incidents where Environmental Utilities staff responds. Another outreach tool created to advertise the telephone hotline is a magnet urging residents to report non-stormwater discharges to the City via the new hotline number. Several articles published in the Environmental Utilities Department EU Today newsletter also featured the hotline number and the stormwater program's email address.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# **CSR-5: Inspection and Enforcement Program**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The City's Inspection and Enforcement BMP is intended to ensure that construction sites are operated in accordance with the City ordinances, Design/Construction Standards, Stormwater Quality BMP Guidance Manual for Construction, and the State General Permit for Stormwater Discharges from Construction Related Activities. This BMP involves implementing a stormwater inspection and enforcement agenda for construction sites. The City has committed to:

#### a) Establish Inspection Policy and Frequency

The City has agreed to set inspection policy setting frequencies for inspections based on a set criteria.

#### b) Establish Inspection Procedures

The City has agreed to set inspection procedures, including contractor self-inspection and a government inspector checklist.

#### c) Set up a Enforcement Actions

The City has agreed to setup a tiered system of enforcement actions.

## d) Set up Tracking System

The City has agreed to set up a tracking system for violations including those reported by the public.

#### e) Train Inspection and Enforcement Staff

The City has agreed to train inspection and enforcement staff to address stormwater issues and implement new procedures.

#### **APPROPRIATENESS:**

The Construction Stormwater Runoff Inspection and Enforcement Program is an appropriate means of enforcement for the new and revised stormwater ordinances. Inspection and Enforcement ensures that the stormwater ordinances are followed and non-stormwater discharges are minimized.

# **EFFECTIVENESS:**

The City has consistently increased it's effectiveness in terms of meeting its 90% inspection goal. By increasing the number of SWPPP inspections, we have decreased the number and severity of Stormwater violations. Additionally, we have collectively worked together with the development community to educate and implement sound Stormwater education and outreach.

#### PROPOSED MODIFICATIONS:

None.

#### CSR-5.a: Establish Inspection Policy Setting Frequency

#### Ongoing:

For the reporting time period, because of economical and staffing reductions, the City's construction stormwater runoff enforcement program had some challenges in meeting the permit's goal of 90% inspection rate for the high priority projects on a weekly basis. The City's policy for Construction Site Stormwater Runoff is in effect and has been the basis for reporting over this past year. Roseville enforced compliance on (33) active NPDES permits, (9) of those gaining Notices of Termination during the 10/11 season. The City continues (24) active permitted projects into the new season year. The City performed (990) Stormwater inspections, resulting in a (77.6%) inspection record. The City continues to refine their procedures and program structure for improvement.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-5.b: Establish Inspection Procedures**

#### Ongoing:

Currently, staff's administrative policies were revised as mentioned above. The City has implemented a more effective SWPPP inspection on-line electronic documentation system. The City has implemented a Stormwater Evaluation for SWPPP Inspection Frequency Determination policy due to a decrease in construction activity for particular sites. Staff has developed an evaluation worksheet. The worksheet uses a numbering system to determine activity level and whether inspection frequency should be lowered to monthly inspections, or deactivated until such time construction activity increases.

#### See appendix for:

Stormwater Worksheet Evaluation for SWPPP Inspection Frequency Determination form.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-5.c: Set Enforcement Actions**

#### Completed:

As supported by the City's Stormwater Ordinance, we have developed and fully implemented enforcement procedures, including defining violations and penalties, creating an enforcement flow chart, and creating a Roseville Notice of Violation (RNOV). The result: (6) Citations (\$100.00 fine) were issued to a developer or contractor for Stormwater Ordinance violations; (0) Roseville Notice of Violation (RNOV) letter sent to developers/owners for compliance issues. (0) State Notice of Violations received for development projects this reporting period.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### CSR-5.d: Set Up Tracking System

#### Completed, and ongoing:

In keeping up-to-date, the City's IT Department has developed new database software which tracks all WDID's issued by the State. In terms of data retrieval, report generation, and depth of information, this software is more effective and accurate than previous versions. This is an ongoing effort to better track and substantiate our enforcement. City Stormwater enforcement inspection staff use a laptop computer and mifi telephone cards to prepare and submit electronic inspection reports to the City database.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-5.e: Train Inspection and Enforcement Staff**

#### Ongoing:

The City has one full-time Stormwater Inspector that performs weekly project site SWPPP inspections. This eliminated the need for bi-yearly in-house Stormwater meetings as the Stormwater Inspection team now meets daily/weekly to discuss Stormwater matters

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

# **CSR-6: Outreach and Training Program**

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2003

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 X Year 2 Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The Outreach and Training Program is meant to train construction professionals and City staff on constructionspecific stormwater issues. By training concerned parties on how to prevent stormwater runoff, this program offers a cost-effective solution to construction stormwater runoff. The City has committed to:

#### a) Conduct Workshops

The City has agreed to conduct three half-day workshops during CSR program development and post draft documents and workshop information on the website.

#### b) Conduct Annual Training Workshops

The City has agreed to conduct annual training workshops for construction industry professionals and City staff on the adopted ordinances and on the updated Construction and Improvement Standards.

#### c) Train City Staff

The City has agreed to train City staff on the new Design Review Guidance.

#### d) Update Website to Include Technical Assistance Materials

The City has agreed to provide technical assistance materials to the regulated community on the City's website.

#### **APPROPRIATENESS:**

The Outreach and Training Program is an appropriate method of preventing illicit discharges from construction sites by training construction professionals and City staff on the environmental concerns of stormwater runoff and various BMPs that can be used to prevent polluted discharge from entering local waterways.

#### **EFFECTIVENESS:**

A previously proposed refinement to annual training includes a series of tailgate trainings in the field in lieu of one all-day workshop. It is intended to reach more field personnel who are actually responsible for the installation and maintenance of SWPPP best management practices. This provides for more effectiveness.

#### **PROPOSED MODIFICATIONS:**

In its conceptual stage, Stormwater inspection staff, along with Environmental Utilities Engineering staff, will work together to develop handout informational material to be distributed at tailgate workshop sessions.

