YOLO COUNTY
STORMWATER MANAGEMENT PROGRAM (SWMP) PLANNING DOCUMENT

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Abbreviations and Acronyms

BMP – Best Management Practice

CEQA – California Environmental Quality Act

MEP – Maximum Extent Practicable

NOI – Notice of Intent

RCD – Yolo County Resource Conservation District

RWQCB – Regional Water Quality Control Board

SDDD – South Davis Drainage Ditch

SWMP – Stormwater Management Program

SWPPP – Storm Water Pollution Prevention Plan

SWRCB – State Water Resources Control Board

USEPA – United States Environmental Protection Agency

EXECUTIVE SUMMARY

The County of Yolo ("the County") has developed this Stormwater Management Program (SWMP) Planning Document to address stormwater quality within the County's jurisdiction. The SWMP will address a wide variety of activities conducted in urbanized areas of the County that are sources of pollutants in stormwater. This planning document is submitted with the Notice of Intent to comply with the permit, indicating the County'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:

- **Public Education and Outreach** – Provides educational material to the public and businesses about stormwater quality.
- **Public Involvement and Participation** – Provides opportunities for the public to participate in developing and implementing the SWMP.
- **Illicit Discharges** – Establishes a program to eliminate illicit discharges to the storm drain system.
- **Construction Activities** – Establishes a program to control pollutants associated with construction activities.
- **New Development and Redevelopment** – Establishes a program requiring permanent stormwater BMPs for major development and redevelopment projects.
- **County Operations** – Implements better control measures at County facility and in field operations throughout the permitted urban area.

Each program element begins with an introduction of the permit requirements, the control measures developed to address those requirements, and related control measures found in other program elements. The control measures are shown in this table:

Control Measure Acronym	Control Measure Title
Public Education and Outreach	
PEO1	Develop and Broadcast a Coordinated Stormwater Message
PEO2	Educational Materials for Schools
Public Involvement and Participation	
PIP1	Public Input on SWMP
PIP2	Community Volunteerism and Participation
Illicit Discharges	
ID1	Stormwater Quality Control Ordinance for Illicit Discharge
ID2	Illicit Discharge Detection and Elimination Activities
Construction Activities	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
New Development and Redevelopment	
NDRD1	Stormwater Quality Control Ordinance for Post-Construction Controls
NDRD2	Land Development Plan Review
County Operations	
MO1	Employee Education and Training
MO2	Roadwork Activities
MO3	Storm Drain System Inspection and Maintenance

MO4	Stormwater Management Practices at County Facilities
MO5	Parks and Open Space Maintenance

Control measure fact sheets include:

- **Description:** A brief description of the activities, sources or pollutants to be addressed by the control measure.
- **Existing BMPs and Related Activities:** Current activities being conducted by the City that address reducing pollutants in urban runoff.
- **Measurable Goals:** Activities to be conducted by the City to comply with the storm water regulations. Activities include such things as reviewing or developing documents or procedures, providing training, revising schedules, eliminating practices, etc., and may be conducted or implemented by one or more of the departments in the City.
- **Assessment Tasks:** Tasks to be conducted to help assess the effectiveness of the control measure to reduce pollutants in urban runoff. Many assessment tasks require the collection of data and records that may not directly relate to pollutant reduction in urban runoff. These assessment tasks address a qualitative approach to demonstrating pollutant reduction by verifying the good faith effort of the City to reduce or eliminate the threat of sources of pollutants in runoff through program implementation.
- **Responsibility:** City staff departments or positions responsible for implementing the control measure are identified.

Several County departments are responsible for implementing various control measures. Many of the planned activities are complimented with existing County programs. A SWMP Administrator will oversee the implementation of the control measures and related activities, evaluate their effectiveness, and strive to improve the program over time.

1 INTRODUCTION

1.1 Legal Foundation

The Clean Water Act, originally enacted in 1972, embodies the legal requirement for protecting beneficial uses in waters of the state. The US 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 major sources. Although urban runoff is diffuse in nature, it is directed through outfall points and therefore is classified as a point source. As a result, USEPA has recently begun to regulate urban stormwater discharges as point sources by requiring these municipalities to obtain National Pollutant Discharge Elimination System (NPDES) permits.

