Stormwater Management Program

Annual Progress Report 2007/2008

CITY OF ROSEVILLE CALIFORNIA

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8
Public Education and Outreach

BMP		Page No.	Status	Modified
Early Implementation Program (Start 2003/4)				
PO - 1	a	7	Complete	No
PO - 1	b	8	Complete	No
PO - 1	c	9	Complete	No
PO - 1	d	9	Complete	No
PO - 1	e	9	Complete	No
PO - 1	f	10	Complete	No
PO - 1	g	11	Complete	No
Strategic Outreach Program (Start 2004/5)				
PO - 2	a	14	Complete	No
PO - 2	b	14	Complete	No
PO - 2	c	17	Complete	No
Construction, New Development and Redevelopment Outreach (Start 2003/4)				
PO - 3	a	19	Complete	No
PO - 3	b	19	Complete	No

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8 (cont'd)
Public Participation / Involvement

BMP		Page No.	Status	Modified
Stormwater Website (Start 2003/4)				
PI - 1	a	22	Complete	No
PI - 1	b	22	Complete	No
PI - 1	c	22	Complete	No
Watershed Management (Start 2004/5)				
PI - 2	a	24	Complete	No
PI - 2	b	24	Complete	No
PI - 2	c	24	Complete	No
PI - 2	d	24	Complete	No
Public Body Updates (Start 2003/4)				
PI - 3	a	26	Complete	No
Storm Drain Labeling (Start 2004/5)				
PI - 4	a	27	Complete	No
PI - 4	b	28	Complete	No

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8 (cont'd)
Illicit Discharge Detection and Elimination

BMP		Page No.	Status	Modified
Illicit/Non-Stormwater Discharge Detection (Start 2003/4)				
IDDE - 1	a	31	Complete	No
IDDE - 1	b	32	Complete	No
IDDE - 1	c	32	Complete	No
IDDE - 1	d	33	Complete	No
IDDE - 1	e	33	Complete	No
IDDE - 1	f	33	Complete	No
Address/Eliminate Illicit Connections and Non-Stormwater Discharges (Start 2004/5)				
IDDE - 2	a	36	Complete	No
IDDE - 2	b	36	Complete	No
IDDE - 2	c	37	Complete	No
Storm Sewer System Map (Start 2003/4)				
IDDE - 3	a	39	Complete	No
Stormwater Ordinance (Start 2003/4 to 2004/5)				
IDDE - 4	a	42	Complete	No
Utilize Existing Programs (Start 2003/4)				
IDDE - 5	a	44	Complete	No
IDDE - 5	b	44	Complete	No
IDDE - 5	c	45	Complete	No
IDDE - 5	d	45	Complete	No
IDDE - 5	e	46	Complete	No
IDDE - 5	f	46	Complete	No
Long-Term Outreach (Start 2004/5)				
IDDE - 6	a	49	Complete	No
IDDE - 6	b	49	Complete	No
IDDE - 6	c	52	Complete	No
IDDE - 6	d	52	Complete	No
IDDE - 6	e	52	Complete	No

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8 (cont'd)
Construction Site Runoff

BMP		Page No.	Status	Modified
Revised Ordinance (Start 2003/4 to 2004/5)				
CSR - 1	a	55	Complete	No
City Standards (Start 2004/5)				
CSR - 2	a	56	Complete	No
CSR - 2	b	57	Complete	No
Design Review Guidance for City Staff (Start 2004/5)				
CSR - 3	a	58	Complete	No
CSR - 3	b	59	Complete	No
CSR - 3	c	59	Complete	No
Enhanced Reporting System (Start 2005/6)				
CSR - 4	a	61	Complete	No
CSR - 4	b	61	Complete	No
CSR - 4	c	61	Complete	No
CSR - 4	d	61	Complete	No
CSR - 4	e	61	Complete	No
Inspection and Enforcement Program (Start 2003/4)				
CSR - 5	a	63	Complete	No
CSR - 5	b	63	Complete	No
CSR - 5	c	63	Complete	No
CSR - 5	d	63	Complete	No
CSR - 5	e	63	Complete	No
Outreach and Training Program (Start 2003/4)				
CSR - 6	a	65	Complete	No
CSR - 6	b	65	Complete	No
CSR - 6	c	65	Complete	No
CSR - 6	d	66	Complete	No

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8 (cont'd)
New Development and Redevelopment

BMP		Page No.	Status	Modified
Development Review Process (Start 2005/6)				
ND - 1	a	69	Complete	No
ND - 1	b	69	Complete	No
ND - 1	c	69	Complete	No
ND - 1	d	69	Complete	No
Critical Criteria (Start 2004/5)				
ND - 2	a	71	Complete	No
ND - 2	b	71	Complete	No
ND - 2	c	71	Complete	No
Post-Construction Ordinance (Start 2005/6 to 2006/7)				
ND - 3	a	73	In Progress	Yes - continue into the following year.
Regulatory Requirements for Privately Owned Controls (2006/7 to 2007/8)				
ND - 4	a	75	In Progress	Yes - continue into the following year.
ND - 4	b	75	Complete	No
ND - 4	c	75	In Progress	Yes - continue into the following year.
ND - 4	d	75	In Progress	Yes - continue into the following year.
ND - 4	e	75	In Progress	Yes - continue into the following year.
Outreach and Technical Assistance (2004/5)				
ND - 5	a	77	Complete	No
ND - 5	b	77	In Progress	Yes - continue into the following year.

STATUS SUMMARY OF SWMP COMMITMENTS FY 2007/8 (cont'd)
Municipal Operations

BMP		Page No.	Status	Modified
Inventory and Assess the Potential for Stormwater Pollution in O&M Activities at City-Owned Facilities and in City Field Operations (Start 2004/5 to 2005/6)				
MO - 1	a	80	Complete	No
MO - 1	b	80	Complete	No
MO - 1	c	80	Complete	No
MO - 1	d	81	Complete	No
MO - 1	e	81	Complete	No
MO - 1	f	81	Complete	No
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 (Start 2006/7 to 2007/8)				
MO - 2	a	83	Complete	No
MO - 2	b	83	Complete	No
MO - 2	c	84	Complete	No
MO - 2	d	84	Complete	No
MO - 2	e	84	Complete	No
MO - 2	f	85	Complete	No
Review Construction and Development Procedures for City-Owned Facilities (Start 2005/6)				
MO - 3	a	87	Complete	No
MO - 3	b	87	Complete	No
MO - 3	c	87	Complete	No
Develop and Expand City O&M Training Programs to Include Stormwater Pollution Prevention (Start 2004/5)				
MO - 4	a	89	Complete	No
MO - 4	b	89	Complete	No

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Section 1: Overview and Contact Information

Date Prepared: 9/14/2007

For questions regarding this report contact:

Kelye McKinney
2005 Hilltop Circle
Roseville, CA 95747

Stormwater Program Permit Information

1. Permitting Authority: California State Water Resources Control Board
2. Permit Number: CAS000004
3. 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: Robert Jensen
2. Operator Title: 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) 774-5349
7. E-Mail Address: rjensen@roseville.ca.us
8. Population: 104,655 **Area (sq mi):** 31
9. Official Website: www.roseville.ca.us

General Information for Primary Contact Person

1. Name: Kelye McKinney
2. Title: Engineering Manager
3. Phone Number (916) 774-5552
4. E-Mail Address: kmckinney@roseville.ca.us

General Information for Secondary Contact Person

1. Name: Delyn Ellison-Lloyd
2. Title: Senior Engineer
3. 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.)	Receiving Waterbodies (lake, wetland, ocean, etc.)	Receiving Watersheds
North Branch Pleasant Grove Creek		Sacramento River Watershed
Kaseberg Creek		
South Branch Pleasant Grove Creek		
Dry Creek		
Miners Ravine		
Linda Creek		

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 must educate the public within its jurisdiction 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 developed a public education program that provides educational materials to the community within its boundaries. Based on the results of a community awareness survey, the City will develop a long-term 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 sources, 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 mediums for disseminating 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 Webpage

The City has agreed to enhance and update the stormwater content on its stormwater webpage 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 a minimum of three community outreach events each year.

EFFECTIVENESS:

Public education is a critical to raising public awareness and understanding of the impacts of stormwater pollution in the community. To accomplish this, the Stormwater Program employs a variety of educational avenues such as outreach events, newsletters and public service announcements.

To measure the effectiveness of the Stormwater Program's outreach activities, a baseline survey was performed during the first reporting period (2003-2004) to determine the status of the awareness and behaviors of Roseville's populace relating to stormwater management. Residents were asked if stormwater was treated prior to release to its release. Sixty-eight percent (68%) of the respondents did not know, and seven (7%) of the respondents said yes--that the water was treated prior to release, resulting in a total of 75% of the survey pool answering erroneously. This meant that only 25% of the public responded correctly.

In years that followed, the Stormwater Program focused its outreach efforts towards the Roseville residential and school age children with the goal of increasing the communities' knowledge of the fate of stormwater and its management.

The Environmental Utilities Department performed a follow-up survey on behalf of the Stormwater Program during this reporting period (FY 07/08). Participants were asked, "Is everything that enters storm drains treated and filtered to remove pollution?" Approximately half (49%) of those surveyed answered correctly (strongly disagreed and somewhat disagreed). This means that the number of correct responses almost doubled (25% to 49%) from the previous survey.