#### **CSR-6.a: Conduct Workshops**

#### Ongoing:

The City hosted tailgate training sessions for contractors working in the City suffered some due to staffing reductions. The City conducted multiple pre-job SWPPP information presentations for the development community. Expanded comments were developed to enhance and provide awareness of the City's expectations of compliance.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### **CSR-6.b: Conduct Annual Training Workshops**

#### Ongoing:

Stormwater inspection staff still prefers tailgate training sessions in the field in lieu of one all-day workshop. Staff has experienced a more expedient and effective level of compliance utilizing tailgate training. Only one formal tailgate workshop was conducted this season, however, many on-site compliance meetings were conducted as needed:

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

#### CSR-6.c: Train City Staff

#### Ongoing:

Management and Stormwater staff participated on a CASQA subcommittee to develop comments to the proposed Draft MS4 Permit that were submitted by CASQA. In addition, staff also submitted comments on behalf of the City to the SWRCB for the proposed Draft MS4 Permit as well. City staff has attended workshops and public hearings and continues participation in the commenting process to develop an effective MS4 permit. The remaining stormwater staff training is in progress.

#### Assistant Engineer completed the following training/education:

7/6/2011, Renewed the Certified Inspector of Sediment and Erosion Control (CISEC, #0185)

3/23 thru 3/25, 2010, Attended SWQCB "Pilot Training Course" for the required State CGP certification training. This fulfills all the requirements for Qualified SWPPP Practitioner (QSP). Registered and obtained full CGP QSP certification 6/9/2011.

#### Construction Inspection and Development Staff completing the following training/education:

The City hosted QSP/QSD training conducted by RBF Consulting on January 10, 11, 12, 2011. (6) City Staff participated. (2) additional City staff participated in QSD training offered by outside consultants.

Currently (2) City staff have taken and passed the State's QSD Certification exam, and (2) have taken and passed the State's QSP certification exam. Registration with CASQA is pending.

Date: 7/1/2003 Responsible Party: Guy Howes, Senior Engineer

### **CSR-6.d: Update Website to Include Technical Assistance Documents**

#### Ongoing:

The City continues to update the information on the website pertaining to its construction site runoff element. Staff has completed the process of revising its stormwater website to include updates for the different elements of our construction runoff program as well as changes in State permit requirements.

Date: 7/1/2003 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# **New Development and Redevelopment**

The New Development program is intended to prevent runoff from new development and redevelopment projects. The City will develop structural and non-structural control standards. The City will also monitor the long-term operation and maintenance of these runoff controls, creating maintenance and inspection schedules for all sites that disturb more than one acre.

Non-structural controls are policies and procedures developed to modify human activities in order to lessen the impact of urban development and redevelopment activities. The City will educate review staff, developers and owners to successfully implement these controls.

Areas undergoing new development or redevelopment offer the perfect opportunity for the implementation of cost-effective methods to prevent harmful pollutants from entering local waterways. Contaminated stormwater runoff from developed areas can be harmful to wildlife in and around our creeks and streams. Developed areas can facilitate the collection of harmful pollutants such as oil, heavy metals, and excess sediment in the runoff, which travels directly to the creeks when unmitigated.

Developed areas turn porous land, which can absorb toxins from the runoff before it enters the creeks, into impervious land like asphalt and concrete, which transports the water straight to the storm drain. By implementing structural controls, such as porous landscaped areas for water to penetrate, we can prevent harmful stormwater runoff before it reaches a receiving waterway, protecting the environment and saving money in the long run.

Number of BMPs Associated with Control Measure: 5

# **Important Dates:**

Earliest Start Date: 7/1/2004 End Date: 6/30/2008

# **ND-1: Development Review Process**

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/2005

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

# **General Summary**

All development and redevelopment plans are reviewed by the City's Community Development Department. The City plans to evaluate its review policies and procedures in an attempt to improve the review process to include stormwater quality issues. This BMP is dependent upon completion of ND-2 and ND-3. The City has committed to:

#### a) Assess Development Plan Review

The City has agreed to evaluate development review procedures with Public Works Engineering, Community Development, and Planning for post-construction runoff control as well as develop amendments to policies and procedures for plan review.

#### b) Integrate Technical Criteria

The City has agreed to integrate technical criteria developed under ND-2 into its regulatory process.

#### c) Provide Design Review Guidance and Training

The City has agreed to provide design review guidance and training to City staff for flood control facilities, detention designs, infiltration facilities and other structural or non-structural controls in conjunction with revision of Improvement and Construction Standards, and adoption of a new Stormwater Ordinance (ND-3) and technical guidance (ND-2).

#### d) Develop System for Feedback

The City has agreed to develop a system for continual feedback from department staff to further refinement of post-construction best management practices and increase program effectiveness.

#### **EFFECTIVENESS:**

The City is currently in the initial stages of its stormwater management program, and has not yet gathered enough data to gauge the effectiveness of this best management practice.

This being said, the City's Public Works Department has been requiring stormwater management plans with Planning Dept. applications for new development since the City's Stormwater Quality Design Manual was adopted in August 2007. A complete stormwater management plan designed to meet the "maximum extent practicable" guidelines of the design manual is approved at the entitlement phase of the project. Addressing stormwater at the initial phase of a project, has helped the City embrace Low Impact Development (LID) concepts more freely and has allowed for multiple BMP's to be implemented on project sites. The City has entitled over 40 projects to implement stormwater quality BMP's to the "maximum extent practicable" since the adoption of the Design Manual.

#### PROPOSED MODIFICATIONS:

BMP completed. No proposed modifications.

#### ND-1.a: Assess Development Plan Review

#### Ongoing:

A Stormwater Quality Design Manual was adopted by City Council August 1, 2007. The new Design Manual requires all projects coming to the City for approval to adhere to the stormwater quality design standards described within this document. New procedures and submittal requirements for the City's Planning Department and Engineering Department were established the same week the Manual was adopted. New submittal requirements include a "Preliminary Stormwater Quality Compliance Form" that must be completed as part of the Planning Department application process. Also, a "checklist" detailing information needed for evaluation has been created for engineers and owners submitting Improvement Plans to the City. These new documents were included as attachments to last years Annual Report.

Over this past reporting period, 10 projects have submitted a Preliminary Stormwater Quality Compliance Form during the City's development application process. City staff is satisfied with how the form is working in helping address stormwater quality issues during the early development portion of a project.

Date: 8/14/2009 Responsible Party: Chris Kraft, Engineering Manager

#### ND-1.b: Integrate Technical Criteria

#### No Change

During the development of the Stormwater Quality Design Manual, technical criteria was evaluated to scope, size and locate BMPs to meet the permit objectives. Fact sheets have been developed to relate the technical findings to practical design.

