

# **CITY OF GRASS VALLEY STORMWATER MANAGEMENT PROGRAM PLANNING DOCUMENT**



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# ABBREVIATIONS AND ACRONYMS

**BMP** – Best Management Practice  
**CEQA** – California Environmental Quality Act  
**CWA** – Clean Water Act  
**DEH** – Nevada County Department of Environmental Health  
**MEP** – Maximum Extent Practicable  
**MS4** – Municipal Separate Storm Sewer System  
**NOI** – Notice of Intent  
**NPDES** – National Pollutant Discharge Elimination System  
**RCD** – Nevada County Resource Conservation District  
**RWQCB** – Regional Water Quality Control Board  
**SWMP** – Stormwater Management Program  
**SWPPP** – Storm Water Pollution Prevention Plan  
**SWRCB** – State Water Resources Control Board  
**USEPA** – United States Environmental Protection Agency

# GLOSSARY

**Assessment Tasks** – Assessment tasks are activities to be undertaken by the SWMP Administrator to evaluate the effectiveness of each control measure and associated BMP. Results of these tasks will be included in the Permit Compliance Reports.

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

**Design Standards** – Design Standards are post-construction requirements to incorporate specific structural BMPs into construction projects. Design standards include, but are not limited to, such things as specifying an amount of runoff that must be retained on a site, and prohibiting the direct connection of truck wells in loading docks to the storm drain system.

**Maximum Extent Practicable (MEP)** – MEP is the acronym for Maximum Extent Practicable. MEP is the technology-based standard established by Congress in the Clean Water Act that municipal dischargers of stormwater must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally a result of emphasizing pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). The MEP approach is an ever evolving, flexible and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. The way in which MEP is met varies between communities. The individual and collective activities elucidated in this SWMP becomes the proposal for reducing or eliminating pollutants in stormwater to the MEP.

**Measurable Goal** – definable tasks or accomplishments that are associated with implementing BMPs.

**Minimum Control Measure** – A stormwater program area that must be addressed (BMPs implemented to accomplish the program goal) by all regulated Small MS4s. The six minimum control measures required to be addressed by regulated Small MS4s are referred to as “program elements” in this document.

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

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

**Performance Standards** – Performance Standards are the level of implementation necessary to demonstrate the control of pollutants in stormwater to MEP.

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

- (i) Owned or operated by the United States, a State, city, town, boroughs, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States.
- (ii) Not defined as “large” or “medium” municipal separate storm drains
- (iii) This term includes systems similar to separate storm drains in municipalities, such as systems at military bases, large hospital or prison complexes, and highways and other thoroughfares. The term does not include separate storm sewers in very discrete areas, such as individual buildings.

**Significant Redevelopment** – Significant Redevelopment means land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site. Where redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality control requirements, the entire project must be mitigated. Where redevelopment results in an alteration to less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post development stormwater quality Design Standards, only the alteration must be mitigated, and not the entire development. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Existing single-family structures are exempt from the redevelopment requirements.

**Storm Water Pollution Prevention Plan (SWPPP)** – A documented step-by-step process for ensuring that pollutants from a site and its activities are not making their way into the stormwater discharges from the site. Specifically, the pollution prevention plan requires that you select and implement best management practices, including schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution in stormwater from the site.

**Waters of the State** – Any surface water or groundwater, including saline waters, within the boundaries of the State.

# EXECUTIVE SUMMARY

The City of Grass Valley (“the City”) has developed this Stormwater Management Program (SWMP) Planning Document to address stormwater quality within the City’s jurisdiction. The SWMP will address a wide variety of activities conducted in urbanized areas of the City that are sources of pollutants in stormwater. This planning document is submitted with the Notice of Intent to comply with the permit, indicating the City’s commitment to managing properties, facilities and operations within its jurisdiction to protect appropriately its stormwater resources.

The SWMP is comprised of six program elements, namely:

1. **Public Education and Outreach** – Provides for the education of the general population and businesses about stormwater quality.
2. **Public Involvement and Participation** – Establishes opportunities for the public to participate in the development and implementation of pollution prevention measures.
3. **Illicit Discharges** – Establishes a program to identify and eliminate illicit discharges to the storm drain system.
4. **Construction Activities** – Establishes controls to reduce pollutants from construction activities.
5. **New Development and Redevelopment** – Creates opportunities for the installation of permanent stormwater controls on new development and major redevelopment projects.
6. **Municipal Operations** – Requires the City to implement stormwater quality control measures at City maintenance facilities and in field operations (e.g., street sweeping).

Each program element consists of various control measures, as shown in this table:

Control Measure Acronym	Control Measure Title
<i>Public Education and Outreach</i>	
PEO1	Develop and Broadcast a Coordinated Stormwater Message
PEO2	Educational Activities and Materials for Schools
<i>Public Involvement and Participation</i>	
PIP1	Public Input on the SWMP
PIP2	Community Volunteerism and Participation
<i>Illicit Discharges</i>	
ID1	Stormwater Quality Control Ordinance for Illicit Discharge
ID2	Illicit Discharge Detection and Elimination Activities
<i>Construction Activities</i>	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
CA4	Compliance with the Construction Activities Storm Water General Permit for City Projects
<i>New Development and Redevelopment</i>	
NDRD1	Stormwater Quality Control Ordinance for Post-Construction Controls
NDRD2	Land Development Plan Review
NDRD3	Post-construction Stormwater BMP Maintenance

Control Measure Acronym	Control Measure Title
<i>Municipal Operations</i>	
MO1	Employee Education and Training
MO2	Roadwork Activities
MO3	Storm Drain System Maintenance
MO4	Stormwater Management Practices at Municipal Facilities
MO5	Parks and Open Space Maintenance

Control measure fact sheets have been prepared and include:

- **Objective:** Provides a brief description of the activities, sources, or pollutants to be addressed by the control measure.
- **Description:** Describes the activities, sources or pollutants to be addressed by the control measure.
- **Existing BMPs and Related Activities:** Describes current practices and activities associated with this control measure.
- **Measurable Goals:** Describes the quantifiable goals of the control measure, including activities to be conducted by the City to comply with the stormwater regulations.
- **Assessment Tasks:** Provides tasks to be conducted to help assess the effectiveness of the control measure to reduce pollutants in urban runoff. These assessment tasks are a quantitative approach to verifying the City's efforts to implement the control measure
- **Responsibility:** identifies City departments and positions responsible for implementing the control measure.

Several City government departments will implement various tasks outlined in this planning document. Many of these tasks are complimentary with existing City programs and efforts. The SWMP Administrator position is new for the City. This person will oversee the implementation of the control measures and related activities, evaluate their effectiveness, and strive to improve the program over time.

Full implementation of the SWMP will be a long-term process. Considered together, the program elements, with control measures and associated BMPs, form a comprehensive programmatic framework that reduces pollutants in stormwater to the maximum extent practicable. Implementation will be monitored and program effectiveness assessed annually over the permit period. The SWMP will be revised annually as necessary to address areas identified as deficient during the effectiveness evaluation process.



# 1 INTRODUCTION

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The City of Grass Valley (“the City”) has developed this Stormwater Management Program (SWMP) Planning Document to comply with a statewide general permit for discharging stormwater to Waters of the State. The SWMP addresses a wide variety of activities conducted in urbanized areas of the City that are sources of pollutants in stormwater. This document has been developed primarily through the efforts of the Public Works Department, in collaboration with other City departments. Copies of this document and other information can be obtained in the main lobby of the Public Works Department or by contacting the SWMP Administrator at (530) 274-4351.

## 1.1 Legal Authority Requiring the SWMP

The Clean Water Act, originally enacted in 1972, embodies the legal requirement for protecting beneficial uses in Waters of the State. The United States Environmental Protection Agency (USEPA) was created as the federal government agency tasked to carry out the mandate of protecting the nation’s natural environment. The USEPA initially focused its efforts on point source discharges of pollutants, primarily wastewater from industrial and municipal treatment facilities.

More recently, diffuse sources of pollutants (often referred to as “nonpoint” sources to distinguish them from point source) have been recognized in many areas as significant contributors. Although urban stormwater is diffuse in nature it is discharged through outfall points and therefore is classified as a point source. As a result, USEPA has recently begun to regulate municipal stormwater discharges as point sources by requiring these municipalities to obtain a National Pollutant Discharge Elimination System (NPDES) permit.

In response to the 1987 Amendments to the Clean Water Act (CWA), USEPA developed Phase I of the NPDES Storm Water Program in 1990. Beginning at that time, municipalities with populations greater than 100,000 began to develop and implement stormwater management programs. In California, Phase I municipalities now have individual NPDES permits, administered by Regional Water Quality Control Boards (RWQCB).

Phase II of the regulations require municipalities with smaller populations – but still urban communities – to develop and implement stormwater management programs. In California, the State Water Resources Control Board (SWRCB) adopted, on April 30, 2003<sup>1</sup>, the *General Permit for Discharges of Storm Water From Small Municipal Separate Storm Sewer Systems* (hereafter the “Small MS4 General Permit” where MS4 stands for Municipal Separate Storm Sewer System), to which all designated municipalities must submit a Notice of Intent (NOI) to seek coverage under the Small MS4 General Permit. The nine Regional Water Quality Control Boards, as the designated regional authorities under the SWRCB, administer the Phase II permit program.

The City of Grass Valley was identified by the SWRCB as a municipality that would be subject to this permit because 1) it discharges stormwater to sensitive waterbodies (Yuba and Bear Rivers) listed as impaired, and 2) the area’s population density is greater than 1,000 residents per square mile (in fact, there are more than 2,600 residents per square mile). As a specially

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<sup>1</sup> The general permit and related documents can be viewed at the State Water Resources Control Board’s web site: “<http://www.swrcb.ca.gov/stormwtr/municipal.html#phaseii>”.

designated community, the City had 180 days subsequent to adoption of the Small MS4 General Permit to comply (setting the date as October 27, 2003).

To comply with the permit, the City must implement best management practices (BMPs) that reduce pollutants in stormwater to the “maximum extent practicable” (MEP). MEP is the technology-based standard established by Congress in CWA §402(p)(3)(B)(iii). Technology-based standards establish the level of pollutant reductions that dischargers must achieve. MEP is generally a result of emphasizing pollution prevention and source control BMPs as the first lines of defense in combination with treatment methods serving as additional lines of defense, where appropriate. The MEP approach is an ever-evolving, flexible and advancing concept, which considers technical and economic feasibility. As knowledge about controlling urban runoff continues to evolve, so does that which constitutes MEP. The way in which MEP is met may vary among communities.

Consistent with USEPA guidance, the Small MS4 General Permit requires the City to develop and implement six “minimum control measures” (referred to as “program elements” for the SWMP). These six program elements are:

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge
4. Construction Activities
5. New Development and Redevelopment
6. Municipal Operations.

In addition, the City may choose to include other program elements applicable to the community environment. In choosing control measures and their associated BMPs for these program elements, the City considers technical feasibility, effectiveness, cost, and public acceptance.

This planning document is submitted with the Notice of Intent (NOI) to comply with the Permit, indicating the City’s commitment to managing properties, facilities and operations within its jurisdiction to protect appropriately its stormwater resources.

## **1.2 City Description**

The City, a historic gold mining town dating back to 1850, is now an incorporated municipality in Nevada County. Nestled in the forested Sierra foothills between Sacramento and Lake Tahoe, the area receives an average of 55 inches of precipitation annually. With four distinct seasons, Grass Valley features an exceptional quality of life with diverse outdoor recreation, abundant cultural activities, a low crime rate, a new Sierra College campus and a thriving high-tech industry base. The general picture is one of a small town character with single-family homes.

The total planning area in the City’s General Plan is approximately 9,894 acres, with 2,521 acres situated in the urbanized area of the City (Figure 1-1). State Routes 20, 49 and 174 pass through town. Expansion is nothing new to Grass Valley, having annexed unincorporated portions of Nevada County 85 times since 1940 to achieve its current, irregularly shaped four square miles. The City’s population was 9,475 in 1998, 10,922 in 2000 and continues to grow (approximately 12,000 in mid-2003). Despite the relatively small resident population, the City is the regional economic and cultural center for perhaps seven times that population throughout parts of four Counties. The City already provides a full range of municipal services.

The vast majority of the storm drain system consists of closed, buried pipes. Existing catch basins are commonly flow-through box type, but newer ones may have sumps to trap debris. Deer Creek and Wolf Creek are the main receiving waters of stormwater discharges from the City (Figure 1-2), with the vast majority of the City's rainfall runoff discharging into Wolf Creek. Deer Creek is tributary to Yuba River; Wolf Creek is tributary to Bear River.

### 1.2.1 *Beneficial Uses of Local Waterways*

Designated beneficial uses for Yuba and Bear Rivers, into which the City's stormwater eventually drains, are given in the 1998 Basin Plan<sup>2</sup> as follows:

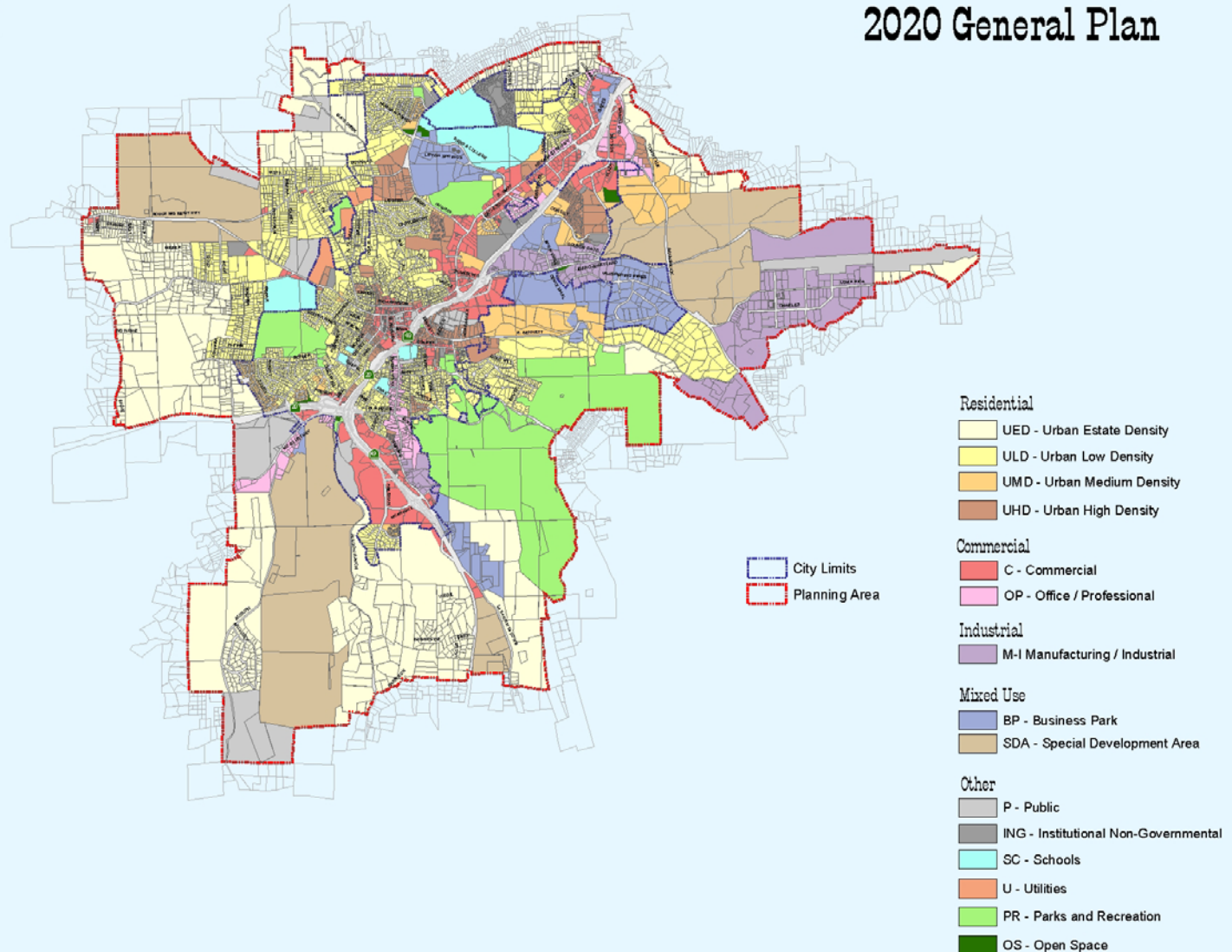
<b>Beneficial Use</b>	<b>Deer Creek to Yuba River</b>	<b>Wolf Creek to Bear River</b>
Water supply		E
Irrigation	E	E
Stock watering	E	E
Power	E	E
Contact recreation	E	E
Non-contact recreation	E	E
Warm water habitat	E	E
Cold water habitat	E	E
Warm water migration	E	P
Cold water migration	E	P
Warm water spawning	E	P
Cold water spawning	E	P
Wildlife habitat	E	E
E = Existing use		
P = Potential use		

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<sup>2</sup> The official title of this document is the "Water Quality Control Plan for the Sacramento and San Joaquin River Basins".