As a result, it can be concluded that the Stormwater Program's outreach program which includes newsletters and handout materials, outreach events, exhibits, expanding the website and implementing a storm drain marking program, has been highly effective in raising the awareness of Roseville's residential community concerning the fate of stormwater runoff and the pollutants it may contain. This is a level 2, Raising Awareness, outcome per CASQA's (California Stormwater Quality Association) Municipal Stormwater Program Effectiveness Assessment Guidance manual.

PROPOSED MODIFICATIONS:

None.

Status of Measurable Goals

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

Three stormwater articles were published in the "Environmental Utilities Today" newsletter. An article entitled "Volunteers Needed to Install New Storm Drain Markers" was published in the August 2007 issue. Another article was published in the December 2007 issue entitled "Utility Education Center Set to Open with Classes." The third article entitled "Green Ideas for Controlling Insects" ran in June of 2008. 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. An article called "Green Guide to Car Washing" also ran in the 2008 summer edition of the City's general newsletter, "Roseville Reflections."

The City's website is updated periodically to include new issues of the "EU Today" and "Roseville Reflections" newsletters 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 sponsored two literature racks at two retail landscape nurseries, Green Acres and Sierra Nursery. Each rack holds approximately 24 individual fact sheets relating to specific pest management problems.

The Stormwater Program created a display using an old Volkswagen Beetle. The purpose of this display is to demonstrate the program's Charity Car Wash Kit and also to promote an Integrated Pest Management message. The car was cut in half and can be taken apart or put together in response to the demands of the event. Each half houses displays. The exterior of the car has been painted bright green and adorned with eyes, mouth, wings and antennae (depending on the message). The front half has display shelves protruding from the windows and the back half has seats and monitors that display videos. There is also a display rack in the trunk that holds written materials. It has been used in several outreach events.

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

See appendix for:
Copies of EU Today Articles
Copies of Roseville Reflections Articles
Pictures of the Volkswagen Beetle
"Good Bug Bad Bug" scratch-off cards
IPM magnet
UC Davis IPM cards

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

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

Approximately one hundred (100) Trina Trout magnets and pool discharge brochures were distributed at a City Fire Department Smoke Detector event on May 10, 2007. Both a magnet and a pool brochure were placed in each outreach bag distributed by the Fire Department. A bag was given to each household in the Enwood subdivision off of Riverside Avenue. The magnet is intended to promote the illicit discharge hotline phone number. It reads "Report illegal discharges...call 746-1000".

The Stormwater Management Program updated two of the most utilized handouts, *Stormwater Pollution... at Your House* and *Need to Drain Your Pool*. Each brochure was modified to reflect changes in the program. Specifically, contact numbers were changed to reflect the relocation of the pool program from the City Industrial Waste Section of the Wastewater Division to its new location in the Stormwater Program. *Stormwater Pollution... at Your House* contains information pertaining to the proper management of non-stormwater discharges in residential applications such as wastewater from car washing, pool and spa discharges, painting activities and rinsing down hard surfaces. The *Need to Drain Your Pool* brochure is specific to residential pools.

The Stormwater Program also coordinated with the City's Water, Wastewater, and Solid Waste Divisions, as well as the Electric Department to design and construct educational displays at the Roseville Utility Exploration Center (RUEC), a new educational facility at the Mahany Sports Complex on the corner of Woodcreek Oaks Blvd and Pleasant Grove Blvd in Roseville. This facility houses a new library and the RUEC. This center takes an integrated approach to educating the public about sustainable lifestyles and the impact of waste on the environment. There are four large, high-touch, high-tech exhibits housed in the RUEC: the Globe, the Garbage Pile, the Green-Not Green game and the Green House. A video describing the global environmental situation is played on The Globe while the Garbage Pile demonstrates the consequences of living in a disposable society. The Green-Not Green game explains the roles of the Electric Department, Wastewater, Stormwater, Water and Solid Waste Divisions and how their routine activities help to serve Roseville's citizens while protecting the environment. The exhibits are open to the public for self-guided tours Monday through Saturday from 10 am to 7 pm.

The RUEC also offers school tours to elementary schools throughout the region. The target audience is 4th, 5th and 8th graders who are Roseville residents, however the tours are available to any organization. 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 in the RUEC exhibits. There are two components to the school tours; one segment consists of a hands-on tour of the exhibit, and the second is a classroom presentation of science behind the exhibited concepts. The lecture portion of the tour is closely aligned with the State's curriculum standards. One of the three available lectures is called "Keepin' It Clean." The primary messages of this lecture are the concepts of the water cycle and how urban runoff impacts water quality. The Stormwater Program contributed to this particular lecture by aiding in the development of the presentation graphics and also acting as a presenter for school tours.

The Stormwater Program is also working on a stormwater model that depicts Roseville in a rain event and the contaminants 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 we are 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.

Effectiveness:
Adding stormwater specific information to existing City education and outreach material has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
Hotline magnet
Stormwater Pollution... at Your House
Need to Drain Your Pool?
Pictures of RUEC exhibits
Utility Exploration Center Programs and Services for Spring 2008
"Going Green" flyer

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

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

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:
The effectiveness of this best management practice was not evaluated.

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

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

This best management practice was completed during the 2005-2006 reporting period with the development of the "Roseville Creek Awareness Map" and the "Roseville Creek Stewardship Resource Guide." Seventeen-hundred and fifty of the "Roseville Creek Awareness Map" and five hundred of the "Roseville Creek Stewardship Resource Guide" 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 brochure. Both discuss the City's Stormwater Management Program and its implications to activities in the residential community.

The City's Open Space Division created an Open Space brochure during the 2006-2007permit term. This Division is housed within the City's Parks Department. It 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 pertaining to the proper management of non-stormwater discharges.

Effectiveness:
The development and implementation of creekside landowner educational materials has shown a level 2, Raising Awareness, outcome during this reporting period.

Date: 7/1/2003 Responsible Party: Derek Ogden, Open Space Manager

PO-1.e: Expand the City Stormwater Webpage

The City's Stormwater webpage 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 information regarding the storm drain marking program was uploaded to the webpage in an effort to solicit potential volunteers.

In addition, the Stormwater Program participated on the City's Volunteer Action Team via the City's Human Resources' webpage, which included advertising on www.myvolunteerpage.com/roseville in an effort to recruit volunteers for the storm drain marking program. However, this avenue was met with limited success due to the fact that City's new marker installation procedures require operating hand tools to drill the fastener holes. This requires the volunteer possess additional skills and therefore limits the age of the volunteer to over eighteen (18) years of age. However, the increase in durability and longevity of the marker as compared to stenciling or a marker of another material is worth the trade-off of a limited volunteer pool.

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

See appendix for:
Screen shots of webpage updates
Screen shots of MyVolunteerPage.com

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

PO-1.f: Implement Storm Drain Labeling Program

During this reporting period, the City purchased approximately 5,000 of the storm drain markers used to label existing storm drains. These markers are stainless steel discs stating "No Dumping Flows to Creek" fastened 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.

Approximately 540 storm drain markers were installed using volunteers. The volunteer pool consisted of one Eagle Scout project and two independent volunteers. The Scout installed approximately 300 markers. The two independent volunteers installed approximately 240 markers. City staff performed a spot check to verify proper installation of the markers. The volunteers also provided an electronic spreadsheet denoting the location for each marker.

In addition to installing markers, the Eagle Scout circulated approximately 150 flyers to residents in the neighborhoods surrounding the affected storm drains. The intent of the flyer was to draw attention to the new marker and educate the public about the connection between the storm drains and the local creeks.

The Stormwater Program also worked with the City's Streets Division to install the storm drain markers on main arterials where traffic volumes are so great that it is necessary to have traffic control which renders these locations unsafe for volunteers. The Streets Division installed approximately 890 of the markers along the major roadways in the City.

A grand total of 1,430 markers were installed during this reporting period.

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 a level 1, Documenting Activities, outcome during this reporting period. However, it can be inferred that it has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
Picture of the marker
Excel spreadsheet of volunteers and markers Installed
Map of area where markers are installed
Marker installation flyer

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

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

The City's Stormwater Management Program participated in twenty (20) community and school outreach opportunities during this reporting period.

The Stormwater Management Program attended six outreach events during this reporting period at local elementary schools. Presentations were made through the Adventure Club, the on-site childcare facility, at each school. These events were held as follows:

- July 31, 2007 at Sargent Elementary
- August 1, 2007 at Cirby Elementary
- November 7, 2008 at Woodbridge Elementary
- January 3, 2008 at Sierra Gardens Elementary
- March 3, 2008 at Catheryn Gates Elementary
- June 4, 2008 at Cirby Elementary

Each event had approximately 25 children in attendance. The Stormwater Program brought the Stormwater Game which demonstrates the connection between the storm drain and the creeks by allowing the participant an opportunity to throw a ball into a representative storm drain and watch it come out in the model creek. Promotional giveaways such as fish bubbles and magnets were also distributed as rewards for playing the game and answering stormwater questions correctly.

The Stormwater Program participated in National Night Out at Buljan Park on August 7, 2007. The primary message associated with this event was the availability of the Stormwater Program's Charity Car Wash Kit. As such, the event booth had the program's Volkswagen Beetle with the Charity Car Wash Kit around it. Flyers advertising the availability of the Charity Car Wash Kit were distributed.