Date: 8/8/2007 Responsible Party: Chris Kraft, Engineering Manager

#### ND-1.c: Provide Design Review Guidance and Training

#### Ongoing:

Stormwater quality design review training continued throughout the permit year, and is continuing in development staff meetings for the improvement plan reviewers. Staff attended workshops on topics such as Hydro-modification, Low Impact Development, and Stormwater Devices. Management and Stormwater staff participated on CASQA subcommittees to develop comments to the proposed Draft MS4 Permit that were submitted by CASQA. In addition, staff will also submit comments on behalf of the City to the SWRCB for the proposed Draft MS4 Permit. City staff has attended workshops and public hearings and continues participation in the commenting process to develop an effective MS4 permit.

Date: 8/14/2009 Responsible Party: Chris Kraft, Engineering Manager

#### ND-1.d: Develop System for Feedback

#### Ongoing:

Feedback from the City's plan reviewers occurs in the development section staff meetings. Plan reviewers make themselves available to the development community to meet and go over City expectations for stormwater management plans. Often after the initial Planning Department application meeting, Pubic Works staff will schedule time to sit down with the applicant to fully explain what the City's expectations are and how best to meet the intent of the City's Stormwater Quality Design Manual. Additionally, staff is involved with a Development Advisory Committee (DAC) that has been formed by the City. The DAC is a committee of 15 community members primarily made up of developers and design professionals. Staff has made presentations to the DAC and taken feedback regarding the City's stormwater program and the newly proposed MS4 permit.

Date: 8/8/2007 Responsible Party: Chris Kraft, Engineering Manager

#### ND-2: Critical Criteria

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

# **General Summary**

This BMP involves the development and implementation of structural and non-structural control strategies through improvement and construction standards. Structural controls are manmade facilities constructed for the storage, detention, infiltration, or treatment of stormwater runoff. They may include detention ponds, vegetative areas, or runoff pretreatment. Non-structural controls are policies and procedures that lessen the impacts of development on water quality. They may include alternative construction, site design, or zoning. By using control strategies, the City can effectively lessen the impacts of stormwater runoff. The City has committed to:

#### a) Review Technical Guidance Programs

The City has agreed to review existing technical guidance programs such as the CASQA BMP Handbook for Post-Construction Control, the Sacramento Guidance Manual for Onsite Stormwater Quality Control Measures, and the EPA's National Menu of Best Management Practices for Stormwater Phase II for controls to be included into the stormwater plan and City Standards.

#### b) Develop Technical Criteria

The City has agreed to develop technical criteria for structural and non-structural controls specific to the City of Roseville, including siting, design, and maintenance considerations.

#### c) Amend City Improvement and Construction Standards

The City has agreed to amend the City's Improvement and Construction Standards.

#### **EFFECTIVENESS:**

The City is currently in the initial stages of its stormwater management program and has not yet gathered enough data to gauge the effectiveness of this best management practice.

Again, with this being said, the Public Works Department is seeing the design of stormwater management plans progressing more and more towards the LID principles outlined in the City's Stormwater Quality Design Manual. By requiring stormwater quality to be addressed much earlier in the process, it has allowed for LID principles to be incorporated into the over all design of the project, including the project's proposed landscaping. By getting the developers entire design team (architects, engineers, landscape architects, etc.) involved, the City is able to propose Best Management Practices that include runoff reduction such as swales and infiltration measures. Instead of just using end of pipe treatment, the projects are now able to implement stormwater quality measures like grassy swales and bioretention planters into the over all design of the project.

#### PROPOSED MODIFICATIONS:

BMP completed. No proposed modifications.

#### ND-2.a: Review Technical Guidance Programs

# No Change:

Post-construction stormwater design standards from other communities and organizations have been reviewed, and information has been evaluated and included, where appropriate, in the City's Stormwater Quality Design Manual.

Date: 8/8/07 Responsible Party: Chris Kraft, Engineering Manager

#### ND-2.b: Develop Technical Criteria

#### No Change:

The City of Roseville worked with the Sacramento Stormwater Management Partnership to develop a regionally consistent design manual to aid with the selection, sizing, operation and long-term maintenance of stormwater quality control measures (BMPs). The partnership design manual was finalized in May 2007, and was adopted by all of the agencies involved (City and County of Sacramento, City of Folsom, City of Elk Grove, City of Citrus Heights, City of Rancho Cordova, City of Galt and the City of Roseville) shortly thereafter. The manual addresses source control, runoff reduction control and treatment control measures, and includes Fact Sheets for each post-construction BMP. The City is utilizing the Sacramento Stormwater Management Partnership's Stormwater Quality Design Manual as its "functionally equivalent program" to address design standards required by this NPDES Permit.

Date: 8/8/07 Responsible Party: Chris Kraft, Engineering Manager

#### ND-2.c: Amend City Improvement and Construction Standards

#### Ongoing:

In March 2007, the City updated and published new Engineering Design & Construction Standards. In addition to other updates that were made, a reference to the new Stormwater Quality Design Manual was added to the Grading Sections and the Drainage Sections in both the Design Standards and the Construction Standards. All stormwater quality design criteria and standards that the City has adopted can be found in this manual.

The City has updated the design/construction standards and has amended the latest version to include four years of amendments, spelling and grammatical errors and technical necessities. The document was revised and distributed in March, 2010.

Date: 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

# ND-3: Post-Construction Ordinance

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/05

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

# **General Summary**

The City's Stormwater Ordinance is in part intended to include provisions addressing post-construction runoff from new development and redevelopment and requirements for long-term maintenance of structural controls. The ordinance will allow the City to require post-construction controls on new development and will provide the authority to inspect and require maintenance on privately owned controls approved by the City. The City has agreed to:

#### a) Develop Stormwater Ordinance

The City has agreed to develop a Stormwater Ordinance with requirements for post-construction controls that include:

- 1) Authority to require post-construction controls for new development and redevelopment
- 2) Reference to a technical standard such as Improvement and Construction Standards to guide design and installation
- 3) Requirements for perpetual maintenance of structural controls
- 4) The right of program staff to enter private property and inspect controls
- 5) The authority to require maintenance and repairs to structural controls
- 6) Enforcement remedies for non-compliant control maintenance

#### **EFFECTIVENESS:**

The City has not yet gathered enough data to gauge the effectiveness of this BMP.

#### **PROPOSED MODIFICATIONS:**

No modifications proposed.