## City of Grass Valley 2020 General Plan



**Figure 1-1. City of Grass Valley limits and planning area.**

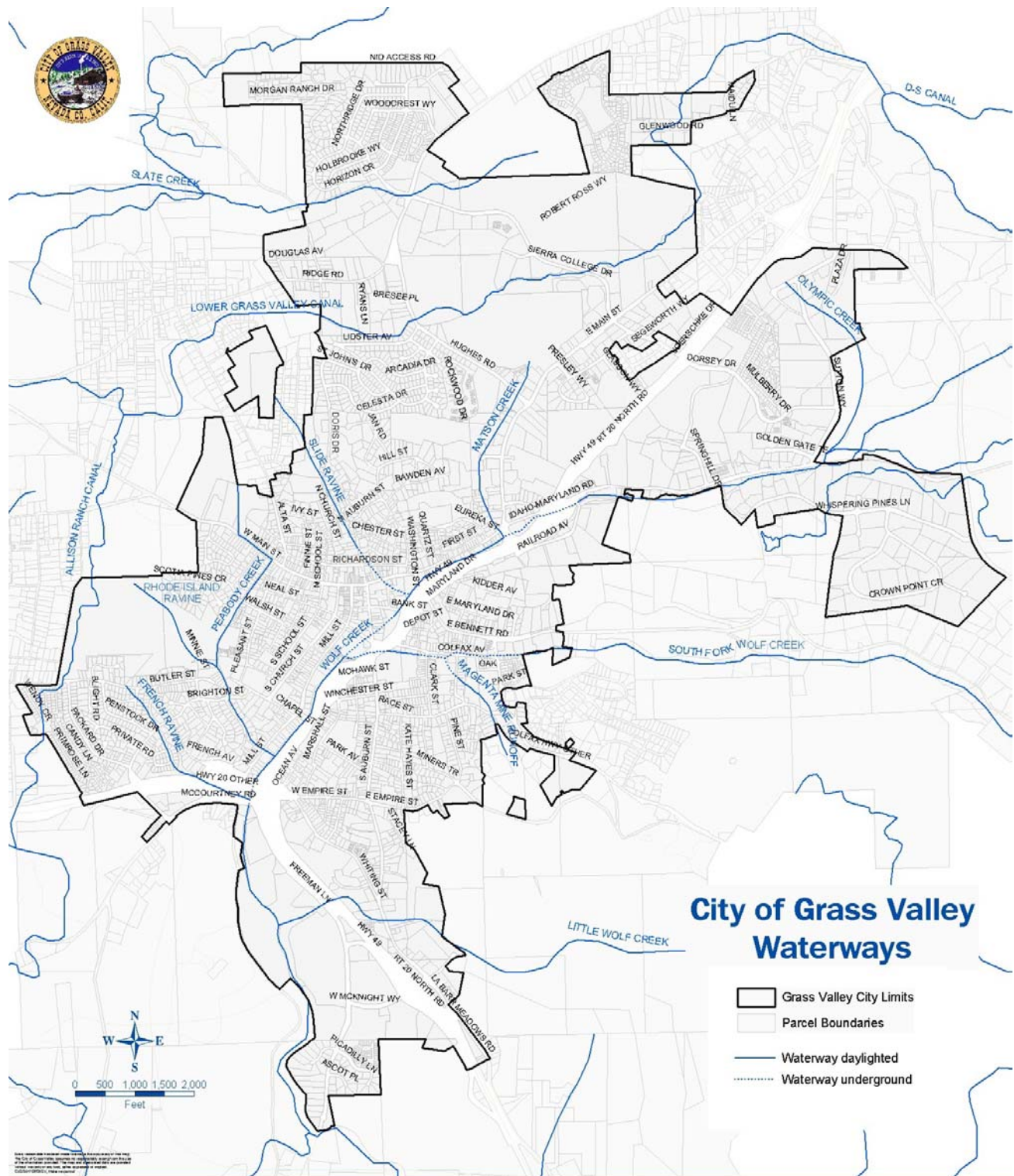


Figure 1-2. City of Grass Valley jurisdictional boundaries and receiving waters.

### *1.2.2 Pollutants of Concern*

Pollutants of concern typically found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons, trash, and pesticides and herbicides. All of these pollutants could negatively impact the existing and potential beneficial uses in these waterbodies. No systematic, comprehensive monitoring of water quality in the receiving waterbodies has been conducted to indicate that different pollutants are of concern for runoff from City properties. The following information is noted to disclose available information, but is not used in the design of this SWMP.

The City's wastewater treatment plant operators have sampled water in Wolf Creek upstream of the facility's outfall (this reach lies below much of the urban developed area). The calculated geometric mean concentration of total coliform bacteria was 1,491 MPN/100 mL, exceeding the water quality objective of 200 MPN/100 mL designated for recreational water contact activity.

City field crews indicate that leaf litter and other yard debris are problematic for inhibiting street sweeping activities and clogging storm drains.

Little Deer Creek, in upstream Nevada City, is listed as impaired for mercury. Data presented by the US Geological Survey and the University of California Davis indicate that nine trophic level 3 fish had an average mercury concentration of 0.32 parts per million (ppm), exceeding the 0.3 ppm criterion. The California Office of Environmental Health Hazard Assessment is in the process of developing a fish consumption advisory for Nevada County based on these data. Although mercury is a potential concern in Grass Valley, the legacy effects of gold mining in outlying areas and waterways are not a focus of this SWMP.

Springs emanating from legacy mining activities also are of interest in the area because they may be discharging highly acidic waters into local streams. These discharges, however, are not controllable by the City and are not addressed in this program to manage stormwater quality.

## **1.3 Elements and Organization of the SWMP Planning Document**

The City's SWMP is a comprehensive environmental program that addresses a wide range of activities found in various City departments. As such, the SWMP builds upon the City's existing environmental programs and activities. The graphic in Figure 1-3 shows the relationship of the program elements, control measures, and BMPs that make up this SWMP Planning Document.





## **1.4 Purpose and Goals of Program Elements**

The purposes and goals of the six program elements are described in this section.

### ***1.4.1 Public Education and Outreach Program Element***

This program element describes the public education and outreach activities that address pollutants in stormwater. The goal is to educate the general population and students about stormwater quality and what they can do about it.

### ***1.4.2 Public Involvement and Participation Program Element***

This program element describes the public involvement and participation activities that address pollutants in stormwater. The goal is to facilitate public involvement in crafting the SWMP and implementing some pollution prevention measures.

### ***1.4.3 Illicit Discharges Program Element***

This program element describes the control measures to eliminate or reduce the discharge of non-stormwater associated with illicit connections and illegal dumping to storm drains. The goal is to reduce the discharge of pollutants to the storm drain system by eliminating connections of wastewater lines, interior drains, and other improper direct connections, by implementing adequate and appropriate spill identification and clean-up plans, and by enforcing City code to prohibit dumping and cross connections to the storm drain system.

### ***1.4.4 Construction Activities Program Element***

This program element describes the control measures to reduce the discharge of pollutants associated with construction activities. The goal is to control pollutants associated with construction activities by requiring the property owner of a construction site to implement adequate water quality control measures (also referred to as “stormwater BMPs”) and by enforcing the implementation of the requirements through adequate plan review and construction site inspections.

### ***1.4.5 New Development and Redevelopment Program Element***

This program element describes the control measures to reduce the discharge of pollutants associated with stormwater from new development and redevelopment projects after construction is complete. The goal is to require permanent (post-construction) stormwater BMPs for land development projects. The design of the BMPs will be verified through the plan review and approval process. This program element also includes measures to ensure the long-term maintenance of permanent BMPs.

### ***1.4.6 Municipal Operations Program Element***

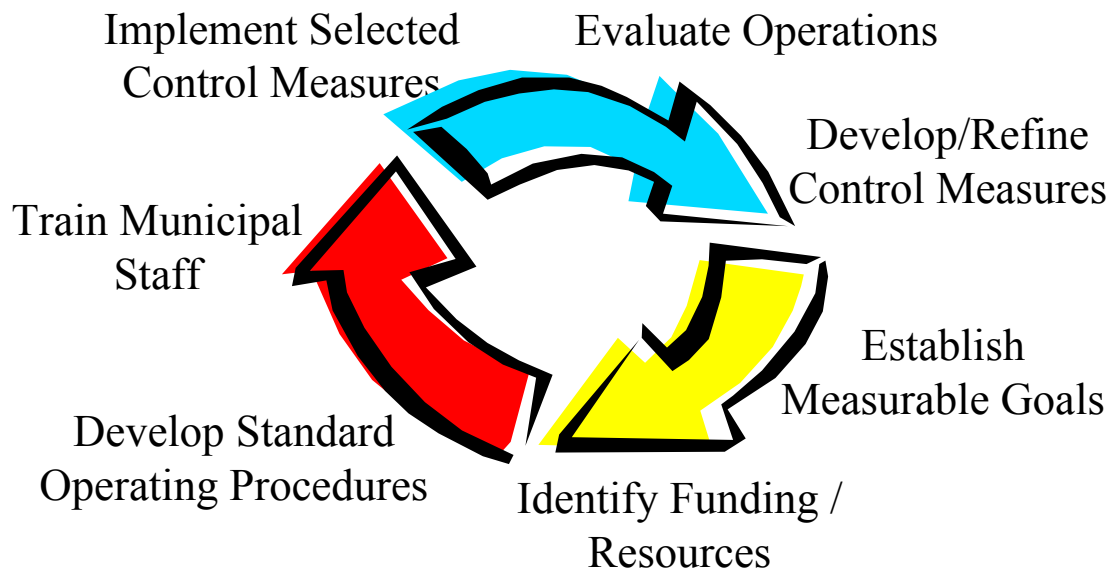
This program element describes the practices and activities to reduce pollutants from municipal activities conducted in public right-of-ways and open spaces and at publicly operated facilities. The goal is to reduce the amount and type of pollutants that (1) collects on streets, municipal public parking lots, public open spaces, and storage and vehicle maintenance areas; and (2) results from maintenance of the storm drain system.

## **1.5 SWMP Implementation**

Full implementation of the SWMP will be a long-term process, following the basic order as shown in Figure 1-4. Implementation will be monitored and program effectiveness assessed at



various stages over the permit period. The SWMP will be revised as necessary to address areas identified as deficient during the effectiveness evaluation process or as more effective BMPs become available. This SWMP Planning Document addresses the complete cycle of assessing the problem, developing a program to address the problem, implementing the program as designed, and evaluating its effectiveness.



**Figure 1-4. SWMP development, implementation, and revision process diagram.**

## 2 PROGRAM ELEMENTS

This section describes the program elements being proposed by the City. These program elements were developed to address the various sources of pollutants in stormwater from the urbanized areas of the City. The control measures have been grouped by program elements as shown in Table 2-A.

**Table 2-A. Control Measures in Each Program Element**

<b>Control Measure Acronym</b>	<b>Control Measure Title</b>
<i>2.1 Public Education and Outreach</i>	
PEO1	Develop and Broadcast a Coordinated Stormwater Message
PEO2	Educational Activities and Materials for Schools
<i>2.2 Public Involvement and Participation</i>	
PIP1	Public Input on the SWMP
PIP2	Community Volunteerism and Participation
<i>2.3 Illicit Discharges</i>	
ID1	Stormwater Quality Control Ordinance for Illicit Discharge
ID2	Illicit Discharge Detection and Elimination Activities
<i>2.4 Construction Activities</i>	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
CA4	Compliance with the Construction Activities Storm Water General Permit for City Projects
<i>2.5 New Development and Redevelopment</i>	
NDRD1	Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs
NDRD2	Land Development Plan Review
NDRD3	Post-construction Stormwater BMP Maintenance
<i>2.6 Municipal Operations</i>	
MO1	Employee Education and Training
MO2	Roadwork Activities
MO3	Storm Drain System Maintenance
MO4	Stormwater Management Practices at Municipal Facilities
MO5	Parks and Open Space Maintenance

Each program element section begins with an introductory statement that discusses the background and regulatory requirements of the SWMP, describes the basic strategy for the control measures provided in the program element section and indicates supporting control measures in other program elements.

Following the introductory section are control measure fact sheets (see Figure 2-1 for an example) that consist of the control measure title and objective, description, existing BMPs and related activities, measurable goals, assessment tasks, and responsible positions in the City government.

At the end of each program element section is a table summarizing the control measure's measurable goals, along with their implementation schedule and responsible position or department.

**Figure 2-1. Illustration of a Control Measure Fact Sheet**

<b>Program Element Title</b>	<b>Control Measure Acronym (example PEO1)</b>
<b>Control Measure Title:</b>	This provides the title of the control measure
<b>Control Measure Objective:</b>	This provides a brief description of the activities, sources or pollutants to be addressed by the control measure.
<hr/>	
<b>DESCRIPTION</b>	
This section outlines the purpose and scope of the control measure.	
<b>EXISTING BMPs AND RELATED ACTIVITIES</b>	
This section describes existing BMPs and activities that address the program requirements. The City itself may not be responsible for all activities (e.g., volunteer groups and countywide programs), but nonetheless the listed activities affect the local community and support the intent of the permit.	
<b>MEASURABLE GOALS</b>	
This section describes the quantifiable goals of the control measure. These activities, to be conducted by the City, fulfill the City's responsibility to comply with the stormwater regulations. Activities include such things as reviewing or developing documents or procedures, providing training, revising schedules, eliminating practices, etc.	
<b>ASSESSMENT TASKS</b>	
This section provides a quantitative approach to verify the City's efforts to implement the control measure and to track effectiveness.	
<b>RESPONSIBILITY</b>	
City staff positions responsible for implementing the control measure are identified. The SWMP Administrator is understood to be responsible for all assessment tasks.	