The Stormwater Program has participated in a number of events at the Roseville Utility Exploration Center (RUEC). Specifically, the Stormwater Program participated in the center's grand opening on January 27, 2008. Program staff operated the Stormwater Game and distributed game prizes and stormwater information. On February 12, 2008, Stormwater Program staff attended the RUEC's teacher conference to promote the center's tour pertaining to water pollution called "Keepin' It Clean." The Stormwater Program advocated integrated pest management by displaying the program's Volkswagen Beetle at the RUEC's Earth Day event on April 19, 2008. The Stormwater Management Program also sponsored two workshops on integrated pest management at the RUEC. The first called "Make the Switch to Natural Gardening" was held on April 12, 2008. The second was held on May 10th and called "Grow Your Roses the Natural Way." There were approximately 20 attendees at each event. Stormwater Program staff made the "Keepin' It Clean" presentation to the United Auburn Indian Community School on April 18, 2008. Approximately 25 students were in attendance.

The City's Stormwater Program also participated in Hewlett-Packard's Earth Day event at their campus on April 24, 2008. Attendees were employees of HP and were very knowledgeable and interested in the environmental impacts of stormwater pollution. Information on integrated pest management was distributed. This event was a great opportunity to present stormwater pollution prevention information to a very receptive and informed audience.

The Stormwater Management Program also participated in Kaiser Permanente's Earth Day event on April 25, 2008, and provided information pertaining to integrated pest management. Attendees were primarily Kaiser employees.

The Stormwater Management Program participated in three of Roseville's Downtown Tuesday Nights (DTN) during this reporting period. The Stormwater Program attended DTN on July 10, 2007 and then again on May 13thand June 17th in 2008. The Stormwater booth, a "carnival" game visually demonstrating the connection between a storm drain and Roseville's creeks, was used at the July 10th and the June 17th events while the Volkswagen Beetle was taken to the May 13th event. The hotline magnets were distributed at the events where the "game" was used. "Bags-on-Board" dog waste clean-up bags, a trout can cooler and a rubber mallard duck were also distributed at these events. Bubbles were also distributed as smaller prizes for children as well when the stormwater game was used. An average of 100 prizes were awarded at each of the event dates listed above. The City determined that an average of 3,500 people attend each Downtown Tuesday Night event.

The Stormwater Program also participated in the Fire Department's smoke detector outreach event on May 10, 2008. Approximately 100 Trina Trout magnets and *Stormwater Pollution... at Your House* flyers were distributed at this event. Both a magnet and a flyer were placed in each giveaway bag. A kit was given to each household in the Enwood neighborhood. The magnet promoting the illicit discharge hotline reads as follows "Report illegal discharges...call 746-1000". The *Stormwater Pollution... at Your House* brochure highlights stormwater pollution prevention tips for homeowners.

On March 7, 2007 the Stormwater Program made a presentation to Sun City's Rod and Reel Club. This group promotes sport fishing and is very concerned with the impacts of stormwater pollution on Roseville's creeks. Approximately 30 club members were in attendance. The structure and purpose of the Stormwater Program, as well as tips to prevent stormwater runoff pollution, was covered during the presentation.

More than 2,500 pieces of outreach material were distributed to the public during this permit term. They were distributed through the outreach events mentioned above and other avenues such as the public counters and City offices. This includes approximately 1,500 hotline magnets. In addition, approximately 1,250 giveaways such as the can cooler, rubber duck and other game prizes were also given away through these events. All these items were intended to reinforce the Stormwater Program's central message of preserving the water quality in Roseville's creeks through the management of stormwater runoff.

Effectiveness:
Participating in local community events has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
Hotline magnet
Pictures of giveaways

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.

EFFECTIVENESS:

The City has completed a baseline public awareness survey as well as a follow-up. Both surveys measured the residential community's knowledge of the fate of stormwater runoff. (See PO-1 for a complete summary.) 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.

Status of Measurable Goals

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

The City attends local stormwater meetings such as those of the Dry Creek Watershed Council (DCWC) and the Placer Regional Stormwater Coordinating Group (PRSCG) 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.

Roseville Stormwater Program staff attended the PRSCG meetings on July 19, 2007, November 1, 2007, January 24, 2008 and April 24, 2008. The topics discussed included regulatory dates, the draft construction stormwater runoff permit, and the development of a stormwater component to the already existing food facility inspection program through Placer County Environmental Health. Attending participants usually included 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 to quarterly due to limitations in staff time of the participating agencies.

Effectiveness:
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 and meeting minutes

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

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

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 DataCycles 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.

During this reporting period, the Environmental Utilities Department in conjunction with the Stormwater Program conducted a survey 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.

The questions and responses relating to the Stormwater Program were as follows:

a. Roseville Environmental Utilities provides a number of different programs and services, some of which you may not be as familiar with as others. I'm going to read you a list of services. Please rate each one, using the scale poor, fair, good, or excellent. If you are not familiar with a service, just say so and we'll move on. First, how would you rate Environmental Utilities in terms of its Stormwater management services

	AMONG THOSE RESPONDING
1) Poor	1.3
2) Fair	11.5
3) Good	36.5
4) Excellent	15.0
5) Unfamiliar with service	29.8
8) Undecided/Don't know	6.0

b. How would you rate Environmental Utilities in terms of its Integrated pest management program

	AMONG THOSE RESPONDING
1) Poor	2.0
2) Fair	6.5
3) Good	13.3
4) Excellent	5.0
5) Unfamiliar with service	68.3
8) Undecided/Don't know	5.0

c. Do you agree or disagree with the following statement: Everything that enters storm drains is treated and filtered to remove pollution.

	AMONG THOSE RESPONDING
1) Strongly disagree	27.6
2) Somewhat disagree	21.4
3) Somewhat agree	20.4
4) Strongly agree	12.6
8) Undecided/Don't know	18.1

The following statement was read to the participants after the question above was asked. "Stormwater consists of rainwater and runoff from other sources. As it flows from neighborhoods and places of business to storm drains, it collects a variety of pollutants. Unlike water that goes down household sewer pipes that lead to a sewage treatment plant, stormwater currently ends up in our creeks and rivers untreated."

d. How willing would you be to pay a fee of $5 per month above and beyond what you pay now to help protect the water quality of our local creeks from stormwater pollution by funding such things as rehabilitating the storm drain system, public education and outreach activities, and improved methods for detecting illegal discharges?

	AMONG THOSE RESPONDING
1) Willing at $5	45.9
2) Willing at $3	9.3
3) Willing at $2	7.3
4) Not willing at any amount asked	29.6
8) Not sure	8.0

e. EU Today, a newsletter, is published and mailed, to customers every other month with the utility bill. Of the 6 newsletters that were sent to your home in the past 12 months, about how many did you read?

	AMONG THOSE RESPONDING
0) Recalled receiving, but read none	31.2
1) One	7.5
2) Two	11.8
3) Three	12.3
4) Four	4.5
5) Five	2.5
6) All six EU Today newsletters	27.9
7) Doesn't recall receiving any	1.0
8) Recalls receiving, but not specific number	1.3

f. In addition to its newsletter, Environmental Utilities can communicate with you in a variety of other ways. What is the main way you would prefer to receive information about programs and services?

	AMONG THOSE RESPONDING
1) On TV	3.8
2) In the newspaper	3.5
3) In an e-mail	21.6
4) In the regular mail separate from the bill	14.3
5) As a message on the bill	5.3
6) As an insert with the bill	33.1
7) In the EU Today newsletter	12.5
8) By telephone	1.8
9) Other	1.0
10) Undecided/Don't know	3.3

g. Please tell me, yes or no, if you watch, read, or access any of the following:

a. City of Roseville-TV, the local government cable channel

	AMONG THOSE RESPONDING
1) No	68.8
2) Yes	29.3
3) Undecided/Don't know	2.0

b. Reflections newsletter

	AMONG THOSE RESPONDING
1) No	39.8
2) Yes	52.3
3) Undecided/Don't know	8.0

c. Parks and Recreation Guides

	AMONG THOSE RESPONDING
1) No	35.0
2) Yes	61.8
3) Undecided/Don't know	3.3

d. City of Roseville's website

	AMONG THOSE RESPONDING
1) No	52.3
2) Yes	45.5
3) Undecided/Don't know	2.3

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 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.

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.

Both surveys asked questions pertaining to the how respondents preferred to receive programmatic information, however the questions were phrased slightly different. Respondents were asked if they had tried to find information regarding waste disposal in their utility bill insert or on the City's website. Other methods of disseminating information were listed as well, but bill inserts (47%) and the City's website (46%) were most favored. Respondents were allowed to select all the information sources helpful to them, therefore, the cumulative total was greater than 100% for this question. This question was also asked in the 2008 survey with

bill inserts again being the preferred method of receiving information (34%). The City's website was not on the list of choices for this question, but respondents were asked in a later question if they accessed the City's website and 47% responded positively. Other City information resources were listed, as well with Parks and Recreation Guide (64%) and Roseville Reflections, the City's general newsletter (64%) being the most popular. Environmental Utilities Today, which is delivered to Roseville residents as a bill insert, was not considered as a bill insert by the 2008 survey. However, only 13% of survey respondents preferred the EU newsletter. This information will be very useful when choosing the most effective methods of disseminating stormwater management information.

Effectiveness:
Conducting a public stormwater awareness survey has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
City of Roseville Stormwater Study Response Analysis
2008 Environmental Utilities Residential Program and Services Survey Results

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

The Stormwater Program contracted with a consultant, Lucy and Co., 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 survey will be used to guide the efforts of the Public Education and Outreach minimum control measure of the City's Stormwater Management Plan.