#### ND-3.a: Develop Stormwater Ordinance

#### Completed:

The City adopted a Stormwater Ordinance on July 7th, 2006. This initial ordinance discusses the development of a new design manual that will cover stormwater quality designs for post-construction control measures.

The City has completed the work amending the current Stormwater Ordinance to include recognition of the new Stormwater Quality Design Manual. The amendment also addresses post-construction engineering submittals, maintenance agreements, an annual stormwater management permit, inspection procedures and BMP access requirements. The amended ordinance was adopted by City Council May, 2010, and is currently posted on the City's website for public review. Notification letters were mailed out to property owners and property managers announcing the newly adopted ordinance amendment and maintenance requirements. Contact with all stake holders has taken place both by phone and on-site, as staff continues enforce compliance with the updated ordinance.

Date: 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

# **ND-4: Regulatory Requirements for Privately Owned Controls**

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/2006

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 Year 4 X Year 5 X

Has Goal Been Accomplished: YES

# **General Summary**

When stormwater facilities are neglected or improperly maintained after construction, it can lead to a dramatic decrease in treatment efficiency. Therefore, it is necessary to establish regulatory requirements for privately owned controls, including project approval conditions, O&M guidance for control owners, and a tracking and enforcement program. This BMP is intended to utilize development review, database tracking, and enforcement to ensure the maintenance of privately owned controls. The City has committed to:

#### a) Include Maintenance Requirements in Project Approval

The City has agreed to include maintenance requirements in project approval of privately owned structural controls.

#### b) Provide Maintenance Guidance

The City has agreed to provide maintenance guidance for owners of approved structural controls through specifications in Improvement and Construction Standards.

#### c) Include Structural Controls in Database

The City has agreed to include structural controls in its database, e.g., GIS, to facilitate tracking and ownership and to enforce proper operations and maintenance.

#### d) Utilize Self-Certification Program

The City has agreed to utilize a self-certification program for structural control maintenance with required annual reporting and spot inspections.

#### e) Include Structural Control Inspections

The City has agreed to include structural control inspections in the Fire Department's business inspections.

#### **EFFECTIVENESS:**

The City has not yet gathered enough data to gauge the effectiveness of this best management practice.

#### PROPOSED MODIFICATIONS:

ND 4.e is proposed to be modified. Specifically staff within the City's Public Works Department will be responsible for inspection of structural controls rather then Fire Department staff.

#### ND-4.a: Include Maintenance Requirements in Project Approval

#### Completed:

With Council adoption of revised Stormwater Ordinance, maintenance requirements are now enforceable. See ND-3 a.

Date: 8/14/09 Responsible Party: Chris Kraft, Associate Engineer

#### ND-4.b: Provide Maintenance Guidance

#### No Change:

This work was completed in year four. As part of the new Stormwater Quality Design Manual, maintenance of stormwater post-construction BMPs is addressed within the various Fact Sheets of the manual. New engineering submittal requirements include that a separate "Maintenance Plan" be submitted with all improvement plan sets. This document shall detail long-term maintenance requirement for each BMP proposed for the project.

Date: 8/8/07 Responsible Party: Chris Kraft, Engineering Manager

#### ND-4.c: Include Structural Controls in Database

#### Ongoing:

During the last reporting period, time was spent in investigating a number of database options for tracking post-construction structural and non-structural BMPs. Working closely with the City's IT Department, it has been decided to utilize software that the City has already in-house. To track the stormwater management permits and BMP inspections, the City will use Permits Plus. This software is currently being used by the Fire Department to track inspections and permits. Many other departments including Engineering and Planning also use it. In addition to Permits Plus, the City also utilizes its GIS software to track the location of BMPs that are privately owned. This information has already been entered into the GIS program. During this reporting period, staff time has been focused on issues associated with amending the stormwater ordinance to include maintenance requirements.

Date 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

#### ND-4.d: Utilize Self-Certification Program

#### Completed:

The City has developed an annual permitting program for post-construction BMPs. This program will require property owners that have runoff reduction control measures and/or treatment control measures on their property to inspect, clean, and repair them as needed. Renewal of this annual permit will require that a self-certification be completed and signed by the property owner before renewal is approved. The City's Annual Stormwater Management Permit program had been initiated following Council adoption of the revised Stormwater Ordinance, and property owners will be required to fully conform by July, 2011. See ND-3.a. Currently (101) facilities in Roseville are required to be permitted. As of this reporting period, (64) facilities have come into compliance, Staff continues to work with owners, property managers, and associations to achieve full compliance,

Date: 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

# **ND-4.e: Include Structural Control Inspections**

#### Completed:

The City has amended the current Stormwater Ordinance to address privately owned structure controls. This includes policy pertaining to City inspections, enforcement and BMP access requirements. Staff has conducted several inspections of privately owned control measures to educate facility staff of inspection procedures and to expedite compliance.

Date: 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

# ND-5: Outreach and Technical Assistance

Responsible Party: Chris Kraft, Engineering Manager

Start Date: 7/1/2004

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 X Year 5

Has Goal Been Accomplished: YES

# **General Summary**

In order for post-construction runoff control to be successful, the City will provide information to those responsible for compliance--landowners, project designers, project developers, and contractors. These concerned parties must be educated on the importance of the stormwater program, its requirements, and the sanctions for non-compliance. This BMP includes information posting ordinances, Construction Standards, and various construction workshops on the City's website. As the program develops, other potential media will be explored. The City has committed to:

# a) Include Interested Parties in Program Development

The City has agreed to incorporate project designers and developers and other interested parties in program development, including workshops and outreach on the City's website, to develop controls consistent with community goals.

#### b) Conduct Annual Training

The City has agreed to conduct annual training for project designers and developers on adopted ordinance and revised standards.

#### **EFFECTIVENESS:**

The City has not yet gathered enough data to gauge the effectiveness of this best management practice.

#### **PROPOSED MODIFICATIONS:**

No modifications are proposed.

#### ND-5.a: Include Interested Parties in Program Development

#### No Change:

In the permit year (2006/2007), City staff had participated with the Sacramento Stormwater Management Partnership in two focus groups with stakeholders from the development community. The City also participated in two half-day Public Workshops on the new Stormwater Quality Design Manual. In addition to these four events, City staff participated with the partnership in several meetings with the Building Industry Association (BIA) to discuss the new standards and concerns with implementation. The BIA meetings are planned to continue quarterly.