## **2.1 Public Education and Outreach Program Element**

The Public Education and Outreach Program Element focuses on educating the public and businesses about the potential impact of stormwater discharges on a water body. Increased public knowledge will result in increased public acceptance and support of the program.

### ***2.1.1 Permit Requirements for Public Education and Outreach***

The Small MS4 General Permit requires the City to implement a public education campaign to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff.

### ***2.1.2 Control Measures for the Public Education and Outreach Program Element***

Control measures in this section focus on getting the stormwater message to residents and workers in the City through local media and particularly to children through school programs.

PEO1 aims to develop and broadcast a coordinated program message about stormwater, to be a central component of all outreach material. The message will inform the general public of the value of local waterways, human and environmental health risks associated with pollutants in water, and the goals and activities of the SWMP. With this message, outreach will be conducted in part through the City's twice-annual newsletter. The City will also submit press releases to local newspapers, newsletters and Internet sites, educating readers about stormwater impacts, describing the SWMP, and updating citizens on SWMP activities. Fixed messages will focus on sensitive or popular riparian areas. Information regarding the SWMP will be put on the City's web page and updated as warranted.

PEO2 focuses on education of school-age children on environmental issues related to stormwater. Because of the City's strong relationship with local schools, the City will provide educational material and participate in school activities related to stormwater.

### ***2.1.3 Supporting Control Measures***

Educational materials for building activities will be developed to specifically address construction practices that contribute pollutants to stormwater and to provide pollution prevention measures that developers and contractors can implement to prevent such pollution. Public involvement through City Council and various committees will provide outreach to local officials and interested parties while gathering their input. The storm drain marker program, described as part of the Public Participation element, provides an ongoing educational message to passersby.

Other agencies and groups in the community also take an active role in educating the public about steps they can take to reduce pollutants in stormwater. The Nevada County Resource Conservation District conducts, upon request, workshops on erosion and sediment control methods and other resource conservation measures for contractors, municipalities, and other interested parties. The Nevada County Department of Agricultural conducts outreach on pesticide use for private citizens and municipal staff. The Nevada County Department of Environmental Health publicizes hazardous waste collection events through newspapers, radio public service announcements, and the County web page (see Section 2.3).

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<b>Control Measure Title:</b>	Develop and Broadcast a Coordinated Stormwater Message
<b>Control Measure Objective:</b>	Educate residents about impacts of pollutants in stormwater and about the City's Stormwater Management Program.

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## **DESCRIPTION**

To inform the public about stormwater quality, the City will be creative when deciding which media to use and what types of messages are appropriate for those media. The City also will consider the following questions:

- Who is the audience? (i.e., general public, developers, homeowners)
- How does the audience get its information? (i.e., newspaper, television, trade magazines, utility bills)
- What knowledge base does the audience have?
- Does the audience need to be convinced about the importance of stormwater quality?

## **EXISTING BMPs AND RELATED ACTIVITIES**

- Public Works employees participate in special public events, using a booth to display City activities and information brochures. Events in which City staff have participated include:
  - Nevada County Fair
  - Local farmer's market.
- The City mails out a newsletter (the *Grass Valley City Messenger*) twice annually to all City residences with information about City programs, projects and events. Past newsletters have provided information to local residents on street sweeping, such as the sweeping schedule, and requests to not have yard waste or vehicles on streets on sweeping days. Most local events and construction projects in which the City participates are also announced in the newsletter.
- The reception counter at City Hall provides useful information on City practices and regulations related to stormwater management:
  - Holiday Tree Care Guide
  - Natural Resource Conservation Service information
  - Rezone/Prezone checklist
  - Specific Plan (for land development) information and checklist
  - Tentative Parcel Map checklist
  - Tentative Lot Line Adjustment/Merger information and checklist
  - Tree Removal information
  - Lead-based paints information
  - Zoning Ordinance Standards for residential and commercial Zoning Districts

- The City regularly submits press releases to local newspapers. The City is welcomed to write articles and submit press releases for newsletters published by the following local organizations:
  - **Grass Valley Chamber of Commerce** – Business-to-Business newsletter mailed monthly to all member businesses.
  - **Grass Valley Downtown Association** – *Downtown Focus* newsletter mailed quarterly to all downtown merchants and other interested businesses and individuals.
  - **South Yuba River Citizen's League** – maintains a web site ([www.syrcl.org](http://www.syrcl.org)) on watershed news and issues with input from stakeholders.
  - **Economic Resource Council** – maintains a web site ([www.ncerc.org/index.htm](http://www.ncerc.org/index.htm)) for area businesses and e-mails a quarterly newsletter.
  - **Nevada County Contractor's Association** – mails weekly news bulletin to member building contractors.
- The City has a web site ([www.cityofgrassvalley.com/](http://www.cityofgrassvalley.com/)). Public service announcements of upcoming events and public meetings, and available reports are given through this link.
- Local radio stations (KNCO and KVMR) broadcast public service announcements for public meetings, ordinances, the street sweeping schedule and other City activities.
- City Council meetings, video clips, and public service announcements have been televised on Foothills Cable Access Television, the local cable station. Stormwater announcements promoted by the City of Sacramento are occasionally broadcast.
- The Nevada County Agriculture Department conducts outreach on pesticide use for private citizens and municipal staff.
- Nevada County Department of Environmental Health facilitates hazardous waste pickup days Countywide. Pickup days are scheduled twice annually (each spring and fall) at the Nevada County government center in Nevada City. The County publicizes the events by newspapers, radio public service announcements, and the County web page. A licensed contractor from Marysville collects the waste for disposal outside of the City.
- Nevada County sponsors a billboard on Highway 49 at the southern entrance to Grass Valley to promote recycling of used oil.

### MEASURABLE GOALS

1. Participate annually in public events in the City to promote the SWMP along with other City programs.
2. Create a logo for the stormwater management program by the end of Year 2. Include the logo in publications and on public signs, as appropriate.
3. Write and submit brief articles to the City's newsletter twice annually, focusing on education of stormwater issues in the fall and on successes of the SWMP in the spring.
4. Write and submit articles annually to local media. Potential messages to be used at various opportunities may include:
  - Popular uses of local waterways.
  - Local impacts of pollutants in stormwater.

- Ongoing activities by the City to address pollutants in stormwater.
  - Steps that the public can take to reduce pollutants in stormwater, such as not dumping grease or oil into storm drains.
  - Creation and availability of the SWMP and related information.
  - Human and environmental health risks associated with illegal discharges and improper disposal of waste.
5. Develop and place signs at public use riparian areas and other strategic places throughout the City that promote the SWMP and increase the awareness of stormwater quality concerns. Identified areas (at least two of the following to have signs by Year 5) include:
- Glen Jones Park (along Wolf Creek)
  - Hennessey School
  - Litton Trail
  - Condon Park (throughout)
  - Memorial Park Creek.
6. Develop (in Year 2) and maintain a web site on the SWMP through the City's web site ([www.cityofgrassvalley.com/](http://www.cityofgrassvalley.com/)).
- a. Review stormwater web pages developed by other municipalities for applicability, including:
    - Marin County ([www.mcstoppp.org](http://www.mcstoppp.org)).
    - City of Los Angeles (<http://www.lastormwater.org/>).
    - Sacramento County (<http://www.sacstormwater.org/>).
    - The Stormwater Resource Center (<http://www.stormwatercenter.net/>).
  - b. Include information related to the SWMP on the web site:
    - Download the Small MS4 General Permit
    - Download this SWMP document
    - Contact information for the SWMP Administrator
    - Notices of public involvement and volunteer opportunities (see PIP2).

## **ASSESSMENT TASKS**

1. Document placement of stormwater awareness signs in public use riparian areas.
2. Record any comments or suggestions made by the community regarding outreach materials.

## **RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing these activities. The Public Works Administration Division will assist with developing a SWMP web site.

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<b>Control Measure Title:</b>	Educational Activities and Materials for Schools
<b>Control Measure Objective:</b>	Utilize the positive relationship between City staff and schools to provide educational materials.

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## **DESCRIPTION**

Providing stormwater education through schools exposes the message not only to students but to their parents as well. These children will learn about environmental issues early and will therefore become interested and perhaps involved at earlier ages. The City's role will be to support schools' efforts to educate students about stormwater, not to dictate what programs and materials the school should use.

## **EXISTING BMPs AND RELATED ACTIVITIES**

- The Nevada County Engineers Association, the South Yuba River Citizen's League, and Friends of Wolf Creek, two local volunteer organizations, conduct presentations at schools about the local environment.
- City employees make public presentations to schools and participated in school forums when requested. Public Works have promoted parks cleanups, cemetery clean ups, fostered and facilitated field trips throughout the parks (eg; Condon arboretum, biological mapping projects, etc.). The Fire Department provides educational literature regarding vegetation removal for fire control but they also emphasize what fires can do to create erosion and what good land conservation requires (eg; hydroseed, straw, etc.).

## **MEASURABLE GOALS**

1. Investigate (in Year 1) existing K-12 environmental school curriculums related to stormwater issues being implemented by other municipalities (potentially contacting the cities of Nevada City, Auburn, Truckee, and Marysville) to incorporate into the City's school program.
2. Work with the school district to develop presentations to students regarding stormwater and the City's SWMP. Conduct visits to at least one local school each fall (beginning in Year 2) to educate students on stormwater impacts.
3. Work cooperatively with the school district to develop and incorporate a K-12 education packets to educate school-age children in at least one grade set (elementary, junior high, or high) regarding pollutants in stormwater, their impacts, and how they can be reduced.

## **ASSESSMENT TASKS**

Quiz students attending presentations to gage their reception of the stormwater message. The City of Sacramento stormwater program's quiz for kids on stormwater may be used as a template (<http://www.sacstormwater.org/fun/quiz1.htm>).



### **RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing this control measure with support from all staff interested in school-related activities.

**Table 2-B. Public Education and Outreach Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Public Works	Comm. Devel.	Streets & Parks	PW Admin.	Other
<b>PEO1 Develop and Broadcast a Coordinated Stormwater Message</b>											
1. Participate annually in public events in the City to promote the SWMP.						●					●
2. Create a logo for the stormwater program by the end of Year 2. Apply logo as appropriate.						●		○	○	○	○
3. Submit brief articles to the City's newsletter, focusing on education of stormwater issues in the fall and on successes of the SWMP in the spring.						●					
4. Write and publish articles twice annually to local media.						●					
5. Develop and place signs to be placed at the ponds, creeks, parks and other strategic places throughout the City that promote the SWMP and increase the awareness of stormwater quality concerns.						●			●		
6. Maintain a web page on the SWMP through the City's web site.											
a. Review stormwater web pages developed by other municipalities.						●					
b. Include pertinent information on the web site.						●				●	
<b>PEO2 Educational Activities and Materials for Schools</b>											
1. Investigate existing K-12 environmental school curriculums being implemented by other municipalities to incorporate into the City's school program.						●					
2. Work with the school district to make presentations to students regarding the SWMP.						●	○				
3. Work cooperatively with the school district to develop and incorporate a K-12 curriculum.						●					



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal



Individual or department to take lead in the development or implementation of an activity.



Individual or department to provide strong support in the development or implementation of an activity.



Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.2 Public Involvement and Participation Program Element**

The Public Involvement and Participation Program Element focuses on inviting the public and businesses to take part in efforts to reduce pollutants in stormwater. Through participation, the public can provide valuable input and assistance in program development and implementation. Increased public involvement and participation result in increased public acceptance and support of the program, and help to ensure a successful and effective program to reduce stormwater pollutants.

### *2.2.1 Permit Requirements for Public Involvement and Participation*

The Small MS4 General Permit requires the City to comply with State and local public notice requirements when implementing the SWMP. Consequently, the SWMP must be properly noticed and heard. The ultimate success of the SWMP will depend on a public that is actively engaged. Thus, the SWMP should<sup>3</sup>:

1. Involve the public in the continuing development and refinement of the SWMP;
2. Encourage public participation in developing and implementing the SWMP;
3. Allow the public to review the SWMP; and
4. Include a procedure to receive and respond to comments from the public regarding the SWMP.

### *2.2.2 Control Measures for the Public Involvement and Participation Program Element*

The Grass Valley community has a strong sense of community participation that will be garnered for this program element.

PIP1 promotes public input on the SWMP. The City will comply with all State and local public notice requirements for the adoption of the SWMP. City staff will give annual presentations to City Council or to an appropriate committee to educate representatives about the importance of stormwater quality and update them on progress of the SWMP.

PIP2 facilitates local volunteer activities. The City will maintain contact with local volunteer organizations regarding local stream clean up and monitoring efforts to provide assistance. The City will also confer with the County's storm drain marker program to purchase more permanent storm drain markers to be cemented onto City drain covers, as needed.

### *2.2.3 Supporting Control Measures*

Educational material may encourage citizens to participate or volunteer in various municipal programs such as inlet marking, and to review and comment on the SWMP. Educational material for construction activities specifically address business practices that contribute pollutants to stormwater and provide pollution prevention measures that developers can implement to prevent such pollution. The current version of the SWMP and Small MS4 General Permit will be available at City Hall and through the City's web site (PEO1).

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<sup>3</sup> Note that these specific items are not explicitly stated in the permit.

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<b>Control Measure Title:</b>	Public Input on the SWMP
<b>Control Measure Objective:</b>	Promote public participation in the development and review of the SWMP.

---

## DESCRIPTION

Public involvement and public participation naturally require the inclusion of stakeholders. Stakeholders are individuals or groups in the community that are most affected by or interested in a municipality's SWMP. Stakeholders might include citizens, local school groups, community leaders, local and state government representatives, and business owners in the watershed. Their input will provide valuable information and guidance for appropriate implementation of the SWMP.

Local officials are the link between the City's citizens and employees. Providing outreach to these representatives will make them aware of various activities related to the SWMP and encourage support for planned activities.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City complies with all existing State and local public notice requirements regarding the adoption of public plans or policies. Press releases are submitted to *The Union* (Grass Valley's local newspaper), and notices are posted at prominent locations in the City.
- Two commissions with members appointed by City Council provide public forums for citizens to discuss and recommend changes to the SWMP:
  - **Parks and Recreation Commission** – responsible for formulating and proposing programs, activities, resources, plans and development designed to provide for the future growth and development of the community parks and recreation system. The Commission may also make recommendations regarding parks and recreation related activities and expenditures. The Commission typically meets on the third Monday of each month
  - **Planning Commission** – responsible for advising the Council on planning and development in the City, land divisions, zoning, special use permits, variances, General Plan amendments, proposed ordinances, and related issues.
- Special advocacy groups that participate in developing aspects of urban plans that may impact stormwater include:
  - **Nevada County Contractors Association** – advocates building contractors' positions on development issues.
  - **Nevada Irrigation District** – water purveyor with major rights to water in Wolf Creek.
- In producing the first edition of this SWMP, interested stakeholders were invited to participate in a workshop through the public notification process. The workshop was held on May 8 from 6 to 8 PM at Fire Station 2 on Sierra College Drive. Attendees included City staff, a representative from the RWQCB, an erosion control specialist from the USDA Natural Resources Conservation Service, and a major local developer.