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 and contiguous areas with smaller – but still urban – communities to develop and implement stormwater management programs. In California, the State Water Resources Control Board has developed 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 and contiguous jurisdictions must submit a Notice of Intent (NOI) to seek coverage under the General Permit. The nine Regional Water Quality Control Boards, as the designated regional authorities under the State Board, administer the Phase II permit program.

The County 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.

The MEP standard applies to municipalities regulated by this Small MS4 General Permit. Consistent with EPA guidance, the MEP standard in California is applied so that the first-round

Small MS4 General Permit requires six minimum control measures[1] that will be expanded or better tailored in subsequent permits.

In choosing control measures and their associated BMPs, the major focus is on technical feasibility, but cost, effectiveness, and public acceptance are also relevant. If the County of Yolo ("County") chooses only the most inexpensive control measures, it is likely that MEP has not been met. If the County employs all applicable control measures except those that are not technically feasible in the locality, or whose cost exceeds any benefit to be derived, it would meet the MEP standard. MEP requires the County to choose effective control measures, and to reject applicable control measures only where other effective control measures will serve the same purpose, the control measures are not technically feasible, or the cost is prohibitive.

The Small MS4 General Permit requires the County to develop and implement six "minimum control measures" (referred to as "program elements" for the SWMP).

1.2 Development of the Yolo County Stormwater Management Program

The SWMP addresses a wide variety of activities conducted (primarily) in the urbanized areas of the County that are sources of pollutants in urban runoff. The focus of the County's SWMP control measures will be on the urbanized communities of El Macero and Willowbank (described next). Smaller urbanized areas and agricultural lands are not implicated in this program.

This document has been developed through the efforts of the Planning and Public Works Department, in collaboration with other County departments. Copies of this document and other information can be obtained in the main lobby or by contacting the Stormwater Management Program Administrator at 530-666-8857.

1.3 County Description

Yolo County is located in the Sacramento Valley (Figure 1-1). The eastern two-thirds of the County consists of nearly level alluvial fans, flat plains, and basins, while the western third is largely composed of rolling terraces and steep uplands used for dry-farmed grain and rangeland. Elevations range from approximately sea level near the Sacramento River around Clarksburg to 3,000 feet along the ridge of the western mountains. Its proximity to Sacramento International Airport as well as two major interstate highways (5 and 80) place it within a major transportation hub of the state. Agriculture is the County's primary industry.

Yolo County's 661,760 acres is home to over 150,000 people. Nearly 85% of the population lives in the County's four incorporated cities (Davis, West Sacramento, Woodland, and Winters). The University of California at Davis is another influential element of the County. Each of these cities (except Winters) and the university, are required to comply with the Small MS4 General Permit for its own stormwater management program. Yolo County is focusing its stormwater management efforts on urbanized areas that are not contained within the boundaries of these incorporated cities or of the campus.

The main receiving waters of runoff from the County are Cache and Putah Creeks. Both creeks drain into the Yolo Bypass, which carries water southward into the San Francisco Bay Delta.

[1] For the purposes of this document, the term "control measure" includes best management practices. See Section 1.5 for more detail.