Date: 8/8/09 Responsible Party: Chris Kraft, Engineering Manager

#### ND-5.b: Conduct Annual Training

#### Ongoing:

The City has provided information to those responsible for compliance--landowners, project designers, project developers, and contractors via the City's website and publications that are available at the City's Permit Center. In addition, City staff mailed out letters to existing stormwater treatment device owners, design engineers, and developers inviting them to attend one of two public outreach sessions designed to introduce the proposed Stormwater Ordinance Amendment and new maintenance requirements for owners of stormwater treatment devices. Sessions were held on August 6, 2009.

About 30 people attended the two public outreach sessions, staff also received in excess of 30 phone calls seeking further information on proposed maintenance requirement for stormwater BMP's. Once staff was able to give attendees and callers a clear background on the Clean Water Act and the City's MS4 permit, there seemed to be a willingness to comply with future maintenance requirements. The biggest concerns seemed to focus on how the whole process would work and what exactly they needed to do to be in compliance. Public Works Staff provided handouts, web addresses, and the phone numbers of Roseville staff that could help walk them through the process. Follow up notification and program guidance was conducted in the spring of 2011. Staff made use of phone calls, site visits, and any other means to establish contact to those facilities that are required to be permitted under the City's Stormwater Quality Maintenance Program. Informational meetings on program requirements and inspection/maintenance procedures were conducted for the majority of the required participants.

City stormwater representatives are always available to meet with landowners or consultants upon request. Formal trainings will be developed and scheduled for both City employees and other groups and individuals responsible for compliance in the sixth year of the permit.

Date: 8/14/09 Responsible Party: Chris Kraft, Engineering Manager

# **Municipal Operations**

The Municipal Operations Minimum Control Measure (MCM) requires that the City implement and maintain an operations and maintenance program to prevent or reduce polluted stormwater runoff from municipal operations. Not only does this MCM identify best management practices (BMPs) appropriate to City O&M operations, it also ensures the training of City employees on pollution prevention so they can better assess and manage stormwater related issues.

Preventing harmful stormwater runoff from reaching waterways is the responsibility of the local municipalities as well as the residential and business communities. One of the most important aspects of water pollution prevention is the review of municipal operations. The municipal operations MCM addresses both maintenance of the storm sewer system and stormwater pollution prevention at City maintained sites, i.e., streets, parking lots, parks, and City-owned pools and buildings. Pollution prevention at these City-owned properties can reduce the amount of polluted runoff that enters our waterways. Also, educating City staff and maintaining the storm sewer system and stormwater BMPs can be a cost-effective method of preventing pollution in the City's creeks and streams.

Number of BMPs Associated with Control Measure: 4

# **Important Dates:**

Earliest Start Date: 7/1/2004

End Date: 6/30/2008

# MO-1: Inventory and Assess the Potential for Stormwater Pollution in O&M Activities at City-Owned Facilities and in City Field Operations

Responsible Party: Kelye McKinney, Engineer Manager

Start Date: 7/1/2004 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 X Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

This BMP is intended to develop an inventory of municipal facilities and field operations that may contribute to stormwater pollution. This program includes creating a database of City operated facilities. This database contains fundamental stormwater quality management information on each City facility. This program also consists of reviewing operations and maintenance (O&M) activities at each catalogued facility, assessing these practices for pollutant discharge potential, and selecting appropriate BMPs to mitigate stormwater pollution. The City has committed to the following activities.

#### a) Maintain Stormwater Pollution Prevention Plans (SWPPPs)

The Stormwater Management Program maintains and submits annual reports for the State General Industrial Permit at the City's Dry Creek Wastewater Treatment Plant, Pleasant Grove Wastewater Treatment Plant, and the City's Corporation Yard. During the 07-08 rainy season, the Stormwater Management Program assumed responsibility for conducting runoff and visual monitoring as required by the General Industrial Permit.

#### b) Continue Pollution Prevention BMPs

The City is continuing the practice of discharging chlorinated water from City-owned swimming pools to the wastewater conveyance system.

#### c) Include Other Facilities in SWPPP Program

The City evaluates new City-owned facilities as they are brought on-line to determine need for inclusion in the State's NPDES General Industrial Permit program. Both the Pleasant Grove Wastewater Treatment Plant and the Roseville Energy Park have filed Notice of Intents (NOIs) for the SWPPP during this 2007-2008 reporting period.

#### d) Identify City-owned Properties and City Field Operations with Stormwater Pollution Potential

The City has identified, prioritized and inspected City-owned properties to evaluate facility and field operations for stormwater pollution potential.

# e) Review O&M Policies and Procedures at City Sites with Identified Pollution Generating Activities

The City has evaluated the operations and maintenance policies and procedures at City facilities identified in item (d) above and identified opportunities for incorporation of stormwater BMPs in these City activities.

#### **EFFECTIVENESS:**

This BMP had an overall effectiveness level of 2, Raising Awareness. In meeting with the City's divisions and departments to discuss and document daily activities, their awareness of the effects of daily activities' impacts on stormwater quality was increased.

Many identified City departments have implemented stormwater pollution prevention best management practices. Parks Department changed the location of their vehicle washing activities to reduce the possible impacts to stormwater runoff. The Water Division implemented a new dewatering BMP to reduce the amount of sediment and limit the turbidity contributed to the creeks. The Water, Streets and Parks Departments collaborated together for the rental fees and use of a concrete washout system located at the City's Corporation Yard. These actions resulted in an individual effectiveness level of 4 by reducing the pollutants contributed to the storm drain system from these activities.

The actions taken by the City have proven to be highly effective. Through conducting facility inspections, the stormwater awareness of City employees has increased drastically. This is evidenced by an increased number of stormwater complaints originating from City staff, as well as an increased number of requests from other City departments for additional stormwater compliance assistance.

#### **PROPOSED MODIFICATIONS:**

None.

#### Status of Measurable Goals

# MO-1.a: Maintain SWPPP at Dry Creek Wastewater Treatment Plant and Pleasant Grove Wastewater Treatment Plant

#### Ongoing:

The Stormwater Management Program (SWMP) maintains the Industrial General Permit SWPPP at the Dry Creek Wastewater Treatment Plant (DCWWTP) and Pleasant Grove Wastewater Treatment Plant (PGWWTP). The SWMP samples qualifying rain events and inspects for non-stormwater discharges for compliance with the IGP at both these facilities. An annual report for the DCWWTP and PGWWTP were submitted to the State Water Resources Control Board via their electronic reporting system, SMARTS.