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## MEASURABLE GOALS

1. Continue to submit press releases to *The Union* (Grass Valley's local newspaper), and post notices at prominent locations in the City. In addition, notify local stakeholder groups (advocacy groups and volunteers) annually that the SWMP is available for review and comment. Provide contact information and the schedule for receiving and addressing comments. At a minimum contact:
  - Nevada County Contractors Association
  - Nevada Irrigation District
  - South Yuba River Citizen's League
  - Friends of Wolf Creek
  - Yuba River Watershed Council.
2. Present, concurrently with annual Permit Compliance Reports, the SWMP to City Council or an appropriate committee to provide:
  - Education on the importance of protecting stormwater quality in urban environments.
  - Education on the hazards, including human and environmental health risks, associated with illegal discharges and improper disposal of waste
  - Description of the SWMP's control measures and an assessment of their effectiveness
  - Update on current activities, measurable goals, and the implementation schedule in the SWMP
  - Solicitation of comments and concerns regarding local stormwater issues and the SWMP.

## ASSESSMENT TASKS

Receive and respond to comments regarding the SWMP.

## RESPONSIBILITY

The SWMP Administrator is responsible for communicating with stakeholders, presenting to City Council, and addressing comments for updating the SWMP. The Public Works Administration Division will support the presentations to City Council.

---

<b>Control Measure Title:</b>	Community Volunteerism and Participation
<b>Control Measure Objective:</b>	Promote voluntary public participation in the implementation of the SWMP.

---

## DESCRIPTION

An effective way to promote stormwater awareness is to support volunteer activities. Many people are unaware that storm drains discharge rainfall runoff directly into local waterbodies. Awareness campaigns, monitoring and cleanup activities allow concerned citizens to become directly involved in stormwater pollution prevention. As a result, streams become cleaner, volunteers feel a sense of accomplishment, and the community at large is better informed.

## EXISTING BMPs AND RELATED ACTIVITIES

- Several volunteer organizations are active in the community:
  - **South Yuba River Citizen's League (SYRCL)** – A community-based educational nonprofit corporation committed to the protection, preservation and restoration of the entire Yuba Watershed. The League works to fulfill its mission by aggressively seeking environmental solutions through the tools of education, organization, collaboration, litigation and legislation.
  - **Yuba River Watershed Council** – The Council represents a diversity of interests in the Yuba Watershed including local, state, and federal agencies, conservation and environmental organizations, and neighborhood associations. The Council is concerned with all issues in the Yuba Watershed and seeks to foster overall watershed health through cooperation, information and education. Its priorities include water quality, public safety, flood control and fuels management.
  - **Friends of Wolf Creek** – A community-based volunteer organization committed to protecting and enhancing the value of Wolf Creek, which passes through the City.
  - Various school groups, Scouts, and churches.
- In 1994, the Nevada County Used Oil Recycling Program, Department of Environmental Health (DEH), purchased stencils and paint for storm drains. They provided organizational and logistical support to various volunteer organizations (high school groups, Boy Scout troops, California Conservation Corps) who painted all drains in the downtown area. The stencil reads:

“No Dumping – Flows to Creek”
- In 2002, the Nevada County Resource Conservation District (RCD) supervised a citizens monitoring program. Participants sampled creeks and rivers around the county to measure sediment, nitrate, phosphate, and *E. coli* concentrations. Results will be available for review in early 2003 at [www.ncrcd.org](http://www.ncrcd.org).
- The Nevada County RCD selects individuals or groups in the area for Conservationist of the Year awards (approximately four per year). Many of the principals espoused by the selection committee are inherently compatible with the principals of maintaining high stormwater quality.

## MEASURABLE GOALS

1. Offer to assist with stream clean-up efforts within the City planning area coordinated by local volunteer organizations by providing material (tools, trash bags, trash collection) support. Facilitate one weekend of activity annually in Years 2-5, as needed.
2. Assist with a storm drain stenciling program within the City's jurisdiction, coordinated by Nevada County DEH. Stencil (or mark) at least 90% of the drain inlets within the City by Year 5.

## ASSESSMENT TASKS

1. Document local stream clean-up activities facilitated. Quantify area covered and trash removed to make inter-annual comparisons.
2. Record the total number and percent of City storm drain inlets with stencils.

## RESPONSIBILITY

The SWMP Administrator is responsible for maintaining contact with volunteer organizations and supporting their activities, as appropriate. The SWMP Administrator will review monitoring results of local waterways.

**Table 2-C. Public Involvement and Participation Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Public Works	Planning	Streets & Parks	PW Admin.	Other
<b>PIP1 Public Input on the SWMP</b>											
1. Notify stakeholders that SWMP is available for review and comment.						●					
2. Present, concurrently with annual Permit Compliance Reports, the SWMP to City Council or to an appropriate committee or commission.						●	◐	◐	◐	◐	◐
<b>PIP2 Community Volunteerism and Participation</b>											
1. Offer to assist with annual stream clean up efforts within the City planning area coordinated by local volunteer organizations.						●	◐		◐		
2. Assist with a storm drain stenciling program within the City's jurisdiction, coordinated by Nevada County DEH.						●	◐				



Continuing activity, reviewed or revised as needed throughout implementation

One-time activity to develop or implement a measurable goal



Individual or department to take lead in the development or implementation of an activity



Individual or department to provide strong support in the development or implementation of an activity



Individual or department to review and provide comments and guidance during the development or implementation of an activity



## 2.3 Illicit Discharges Program Element

The Illicit Discharges Program Element focuses on detecting and eliminating illicit discharges into storm drains. Most municipal storm drain systems convey flows other than stormwater. These non-stormwater flows enter storm drains from a variety of sources, such as landscape irrigation. Illicit discharges are another source of non-stormwater that enters storm drains through illicit connections and illegal dumping. An illicit connection is a physical connection to a storm drain that has not been approved by an agency and that conveys a prohibited non-stormwater discharge. Illegal dumping is the dumping of prohibited materials into the conveyance system, streets, inlets or basins, or the improper disposal of material on land that is then discharged to storm drains when it rains. Non-stormwater caused by illicit discharges can be a source of pollutants that may adversely impact receiving waters.

### 2.3.1 *Permit Requirements for Illicit Discharge Control*

The Small MS4 General Permit requires the City to:

1. Develop, implement and enforce a program to detect and eliminate illicit discharges into the regulated Small MS4.
2. Develop, if not already completed, a storm drain system map, showing the location of all outfalls and the names and locations of all Waters of the State and other MS4s that receive discharges from those outfalls;
3. To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-storm water discharges into the MS4 and implement appropriate enforcement procedures and actions;
4. Develop and implement a plan to detect and address non-storm water discharges, including illegal dumping, to the system that are not authorized by a separate NPDES permit;
5. Inform public employees, businesses, and the general public of hazards including human and environmental health risks associated with illegal discharges and improper disposal of waste; and
6. Address the following categories of non-storm water discharges or flows (i.e., authorized non-storm water discharges) only where they are identified as significant contributors of pollutants to the Small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR §35.2005(20)) to separate storm sewers, uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, springs, water from crawl space pumps, footing drains, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, and dechlorinated swimming pool discharges

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

Compliance with Item 5 (see above: “5. Inform...”) is closely tied to – and is addressed in – the Public Education and Outreach program element.

The Phase II regulations do not require water quality monitoring to detect illicit discharges, although even visual monitoring would detect many symptoms such as high flows, discoloration, or toxic effects. To date, none of the discharges listed in item 6 have been identified as

significant contributors of pollutants to the storm drain system. If a RWQCB Executive Officer determines that any individual or class of non-storm water discharge(s) listed in item 6 may be a significant source of pollutants to Waters of the State or physically interconnected MS4, or poses a threat to water quality standards (beneficial uses), the RWQCB Executive Officer may require the appropriate Permittee(s) to monitor and submit a report and to implement BMPs on the discharge.

### *2.3.2 Control Measures for the Illicit Discharges Program Element*

Illicit discharges are largely controlled through existing activities and policies. Control measures noted here are related to continuing and improving these activities, as well as to providing a more solid legal basis for enforcement.

ID1 reviews existing City ordinances, evaluates model ordinances, and (if necessary) develops a Stormwater Quality Control Ordinance to enforce this program element.

ID2 largely continues existing municipal activities related to detecting and eliminating illicit discharges into storm drains. The existing storm drain system master plan maps will be updated. The storm drain system will continue to be inspected annually. City Divisions will continue to respond to complaints of dumped materials. Because of the County of Nevada's significant role in hazardous materials handling and emergency response, changes to the current response protocol are not warranted. The City will also continue to support Nevada County's hazardous waste collection program.

### *2.3.3 Supporting Control Measures*

Municipal operations such as maintenance of the storm drain system partially address this program element. The Public Education and Outreach and Municipal Operations Program Elements will inform public employees, businesses, and the general public of hazards including human and environmental health risks associated with illegal discharges and improper disposal of waste. Certain industrial facilities are required to obtain separate coverage under a statewide Industrial Activities Storm Water General Permit.

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<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Illicit Discharge
<b>Control Measure Objective:</b>	Adopt a Stormwater Quality Control Ordinance to enforce the illicit discharge detection and elimination program element.

---

## DESCRIPTION

Ordinances are the most effective means for municipalities to enforce prohibition of illicit discharges to storm drains. The City will develop a Stormwater Quality Control Ordinance with language supporting the detection and elimination of illicit discharges by prohibiting such discharges and by providing for enforcement of compliance.

## EXISTING BMPs AND RELATED ACTIVITIES

- City ordinance 8.24 regulates garbage and refuse, including prohibitions against littering, mandatory use of receptacles, collection frequency, and recycling.
- City ordinance 8.36 regulates rubbish on properties.
- City ordinance 13.12 regulates sewage disposal.
- City ordinance 13.20 regulates industrial wastewater.
- City ordinance 15.52 regulates flood damage prevention.

## MEASURABLE GOALS

1. Review and evaluate existing City ordinances regulating illicit discharges to the storm drain system.
2. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program example stormwater management ordinance
  - City of Sacramento's stormwater management ordinance.
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of illicit discharges into storm drains.
  - Draft Ordinance in Year 1.
  - Finalize Ordinance in Year 2.
4. Establish an ordinance enforcement procedure with notification and education tasks as a first step, and penalties if problems continue.

## ASSESSMENT TASKS

1. Record adoption of a Stormwater Quality Control Ordinance with illicit discharge provisions.
2. Record establishment of an ordinance enforcement program.
3. Assess any difficulties encountered when enforcing this ordinance.

---

## RESPONSIBILITY

The SWMP Administrator is primarily responsible for developing the Stormwater Quality Control Ordinance. The Public Works Administration Division and all departments relying on this ordinance for enforcement capability will support this effort with review and input.

---

<b>Control Measure Title:</b>	Illicit Discharge Detection and Elimination Activities
<b>Control Measure Objective:</b>	Maintain City practices aimed at detecting and eliminating illicit discharges.

---

## DESCRIPTION

Identifying and removing illicit discharges is a measure for reducing pollutants in stormwater. Systematic inspection of the storm drain system, combined with a response procedure for public complaints, will effectively control illicit discharges.

## EXISTING BMPs AND RELATED ACTIVITIES

- The Engineering Division maintains a storm drain system master plan map set. The plan was originally designed in 1986, and updated most recently in 1998. The maps indicate:
  - Jurisdictional and drainage area boundaries,
  - Storm drain inlet structures, culverts, and pipes,
  - Outfalls from the storm drain system into Waters of the State,
  - Major drainage ways (Waters of the State) receiving the City's stormwater,
  - Roadways, parking lots, curbs and permanent buildings.
- Complementing the storm drain system maps, the City also has a set of AutoCAD drawings and aerial photos of the City.
- The City annually inspects the storm drain system (inlets, pipes and ditches). Evidence of illicit connections or illegal discharges is investigated.
- Applications for business licenses require that information on handling, storage, use and disposal of hazardous chemicals be sent to Nevada County Department of Environmental Health (DEH). Businesses handling hazardous materials/wastes are required to develop an Emergency Response Plan that includes a spill prevention and clean-up plan.
- Registered industrial facilities with certain Standard Industrial Codes (see <http://www.swrcb.ca.gov/stormwtr/sicnum.html>) require compliance with the Industrial Activities Storm Water General Permit. The essential component for compliance is the development of a Storm Water Pollution Prevention Plan (SWPPP).
- County and City Code Enforcement personnel (supervised by the City's Community Development Director) are allowed entry into facilities with industrial wastewater permits. DEH personnel may, with police accompaniment, enter facilities identified to have potential health and safety issues related to wastewater.
- Several abandoned gold mines in the urbanized area are either permitted individually or their effluent passes through the City's wastewater treatment facility.
- DEH has developed a Hazardous Materials Emergency Response Plan (known as the "Area Plan"), focused on protecting people in the event of a hazardous materials spill. Response procedures are outlined in that document and response teams are trained to implement it. The Fire Department responds first to all spills and leaks of hazardous and non-hazardous materials, including complaints by residents and business reporting illegal dumping or illicit connections to storm drains. The Fire Department, trained in Hazmat Level 1, evaluates the

situation, then appropriately contains and collects the material. Clean-up activities include measures to prohibit or limit flows to storm drains. The Public Works Department, upon request, secures the site and assists with cleanup activities. The County Department of Environmental Health is notified of all spill events and may be called in for technical assistance. The Public Works Department searches for a responsible party and contracts for disposal of hazardous materials, if necessary.

- The City is developing a maintenance program for its sewer collection system, as required by the wastewater treatment facility's new (2003) NPDES permit. The development study will identify maintenance needs and a prioritized project list for improvements to prevent sewer system overflows.

## **MEASURABLE GOALS**

1. Update by Year 2 the existing storm drain system master Atlas Maps (in AutoCAD) to indicate as-built conditions of:
  - Current jurisdictional boundary
  - Storm drain inlets and conveyance structures
  - Source control measures for stormwater
  - Outfalls from the storm drain system into Waters of the State.
2. Conduct visual characterization of the waste material collected from catch basins annually to determine the type of waste material being removed from catch basins inlets.
  - a. Improve the work order form for the storm drain system in Year 2 to classify and quantify pollutants in terms of (1) trash and litter, (2) oil and grease, (3) dirt and sediment, and (4) toxic chemicals.
  - b. Use the checklist as a basis for field staff to alert DEH to investigate evidence of illicit connections or illegal discharges to storm drains in the City.
3. Inspect the sanitary sewer system annually to prevent sewer system overflows.

## **ASSESSMENT TASKS**

1. Maintain records for routine inspections of the stormwater drainage inlets and conveyance system indicating date, location, and observations/activities.
2. Record enforcement actions taken against illicit discharges to the City's storm drain system.

## **RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing this control measure. The Streets & Parks Division, Fire Department, and DEH are mutually responsible for responding appropriately to illicit discharges.