Effectiveness:
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

See appendix for:
Public Outreach Plan, December 2005
Public Outreach Materials Inventory

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. These workshops were held during the 2003-2004 reporting period.

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.

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

The City's Construction Stormwater Runoff program is fairly well established. The City currently enforces the criteria of State General Permit for Construction by requiring Stormwater Pollution Prevention Plans (SWPPP) from construction sites one acre or greater and inspects those construction sites for an effective combination of erosion and sediment control as well as best management practices for non-stormwater discharges.

The New Development and Redevelopment program is in its initial phase. The City coordinated with Sacramento Stormwater Quality Partnership to author the Region's new Stormwater Quality Design Manual. Stormwater quality design review training continued throughout the permit year to familiarize staff with requirements of the newly adopted manual. These trainings were intensified just before the City adopted the new design standards this year, and continues in development staff meetings for the improvement plan reviewers.

In addition, staff attended workshops on topics such as Hydro-modification, Low Impact Development, and Stormwater Devices. Staff attended the California Stormwater Quality Association workshop entitled "Emerging Regulatory Issues" in November 2007. Also, Staff sat in on three conference calls for the CASQA Phase II Subcommittee, one each in December 2007, January 2008, and February 2008. Finally, in November 2007, staff met with the Placer Stormwater Coordination Group to discuss permit requirement status. Information is being disseminated to other staff members.

During the past 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.

The City will provide 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. City stormwater representatives are 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: Marc Stout, Senior Engineer

PO-3.b: Conduct Annual Training Workshops on Construction and Improvement Standards

The City hosted several informal tailgate-training sessions for contractors working in the area. Discussions included proper BMP installation, assessment of necessary BMPs, and enforcement procedures. The City also 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. In addition to tailgate workshops, and as part of the City's outreach program, Public Works Staff authored its own "Rainy Season Reminder" letter which was distributed in September to property owners with active projects. Forty-five (45) letters were sent. City inspection staff also distributed Wet Season Reminder letters to project superintendents on their job sites, the goal being to generate discussion and awareness of compliance responsibilities.

See appendix for:
"Rainy Season Reminder" letter

Date: 7/1/2004 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 assistance 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, 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 webpage is an important aspect of its Public Involvement Program. The webpage 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 Webpage

The City has agreed to develop stormwater pollution prevention content for the stormwater webpage 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 webpage. 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 Webpage

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

EFFECTIVENESS:

The City receives reports of illicit discharges via the website from the general public and the regulated business community. Stormwater Management Staff respond to these reports to investigate the alleged non-stormwater discharge. Once a source is determined and the discharge mitigated, staff notifies the complainant of the outcome of the investigation.

The City’s stormwater webpage also provides the public with detailed program information.

The activities associated with this minimum control measure serve to raise the public’s awareness of the stormwater program activities and the effects of non-stormwater discharges on receiving waters.

PROPOSED MODIFICATIONS:

None.

Status of Measurable Goals

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

This minimum control measure has been accomplished. A webpage for the stormwater program has been created and content has been posted. At this time, the City continues to update the webpage with new and pertinent information as necessary.

Links to a wide variety of state and regional documents were added to the City' stormwater webpage to provide the residential and business communities with the most recent information on stormwater runoff management. On the Stormwater Home webpage, links were provided for the City's New Stormwater Design Standards Manual for Development, the new Stormwater Ordinance and the Stormwater Quality BMP Manual for Construction. To enable the public to access a draft of the post-construction best management manual, a link to Sacramento's Stormwater Quality Partnership was added to the stormwater website. The final version of the Stormwater Ordinance was 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.

Effectiveness:
Creating stormwater content for the City website has shown a level 2, Raising Awareness, outcome during this reporting period.

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

PI-1.b: Post Technical Assistance Documents

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 City forms, BMPs, and industry specific issues.

Effectiveness:
Posting technical assistance documents on the City's website has shown a level 2, Raising Awareness, outcome during this reporting period.

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

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 that were received during this reporting period were addressed by City staff.

The Trina Trout mascot, displayed here also, adds continuity to the stormwater message.

Effectiveness:
Providing for the submittal of emails to the stormwater program via the webpage has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
Screen shot of "Contact Stormwater" webpage

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 of 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 clean-ups and citizen monitoring programs.

EFFECTIVENESS:

Watershed management is an important 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 on the health of Roseville's creeks. 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

Dry Creek Watershed Council meetings were attended on a monthly basis by the City's Parks and Recreation Department staff. Staff from other departments also attended meetings on an as-needed basis depending on agenda topics.

Effectiveness:
Attending the Dry Creek Conservancy council meetings has shown a level 1, Documenting Activities, outcome during this reporting period. City staff has also participated in Creek Week planning activities, grant application preparation, and LID Conference preparation which are activities that show a level 3, Changing Behavior, outcome during this reporting period.

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

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

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 led by the County by attending monthly meetings for the American Basin Council of Watersheds. This is a newly created watershed group with a regional emphasis and replaces the Dry Creek Watershed Council. The City's Open Space Division 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

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.

Effectiveness:
The Creek and Riparian Management and Restoration Plan has shown a level 4, Reducing Loads from Sources, effectiveness outcome by providing a baseline document to apply for stream and bank restoration grants. The City is currently pursuing two grant opportunities that will allow the City to move forward with improving water quality and watershed improvement goals.

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

PI-2.d: Support Pollution Prevention Programs

Creek Week was again a focus of our support this year. The Stormwater Management Program and the Open Space Division participated in Dry Creek Conservancy's planning meetings for Creek Week, the City contributed resources to the week's restoration events and to the design and printing of the announcement flyer. The City also collected garbage and debris from the clean-up sites. The City also contributed funds through the Parks and Recreation Department to purchase t-shirts for clean-up day participants. The Stormwater Management Program also participated in the celebration event at Royer Park at the culmination of Creek Week.

We continue to collaborate with Dry Creek Conservancy (DCC) regarding water quality monitoring and restoration activities throughout the year. This reporting period the City is partnering with the DCC to secure grant funding for a Fish Barrier/interpretive sign project. This project will include the design and installation of a fish ladder or step pools and the removal of a low flow fish barrier. In addition interpretive signs will be placed at the creek access point to inform residents and trail users of the life cycle of salmon. Construction of the project would begin in 2009.

Effectiveness:
Supporting pollution prevention programs has shown a level 4, reducing loads from sources, by removing floatable pollutants from creek banks and improving riparian habitat by removing impediments to fish migration.

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

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.

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 stormwater 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 Public Body Updates

The Engineering Manager and Stormwater staff made a presentation to the Public Utilities Commission on November 27, 2007 regarding specific elements of the stormwater program such as the Public Outreach, Public Involvement, Illicit Discharge Detection and Elimination, and Municipal Operations. This presentation was aired on the City's public access channel.

Effectiveness:
Providing content to public body updates has shown a level 1 outcome, Documenting Activities, during this reporting period.

See appendix for:
Environmental Utilities Engineering and Stormwater Division Updates presentation

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 the direct connection between the storm drain inlet and the receiving waterway 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 program. The City has committed to:

a) Label or Stencil Storm Drains

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

EFFECTIVENESS:

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

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 hear anecdotal accounts of the effectiveness of storm drain labels on prohibiting non-stormwater discharges to the stormwater conveyance system. Usually these accounts are favorable.

PROPOSED MODIFICATIONS:

None

Status of Measurable Goals

PI-4.a: Label Storm Drains

Approximately 540 storm drain markers were installed during this reporting period using volunteers. The volunteer pool consisted of one Eagle Scout project and two independent volunteers. The Scout installed approximately 300 markers. The two independent volunteers installed approximately 240 markers. City staff performed a spot check to verify proper installation of the markers. The volunteers also provided an electronic spreadsheet denoting the location for each marker.

In addition to installing markers, the Eagle Scout circulated approximately 150 flyers to residents in the neighborhoods surrounding the affected storm drains. The intent of the flyer was to draw attention to the new marker and educate the public about the connection between the storm drains and the local creeks.

The Stormwater Program also worked with the City's Streets Division to install the storm drain markers on main arterials where traffic volumes are so great that it is necessary to have traffic control, creating an unsafe environment for a volunteer. The Streets Division installed approximately 890 of the markers along the major roadways in the City.

A grand total of 1,430 markers were installed during this reporting period.

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. However, it can be inferred that it has shown a level 2, Raising Awareness, outcome as well.

See appendix for:
Picture of marker (Public Education & Outreach "PO")
Excel spreadsheet of volunteers and markers installed (Public Education & Outreach "PO")
Map of area where markers are installed (Public Education & Outreach "PO")
Marker installation flyer (Public Education & Outreach "PO")
Volunteer appreciation luncheon flyer (Public Participation & Involvement "PI")

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

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

Due to limited life span of a painted storm drain stencil, approximately 1 to 1.5 years, and the potential for deleterious effect to the creek environment from worn stencil paint, the City evaluated other storm drain labeling options during the 2006-2007 permit term. The new method entails fastening a stainless steel disc that states "No Dumping Flows to Creek" to the concrete immediately adjacent to a storm drain inlet. These markers are guaranteed to have a 30-year life span and appear to be a viable replacement for the painted-on stencils. These markers are cost effective and visually appealing.