#### **Effectiveness**

Staff continues to perform inspections and visual monitoring at the Dry Creek and Pleasant Grove Wastewater Treatment Plants. Past inspections have resulted in the reduction of non-stormwater discharges at these General Industrial permitted sites. These inspections and subsequent changes have resulted in a level 3, Changing Behavior, effectiveness outcome.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-1.b: Maintain SWPPP at Roseville Corporation Yard

#### Ongoing

The Stormwater Management Program maintains the General Industrial Permit SWPPP at the Roseville Corporation Yard. SWMP samples qualifying rain events and inspects for non-stormwater discharges for compliance with the IGP at this facility. An annual report for the Corp Yard was submitted to the State Water Resources Control Board via their electronic reporting system, SMARTS.

#### **Effectiveness**

Staff continues to perform inspections and visual monitoring at the Roseville Corporation yard. Past inspections have resulted in the reduction of non-stormwater discharges at this General Industrial permitted site. These inspections and subsequent changes have resulted in a level 3, Changing Behavior, effectiveness outcome.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-1.c: Continue Pollution Prevention BMPs

#### Ongoing:

All water from City-owned pools is discharged to the sanitary sewer. The Water Division has implemented a dewatering BMP for water line tie-ins. This BMP is targeted at reducing the turbidity and sediment load. The Electric Department has developed a utility vault dewatering program that has resulted in the reduction of contaminants discharging to the storm drain system. A concrete washout station is available at the City's Corp Yard for the Water Division, Streets Division and Electric Department to dispose of their concrete rinsate generated by their field activities.

#### **Effectiveness**

By reducing their contributions of pollutants and chlorinated pool water to stormwater runoff, Parks Department has reached a level 4 effectiveness. The Water Division and Electric Department also reduced their contributions of pollutants from their dewatering operations and document their activities.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-1.d: Include Other Facilities in SWPPP Program

#### No Change:

During past reporting periods, the City obtained an NPDES permit for the Pleasant Grove Wastewater Treatment Plant and the Roseville Energy Park. Staff continues to perform inspections and visual monitoring at these City General Industrial permitted sites. There were no new facilities identified as qualifying for General Industrial Permit coverage in FY 10/11.

#### **Effectiveness**

Including these facilities in the SWPPP program has resulted in a level 2, Raising Awareness, effectiveness outcome. The implementation of the SWPPPs and subsequent inspections of these facilities has raised the awareness of the plant personnel of the possible adverse effects of their plant's activities on stormwater quality.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-1.e: Identify City-owned Properties and City Field Operations with Stormwater Pollution Potential

#### Completed, No Change:

SWMP staff has prepared an inventory of all City-owned facilities and properties. The inventory uses a GIS relational database which includes maps showing the locations for each City facility. The maps help to prioritize facility inspections by determining which facilities are proximate to environmentally sensitive areas. The Stormwater Management Program has developed Arc GIS database that track facility inspections and document potential stormwater issues as they are identified.

Activity forms were completed during interviews with the City's departments and divisions including: Parks and Recreation, Streets, Electric, Facilities Management, Solid Waste, Water, and Wastewater. Each activity form was entered into a Microsoft Excel database that was used to prioritize training needs and determine each division's or department's stormwater pollution potential.

#### **Effectiveness:**

This BMP has shown an effectiveness level 2, Raising Awareness, during this reporting period. Employees are informed of the potential adverse effects of their activities on the storm drain system, and offered ideas on how to better contain the pollutants of concern during the inspections conducted under this BMP.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-1.f: Review O & M Policies and Procedures at City Sites with Identified Pollution Generating Activities

The Stormwater Management Program met with representatives from Water, Streets, Facilities Management and Parks and Recreation in past reporting periods to assist in the identification of specific BMPs for the activities described in the database. SWMP met with Roseville Electric Department during the 10/11 reporting period to discuss appropriate disposal of concrete rinsate. SWMP also discussed the inclusion of BMPs into Streets street sweeping operations during the 10/11 reporting period.

#### **Effectiveness**

This BMP has resulted in a level 1, Documenting Activities, effectiveness outcome during this reporting period. Activities that are noteworthy are addressed and further analyzed during BMP implementation of MO-2.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-2: Review and Assess the O&M Practices Identified in MO-1 as Potential Stormwater Pollution Sources for the Selection and Incorporation of BMPs to the Maximum Extent Practicable

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2006 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 Year 4 X Year 5 X

Has Goal Been Accomplished: YES

#### **General Summary**

This program is intended to finalize and document the inclusion of stormwater BMPs for O&M procedures based on the findings in MO-1. BMPs selected for O&M programs may include stormwater pollution prevention alternatives such as source controls, treatment controls, and materials management procedures. Among these, treatment controls rank the lowest and will only be implemented as a last resort. This program is meant to assess the effectiveness of BMPs currently in place, and identify and select any additional BMPs necessary to protect water quality.

The City committed to:

#### a) Assess BMPs for Street Cleaning and Repair

The City's Streets Division has implemented an aggressive street sweeping program. Every commercial street is swept twice per month, and every residential street is swept once per month. The Streets Division is expecting the addition of two more street sweeping units to hopefully allow residential streets to be swept once every three weeks. The street sweepers are cleaned at the Dry Creek Wastewater Treatment Plant.

#### b) Assess BMPs for Stormwater System Maintenance

The City's Streets Division has assessed and implemented BMPs during storm drain system maintenance. The Parks and Recreation Department performs maintenance to the creeks and streams to prevent flooding due to beaver dams and vegetation overgrowth. Their activities are assessed and entered into the activity database along with the prescribed BMPs.

#### c) Assess BMPs for Parks and City-Maintained Properties

The City's Parks and Recreation Department has agreed to assess and implement BMPs for landscaping, fertilizing, and pest control at parks and other City maintained properties. The Stormwater Management Program has also advised the Parks and Recreation Department on the placement and maintenance of portable toilets and equipment wash areas.

#### d) Assess BMPs for Storing Cleaning and Maintenance Materials

The City stores all facility cleaning and maintenance materials indoors away from any drain inlet.