**Table 2-D. Illicit Discharge Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Engineering	Water & WW	Streets & Parks	PW Admin.	Other
<b>ID1 Stormwater Quality Control Ordinance for Illicit Discharge</b>											
1. Review existing City ordinances.						●		○			
2. Evaluate available model ordinances for applicability in the City.						●					
3. Adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of illicit discharges into storm drains.						●				○	○
4. Establish an ordinance enforcement program with penalties.						●					○
<b>ID2 Illicit Discharge Detection and Elimination Activities</b>											
1. Update the existing storm drain system master Atlas Maps (in AutoCAD) to indicate as-built conditions.						○	●				
2. Conduct visual characterization of the waste material collected from catch basins annually to determine the type of waste material being removed from catch basins inlets.											
a. Develop a checklist for visual water quality monitoring of the storm drain system.						●		○			
b. Use the checklist as a basis for field staff to alert DEH to investigate evidence of illicit connections or illegal discharges to storm drains in the City.						●		○			
3. Inspect the sanitary sewer system annually to prevent sewer system overflows.						○		●			



Continuing activity, reviewed or revised as needed throughout implementation  
One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- Individual or department to provide strong support in the development or implementation of an activity.
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.4 Construction Activities Program Element**

Stormwater draining from construction sites can be a significant source of pollutants. Failure to implement adequate erosion and sediment control measures results in increased contributions of sediment to waters compared to what was contributed previously from undisturbed land. Excessive sediment loading can result in severe impacts to water quality. In addition, erosion and sediment transport are vehicles for other pollutants associated with construction activities (such as solvents, petroleum products, trash, pesticides, fertilizers, concrete, stucco, lime and paint).

### *2.4.1 Permit Requirements for Construction Activities*

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

1. An ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions, or other effective mechanisms, to ensure compliance, to the extent allowable under State, or local law;
2. Requirements for construction site operators to implement appropriate erosion and sediment control BMPs;
3. Requirements for construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality;
4. Procedures for site plan review which incorporate consideration of potential water quality impacts;
5. Procedures for receipt and consideration of information submitted by the public; and
6. Procedures for site inspection and enforcement of control measures.

Although the first item allows for “other regulatory mechanisms”, the typical mechanism is an ordinance. Also, although Item 1 indicates that authority is only needed for erosion and sediment control, Item 3 requires other pollutant sources to be controlled as well. This control is also typically addressed by adopting an ordinance.

The permit does not specify which BMPs are to be used at any site. Rather, it is the responsibility of the City to develop its own guidance and standards or to specify measures appropriate for local conditions. Construction sites (or owners/applicants thereof) implicated in this program element (i.e., those which disturb more than one acre of land) are required to obtain coverage under a Construction Activities Storm Water General Permit administered by the SWRCB. Overlap between that permit and this program element will help to ensure implementation of stormwater quality control BMPs at construction sites.



#### *2.4.2 Control Measures for the Construction Activities Program Element*

Control measures presented in this section address construction activities from the land development application approval process through to the completion of construction activities. These measures apply to projects disturbing at least one acre of land either independently or as part of a larger development plan.

CA1 establishes adequate legal authorities, through a Stormwater Quality Control Ordinance if necessary, to require and enforce erosion and sediment control plans and Storm Water Pollution Prevention Plans (SWPPPs). An enforcement program will be developed to support plan review and inspection activities.

CA2 incorporates consideration of potential water quality impacts from construction activities during construction site plan and BMP review procedures. Appropriate control measures for construction activities will be a condition of approval for land development in the City. Plan review staff will verify control measures are included in a project's design during the site plan and BMP review process. Plan reviewers will be trained to enforce these requirements. The City will develop a set of construction standards for erosion and sediment control and pollution prevention. The standard packet provided to prospective developers will be updated to include SWMP requirements.

CA3 implements procedures for conducting construction site inspections and for receiving and responding to information submitted by the public regarding stormwater impacts from construction sites. Inspectors will be trained, as necessary. The City will develop a standard inspection form or checklist to be used in the field to ensure consistent field review. Pre-construction meetings will include discussion of SWPPPs and general erosion and sediment control BMPs. Staff will also facilitate workshops for contractors to educate them on applicable regulations and standards. Facilitators for pre-construction meetings and workshops will be trained to explain the applicable regulations and standards.

CA4 requires the City to address the statewide General Permit for Construction Activity at its own construction sites.

#### *2.4.3 Supporting Control Measures*

Local citizens will be more aware of the importance of stormwater pollutant control measures through public outreach activities. The public participation program element provides mechanisms for the public to notify City inspectors of potential water quality issues.

In addition to the activities carried out by the City, construction sites disturbing greater than one acre of land require separate coverage under the Construction Activities Storm Water General Permit through the RWQCB.

---

<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Construction Sites
<b>Control Measure Objective:</b>	Adopt a Stormwater Quality Control Ordinance to enforce City design standards and requirements for erosion and sediment control and pollution prevention associated with construction activities.

---

**DESCRIPTION**

Ordinances are the most effective means for municipalities to control the discharge of pollutants from construction sites. The City will develop a Stormwater Quality Control Ordinance with language supporting planning and inspection of practices and controls on construction sites to eliminate or minimize sediment and other pollutants from entering storm drains. The ordinance would provide City inspectors with adequate legal authority and enforcement and allow for a fee program.

**EXISTING BMPs AND RELATED ACTIVITIES**

- The City currently requires a grading plan to be submitted with all site improvement plans where the disturbed or earth movement exceeds 50 cubic yards. Final grading plans must be prepared and signed by a registered civil engineer.
- The City currently requires proof of coverage under the statewide Construction Activities Storm Water General Permit for sites disturbing greater than 5 acres.

**MEASURABLE GOALS**

1. Review the statewide Construction Activities Storm Water General Permit.
2. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program example stormwater management ordinance
  - Nevada County grading ordinances.
3. Review existing City ordinances.
4. Adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of sediment and other construction site pollutant discharges into the storm drain system. Require submittal of grading plans, erosion and sediment control plans, and proof of coverage under the Construction Activities Storm Water General Permit to City plan reviewers.
  - a. Draft Ordinance in Year 1.
  - b. Finalize Ordinance in Year 2.
5. Establish an ordinance enforcement program with penalties.

**ASSESSMENT TASKS**

1. Record adoption of the ordinance.
2. Record establishment of an ordinance enforcement program.

3. Assess any difficulties encountered when enforcing this ordinance.

### **RESPONSIBILITY**

The SWMP Administrator is responsible for implementing this control measure. The Public Works Administration Division will assist with developing and promulgating the Stormwater Quality Control Ordinance, as necessary.

---

<b>Control Measure Title:</b>	Construction Activity Plan Review
<b>Control Measure Objective:</b>	Establish standard conditions of approval and engineering design standards and specifications for stormwater BMPs to be used during the land development process. Train staff and regulated community on regulations and standards.

---

## **DESCRIPTION**

Effective planning of construction site activities leads to minimizing erosion and preventing pollutants from entering storm drains. The City will develop or support standards for construction sites. City plan reviewers will be trained to recognize appropriate conditions.

## **EXISTING BMPs AND RELATED ACTIVITIES**

- The Nevada County Resource Conservation District (RCD) conducts workshops on erosion and sediment control methods and other resource conservation measures for contractors, municipalities, and other interested parties.
- A standard packet provided to prospective developers explains the development application process, document submittal requirements for Public Work's review and approval, and required activities during construction.
- The Nevada County RCD is available to develop erosion and sediment control plans on a contract basis.
- To comply with California Environmental Quality Act (CEQA) requirements for all land development applications, the Planning Division establishes mitigation measures to ensure significant environmental impacts will not occur as a result of construction activities.
- Building, Planning, and code enforcement is in the process of upgrading a database system to track all development projects submitted to the City. Each project gets a unique project number and is then evaluated/routed depending on the review needs. The database will record building plans received, reviewed (comments and conditions) and approved/disapproved by City staff.
- All land development applications are reviewed by the Planning Division, which then serves as a clearinghouse for routing information to appropriate departments and sets up meetings. Conditions of approval are established as necessary to ensure compliance with City standards, codes and policy (the General Plan, the Community Design Guidelines, and Engineering policy documents).

## **MEASURABLE GOALS**

1. Review annually and revise/amend (as necessary) the public information sheets available at the Building and Public Works Department to include requirements regarding stormwater pollution prevention:
  - Prohibition of non-stormwater discharges to storm drains,
  - Erosion and sediment control requirements for construction related activities, and
  - Reference to the State's Construction Activities Storm Water General Permit.

2. Initially adopt (in Year 2) erosion control standards developed by the Nevada County RCD, and then modify as necessary over time. Additional resources to review include:
  - USEPA guidance (<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/menu.cfm>).
  - California Construction BMP Handbook (<http://www.cabmphandbooks.org>).
3. Establish (in Year 3) standard conditions of approval for erosion and sediment control and pollution prevention from all phases of construction activities that result in a land disturbance of one acre or more, or less if part of a common plan of development.
  - Establish standard conditions that require proof of coverage (i.e., NOI) under the State's Construction Activities Storm Water General Permit, when appropriate.
  - Establish a standard process for the submittal, review and approval of grading plans.
  - Develop checklists or similar method to be used by Engineering and Planning staff while reviewing applications and plans for compliance with City standards and policies.
  - Maintain permit logs to record erosion and sediment control plans received, reviewed, and commented on.
4. Evaluate current erosion and sediment controls and pollution prevention requirements for construction activities, and develop new requirements or revise existing requirements by Year 4, as needed, for:
  - Grading,
  - Erosion control and sediment control measures such as adding rock to encroachment areas to keep mud off streets, and
  - Construction activities that may cause adverse impacts on stormwater quality.
5. Provide applicable standards and specifications to local construction contractors and developers by amending the standard information packets for development permits.
6. Conduct (in Years 3 and 5) training workshops with the Planning and Building and Public Works Departments.
  - Educate construction contractors regarding the City's policies and standards for construction activities' stormwater BMPs.
  - Train City staff responsible for development application review in construction activity controls.

## **ASSESSMENT TASKS**

1. Receive and respond to comments received regarding public information sheets.
2. Record workshops and training sessions held for construction plan review staff and construction contractors. Assess any points of confusion or contention.

## **RESPONSIBILITY**

The SWMP Administrator is responsible for implementing this control measure. The Public Works Administration Division will assist with scheduling workshops. The City Engineer and Community Development Director will support these efforts.

**Control Measure Title:** Construction Site Inspections

**Control Measure Objective:** Implement a construction site inspection program.

---

## **DESCRIPTION**

Proper construction and maintenance of construction activity BMPs is critical for the protection of water quality. The City will provide adequate inspection during the construction and maintenance of these BMPs.

## **EXISTING BMPs AND RELATED ACTIVITIES**

- Building and Engineering Divisions inspectors visit each construction site as needed during active construction of public improvements to record the activities conducted at the site and to make sure construction is being completed according to plans. Erosion and sediment control measures outlined on grading plans are inspected and inspectors also check for mud and sediment off-site. Generally, problems observed at a site are resolved in the field. Unresolved issues may be reported to the RWQCB.
- Public Works personnel witnessing violations record information and report to the Engineering Inspector for follow-up.
- Water & Wastewater Division staff visit construction sites with water meters to inspect installed water service and meters.
- The Nevada County Resource Conservation District (RCD) is available to inspect erosion and sediment control BMPs for development projects in the City permit area.
- Public complaints regarding construction sites are routed to the appropriate department or division, who responds to each call.

## **MEASURABLE GOALS**

1. Coordinate inspection activities with code inspectors and other field inspection personnel to ensure site inspections are conducted during all phases of construction.
  - Inspect all sites just prior to the beginning of the wet season to ensure that SWPPPs are being adequately implemented.
  - Inspect priority construction sites prior to and following major storm events during the wet season, as practicable.
  - Contract with the Nevada County RCD to monitor erosion and sediment control BMPs for development projects in the City permit area and coordinate responses with City staff.
2. Facilitate pre-construction meetings with Building, Fire, and Engineering staff involved in construction projects when the improvement plans are approved and construction is about to begin. Include a review of erosion and sediment control plans, stormwater pollution prevention measures, and other relevant City requirements regarding stormwater management for the project.

3. Develop in Year 2 a standard inspection form or checklist to be used in the field to ensure consistent review of erosion and sediment control and other stormwater BMPs. The checklist will address the following items:
  - Erosion and sediment control measures, waste management measures, proper storage, use and disposal of construction materials, and chemicals, and any other relevant BMPs
  - Non-stormwater discharges that are not allowed into storm drains (e.g., chlorinated waters from main line testing, concrete wash waters, and contractor equipment rinse waters)
  - Developer actions to comply with the Construction Activities Storm Water General Permit.
4. Train construction site inspection staff in Years 2 and 4. Training may include:
  - Erosion and sediment controls and stormwater pollution prevention requirements for construction activities.
  - Procedures for enforcing code compliance, such as issuance of citations or notices of noncompliance.
  - Conducting pre-construction meetings about the City's stormwater quality issues and policies.
5. Receive and respond to information submitted by the public regarding stormwater impacts due to construction projects through the existing Service Complain Form.

## **ASSESSMENT TASKS**

1. Record the construction sites requiring coverage under the Construction Activities Storm Water General Permit, the number of inspections conducted by City staff, a description of any deficiencies found, type of enforcement action(s) taken, and any follow-up actions taken by the City.
2. Conduct supervisor field spot inspections to verify that inspections are being adequately conducted regarding stormwater BMPs. Consider requesting participation of RWQCB staff.
3. Assess publicly submitted information regarding impacts of stormwater from construction sites recorded on Service Complain Forms.

## **RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing this control measure. The Public Works and Community Development Directors will assist with developing guidance materials and training.

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<b>Control Measure Title:</b>	Compliance with the Construction Activities Storm Water General Permit for City Projects
<b>Control Measure Objective:</b>	The City will comply with the statewide Construction Activities Storm Water General Permit for all sites larger than one acre.

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## **DESCRIPTION**

The statewide Construction Activities Storm Water General Permit requires development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) for all construction activities greater than one acre in size. The SWPPP emphasizes the use of appropriately selected, correctly installed and maintained BMPs. The City, as an exemplary implementing agency, will require all of its designated construction activities to comply with the permit.

## **EXISTING BMPs AND RELATED ACTIVITIES**

- Public Works personnel ensure that all maintenance and capital improvement projects incorporate necessary measures for erosion and sediment control.
- City projects currently comply with all requirements and permits from the Regional Water Quality Control Board, including the Construction Activities Storm Water General Permit.
- The Engineering Division's General Requirements ensure that construction contractors are responsible for temporary erosion control at all times.
  - Temporary erosion control consists of, but is not limited to, constructing such facilities and taking such measures as are necessary to prevent, control and abate water, mud and erosion damage to public and private property as a result of the project.
  - By October 15<sup>th</sup> of each year (or earlier if conditions warrant) temporary erosion control features necessary to prevent damage during the forthcoming winter season, are constructed and operating.
  - Mud and silt must be settled out of stormwater runoff before runoff leaves the construction site or enters the City storm drain system.