A pilot program to evaluate the effectiveness of a new method of marking existing storm drains was conducted during the 2006-2007 reporting period. An Eagle Scout candidate installed 500 of the metal markers in the spring of 2006. The markers were installed using two methods: 220 markers were installed with adhesive only, and 280 markers were installed with adhesive and a concrete nail fastener. City Streets staff drilled holes for the concrete fasteners in advance. The Eagle Scout volunteer then completed the installation by setting the markers. 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 type of materials used to install each marker.

City staff inspected each installation site approximately one year after the initial installation date. The purpose of the study was to evaluate the durability of the markers and the methods of installation. Approximately 496 markers remained in place and in good condition with all wording legible over one year after installation. Four markers were missing. It was determined that those markers were installed with adhesive only. Therefore, glue and a nail was selected as the installation method to be used in future.

During this reporting period, the City purchased approximately 5,000 additional stainless storm drain markers. This method will be used for labeling the remaining unmarked storm drains in Roseville.

Effectiveness:
Evaluation of storm drain labeling versus stenciling at a minimum has been a level 1, Documenting Activities, outcome during this reporting period. However, it can be inferred that it has shown a level 2, Raising Awareness, outcome as well.

See appendix (Public Education & Outreach "PO") for:
Picture of stainless steel marker on storm drain
Map of installation locations
Excel spreadsheet with installation results

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 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. A study conducted in 1987 in Sacramento, California, found that almost one-half of the water discharged from a local MS4 was not directly attributable to precipitation runoff. Significant portions of these dry-weather flows were 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

Important Dates:

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 and Wastewater Divisions, the 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

The City's Fire Department inspected a total of 328 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. As a result of these inspections, twenty (20) businesses were found to have stormwater discharge violations. These discharges were addressed by the Fire Department via a written warning on their inspection report and follow-up work. BMPs were recommended at seven business sites. The Fire Department refers stormwater dischargers requiring in-depth assistance with BMP implementation to the Stormwater Management Program (SMP) for follow-up.

The City is coordinating with Placer County Environmental Health Department through the Placer Regional Stormwater Coordinating Group (PRSCG) to include a stormwater component in the annual health inspections at retail food facilities. Placer County began a pilot study for restaurants located in the unincorporated area during the spring of 2008.

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 ongoing 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 ongoing 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 will review and comment on the proposed BMPs and forward the plan on to other affected City departments for their comment as well if necessary. SMP staff will also inspect 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 30 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, effectiveness outcome during this reporting period.

See appendix for:
Roseville Municipal Chapter 14.20
Roseville Municipal Chapter 2.52
Flow chart of enforcement procedure
Enforcement policy

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

IDDE-1.b: Create Spill Response Procedure

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 has 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 Divisions during the ’07-’08 reporting period to identify possible disposal options for waste streams generated as a result of a spill on public property. This policy will be circulated among the agencies for comment and finalized during the ’08-’09 reporting period.

Effectiveness:
Creating spill response procedures has shown a level 4, Reducing Loads from Sources, effectiveness outcome during this reporting period.

See appendix for:
Visio flow chart of response procedures
Stormwater Management Program Incident Response Procedures
Incident report form
Incident Response Reimbursement Sheet

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

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

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. Approximately 715 magnets advertising the Stormwater Hotline were distributed during this reporting period.

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, effectiveness outcome during this reporting period.

See appendix (Public Education & Outreach “PO”) for:
Screen shot of Stormwater Hotline webpage
Trina Trout magnet

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

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

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 Divisions 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, effectiveness outcome 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

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. These trainings are also tailored to each group's specific activities and include specific BMPs to prevent prohibited discharges to the storm drain system.

An increase in prohibited stormwater discharge reports from City employees indicates the trainings have raised the awareness of City employees. City employees reported 54 discharges during FY 07/08.

Effectiveness:
Providing annual training for appropriate City departments has shown a level 2, Raising Awareness, effectiveness outcome 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 increased 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

During the 2007 dry season weekly outfall evaluations were performed. Two Stormwater Program staff members spent a full day each evaluating stormwater outfalls for discharges to the receiving waters. Beginning in May 2008, dry weather outfall evaluations were scheduled once per month due to staffing limitations. During the month of June 2008, no outfalls were evaluated due to equipment failure. In order to make up the lost time, the stormwater outfalls were evaluated twice during the month of July 2008. This will be reflected in the 08/09 Annual Report. Evaluation dates and number of outfalls observed were as follows:

Evaluation Date	Number of outfalls
7/3/2007	25
7/10/2007	17
7/18/2007	22
7/24/2007	31
7/31/2007	11
8/9/2007	16
8/15/2007	17
8/22/2007	14
8/29/2007	50
9/13/2007	15
9/20/2007	21
9/26/2007	10
10/4/2007	13
5/23/2008	9
Total	271

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

One outfall evaluation found illicit discharge of residue consistent with concrete wash water. An upstream inspection provided no evidence as to its origins.

Effectiveness:
Assessing dry weather flows for illicit discharges has shown a level 4, Reducing Loads from Sources, effectiveness outcome during this reporting period.

See appendix for:
Map of outfalls evaluated
Outfall evaluation table

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/Non-Stormwater 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

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) has 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 ongoing 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 30 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.

See appendix for:
Chapter 14.20 of Title 14 Roseville Municipal Code, Urban Stormwater Quality Management and Discharge Control Ordinance

Effectiveness:
Developing policy to address illicit discharges and connection has shown a level 1, Documenting Activities, effectiveness outcome during this reporting period.

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

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

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. 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, effectiveness outcome during this reporting period.

See appendix for:
Illicit Discharge & Detection Elimination form

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

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 2006 through June 2007, the Environmental Utilities Department responded to a total of eighty-two (82) discharge incidents. These discharges are broken down into the following discharge types:

Incident Response 07/08

Discharge Type	Number
Chemical	3
Concrete	7
Dirt/Sediment	13
Food Waste	1
Landscape Debris	4
Miscellaneous	10
Paint	8
Pesticide / Fertilizer	1
Pet Waste	1
Pool Discharge	9
Trash	2
Wash Water	15
Waste Oil/Petroleum Hydrocarbons	8
Total	**82**

There were two incidents that required additional outreach subsequent to their initial detection and remediation. The first was discovered in association with routine maintenance performed by the City on a stormwater outfall located near the corner of Plumber Way and Taylor Road. A black oily substance was obstructing the flow from the stormwater outfall that empties into the drainage ditch running alongside Taylor Road. The Streets Division called for a field analysis by City Fire's Hazardous Materials team. A sample was pulled and analyzed both in the field and by a laboratory. It was tested for oil and grease as well as heavy metals. It was found to have significant quantities of cadmium, copper, lead, oil and grease. In excess of three vactor truckloads (approximately 6,000 gallons) were removed from the drainage system. Staff had responded to a complaint regarding an auto detailer at that location. However, several potential sources were discharged to that drainage line and the discharge was well-mixed. Therefore, City legal counsel advised that all businesses that discharge to that line should be notified of the specifics of the incident, the prohibition of illicit discharges to the system and the legal consequences of this Code violation. The intent of the letter was to educate the business community and possibly prevent illicit discharges to the stormwater system in the future.

The second incident involved the discharge of excessive irrigation water to the stormwater conveyance system. While discharges from landscape irrigation in and of itself is not a violation of the City's Stormwater Ordinance, it was presumed that the discharge contained lawn fertilizer because the pooled water supported significant algal growth. Therefore, this incident was viewed as a public outreach opportunity for the Stormwater Management Program. The Water Conservation Program took a regulatory enforcement stance and issued correction notices to the offending parties. In addition, letters describing the situation and its potential impacts to the adjacent creek, Pleasant Grove Creek, were mailed directly to all the residents (over 100 single family homes) in the small urban watershed. There were several attachments included with the letter, *Tips for a Healthy Beautiful Lawn* and 2008 Water Conservation Program Rebates.

This incident data will aid 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, effectiveness outcome during this reporting period.

See appendix for:
Chapter 14.20 of Title 14 of the Roseville Municipal Code
Incident Report form
Hansen Report of Stormwater Discharge Incidents (07/07-6/08)
IDDE map
Bar graph of Stormwater Discharge Incidents (07/07-6/08)
Plumber Way letter and list of recipients
Crocker Ranch letter with attachments and list of recipients

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

The City continues to update 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, which is conducted from May to October.

Weekly outfall evaluations were scheduled during the dry season. Dates and number of outfalls observed and mapped were as follows:

Evaluation Date	Number of outfalls
7/3/2007	25
7/10/2007	17
7/18/2007	22
7/24/2007	31
7/31/2007	11
8/9/2007	16
8/15/2007	17
8/22/2007	14
8/29/2007	50
9/13/2007	15
9/20/2007	21
9/26/2007	10
10/4/2007	13
5/23/2008	9
Total	271

The data collected includes 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.

See appendix for:
CD of Stormwater System Infrastructure 07/08

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.

3) 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.

Status of Measurable Goals

IDDE-4.a: Create Stormwater Ordinance

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.

However, the Stormwater Ordinance is currently under revision 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.

See appendix for:
Draft Revisions of Chapter 14.20 of Title 14 Roseville Municipal Code, Urban Stormwater Quality Management and Discharge Control Ordinance

Effectiveness:
Creating a stormwater ordinance has shown a level 1, Documenting Activities, effectiveness outcome 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 Landowner Education

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

e) Expand City Stormwater Webpage

The City has agreed to expand the City's Stormwater webpage 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.