# e) Assess BMPs for Trenching, Service Repairs, and Emergency Work

The Stormwater Management Program along with the Water Division has developed a response plan to address water main breaks and the associated BMPs that will be applied to all dewatering activities. The Electric and Water field crews have been trained on what qualifies as an emergency situation and what conditions take precedence over the implementation of stormwater BMPs.

#### f) Assess BMPs for Pet Waste Management

The City has agreed to assess and implement BMPs for pet waste management and the enforcement of City Ordinances 7.14.010 and 8.02.240 to avoid contaminated runoff to the stormwater system.

#### **EFFECTIVENESS:**

The City's approach to stormwater pollution prevention from municipal operations is effective because it has identified and addressed many activities that have a high potential to contribute pollution to the stormwater conveyance system. By addressing activities such as stormwater system maintenance, street sweeping, and providing pet waste bags at the dog parks, the City has changed its behavior in an attempt to reduce the amount of pollution entering the storm drain system. This minimum control measure has shown a level 3 outcome, Changing Behavior, during this reporting period.

#### PROPOSED MODIFICATIONS:

None.

#### Status of Measurable Goals

#### MO-2.a: Assess BMPs for Street Cleaning and Repair

The Stormwater Management Program has interviewed the Streets Division in regards to the BMPs implemented while conducting street cleaning and repair. The Streets Division currently sweeps all arterial roads two times monthly, and sweeps residential streets once per month. Ninety percent of the time, Streets was able to sweep residential streets once every three weeks. The Streets Division purchased two new street sweepers during FY 08/09. Roseville owns a total of five street sweepers which are used to clean catch basins as well as sweep streets.

Pollutants generated during street repair and maintenance are controlled to the MEP. BMPs implemented include increased sweeping of areas under repair as well as the installation of drain inlet protection where applicable. Implementing an aggressive sweeping program usually negates the need for drain inlet protection. The implementation of BMPs for each project is determined on a case-by-case basis by the Streets Division.

The Stormwater program has inspected street repairs performed by contractors to identify additional sources of pollution and require the implementation of the respective BMPs. Major issues addressed included equipment washing practices and the containment of asphalt grindings during removal. The City has also started to jet flush the impacted drain lines after major resurfacing work. The Stormwater Management Program staff met with the Streets Division to discuss the inclusion of BMPs consisting of gravel bags check dams in their equipment washing practices conducted in the field.

From a municipal operations standpoint, this goal has been accomplished, but the method for repairing and maintaining streets is an ever-evolving process. BMPs will be prescribed and implemented as new repair and maintenance methods are identified

#### **Effectiveness**

This BMP removes sediment and other pollutants that would otherwise end up in the storm drain system. As such, it has shown a level 4 outcome, Reducing Loads from Sources, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-2.b: Assess BMPs for Stormwater System Maintenance

Stormwater Management Program staff has interviewed and trained the personnel in the Streets Division who perform the storm drain cleaning and maintenance. Effluent from storm drain flushing activities is collected to the maximum extent practicable and disposed of at the Dry Creek Wastewater Treatment Plant. The Parks and Recreation Department performs maintenance in the creeks and streams to prevent flooding due to beaver dams and vegetation overgrowth. Their activities have been documented and entered into the activity spreadsheet identified in MO-1.e.

#### **Effectiveness**

This BMP removes pollutants from the storm drain system before they reach the waterways of the US and has shown a level 4 outcome, Reducing Loads from Sources, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-2.c: Assess BMPs for Parks and City-Maintained Properties

#### No Change:

During past reporting periods, the Stormwater Management Program has interviewed the Parks and Recreation Department to identify activities with the potential to discharge pollution to the storm drain system. The activities were entered into the spreadsheet identified in MO-1.e. Equipment washing activities and the location of portable toilets has been addressed and the BMPs identified are currently being implemented on a case-by-case basis. During FY 08/09, the Stormwater Management Program observed the City's Parks and Recreation maintenance procedures regarding port-a-potty location and prescribed BMPs for the activities.

#### **Effectiveness**

The information provided to the Parks and Recreation Department has allowed them to change their behavior without impacting their day-to-day operations. This BMP has reached a level 3 outcome, Changing Behavior, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-2.d: Assess BMPs for Storing Cleaning and Maintenance Materials

#### Completed, No Change:

The City currently stores all cleaning and building maintenance materials indoors preventing contact with stormwater and away from drain inlets.

#### **Effectiveness**

The City is changing the way in which it handles any cleaning and maintenance materials to prevent their contact with stormwater and to reduce the potential for an accidental discharge to the storm drain system. This BMP has reached a level 3 outcome, Changing Behavior, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-2.e: Assess BMPs for Trenching, Service Repairs, and Emergency Work

#### No Change:

During past reporting periods, the Stormwater Management Program has interviewed the Electric Department and Water Division to determine the potential for their activities to result in a discharge of pollutants to the storm drain system. The activities have been logged into the municipal operation spreadsheet. BMPs that address these pollutants of concern have been developed and implemented in previous reporting periods.

#### **Effectiveness**

The training of the field crew staff has set precedence to respond to and act on an emergency situation before addressing any stormwater issues. When the emergency has been abated or is no longer an emergency, any applicable stormwater BMPs will be implemented. This BMP has an effectiveness level 3, Changing Behavior, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-2.f: Assess BMPs for Pet Waste Management

# No Change:

Dogs are prohibited at every City park that isn't explicitly designed for the use of dogs and their owners. There are 3 dog parks in the City and all three are equipped with doggy bag stations that provide dog owners with bags to pick up their pet's waste. By outlawing dogs at City parks the chance of a pet waste discharge from a City facility is greatly reduced.

#### **Effectiveness**

The availability of the dog bags encourages the owners to change their behavior and clean up after their pet. This BMP has an effectiveness level 3, Changing Behavior, during this reporting period.

Date: 7/1/2006 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-3: Review Construction and Development Procedures for City-Owned Facilities for Inclusion of Stormwater BMPs as Necessary

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2005

End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 Year 3 X Year 4 Year 5X

Has Goal Been Accomplished: YES

# **General Summary**

This program is intended to monitor City construction and redevelopment to ensure that these projects conform to City Standards, and that stormwater controls are included and not overlooked during City project development. This program also involves including stormwater quality provisions in City contract documents and requiring that all contractors hired by the City comply with established BMP controls. The program also includes a formalized structure for stormwater BMP inspection at municipal construction and redevelopment projects.