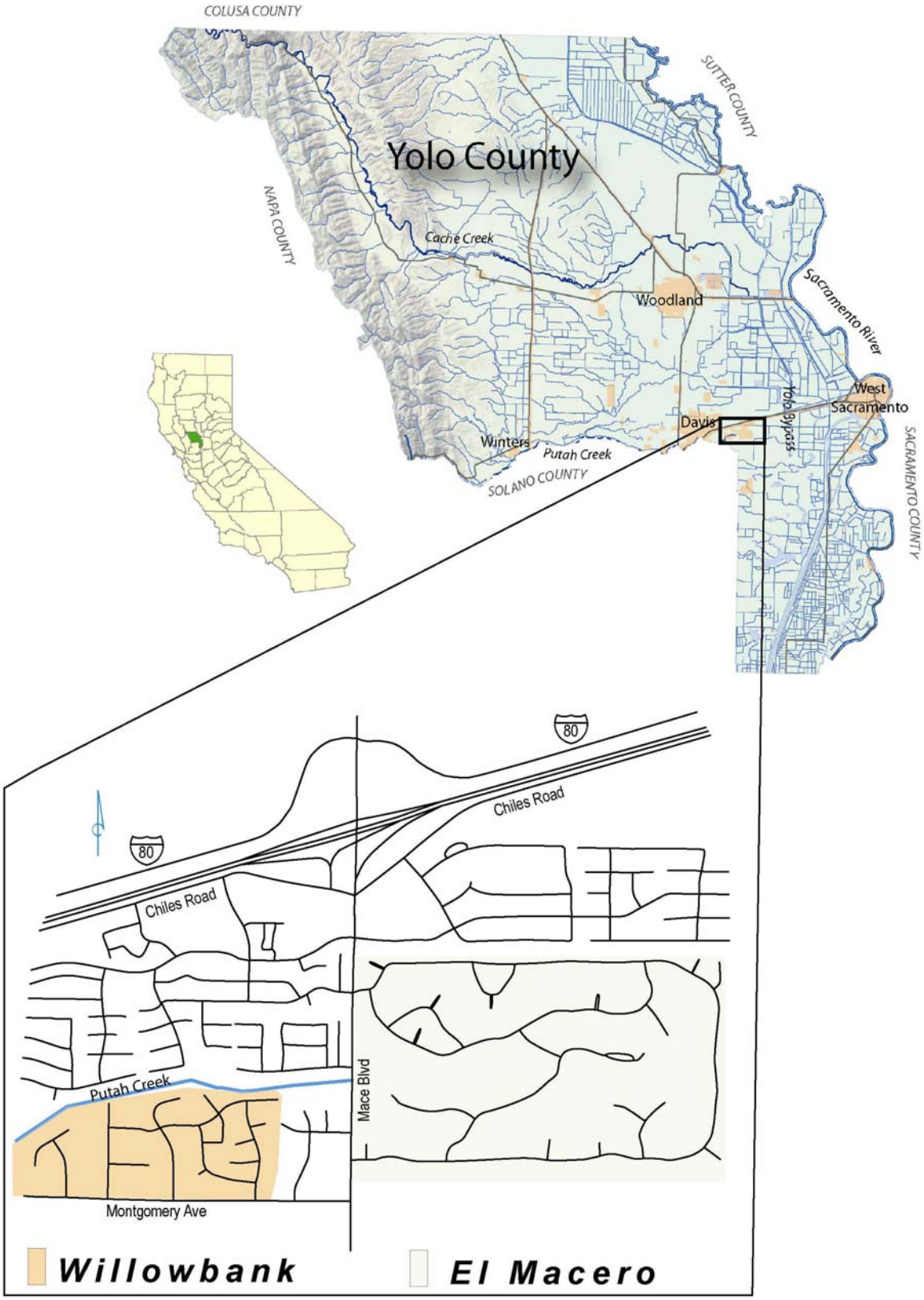


Figure 1-1. Yolo County planning area showing major geographic features.

1.3.1 Permitted Municipalities Within the County

Stormwater from urbanized areas within the County flows as follows:

- **University of California at Davis campus** – flows into a section of Old Putah Creek on campus property and is not discharged;
- **City of West Sacramento** – discharges into the Sacramento River (north of Interstate-80) and the Deepwater Shipping Channel (south of Interstate-80);
- **City of Woodland** – discharges approximately 1,800 feet south of the City's water pollution control facility's discharge point, directly into the Yolo Bypass; and
- **City of Davis** – discharges into the west side of the Yolo Bypass at two locations, approximately 2 miles north of I-80 and approximately 0.5 miles south of I-80.