Status of Measurable Goals

IDDE-5.a: Publish Stormwater Articles

Three stormwater articles were published in the "Environmental Utilities Today" newsletter. An article entitled "Volunteers Needed to Install New Storm Drain Markers" was published in the August 2007 issue. Another article was published in the December 2007 issue entitled "Utility Education Center Set to Open with Classes." The third article entitled "Green Ideas for Controlling Insects" ran in June of 2008. 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 availability on most public counters in City buildings. An article called "Green Guide to Car Washing" also ran in the 2008 summer edition of the City's general newsletter, Roseville Reflections.

The City's website is updated periodically to include new issues of the "EU Today" and "Roseville Reflections" newsletters which contain aforementioned articles. To access these newsletters go to the City's website at www.roseville.ca.us, then 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 sponsored two literature racks at two retail landscape nurseries: Green Acres and Sierra Nursery. 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 (Public Education & Outreach "PO") for:
Copy of EU Today Articles
Copy of Roseville Reflections Articles

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

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

The City's Fire Department inspected approximately 300 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. As a result of these inspections, fourteen (14) businesses were given a written warning by the Fire Department via their inspection report regarding the discharge of pollutants to the stormwater conveyance system. 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. In total, 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.

The City has developed a Charity Car Wash Kit which includes an instructional video that is loaned out to

charitable organizations within the City of Roseville to educate the public and eliminate discharges to the storm drain system.

The City is coordinating with Placer County Environmental Health Department through the Placer Regional Stormwater Coordinating Group (PRSCG) to include a stormwater component in the annual health inspections at retail food facilities. It is anticipated that Placer County will begin a pilot study at restaurants located in the unincorporated area in spring of 2008.

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.

See appendix for:
Charity Car Wash Kit DVD
Charity Car Wash Kit flyer
Charity Car Wash Kit reservation log
BMP Fact Sheets
- Auto Body Repair
- Auto Repair
- Landscaping
- Painting
- Pool Contractors
- Power Washing
- Ready Mix Concrete Suppliers
- Rental Yards
- Food Service

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

IDDE-5.c: Utilize Educational Signs

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.

See appendix for:
Picture of signs

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

IDDE-5.d: Develop and Implement Creekside Landowner Education

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-fifty (1,750) of the "Roseville Creek Awareness Map" and five hundred (500) of the "Roseville Creek Stewardship Resource Guide" 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. 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 landowner education has shown a level 2, Raising Awareness, outcome during this reporting period.

See appendix for:
Roseville Creek Awareness Map
Roseville Creek Stewardship Resource Guide
Open Space brochure
Open Space door hanger

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

IDDE-5.e: Expand City Stormwater Webpage

The City's Stormwater webpage 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 information regarding the storm drain marking program was uploaded to the webpage in an effort to solicit potential volunteers.

In addition, the Stormwater Program participated in the City's Volunteer Action Team via the City Human Resources' webpage, which included advertising on www.MyVolunteerPage.com/roseville in an effort to recruit volunteers for the storm drain marking program. However, this avenue was met with limited success due to the fact that City's new marker installation procedures require operating hand tools to drill the fastener holes. This requires the volunteer possess additional skills and therefore limits the age of the volunteer to over eighteen (18) years of age. However, the increase in durability and longevity of the marker as compared to stenciling or a marker of another material is worth the trade-off of a limited volunteer pool.

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

See appendix (Public Education & Outreach "PO") for:
Screen shots of website updates

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

IDDE-5.f: Implement Storm Drain Stenciling

During this reporting period, the City purchased approximately 5,000 of the storm drain markers used to label existing storm drains. These markers are stainless steel discs 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.

Approximately 540 storm drain markers were installed using volunteers. The volunteer pool consisted of one Eagle Scout Project and two independent volunteers. The Scout installed approximately 300 markers. The two independent volunteers installed approximately 240 markers. City staff performed a spot check to verify proper installation of the markers. The volunteers also provided an electronic spreadsheet denoting the location for each marker.

In addition to installing markers, the Eagle Scout circulated approximately 150 flyers to residents in the neighborhoods surrounding the affected storm drains. The intent of the flyer was to draw attention to the new marker and educate the public about the connection between the storm drain and the local creeks.

The Stormwater Program also worked with the City's Streets Division to install the storm drain markers on main arterials where traffic volumes are so great that it is necessary to have traffic control which renders these locations unsafe for volunteers. The Streets Division installed approximately 890 of the markers along the major roadways in the City.

A grand total of 1,430 markers were installed during this reporting period.

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 (Public Education & Outreach “PO”) for:
Picture of new marker
Map of areas where markers were installed and locations of storm drain

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. (See PO-1 for a complete summary.) 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.

Status of Measurable Goals

IDDE-6.a: Work to Develop Partnerships

The City attends local stormwater meetings such as those of the Dry Creek Water Council (DCWC) and the Placer Regional Stormwater Coordinating Group (PRSCG) 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.

Roseville stormwater program staff attended the PRSCG meetings on July 19, 2007, November 1, 2007, January 24, 2008 and April 24, 2008. The topics discussed included regulatory dates, the Draft Construction Stormwater Runoff Permit, and the development of a stormwater component to the already existing food facility inspection program through Placer County Environmental Health. Attending participants usually included 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 to quarterly due to limitations in staff time of the participating agencies.

Effectiveness:
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 (Public Education & Outreach "PO") for:
PRSCG agendas and meeting minutes

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

IDDE-6.b: Evaluate Level of Stormwater Knowledge

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 DataCycles 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 neighborhood (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.

During this reporting period, the Environmental Utilities Department in conjunction with the Stormwater Program conducted a survey 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.

The questions and responses relating to the Stormwater Program were as follows:

a. Roseville Environmental Utilities provides a number of different programs and services, some of which you may not be as familiar with as others. I'm going to read you a list of services. Please rate each one, using the scale poor, fair, good, or excellent. If you are not familiar with a service, just say so and we'll move on. First, how would you rate Environmental Utilities in terms of its Stormwater management services

	AMONG THOSE RESPONDING
1) Poor	1.3
2) Fair	11.5
3) Good	36.5
4) Excellent	15.0
5) Unfamiliar with service	29.8
8) Undecided/Don't know	6.0

b. How would you rate Environmental Utilities in terms of its integrated pest management program

	AMONG THOSE RESPONDING
1) Poor	2.0
2) Fair	6.5
3) Good	13.3
4) Excellent	5.0
5) Unfamiliar with service	68.3
8) Undecided/Don't know	5.0

c. Do you agree or disagree with the following statement: Everything that enters storm drains is treated and filtered to remove pollution.

	AMONG THOSE RESPONDING
1) Strongly disagree	27.6
2) Somewhat disagree	21.4
3) Somewhat agree	20.4
4) Strongly agree	12.6
8) Undecided/Don't know	18.1

The following statement was read to the participants after the question above was asked. "Stormwater consists of rainwater and runoff from other sources. As it flows from neighborhoods and places of business to storm drains, it collects a variety of pollutants. Unlike water that goes down household sewer pipes that lead to a sewage treatment plant, stormwater currently ends up in our creeks and rivers untreated."

d. How willing would you be to pay a fee of $5 per month above and beyond what you pay now to help protect the water quality of our local creeks from stormwater pollution by funding such things as rehabilitating the storm drain system, public education and outreach activities, and improved methods for detecting illegal discharges?

	AMONG THOSE RESPONDING
1) Willing at $5	45.9
2) Willing at $3	9.3
3) Willing at $2	7.3
4) Not willing at any amount asked	29.6
8) Not sure	8.0

e. EU Today, a newsletter, is published and mailed, to customers every other month with the utility bill. Of the 6 newsletters that were sent to your home in the past 12 months, about how many did you read?

	AMONG THOSE RESPONDING
0) Recalled receiving, but read none	31.2
1) One	7.5
2) Two	11.8
3) Three	12.3
4) Four	4.5
5) Five	2.5
6) All six EU Today newsletters	27.9
7) Doesn't recall receiving any	1.0
8) Recalls receiving, but not specific number	1.3

f. In addition to its newsletter, Environmental Utilities can communicate with you in a variety of other ways. What is the main way you would prefer to receive information about programs and services?

	AMONG THOSE RESPONDING
1) On TV	3.8
2) In the newspaper	3.5
3) In an e-mail	21.6
4) In the regular mail separate from the bill	14.3
5) As a message on the bill	5.3
6) As an insert with the bill	33.1
7) In the EU Today newsletter	12.5
8) By telephone	1.8
9) Other	1.0
10) Undecided/Don't know	3.3

g. Please tell me, yes or no, if you watch, read, or access any of the following:

a. City of Roseville-TV, the local government cable channel

	AMONG THOSE RESPONDING
1) No	68.8
2) Yes	29.3
3) Undecided/Don't know	2.0

b. Reflections newsletter

	AMONG THOSE RESPONDING
1) No	39.8
2) Yes	52.3
3) Undecided/Don't know	8.0

c. Parks and Recreation Guides

	AMONG THOSE RESPONDING
1) No	35.0
2) Yes	61.8
3) Undecided/Don't know	3.3

d. City of Roseville's website

	AMONG THOSE RESPONDING
1) No	52.3
2) Yes	45.5
3) Undecided/Don't know	2.3

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 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 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.