## **MEASURABLE GOALS**

1. Review SWPPPs developed by construction contractors for all City construction projects larger than one acre.
2. Follow inspection frequencies developed in CA3 for City construction projects.
3. Use the standard inspection form or checklist developed for CA3 to ensure consistent field review of erosion and sediment control and other stormwater BMPs. In particular,
  - Inspect erosion and sediment control measures, waste management measures, proper storage, use and disposal of construction materials, and chemicals, and any other relevant BMPs.



- Identify and prohibit non-stormwater discharges that are not allowed into the storm drain system (e.g., chlorinated waters from main line testing, concrete wash waters, and contractor equipment rinse waters).
- Check that developers comply with the general stormwater permit, which requires preparation of a SWPPP, filing of an NOI, and keeping a copy of the SWPPP on site.

### **ASSESSMENT TASKS**

Record names and locations of City construction sites requiring coverage under the Construction Activities Storm Water General Permit, the number of inspections conducted by staff, a description of deficiencies found, and any follow-up actions taken by the City.

### **RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing this control measure. The Public Works and Community Development Directors will assist with developing guidance materials and training.

**Table 2-E. Construction Activities Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Engineering	Planning	Building	PW Admin.	Other
<b>CA1 Stormwater Quality Control Ordinance for Construction Sites</b>											
1. Review the statewide Construction Activities Storm Water General Permit.						●					
2. Evaluate available model ordinances for applicability in the City.						●	○	○	○		
3. Review existing City ordinances.						●	○	○	○		
4. Adopt a Stormwater Quality Control Ordinance.						●				○	○
5. Establish an ordinance enforcement program with penalties.						●			○		
<b>CA2 Construction Activity Plan Review</b>											
1. Review annually and revise/amend (as necessary) the public information sheets.						●	○		○	○	
2. Initially adopt erosion control standards developed by the Nevada County RCD, then modify as necessary over time.						●		○			
3. Establish standard conditions of approval.						●		○			
4. Evaluate current erosion and sediment controls and pollution prevention requirements for construction activities, and develop new requirements or revise existing requirements, as needed.						●	○	○			
5. Provide applicable standards and specifications to local construction contractors and developers.								●			
6. Conduct training workshops.						●	○	○			
<b>CA3 Construction Site Inspections</b>											
1. Coordinate inspection activities with code inspectors and other field inspection personnel.						●	○		○		
2. Facilitate pre-construction meetings.						●	○	○	○		
3. Develop a standard inspection form or checklist.						●	○		○		

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Engineering	Planning	Building	PW Admin.	Other
4. Train construction site inspection staff.						●	○		○		
5. Receive and respond to information submitted by the public regarding stormwater impacts due to construction projects.						●	○		○		
<b>CA4 Compliance with the Construction Activities Storm Water General Permit for City Projects</b>											
1. Review SWPPPs developed by construction contractors for all City construction projects larger than one acre.						●	○		○		
2. Follow inspection frequencies developed in CA3 for City construction projects.						●	○		○		
3. Use the standard inspection form or checklist developed for CA3.						●	○		○		



Continuing activity, reviewed or revised as needed throughout implementation  
 One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity.
- Individual or department to provide strong support in the development or implementation of an activity.
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.5 New Development and Redevelopment Program Element**

The New Development and Redevelopment Program Element focuses on minimizing long-term impacts on stormwater and its receiving waters by designing and implementing permanent stormwater BMPs. Numerous water quality studies have shown impacts on receiving water caused by stormwater from impervious surfaces. Pollutants associated with residential, commercial and industrial activities in a watershed include sediment, fertilizers, pesticides, solvents, paints, waste oil, other vehicle fluids, petroleum hydrocarbons, heavy metals, and coliform from human and animal wastes. Stormwater that comes in contact with these pollutants can be transported quickly and efficiently to and through the storm drain conveyance system and discharged to a waterbody. In addition, stormwater runoff rates and quantity are significantly increased as a result of impervious surfaces caused by new development.

Impacts to water quality and the physical and biological characteristics of an aquatic habitat caused by new development can be minimized through implementing permanent stormwater BMPs. The BMPs and tasks outlined in this section require new development and major redevelopment projects to incorporate post-construction stormwater BMPs and to ensure that the measures are operated and maintained once construction is complete.

### ***2.5.1 Permit Requirements for New Development and Redevelopment Permanent Controls***

The Small MS4 General Permit requires the City to:

1. Develop, implement, and enforce a program to address storm water runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the Small MS4 by ensuring that controls are in place that would prevent or minimize water quality impacts;
2. Develop and implement strategies, which include a combination of structural and/or non-structural BMPs appropriate for your community;
3. Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or local law. For those Small MS4s described in Supplemental Provision E [of the permit], the requirements must at least include the design standards contained in Attachment 4 of this General Permit or a functionally equivalent program that is acceptable to the appropriate RWQCB; and
4. Ensure adequate long-term operation and maintenance of BMPs.

Although the City of Grass Valley is not specifically listed in the permit's Supplemental Provision E as being expected to comply with Attachment 4's design standards, the high growth rate high growth (~25 percent over the past five years) designates the City by default. The Small MS4 General Permit indicates that these requirements pertain only to sites greater than one acre, although the referenced design standards pertain to categories of sites, independent of their size.

### ***2.5.2 Control Measures for the New Development and Redevelopment Program Element***

The control measures presented in this section address stormwater from public and private newly developed and redeveloped projects.

NDRD1 establishes adequate legal authorities through a Stormwater Quality Control Ordinance to require post-construction stormwater BMPs. The existing zoning ordinance will be reviewed for updating in 2003, through which the City will strive to ensure consistency with the SWMP.

NDRD2 establishes appropriate conditions of approval during the tentative map or development review process. The City will confer with Nevada County to be as consistent as possible with development standards. Review staff will be trained to recognize proper post-construction stormwater BMPs appropriate for land development in the City.

NDRD3 verifies that post-construction stormwater BMPs are included in engineering plans through plan review and approval, and are constructed in the field through site inspections once construction begins. The City will ensure that post-construction stormwater BMPs are maintained by signing agreements with new developments. The City or its agents will inspect at once per permit cycle (5 years) the operation and maintenance of the BMPs once construction activities are complete.

### *2.5.3 Supporting Control Measures*

The Construction Activities Program Element works in parallel with this program element. The staff responsible for the inspection activities of the Construction Activities Program Element will also be responsible for inspecting post-construction stormwater BMPs. Additional control measures that partially address this program element include public education programs such as workshops on erosion and sediment controls and general outreach to the community on the importance of stormwater BMPs. Public participation in the development and implementation of the General Plan is also relevant.

---

<b>Control Measure Title:</b>	Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs
<b>Control Measure Objective:</b>	Adopt a Stormwater Quality Control Ordinance to require post-construction stormwater BMPs for new development or redevelopment projects.

---

## DESCRIPTION

Ordinances are the most effective means for municipalities to ensure post-construction stormwater management is provided for new development and major redevelopment. The City will develop an ordinance with language supporting incorporation of post-construction BMPs.

## EXISTING BMPs AND RELATED ACTIVITIES

- The Planning Department establishes land use conditions and controls through development and implementation of the General Plan, the various ordinances, and other legally binding development plans and documents to ensure orderly and consistent land development and protection of the environment and natural resources.
- The General Plan, adopted in 1999, will guide the City's growth through 2020. One Land Use Implementation Action and Strategy in the City's General Plan is relevant to development practices that minimize urban impacts on stormwater: **3-LUI:** Review development regulations to assure adequate project information is submitted to adequately assess and mitigate environmental and fiscal impacts.
- The following set of Conservation/Open Space Implementation Actions and Strategies in the City's General Plan are relevant to development practices that minimize urban impacts on stormwater:
  - **1-COSI:** Identify, inventory and map essential information related to conservation and open space, utilizing the City's geographic information system. Include definition, delineation, and mapping of sensitive environmental areas. Maintain and update the information base as warranted.
  - **3-COSI:** Implement the Open Space Opportunity Overlay/Open Space (OSO/OS) Land Use map designation procedure to ensure ongoing designation of appropriate open space lands in the General Plan. Establish open space restrictions, easements, and other protective measures in conjunction with OSO/OS designations. Inventory and place on OSO/OS Land Use maps all open spaces previously reserved by past development conditions and development agreements.
  - **5-COSI:** Establish and assign responsibility for land/development rights acquisition for conservation, open space, and park/recreation purposes.
  - **7-COSI:** Prepare and adopt an ordinance regulating development on steep slopes and on ridgelines, for purposes of natural resource and aesthetic protection.
  - **8-COSI:** Establish and assign responsibility for a continuing program to rehabilitate, restore, and reclaim abused areas. Abused areas include but are not limited to streams and stream corridors, de-forested areas, and un-reclaimed mines.
  - **21-COSI:** Assure adequate provision for extending sewer service to areas experiencing inadequate on-site disposal systems, should the need arise.

- **22-COSI:** Monitor development trends and on-site disposal system inadequacies to ensure that the City's current plans reflect actual conditions.
- The following set of Community Design Implementation Action and Strategies in the City's General Plan are relevant to development practices that minimize urban impacts on stormwater:
  - **4-CDI:** Develop clear standards to minimize excessive grading and terrain modification on steep slopes and within environmentally sensitive areas.
  - **8-CDI:** Revise City infrastructure development standards to minimize paved surface area, encourage slower vehicle speeds, enhance pedestrian access and safety, and integrate natural stormwater detention and purification.

## MEASURABLE GOALS

1. Evaluate available model ordinances for applicability in the City.
  - Model Urban Runoff Program example stormwater management ordinance
  - Nevada County grading ordinance
2. Evaluate existing City code and policies for items related to stormwater management and land development.
  - General Plan policy statements
  - Zoning and Subdivision ordinance
  - Design Review Guidelines
  - Flood protection ordinance.
3. Adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of post-construction stormwater BMPs.
  - a. Draft Ordinance in Year 1.
  - b. Finalize Ordinance in Year 2.

## ASSESSMENT TASKS

1. Record adoption of a Stormwater Quality Control Ordinance with post-construction stormwater BMP provisions.
2. Assess any difficulties encountered when enforcing this ordinance.

## RESPONSIBILITY

The SWMP Administrator is responsible for implementing this control measure. The Public Works Administration Division will assist with review and promulgation of City code.

---

<b>Control Measure Title:</b>	Land Development Plan Review
<b>Control Measure Objective:</b>	Develop standard conditions of approval for private land development projects. Develop a document review process for staff to ensure post-construction stormwater BMPs are included in the design prior to plan approval.

---

**DESCRIPTION**

If water quality impacts are considered from the beginning stages of a project, new development and potentially redevelopment provide more opportunities for water quality protection. Controls chosen will need to consider the local environment and seek a combination of source and treatment controls to reduce pollution from developed land. The City will adopt a planning process that identifies implementation strategies (e.g., adopt a combination of source and/or treatment controls), and operation and maintenance policies and procedures. City plan reviewers will be trained to recognize and enforce appropriate conditions.

**EXISTING BMPs AND RELATED ACTIVITIES**

- The City coordinates some new development control measures with Nevada County and other larger-scale agencies. An example of successful implementation of existing measures is the local car dealership, where catch basins collecting stormwater from wash-down areas are fitted with oil and sand separators.
- The Grass Valley standard conditions and policy for construction require a contractor or developer to provide on-site detention and water quality structures.
- Environmental review during the CEQA process includes a review of potential impacts to stormwater.
- Development proposals are circulated to other regulatory agencies with stormwater interests, such as the Nevada County RCD.
- Public Works personnel have attended seminars hosted by the Nevada County RCD for reviewing plans and inspecting permanent erosion and sediment controls and pollution prevention BMPs.
- The City conducts predevelopment meetings that include various City departments to discuss requirements and provisions for approval of the land development project. City departments represented at these meetings include Planning, Engineering and Building Divisions, and the Fire Department.

**MEASURABLE GOALS**

1. Review in Year 1 available resources for development standards protective of stormwater quality:
  - Planning for Prosperity, published by the Sierra Business Council for community development in the Sierra Nevada.
  - Model Urban Runoff Program, Appendix 4T.
  - Grass Valley's Community Design Guidelines.



2. Establish (by Year 3) standard conditions of approval for post-construction stormwater BMPs based on the type of land development project. Develop general land development standards and specifications for post-construction stormwater BMPs associated with development sites, applicable to all projects that result in a land disturbance of one acre or more, or less if part of a common plan of development.
3. Review annually and revise/amend, as necessary, the public information sheets available at the Building and Public Works Department to include requirements regarding stormwater pollution prevention, prohibition of non-stormwater discharges to storm drains, erosion and sediment control requirements, and reference to available standards. Require submittal of draft storm water pollution prevention plans (SWPPPs) for project applications requiring discretionary review.
4. Develop a post-construction stormwater BMPs checklist for plan reviewers to ensure that plan check activities include reviewing plans for permanent control measures.
5. Conduct workshops with the Community Development and Public Works Departments and local developers to educate participants regarding:
  - o The City's stormwater policies and requirements for new development.
  - o The use of established standard conditions and mitigation measures for stormwater protection.
6. Confer with Nevada County and other local municipalities to be as consistent as possible with development standards.

## **ASSESSMENT TASKS**

1. Record the number of plans reviewed that incorporated standard conditions of approval that addressed stormwater quality protection for stormwater from developed sites.
2. Receive and respond to comments received regarding public information sheets.
3. Identify long-term BMP maintenance agreements for development projects approved after submittal of this SWMP.

## **RESPONSIBILITY**

The SWMP Administrator is responsible for implementing this control measure and coordinating plan review activities for permanent control measures between Divisions. The Public Works Administration Division will assist with scheduling workshops.

---

<b>Control Measure Title:</b>	Post-construction Stormwater BMP Maintenance
<b>Control Measure Objective:</b>	Develop a program of maintenance agreements and inspection to ensure post-construction stormwater BMPs are maintained appropriately.

---

## DESCRIPTION

Maintenance of structural BMPs can only be assured through a diligent inspection program. The City will adopt a standard procedure for periodically inspecting post-construction stormwater BMPs for development sites.

## EXISTING BMPs AND RELATED ACTIVITIES

- Building and Engineering Divisions inspectors visit each construction site as needed during active construction of public improvements to make sure construction is being completed according to plans.

## MEASURABLE GOALS

1. Sign long-term agreements for new developments to ensure funding and maintenance of post-construction BMP.
2. Establish and fund a process to track by permit cycle that post-construction stormwater BMPs are constructed, operated and maintained post construction.
  - Develop a post-construction stormwater BMP checklist for site inspections.
  - Inspect at once per permit cycle (5 years) the operation and maintenance of the post-construction BMPs.
3. Provide necessary training to inspectors of post-construction stormwater BMPs.

## ASSESSMENT TASKS

1. Identify developed sites with long-term BMP maintenance agreements.
2. Document the process developed to track post-construction stormwater BMPs.
3. Document any agreements with Nevada County RCD for site inspections.

## RESPONSIBILITY

The SWMP Administrator is primarily responsible for implementing this control measure or coordinating between departments' site inspection activities for permanent control measures. Other City staff conducting site inspections will assist with these activities. The Nevada County Resource Conservation District (RCD) or a qualified representative of the City may be contracted to inspect post-construction stormwater BMPs for development projects.