The City has committed to:

## a) Monitor City Projects and Verify BMP Implementation

The City has agreed to monitor City construction and redevelopment projects for conformance with the State General Construction Permit.

#### b) Require SWPPP and Require Contractors to Comply with BMP Requirements

The City has agreed to include language in City contract documents that requires the submission of a Stormwater Pollution Prevention Plan prior to the beginning of any construction activities. The City has also agreed to require that all contractors hired by the City must comply with the stormwater BMP requirements of the General Construction Permit.

#### c) Develop Procedure for Inspections

The Construction Management element will develop a procedure for the City's SWPPP inspectors to conduct stormwater BMP inspections at all City projects. The City has also agreed to document the inspection of City construction sites.

#### **EFFECTIVENESS:**

This is an effective approach to achieving stormwater compliance at City owned projects as the City's contractors are responsible for ensuring stormwater compliance at City projects, in the past this resulted in many compliance issues being noted by City inspectors. During FY 07/08, enhanced cooperation between the City's inspectors and contractors has greatly decreased the likelihood of a violation at City projects. The exclusion of the draft contract language has put the City's inspectors and contractors on equal ground and provided a good environment for collaboration toward a common goal of stormwater compliance. This paradigm shift is changing the behavior of contractors and City staff alike with regard to non-stormwater discharges at City owned projects and has shown a level 3 outcome, Changing Behavior, during this reporting period.

#### PROPOSED MODIFICATIONS:

None.

#### MO-3.a: Monitor City Projects and Verify BMP Implementation

#### Ongoing, No Change:

The City's policy for maintaining stormwater compliance at City construction sites is currently updated to provide the City SWPPP inspectors oversight at City construction projects. This policy closely parallels the City's procedures for private construction projects with the development of a construction site SWPPP and inspection of the implemented BMPs. The Construction Stormwater Runoff element of the Stormwater Program has developed contract language and an internal policy to give the City's SWPPP inspectors increased responsibility regarding City construction projects. The inspectors will be responsible for verifying that stormwater BMPs are implemented and maintained at each construction site. This language has been implemented in accordance with the State's General Construction Permit.

#### **Effectiveness**

The need for this BMP has been noted, but it has not been fully implemented yet. Currently, it is at a level 1, Documenting Activities, outcome.

Date: 7/1/2005 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-3.b: Require SWPPP and Require Contractors to Comply with BMP Requirements at CIPs

#### Ongoing, No Change:

Under the purview of Public Works Department, the City developed policy requiring capital improvement project (CIP) managers to ensure that a SWPPP is developed prior to construction.

City CIPs are required to comply with the State's General Construction Permit and local stormwater regulations. The City's special provisions for water pollution control were up-dated to incorporate the new requirements of the General Construction Permit. These provisions are included in the General Conditions of all CIP bid documents.

#### **Effectiveness**

Through the development of the draft contract language, the awareness of the City's Capital Improvement Division among other divisions was raised, demonstrating a level 2 outcome, Raising Awareness.

Date: 7/1/2005 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-3.c: Develop Procedures for Inspections

#### Complete. No Change:

By having the City inspectors work closely with the construction manager, we have greatly reduced the probability of a violation without having to resort to restrictive contract language. This approach allows the contractor the flexibility to comply with stormwater regulations in the most cost efficient manner at each individual project.

#### **Effectiveness**

By working with the construction site manager, the Stormwater Management Program has assisted in changing the behavior of the City's contractors and reduced the possibility of a prohibited discharge to the storm drain system. This BMP has an effectiveness outcome of level 3, Changing Behavior.

Date: 7/1/2005 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

# MO-4: Develop and Expand City O&M Training Programs to Include Stormwater Pollution Prevention

Responsible Party: Kelye McKinney, Engineering Manager

Start Date: 7/1/2004 End Date: 6/30/2008

Permit years scheduled for initial implementation:

Year 1 Year 2 X Year 3 Year 4 Year 5

Has Goal Been Accomplished: YES

# **General Summary**

This program is intended to develop an employee training program to inform staff and maintenance personnel of issues related to stormwater management, including spill prevention, source control, treatment control, materials management, and the concepts of BMP implementation and preventative maintenance. The program involves adding more in-depth training program to those previously offered to personnel in City Fire, Public Works, and Environmental Utilities Departments.

The City has committed to:

# a) Train City Staff on SWPPP

The City has agreed to distribute existing SWPPP manuals to facility managers, provide additional copies to facility staff on an as-needed basis, and provide training to familiarize facility staff with the BMPs of the existing SWPPP.

#### b) Enhance City Training Programs

The City has agreed to enhance existing City training programs for staff by including updated policies and procedures that include stormwater BMPs. The City has also agreed to partner with other jurisdictions and the public or private sector on training in an attempt to minimize costs.

#### **EFFECTIVENESS:**

The effectiveness of the trainings is evident in the increased amount of stormwater complaints that are received by the Stormwater Management Program from City employees. Currently, a majority of the City's stormwater complaints are received from City employees. Overall, training City staff on the specifics of the stormwater program and the effects of non-stormwater discharges on receiving waters has caused a level 3, Changing Behavior, outcome.

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None.

#### MO-4.a: Train City Staff on SWPPP

# Ongoing:

SWMP staff continues to train fellow City employees regarding the specifics of the Stormwater Management Program including the definition of an illicit discharge and how to report a discharge to the proper authorities. During FY 10/11, Roseville Electric staff was given a refresher course (04/19/11). Trainings are tailored to each group's specific activities and include specific BMPs to prevent prohibited discharges to the storm drain system.

#### **Effectiveness**

The staff training has resulted in the identification of potential violations by field personnel before they cause a prohibited discharge to the storm drain system. This is a level 3, Changing Behavior, effectiveness outcome.

See appendix for:

Power Point presentation for Electric

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer

#### MO-4.b: Enhance City Training Programs

#### Ongoing:

The Stormwater awareness training will be provided to City employees on a routine basis. The training will be improved and updated through meetings with each division's management personnel. The City maintains a computer database of required trainings for City staff. Stormwater pollution prevention training is included in this list of trainings.

#### **Effectiveness**

The Stormwater Management Program has provided training to a number of City departments. In addition, Stormwater staff has attended many different training seminars and has included aspects as necessary into the current training module. This BMP has shown a level 2, Raising Awareness, effectiveness outcome.

Date: 7/1/2004 Responsible Party: Delyn Ellison-Lloyd, Senior Engineer