Both surveys asked questions pertaining to the how respondents preferred to receive programmatic information, however the questions were phrased slightly different. Respondents were asked if they had tried to find information regarding waste disposal in utility's bill insert or on the City's website. Other methods of disseminating information were listed as well, but bill inserts (47%) and the City's website (46%) were most favored. Respondents were allow to select all the information sources helpful to them, therefore the cumulative total were greater than 100% for this question. This question was also asked in the 2008 survey with bill inserts again being the preferred method of receiving information (34%). The City's website was not on the list of choices for these questions, but respondents were asked in a later question if they accessed the City's website and 47% responded positively. Other City information resources were listed as well with Parks and Recreation Guide (64%) and Roseville Reflections, the City's general newsletter, (64%) being the most popular. Environmental Utilities Today, which is delivered to Roseville residents as a bill insert, was not considered as a bill insert by the 2008 survey. However, only 13% of survey respondents preferred the EU newsletter. This information will be very useful when choosing the most effective methods of disseminating stormwater management information.

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

See appendix (Public Education & Outreach "PO") for:
City of Roseville Stormwater Response Analysis
2008 Environmental Utilities Residential Program and Services Survey Results.

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 to 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 utmost consideration when formulating the program's outreach activities.

Effectiveness:
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

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 (11%), sediment discharges (16%) and wash water discharges (18%) 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:
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

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:
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

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:

None

Status of Measurable Goals

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

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. Both documents were completed in March, 2007, 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

The City implemented a Stormwater Quality BMP Guidance Manual for Construction and the revised Design/Construction Standards. Both documents were completed in March, 2007, and made available on the City's website.

Date: 7/1/2004 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 staffs 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 requirements checklist.

b) Create Plan Review Checklist

Revised the SWPPP review documents/policy to include more definitive requirements of the current General Permit.

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 is currently in the initial stages of its stormwater management program and 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.

Status of Measurable Goals

CSR-3.a: Create Submittal Requirements Checklist

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

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

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.

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 is currently in the initial stages of its stormwater management program and has not yet gathered enough data to gauge the effectiveness of its programs.

PROPOSED MODIFICATIONS:

None.

Status of Measurable Goals

CSR-4.a: Establish Telephone Line

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

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

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

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

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.

Status of Measurable Goals

CSR-5.a: Establish Inspection Policy Setting Frequency

The City's construction stormwater runoff enforcement program continues to improve in efforts of 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 Runoff is in effect and has been the basis for reporting over this past year. Roseville enforced compliance on (80) active NPDES permits, (24) of those gaining Notices of Termination during the 07/08 season. The City continues (66) active permitted projects into the new season year. The City performed (3,332) Stormwater inspections, resulting in a (91.5%) inspection record, a (10%) effective increase, thus, resulting in an improvement from the previous year. 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

Currently, staff's administrative policies were revised as mentioned above. The City implemented a more effective SWPPP inspection form to work in conjunction with our now on-line electronic documentation system.

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

CSR-5.c: Set Enforcement Actions

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: (24) Citations ($100.00 fine) were issued to a developer or contractor for Stormwater Ordinance violations; (2) Roseville Notice of Violation (RNOV) letters sent to developers/owners for compliance issues. In those cases, compliance was gained and no further enforcement action was necessary; (0) State Notice of Violations received for development projects.

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

CSR-5.d: Set Up Tracking System

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.

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

CSR-5.e: Train Inspection and Enforcement Staff

The City has two full-time Construction Inspectors that perform SWPPP inspections exclusively. This eliminated the need for bi-yearly in-house Stormwater meetings as the Stormwater Inspection team now meets daily/weekly to discuss Stormwater matters. Scheduled for August 2008, the City will co-host a workshop/exam for a State approved Certified Erosion, Sediment and Storm Water Inspector (CESSWI). (4) City Construction Inspectors applied to take the exam and will be attending the workshop.

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 construction-specific 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 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:

As 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.

Status of Measurable Goals

CSR-6.a: Conduct Workshops

The City hosted several informal tailgate training sessions for contractors working in the area. Discussions included proper BMP installation, assessment of necessary BMP's, and enforcement procedures. The City also 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. In addition to tailgate workshops, and as part of the City's outreach program, Public Works Staff finalized it's own "Rainy Season Reminder" letter which was distributed in September to property owners with active projects, (45) letters were sent. City inspection staff also distributed Rainy Season Reminder letters to project superintendents on their job sites, the goal being to generate discussion and awareness of compliance responsibilities.

See appendix (Public Education & Outreach "PO") for:
"Rainy Season Reminder" letter

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

CSR-6.b: Conduct Annual Training Workshops

Although Stormwater inspection staff conducted a series of tailgate trainings in the field in lieu of one all-day workshop, the City arranged and scheduled for August 2008, a co-hosted workshop/exam for a State approved Certified Erosion, Sediment and Storm Water Inspector (CESSWI). Tailgate workshop sessions were as follows:

(1) 1 hour Stormwater Tailgate Workshop: (5/23/08, Highland Reserve 18c, Tim Lewis Communities, 5 Attendees, Topic: General SWPPP/Concrete washout management)

(3) ½ hour Stormwater Tailgate Workshops: (4/29/08, Roseville Crossing, Tharaldson Development, 8 Attendees, Topic: Pollution Control); (2/28/08, Galleria Mall, Westfield, 9 Attendees, Topic: General SWPPP); (9/18/07, Westpark, Lennar, 13 Attendees, Topic: General SWPPP/Home)

See appendix for:
CESSWI workshop/exam registration form
SWPPP workshop rosters

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

CSR-6.c: Train City Staff

Management and Stormwater staff worked on a CASQA subcommittee to develop comments to the proposed Draft General Construction Permit that were submitted by CASQA. In addition, staff also submitted comments on behalf of the City to the SWRCB for the proposed Draft General Construction Permit. Management and Stormwater staff also attended the comment workshop held in Sacramento, CA, as well as the public hearing that followed. Stormwater staff conducted a meeting and solicited comments from key City Capital Improvement Projects management staff to inform them of changes to the new General Construction Permit. Other training was as follows:

<u>Sr. Construction Inspector completed the following training/education:</u>

9/1/2007, Achieved the Certified Inspector of Sediment and Erosion Control (CISEC, #0185)

3/11/2008, Stormwater Quality Training, Placer County, 4 hrs

3/21/2008, CSUS/OWP Stormwater BMP Course, Construction, 2 Continuing Education Units

<u>Construction Inspector completed the following training/education:</u>

3/11/2008, Stormwater Quality Training, Placer County, 4 hrs

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

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

The City continues to update the information on the website pertaining to its construction stormwater runoff program. Specifically, new user friendly pull down menus were utilized and links to the State's 2005 Wet Season Reminder and Monitoring Requirements for Advanced Treatment System documents were included.

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.

PROPOSED MODIFICATIONS:

BMP completed. No proposed modifications.

Status of Measurable Goals

ND-1.a: Assess Development Plan Review

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 have been included as attachments to this Annual Report.

See appendix for:
Preliminary Stormwater Quality Compliance form
Checklist for Stormwater Management Design Plan Submittals

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

ND-1.b: Integrate Technical Criteria

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

Stormwater quality design review training continued throughout the permit year. Training was intensified just before the City adopted the new design standards, 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. Staff attended the California Stormwater Quality Association workshop entitled "Emerging Regulatory Issues" in November 2007. Also, staff sat in on three conference calls for the CASQA Phase II Subcommittee, one each in December 2007, January 2008, and February 2008. Finally, in November 2007, staff met with the Placer Stormwater Coordination Group to discuss permit requirement status.

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

ND-1.d: Develop System for Feedback

Feedback from the City's plan reviewers is occurring in the development section staff meetings. Also, City staff is attending ongoing meetings with the Building Industry Association (BIA) along with other agency stormwater quality representatives from surrounding areas. BIA meetings are addressing implementation goals and challenges with the new design standards.

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.

PROPOSED MODIFICATIONS:

BMP completed. No proposed modifications.

Status of Measurable Goals

ND-2.a: Review Technical Guidance Programs

Post-construction stormwater design standards from other communities and organizations have been reviewed, and information has been evaluated for inclusion in the City's Stormwater Quality Design Manual. Some of the community design standards reviewed include: the Bay Area Stormwater Management Agencies Manual, City of Portland Stormwater Management Manual, Virginia Stormwater Management Program Handbook, and the Denver Urban Storm Drainage Criteria Manual. The California Stormwater Quality Association Handbook for New Development and Redevelopment, and the Stormwater Managers Resource Center were non-agency programs reviewed for technical guidance. Finally, the EPA's National Menu of Best Management Practices for Stormwater Phase II controls was also reviewed and material considered in the development of the City's stormwater quality standards.

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

ND-2.b: Develop Technical Criteria

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.

See appendix for:
Stormwater Quality Design Manual cover and table of contents

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

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

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.

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

ND-3: Post-Construction Ordinance

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

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 is currently in the initial stages of its stormwater management program and has not yet gathered enough data to gauge the effectiveness of its programs.

PROPOSED MODIFICATIONS:

The City has decided to amend the current City “Urban Stormwater Quality Management and Discharge Control Ordinance.” Amendment will further clarify post-contraction design requirements. It will also mandate a maintenance agreement and annual stormwater management permit. This amendment will be submitted for City Council approval in FY 08/09.

Status of Measurable Goals

ND-3.a: Develop Stormwater Ordinance

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 continued to work amending the current Stormwater Ordinance to include recognition of the new Stormwater Quality Design Manual. The amendment will also address post-construction engineering submittals, maintenance agreements, an annual stormwater management permit, inspection procedures and BMP access requirements. The post-construction stormwater quality amendment will be adopted by City Council in the following year (FY 08/09).