**Table 2-F. New Development and Redevelopment Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Building	Planning	Engineering	PW Admin	Other
<b>NDRD1 Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs</b>											
1. Evaluate available model ordinances for applicability in the City.						●		○			
2. Evaluate existing City code and policies for items related to stormwater management and land development.						●	○	○	○		
3. Adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of post-construction stormwater BMPs.						●				○	
<b>NDRD2 Land Development Plan Review</b>											
1. Review available resources for development standards protective of stormwater quality.						●					
2. Establish (by Year 3) standard conditions of approval for post-construction stormwater BMPs.						●	○	○	○		
3. Review annually and revise/amend, as necessary, the public information sheets.						●	○		○	○	
4. Develop a post-construction stormwater BMPs checklist for plan reviewers.						●		○			
5. Conduct workshops.						●	○	○	○	○	
6. Confer with Nevada County and other local municipalities to be as consistent as possible with development standards.						●		○			
<b>NDRD3 Post-construction BMP Maintenance</b>											
1. Sign long-term agreements for new developments to ensure funding and maintenance of post-construction BMP.						●		○	○		
2. Establish and fund a process to track and record that post-construction stormwater BMPs are constructed, operated and maintained post construction.						●			○		
3. Train planning and engineering staff responsible for inspecting post-construction stormwater BMPs.						●		○	○		



Continuing activity, reviewed or revised as needed throughout implementation  
One-time activity to develop or implement a measurable goal



Individual or department to take lead in the development or implementation of an activity.



Individual or department to provide strong support in the development or implementation of an activity.



Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## **2.6 Municipal Operations Program Element**

The Municipal Operations Program Element focuses on municipal operations that are conducted by the City and that impact stormwater quality. By implementing stormwater BMPs at municipal operations, the City provides leadership in complying with federal and State requirements, thereby demonstrating to businesses and residents the fairness of the requirements.

### **2.6.1 Permit Requirements for Municipal Operations**

The City must:

1. Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations; and
2. Using training materials that are available from USEPA, the State, or other organizations, the program must include employee training to prevent and reduce storm water pollution from activities such as park and open space maintenance, fleet building maintenance, new construction and land disturbances, and storm water system maintenance.

To accomplish these requirements, the City will select and implement BMPs that will reduce or eliminate the pollutant contributions from its activities to the MEP.

### **2.6.2 Control Measures for the Municipal Operations Program Element**

Control measures for this program element focus on the Public Works Department's activities. The control measures focus on employee training, roadwork, storm drain maintenance, Storm Water Pollution Prevention Plan (SWPPP) implementation and improvement, and open space maintenance.

MO1 trains employees in the Public Works Department about stormwater issues. The Public Works Department will revise its employee handbook to incorporate SWMP-related activities, and incorporate a discussion of applicable SWPPPs annually during bi-weekly safety meetings. The City will develop a procedures manual with sections on hazardous materials handling. Contingency plans for spills, leaks, and weather extremes will be reviewed. Educational materials on stormwater will continue to be circulated among employees.

MO2 improves procedure for roadwork and street sweeping to protect storm drain inlets. Staff will be trained to properly implement the roadwork BMPs. Sand will continue to be used as the primary de-icing agent on City roadways. The street sweeping tailings pile will be characterized before a final disposal option is selected. The City will initiate the approval process for a temporary waste storage site on City property so that municipal waste can be dried and consolidated before disposal.

MO3 continues to inspect and maintain the storm drain inlets and conveyance system. The City will develop BMPs for proper site conditions during repair work and train employees in its implementation. City records will be enhanced to include information on waste materials found and removed.

MO4 maintains and improves upon stormwater BMPs at municipal facilities, in accordance with SWPPPs, where applicable. The City will develop a SWPPP for its waste transfer station at Allison Ranch Road if the site continues to be used as such.

MO5 improves turf management and other maintenance practices at City parks. Land with manual irrigation will be transitioned to automated systems. Automated systems will continue to be operated efficiently and only during the dry season, and inspected monthly. Turf areas connected to waterways (riparian corridors) will not be fertilized. Mowing, trimming and pruning practices and frequencies will be maintained. Manual weeding will continue to be practiced where practicable, with sparing use of herbicides as necessary. Swimming pool drainage will continue to be directed into the sanitary sewer system.

### *2.6.3 Supporting Control Measures*

Several additional control measures partially address this program element. Detecting and eliminating illicit discharges to the storm drain system (ID2). City staff training related to new construction and land disturbances is covered under control measures CA2, CA3, NDRD2, and NDRD3. The Transportation actions and strategies in the General Plan are not directly incorporated into the SWMP, but are recognized as potentially concurrent and supporting activities.

Staff at the City's major facilities (corporation yard, animal shelter, and wastewater treatment plant) implement SWPPPs that overlap significantly with the requirements in the Small MS4 General Permit.

---

<b>Control Measure Title:</b>	Employee Education and Training
<b>Control Measure Objective:</b>	Educate City employee about stormwater pollutants and designated BMPs for reducing pollutants from municipal facilities and operations.

---

## DESCRIPTION

In-house employee training programs are useful to teach employees about stormwater BMPs, potential sources of contaminants, and best management practices (BMPs). Employee training programs instill personnel with a thorough understanding of their responsibilities in reducing pollutants at various facilities. In doing so, personnel will learn about the processes and materials they are working with, safety hazards, practices for preventing discharges, and procedures for responding quickly and properly to toxic and hazardous material incidents.

## EXISTING BMPs AND RELATED ACTIVITIES

- The Public Works Department currently distributes employee handbooks that contain all the policies and procedures that most employees need to know while employed with the department.
- The Public Works Department has developed procedures on hazardous materials handling.
- The Public Works Department conducts bi-weekly safety meetings. Attendance is mandatory. The meetings last for about one hour. Special topics such as pollution prevention are discussed at these meetings. Attendance at the meetings and special training is recorded in a permanent logbook.
- Employees are scheduled for comprehensive stormwater management training programs during the year and typically prior to the wet season.
- Educational materials on landscaping, street sweeping procedures, and other BMPs are circulated to employees.
- Nevada County Department of Agricultural has conducted pesticide use training for municipal staff. The Public Works Superintendent is certified in pesticide application.

## MEASURABLE GOALS

1. Beginning in Year 1, include SWMP-related topics annually at regularly scheduled training sessions, such as tailgate meetings. Topics will include:
  - Water quality issues of interest and concern in the community, and
  - Stormwater BMPs and staff responsibilities for implementing them.
2. Review and update by Year 2 the Public Works employee handbooks to:
  - Identify where it may be revised to include reference to the City's responsibility to implement the SWMP, and
  - Describe the City departments and/or employee positions responsible for implementing control measures and associated BMPs in the SWMP.
3. Regularly circulate educational materials on stormwater issues (e.g. the monthly *Stormwater* journal) to employees.

---

## **ASSESSMENT TASKS**

1. Document training sessions that include stormwater BMPs. Record the date, location and employees in attendance.
2. Document edits to the employee handbooks related to stormwater BMPs.

## **RESPONSIBILITY**

The SWMP Administrator is responsible for implementing this control measure with assistance from Division chiefs overseeing field crews.

---

<b>Control Measure Title:</b>	Roadwork Activities
<b>Control Measure Objective:</b>	Implement procedures, practices and schedules to ensure municipal roadwork activities minimize pollutants in stormwater.

---

## DESCRIPTION

Substantial amounts of sediment and pollutants are generated during daily roadway and bridge use and scheduled repair operations, and these pollutant loadings can threaten local water quality. Routine performance of general maintenance activities such as sweeping, vegetation maintenance, and cleaning of stormwater conveyance structures can help alleviate the impacts of these pollutants. Modifications in roadway resurfacing practices and application techniques for salt and other deicers can also help reduce pollutant loads to stormwater and protect the quality of receiving waters.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City maintains signs and pavement markers throughout the City following these practices:
  - Workers use quick-drying thermoplastic paint products that do not contain heavy metals. Paint is applied in a manner to minimize over spray and spillage and does not occur prior to or during rain events.
  - Signs are reflectorized, not painted, and thus do not produce any liquid pollutants.
  - Graffiti removal procedures require dry clean-up methods (spray on, wipe off) that do not discharge liquid products.
- The City maintains and repairs all public streets, alleys, curbs, gutters, sidewalks, storm drains, and parking lots throughout the City following these practices.
  - Maintenance and repair work are typically scheduled during the dry season.
  - The de-icing program has developed BMP guidelines. Sand is used as the primary de-icing material, with an ice-melting catalyst added for extreme snow or ice conditions. The catalyst is safe to paint and concrete.
  - The City owns and operates a Schwarze A7000 street sweeper. In summer and autumn, downtown paved areas are swept generally once per week. In autumn, residential areas are swept every other week. In winter, all areas are swept following de-icing to remove applied sand.
  - Street sweeping tailings are temporarily stockpiled on City property prior to transfer for final disposal.

## MEASURABLE GOALS

1. Continue to maintain signs and pavement markers throughout the City following current standard practices.
2. Continue to maintain and repair public streets, alleys, curbs, gutters, sidewalks, storm drains, and parking lots throughout the City following current standard practices.



3. Develop and implement in Year 2 a BMP checklist related to asphalt and concrete removal, patching, resurfacing and surfacing sealing.
4. Approve by Year 3 the temporary waste storage site on City property used to dry and consolidate street sweeping tailings.
5. Establish and implement in Year 2 a BMP checklist for street sweeping operation.

### **ASSESSMENT TASKS**

1. Characterize the street sweeping tailings pile on City property before final disposal at the Nevada County landfill.
2. Use data characterizing street sweeping tailings to identify areas that should be targeted for more frequent cleaning or for more focused public outreach.

### **RESPONSIBILITY**

The Streets & Parks Division is responsible for implementing this control measure. The SWMP Administrator is responsible for assisting with collecting the assessment material and evaluating the effectiveness of the control measure.

---

<b>Control Measure Title:</b>	Storm Drain System Maintenance
<b>Control Measure Objective:</b>	Implement maintenance procedures, practices and schedules to minimize pollutants entering the storm drain system.

---

## DESCRIPTION

Routine cleaning and maintenance of storm drains reduces the amount of pollutants, trash, and debris both in the storm drain system and in receiving waters. Clogged drains and storm drain inlets can cause the drains to overflow, leading to increased erosion. Benefits of cleaning include increased dissolved oxygen, reduced levels of bacteria, and support of aquatic habitat.

## EXISTING BMPs AND RELATED ACTIVITIES

- The City cleans every catch basin inlet annually, in summer or fall.
- The City owns and operates a GMC 7000 Hydrotruck (1985 model) for flushing storm drains. The City's recently-purchased street sweeper has a suction hose attachment for cleaning storm drain inlets and recycling cleaning rinsate.
- The City maintains the drainage channels and ditches annually, in summer or fall. Minimal weeding is done under a US Department of Fish and Game stream alteration permit. A common herbicide (Roundup) is used in most locations; otherwise manual weeding methods are used.

## MEASURABLE GOALS

1. Develop and implement in Year 2 a BMP checklist for repair and replacement activities for the storm drain inlet and conveyance system.
2. Develop and implement in Year 2 a BMP checklist for herbicide use in drainage channels.

## ASSESSMENT TASKS

1. Maintain records for routine maintenance of the storm drainage inlets and conveyance system indicating date, location, and observations/activities.
2. Record total volume of herbicide used in stormwater drainage ditches per year.
3. Implement a supervisory oversight program in which supervisors verify and document that employees are implementing BMPs. Maintain a record of follow-up activities conducted.

## RESPONSIBILITY

The SWMP Administrator is responsible for implementing this control measure. The Water & Wastewater Division will conduct many of these activities.

---

<b>Control Measure Title:</b>	Stormwater Management Practices at Municipal Facilities
<b>Control Measure Objective:</b>	Continue to implement Storm Water Pollution Prevention Plans (SWPPPs) for major City-managed facilities.

---

**DESCRIPTION**

Three municipal facilities already have prepared site-specific Storm Water Pollution Prevention Plans (SWPPPs). The SWPPPs include a site description and identify BMPs that address potential sources of pollutants to storm drains. The City will continue to implement these SWPPPs.

**EXISTING BMPs AND RELATED ACTIVITIES**

The City operates three adjacent properties at 556 Freeman Lane: corporation yard, animal shelter, and wastewater treatment plant. Stormwater from these properties is managed as follows:

- SWPPPs have been developed and are being implemented for all three municipal facilities. The SWPPP document describes each site, identifies potential pollutant sources, characterizes site conditions that could lead to pollutants entering storm drains, lists implementation team members, includes log sheets for training, inspections, and maintenance, and identifies BMPs implemented to control pollutant discharges.
- The corporation yard maintains a policy of not storing chemicals in bulk on site. The largest chemical storage container, for example, is a 30-gallon drum of Roundup™ pesticide, stored on a containment pallet in a covered, ventilated area.
- The City's fleet is maintained at the City's corporation yard. The yard has a wash-down pad where all vehicle cleaning is conducted.
- The Fire Department's apparatus is washed at the corporation yard, where a grease and oil separator is installed.

**MEASURABLE GOALS**

1. Continue to implement existing SWPPPs for City facilities.
2. Improve signage in Year 2 at the corporation yard for waste disposal and other pollution prevention practices.
3. Evaluate in Year 3 City activities and operations to identify any additional facilities that may require SWPPPs, such as the City's waste transfer station at Allison Ranch Road (if continued).

**ASSESSMENT TASKS**

Record changes to the SWPPPs.

---

### RESPONSIBILITY

The Deputy Director for Water Operations and the Public Works Superintendent will oversee implementation of the SWPPPs. The SWMP Administrator will assist with evaluating the effectiveness of BMPs for the three municipal facilities, and develop a SWPPP for the Allison Ranch Road site, if necessary.

---

<b>Control Measure Title:</b>	Parks and Open Space Maintenance
<b>Control Measure Objective:</b>	Implement procedures, practices and schedules to minimize pollutants in stormwater from public parks and open space.

---

**DESCRIPTION**

Pollutant loads including nutrients and pesticides from municipal open spaces can be significant. The City will identify and supplement BMPs to minimize these loads.

**EXISTING BMPs AND RELATED ACTIVITIES**

The City offers five parks for public use. Stormwater pollutant discharges are minimized through the following practices:

- City properties are irrigated manually in some areas. Automated systems are timed and designed to minimize runoff, and are only used during the dry season (May-October).
- The City is signatory to the California Urban Water Conservation Council Agreement. Signatories pledge a "good faith effort" to implement best management practices for urban water conservation.
- Automated irrigation systems are inspected monthly.
- Roundup, a general-purpose herbicide, is used at a low use rate on City property. Manual weeding is practiced in waterways or riparian corridors when an herbicide can not be identified or used.
- Turf areas on City property are fertilized sparingly one to three times per year. Areas connected to waterways (riparian corridors) are not fertilized.
- Turf areas are mowed weekly during the growing season. Pruning is done once or twice annually. Trimmings are ground to chips at the local landfill and offered free to the public.
- Swimming pool drainage is directed into the sanitary sewer system and not discharged into the storm drain system.

**MEASURABLE GOALS**

1. Transition manually irrigated areas to automated sprinkler systems when replaced.
2. Develop and implement in Year 2 a BMP checklist for turf management on City property by Year 2.