Date: 8/8/07 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: NO

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 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.

PROPOSED MODIFICATIONS:

The City has decided to amend the current City “Urban Stormwater Quality Management and Discharge Control Ordinance.” Amendment will further clarify post-contraction design requirements. It will also mandate a maintenance agreement and annual stormwater management permit. This amendment will be submitted for City Council approval in FY 08/09.

Status of Measurable Goals

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

Will be initiated upon Council adoption of revised Stormwater Ordinance. See ND-3.a.

Date: 7/1/2006 Responsible Party: Chris Kraft, Associate Engineer

ND-4.b: Provide Maintenance Guidance

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

ND-4.c: Include Structural Controls in Database

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 will also utilize its GIS software to track the location of BMPs that are privately owned. Some of this information has already been entered into the GIS program. During the next year (FY 08/09), information on new and existing stormwater quality structures will be entered into these two programs. Long-term, the City plans to purchase asset management software to track all of the City's assets. At that time, both the information in Permits Plus and the information in GIS on post-construction BMPs will be migrated to the new asset management software.

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

ND-4.d: Utilize Self-Certification Program

The City is in the process of setting up 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 will be initiated pending Council adoption of the revised Stormwater Ordinance. See ND-3.a.

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

ND-4.e: Include Structural Control Inspections

The City is working to amend the current Stormwater Ordinance to include City inspection procedures, enforcement procedures, and BMP access requirements. The post-construction stormwater quality amendment will be adopted by City Council during FY 08/09.

Effectiveness:

Date: 8/8/2007 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 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.

PROPOSED MODIFICATIONS:

This BMP will be continued into the following year.

Status of Measurable Goals

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

In the past 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: 8/8/2007 Responsible Party: Chris Kraft, Engineering Manager

ND-5.b: Conduct Annual Training

The City will provide 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. 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: 8/8/2007 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 SWPPPs 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 of 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. Both 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

The Stormwater Management Program maintains the SWPPP at the Dry Creek Wastewater Treatment Plant.

Effectiveness
An increase in inspections and visual monitoring at the Dry Creek Wastewater Treatment Plant has resulted in the reduction of non-stormwater discharges at this general industrial permitted site. These discharges include filter back wash water. This is a level 3, Changing Behavior, effectiveness outcome.

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate Engineer

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

The Stormwater Management Program maintains the SWPPP at the Roseville Corporation Yard.

Effectiveness
An increase in inspections and visual monitoring at the Roseville Corporation yard that has resulted in the reduction of non-stormwater discharges at this General Industrial permitted site. These discharges include vehicle wash water . This is a level 3, Changing Behavior, effectiveness outcome.

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate Engineer

MO-1.c: Continue Pollution Prevention BMPs

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.

Effectiveness
By reducing their contributions of pollutants, chlorinated pool water, to stormwater runoff, Parks Department has reached level 4 effectiveness outcome. The Water Division and Electric Department also reduced their contributions of pollutants from their dewatering operations and documented their activities. See MO-1.e.

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate Engineer

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

The City has obtained an NPDES permit for the new Pleasant Grove Wastewater Treatment Plant. The Stormwater Management Program maintains this SWPPP. Roseville Electric developed and maintains the Energy Park's SWPPP. Both facilities now have coverage under the General Industrial Permit and maintain the SWPPPs to address any pollution issues. There were no new facilities identified as qualifying for General Industrial Permit coverage in FY 07/08.

Effectiveness
Including other 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. The implementation of the SWPPPs has allowed the documentation and review of pollution prevention practices, but hasn't resulted in a substantial behavior change or pollutant reduction from these sites.

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate Engineer

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

An inventory of City-owned facilities and properties was created using 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 begun development of an ArcGIS database that will track facility inspections and document potential stormwater issues that may be 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.

See appendix for:
GIS map of department facilities
Location inventory list
Activity database

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate 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 to assist in the identification of specific BMPs for the activities described in the database. Temporary BMPs were implemented when a permanent solution couldn't be identified.

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.

See appendix for:
Detail for water tap
Utility vault inspection form

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate 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 has 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 in an area that drains to the plant's head works.

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 for $199,884.00 each. These new sweepers will be received during FY 08/09.

Pollutants generated during street repair and maintenance are controlled to the MEP. BMPs implemented include increased sweeping of areas being repaired 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.

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.

See appendix for:
Streets activity sheets

Date: 7/1/2006 Responsible Party: Paul Garrison, Associate 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.

Approximately 174,000 feet of stormwater conveyance system piping was inspected and cleaned in FY 06/07. During FY 07/08, the Streets Division purchased a new vactor truck for $356,540.00 that has been designed to remove an increased amount of pollution from the storm drain system as compared to the previous truck. The Streets Division purchased two new street sweepers for $199,884.00 each. These new sweepers will be received during FY 08/09. Ninety percent of the time, Streets was able to sweep residential streets every three weeks.

During FY 07/08, the Stormwater Management Program observed some of the Parks and Recreation maintenance procedures and prescribed BMPs for the activities. When this is accomplished, all the maintenance activities associated with the City's stormwater conveyance system will be assigned respective BMPs.

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.

See appendix for:

Streets and Parks activity sheets

Date: 7/1/2006 Responsible Party: Paul Garrison, Associate Engineer

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

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 have been addressed and the BMPs identified are currently being implemented on a case-by-case basis.

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.

See appendix for:

Parks activity sheets

Date: 7/1/2006 Responsible Party: Paul Garrison, Associate Engineer

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

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: Paul Garrison, Associate Engineer

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

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 spreadsheet mentioned in MO-1.e. BMPs that address the pollutants of concern have been developed and implemented during FY 07/08. Refer to MO-4.a for the training that was provided to the field employees regarding this activity.

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.

See appendix for:
Water tie-in detail
Roseville Electric utility vault dewatering checklists
Electric and Water activity sheets

Date: 7/1/2006 Responsible Party: Paul Garrison, Associate Engineer

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

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: Paul Garrison, Associate 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.

Status of Measurable Goals

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

The City's policy for maintaining stormwater compliance at City construction sites is currently updated to provide the City SWPPP inspectors jurisdiction over 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 will be implemented pending the approval of the State's General Construction Permit. If the language satisfies the requirements in the General Construction Permit it will be implemented at the earliest convenience.

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.

See appendix for:
Draft contract language

Date: 7/1/2005 Responsible Party: Paul Garrison, Associate Engineer

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

The construction element is developing a policy that would require the project manager to ensure that a SWPPP is developed prior to construction. The contractual language will also require compliance with the State's General Construction Permit and local stormwater regulations. This contract language is expected to be developed and fully implemented by the end of FY 08/09.

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.

See appendix for:
Service Agreement form

Date: 7/1/2005 Responsible Party: Paul Garrison, Associate Engineer

MO-3.c: Develop Procedures for Inspections

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.

See appendix for:

Administrative Policies and Procedures for NPDES Stormwater Regulations for Capital Improvement Projects

Date: 7/1/2005 Responsible Party: Paul Garrison, Associate 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.

PROPOSED MODIFICATIONS:

None.

Status of Measurable Goals

MO-4.a: Train City Staff on SWPPP

Stormwater awareness training was provided to Facilities Maintenance (12/7/2006), Streets Maintenance (5/17/2007), Wastewater Collections (6/21/2007), Water Division (2/5/2008), and Electric Department (10/23/2007). These trainings were detailed to each group's specific activities and included specific BMPs that should be implemented in order to prevent prohibited discharges to the storm drain system. Staff was trained on mandates of the Stormwater Management Program and their impact on the activities of City employees/departments. An increase in prohibited stormwater discharge reports from City employees indicates the trainings have raised the awareness of City employees. In FY 07/08, 54 discharges were reported by City employees.

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:
Electric and Water training slides
Electric and Water training rosters

Date: 7/1/2004 Responsible Party: Paul Garrison, Associate Engineer

MO-4.b: Enhance City Training Programs

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: Paul Garrison, Associate Engineer

Section 4: Responsible Party Assignments

Public Education and Outreach

Kelye McKinney
Engineering Manager
(916) 774-5552
kmckinney@roseville.ca.us

Delyn Ellison-Lloyd
Senior Engineer
(916) 746-1748
dellison-lloyd@roseville.ca.us

Public Participation/Involvement

Kelye McKinney
Engineering Manager
(916) 774-5552
kmckinney@roseville.ca.us

Delyn Ellison-Lloyd
Senior Engineer
(916) 746-1748
dellison-lloyd@roseville.ca.us

Illicit Discharge Detection and Elimination

Delyn Ellison-Lloyd
Senior Engineer
(916) 746-1748
dellison-lloyd@roseville.ca.us

Steve Anderson
Hazardous Materials Officer
(916) 774-5821
sanderson@roseville.ca.us

Construction Site Runoff Control

Kelye McKinney
Engineering Manager
(916) 774-5552
kmckinney@roseville.ca.us

Guy Howes
Senior Engineer
(916) 774-5430
ghowes@roseville.ca.us

New Development and Redevelopment

Kelye McKinney
Engineering Manager
(916) 774-5552
kmckinney@roseville.ca.us

Chris Kraft
Engineering Manager
(916) 774-5373
ckraft@roseville.ca.us

Municipal Operations

Delyn Ellison-Lloyd
Senior Engineer
(916) 746-1748
dellison-lloyd@roseville.ca.us

Paul Garrison
Associate Engineer
(916) 746-1722
pgarrison@roseville.ca.us