**ASSESSMENT TASKS**

1. Record the amount of pesticides and fertilizers applied by City staff. Compare annual usage rates over success years to observe any trends.

**RESPONSIBILITY**

The SWMP Administrator is primarily responsible for implementing this control measure.

**Table 2-G. Municipal Operation Program Element – Implementation Schedule and Responsible Department/Position**

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Streets & Parks	Wtr/ Sewer	Engineering	PW Admin.	Other
<b>MO1 Employee Education and Training</b>											
1. Include discussing stormwater quality issues at regularly scheduled training sessions, such as tailgate meetings.						●	○	○			
2. Review the Public Works employee handbook.						●				○	
3. Regularly circulate educational materials on stormwater issues to employees.						●					
<b>MO2 Roadwork Activities</b>											
1. Continue to maintain signs and pavement markers throughout the City following current standard practices.						○	●				
2. Continue to maintain and repair public streets, alleys, curbs, gutters, sidewalks, storm drains, and parking lots throughout the City following current standard practices.						○	●				
3. Develop and implement a BMP checklist related to asphalt and concrete removal, patching, resurfacing and surfacing sealing.						○	●				
4. Approve the temporary waste storage site on City property used to dry and consolidate street sweeping tailings.						●					
5. Establish and implement a BMP checklist for street sweeping operation.						●	○				
<b>MO3 Storm Drain System Maintenance</b>											
1. Develop and implement a BMP checklist for repair and replacement activities for the storm drain inlets and conveyance system.						●		○			
2. Develop and implement a BMP checklist for herbicide use in drainage channels.						●		○			
<b>MO4 Municipal Facilities Stormwater Management Practices</b>											
1. Continue to implement existing SWPPPs for City facilities.											●
2. Improve signage at the corporation yard for waste disposal and other pollution prevention practices.						●					○
3. Evaluate City activities and operations to identify any additional facilities that may require SWPPPs.						●					

Control Measures and Measurable Goals	Implementation Schedule					Responsible Department/Position					
	03/04	04/05	05/06	06/07	07/08	SWMP Administrator	Streets & Parks	Wtr/ Sewer	Engineering	PW Admin.	Other
<b>MO5 Parks and Open Space Maintenance</b>											
1. Transition manually irrigated areas to automated sprinkler systems.						●	○				
2. Develop and implement a BMP checklist for turf management on City property.						●	○				



Continuing activity, reviewed or revised as needed throughout implementation

One-time activity to develop or implement a measurable goal

- Individual or department to take lead in the development or implementation of an activity
- Individual or department to provide strong support in the development or implementation of an activity
- Individual or department to review and provide comments and guidance during the development or implementation of an activity.

## 3 PROGRAM IMPLEMENTATION

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### 3.1 Program Management and Roles

Management and oversight of the Stormwater Management Program (SWMP) development and implementation is essential to the success of the program and for meeting the intent of the Small MS4 General Permit. The development and implementation of the SWMP requires the participation and coordination of many of the departments, divisions and employees in the City. Careful oversight and management of the SWMP will ensure that:

- The roles and responsibilities for the development and implementation of the SWMP are assigned to the appropriate City departments, divisions or employees.
- Proper coordination and cooperation exists between departments, divisions or employees responsible for program development and implementation.
- BMPs are developed and implemented as scheduled.
- Measurable goals are monitored and the effectiveness of the program is assessed and reported.

Descriptions of the roles and responsibilities for each department directly or indirectly involved in the SWMP are provided below. Items and activities to be conducted by the SWMP Administrator and other positions are identified in the control measure fact sheets. Figure 3-1 illustrates the City's departments and key activities related to the SWMP. Figure 3-2 illustrates the departments involved by program element.

#### 3.1.1 SWMP Administrator

The SWMP Administrator will provide general oversight of this program and serve as the coordinator between the various responsible parties for day-to-day business relating to the SWMP. Common activities will include setting meetings, conducting program evaluations and preparing reports and submittals for City Council and the RWQCB. Coordination with County agencies and nearby communities such as Nevada City will also be the responsibility of this position. This position is responsible for all assessment tasks and external communications. The Public Works Director will initially take on this role.

#### 3.1.2 Fire Department

The Fire Department handles all burn permits, fire inspections, fire and emergency medical response within the city limits. The Fire Department also responds to spills and leaks of hazardous materials.

#### 3.1.3 Public Works Department

The Public Works Department includes four divisions: Administration, Streets & Parks, Water & Wastewater, and Engineering. Each division is responsible for developing and implementing various tasks:

- **Administration Division** – Coordinates and provides oversight to all Public Works operations.



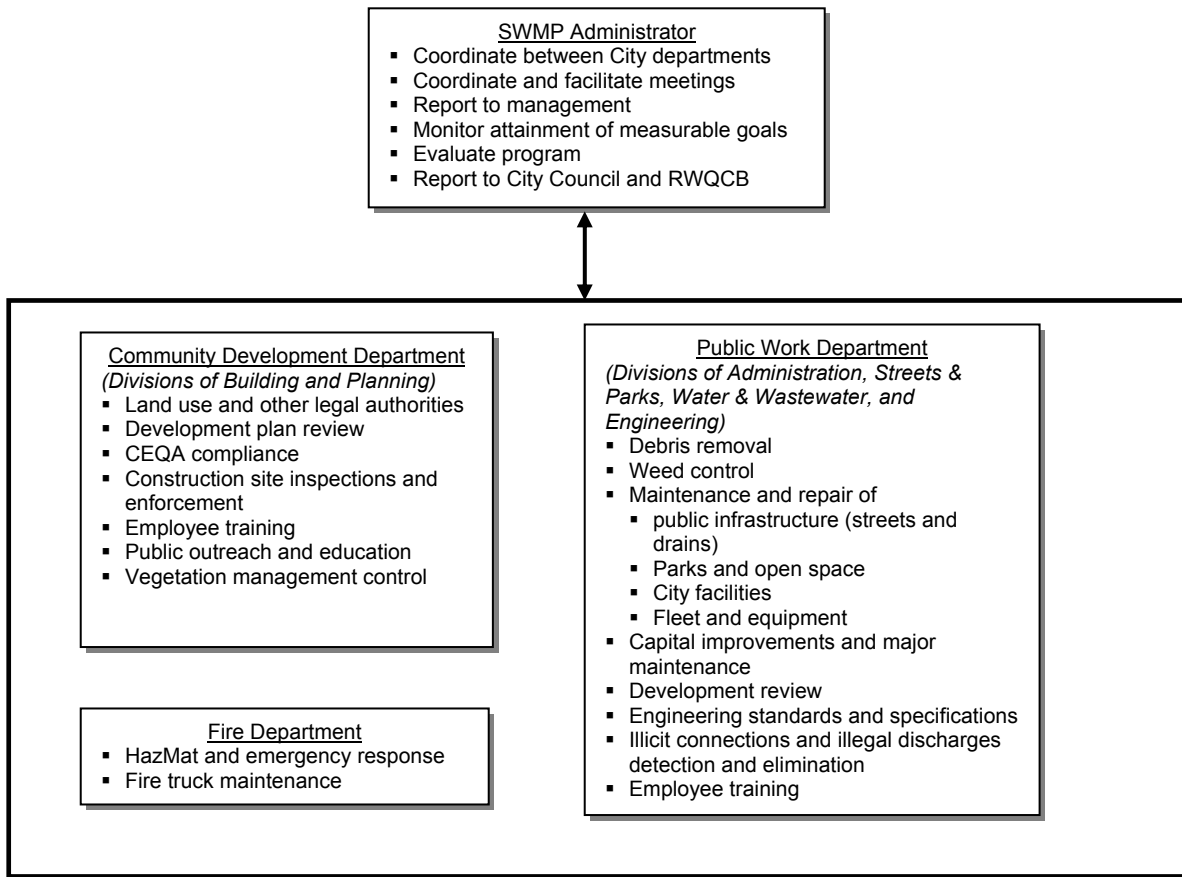
- **Engineering Division** – Review engineering plans and development; perform traffic engineering tasks; undertake capital improvements; inspect Public Works; provide grading information and permits; assess wastewater utility fees; oversee subdivision and public improvements; perform geotechnical engineering tasks; and oversee subdivision adjustments and maps.
- **Facility Division** – Inspect, maintain, alter, and repair all City facilities.
- **Streets & Parks Division** – Maintain and repair streets, alleys, parking lots; produce and install street signs; construct and repair sidewalks, curb, and gutter; coordinate Weed Abatement Program; coordinate and participate in snow removal; mark pavement; maintain fleet; clean and repair storm drain system; maintain parks and pool.
- **Water & Wastewater Division** – Operate wastewater treatment plant, water treatment plant, sewer collection system, water distribution system, wastewater connection, industrial and residential wastewater management program.

#### *3.1.4 Community Development Department*

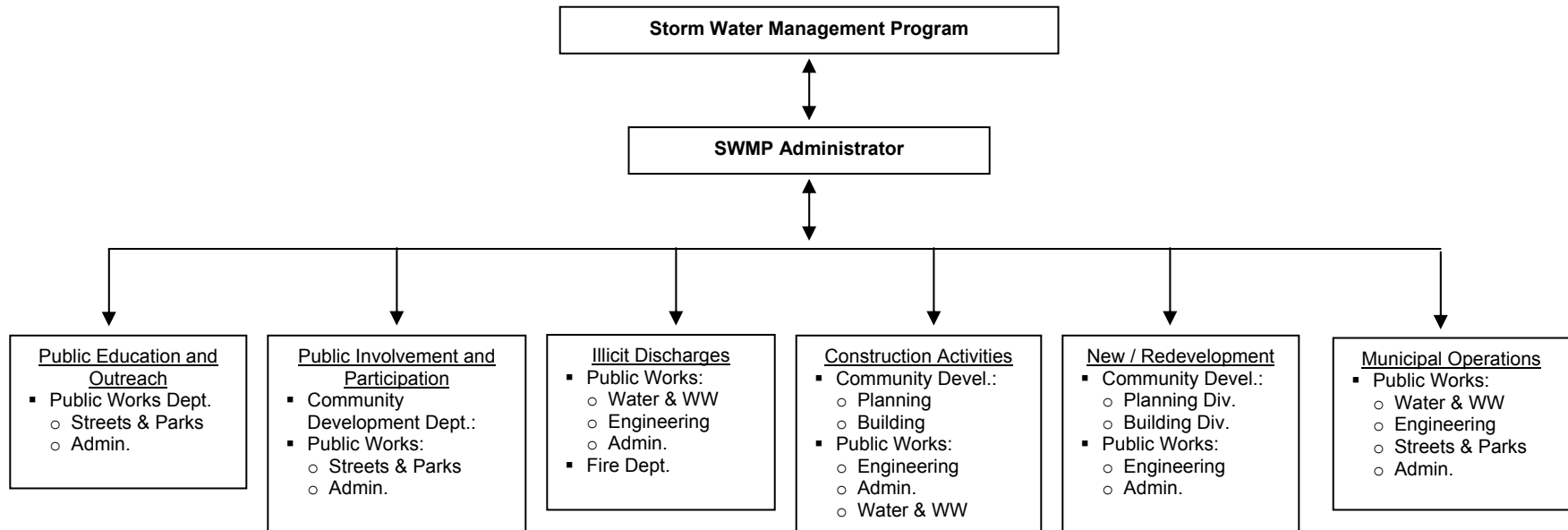
The Community Development Department consists of two divisions related to stormwater management:

- **Building Division** – Comply with the City’s Building codes for all construction that occurs within the City limits, review building permit applications, collect fees, issue permits, ensure buildings are safe for occupancy or for the operation of a business, respond to and enforce the City’s Health and Safety code, and issue citations to structures in violation of these standards.
- **Community Development Division** – Administer departmental programs; oversee housing and infrastructure building and rehabilitation projects.
- **Planning Division** – Coordinate and support the Planning Commission; develop, coordinate and review the City’s General Plan; conduct environmental review for various projects; review plans for consistency with City zoning ordinances and development standards; conduct other activities related to City sphere of influence and annexations; and conduct CEQA review.

**Figure 3-1. Stormwater Management Activities by Responsible Department**



**Figure 3-2. Management of Stormwater Program Elements**



## **3.2 Recordkeeping**

The City will keep records required by the Small MS4 General Permit for at least five years, or the duration of the permit, if continued. The records used to document compliance with the SWMP will be available to the public during regular business hours from the various implementing departments. The SWMP and related documents may be viewed at the Public Works Department, 125 East Main Street.

## **3.3 Assessment and Reporting Activities**

The City will monitor the implementation of this SWMP, evaluate and report on its effectiveness, and strive for continuous improvement. Departments and divisions responsible for monitoring and assessing control measures are identified in each control measure fact sheet. The SWMP Administrator will be responsible for overseeing the entire program's implementation and evaluating its effectiveness. City Council will keep informed through annual presentations.

### **3.3.1 Monitoring**

Assessing the City's progress in implementing the control measures and associated BMPs according to schedule will be an effective monitoring activity. Although the City does not intend to conduct comprehensive stormwater quality monitoring, local volunteer monitoring groups may be supported in a practicable manner. The SWMP Administrator will update the Pollutants of Concern section based on any available and relevant monitoring results.

### **3.3.2 External Reporting**

Reporting activities are done internally, such as between City departments, and externally, such as to the RWQCB. This section discusses external reporting.

#### **3.3.2.1 Permit Compliance Reports**

The City will submit a report by August 15 of each year during the first five-year permit term. The first report is due in 2004. Subsequent permits reports will be submitted in years two and four of the five-year term. The RWQCB may require additional reporting. Reports will include:

- The status of compliance with permit conditions;
- An assessment of the appropriateness and effectiveness of the identified BMPs;
- Status of the identified measurable goals;
- Results of information collected and analyzed, including monitoring data, if any, during the reporting period;
- A summary of the storm water activities the Permittee plans to undertake during the next reporting cycle;
- Any proposed change(s) to SWMP along with a justification of why the change(s) are necessary; and
- A change in the person or persons implementing and coordinating SWMP.

#### **3.3.2.2 Noncompliance Reporting**

If the City cannot certify compliance and/or has had other instances of noncompliance shall notify the appropriate RWQCB within 30 days. Instances of noncompliance resulting in emergencies (i.e., that endanger human health or the environment) will be reported orally to the RWQCB within 24 hours from the time staff becomes aware of the circumstance and in writing

to the RWQCB within five days of the occurrence. The notification will identify the noncompliance event and an initial assessment of any impact caused by the event, describe the actions necessary to achieve compliance, and include a time schedule indicating when compliance will be achieved. The time schedule and corrective measures are subject to modification by the RWQCB Executive Officer.

#### 3.3.2.3 New Outfall Report

Outfalls not identified in the storm sewer system map required by Provision D.2.c.(2), but constructed within the permitted area during the term of this General Permit to receiving waters identified in the NOI, shall not be considered a material change in character, location, or volume of the permitted discharge, and shall be allowed under the terms of this General Permit without permit application or permit modification, provided that the following information be provided in the subsequent annual report:

- Receiving water name;
- Storm sewer system map of added area; and
- Certification that SWMP shall be amended to include the drainage area.