1.3.2 Urban Areas Requiring Permit Coverage

The El Macero and Willowbank residential communities (subdivisions), located on the southeast side of the City of Davis, are classified as urbanized areas based on their high population densities and location contiguous to the City of Davis. These two communities alone implicate the County as subject to the Small MS4 General Permit. El Macero began development in 1961, laid out around an 18-hole golf course. The homes are generally large (over 2,000 square feet of floor space). Landscaping is generally "neat", consisting predominately of well-manicured lawns. Littering is not an issue in either community. Domestic wastewater is collected through a buried piping network into the City of Davis' system. Potable water is supplied from wells maintained by the City of Davis. Stormwater from El Macero passes into a storm drain system consisting of buried pipes. This piping system discharges into the South Davis Drainage Ditch (SDDD) near Mace Boulevard.

Willowbank is an "established" neighborhood, with plot sizes approaching one acre and mixed landscaping with oaks and smaller accent trees and brush. Stormwater is channeled on the surface alongside roads. Homes have individual septic systems. Potable water is supplied from wells maintained by the City of Davis. Stormwater from Willowbank passes through open ditches into Old Putah Creek channel, on the north side of the development. This channel also drains into the SDDD.

The SDDD receives stormwater from the entire Davis area south of Interstate-80, which encompasses both El Macero and Willowbank. The SDDD is a large open ditch that carries water eastward, parallel to Childs Avenue, to the edge of the Yolo Bypass. The riparian corridor of the SDDD is the property of – and is inspected and maintained by – the City of Davis. The El Macero Pump Station pumps water in the SDDD over the Westside levee of the Yolo Bypass.

1.3.3 Beneficial Uses

Designated beneficial uses for receiving water into which the County's stormwater eventually drains are given in the 1998 Basin Plan[2] as follows:

[2] The full title of this document by the Central Valley Regional Water Quality Control Board is: *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*.

Beneficial Use	Yolo Bypass	Cache Creek	Putah Creek
Water supply		E	E
Irrigation	E	E	E
Stock watering	E	E	E
Industrial Process		E	
Industrial Service Supply		E	
Contact recreation	E	E	E
Canoeing and rafting		E	E
Non-contact recreation	E	E	E
Warm water habitat	E	E	E
Cold water habitat	P	P	E
Warm water migration	E		
Cold water migration	E		E
Warm water spawning	E	E	E
Cold water spawning		E	E
Wildlife habitat	E	E	E

E = Existing use
P = Potential use

Note that stormwater from El Macero and Willowbank discharges directly into Yolo Bypass, not into Cache or Putah Creeks.

1.4 Stormwater Pollutants and Impacts on Water Quality

Pollutants typically found in urban runoff include sediments, non-sediment solids, nutrients, pathogens, oxygen-demanding substances, petroleum hydrocarbons, heavy metals, floatables, polycyclic aromatic hydrocarbons (PAHs), trash, and pesticides and herbicides. All of these pollutants could negatively impact the existing and potential beneficial uses in these waterbodies.

Sediment is a common component of stormwater, and can be a pollutant, when it is detrimental to aquatic life (primary producers, benthic invertebrates, and fish). Sediment can interfere with photosynthesis, respiration, growth, reproduction, and oxygen exchange between aquatic organisms and the surrounding water. In addition, sediment can transport other pollutants that are attached to it including nutrients, trace metals, and hydrocarbons. Sediment is the primary component of total suspended solids (TSS), a common water quality analytical parameter.

Nutrients (typically nitrogen and phosphorous) are the major plant nutrients used for fertilizing landscapes, are often found in stormwater. These nutrients can accelerate growth of vegetation, particularly algae, resulting in excessive concentrations that impair use of water in lakes and other sources of water supply. For example, nutrients have led to a loss of water clarity in Lake Tahoe. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.

Pathogens (bacteria and viruses) are common contaminants of stormwater even in separate storm drain systems. Sources of these contaminants include animal excrement, sanitary sewer overflow, and soil. High levels of indicator bacteria in stormwater have led to the closure of beaches, lakes and rivers to contact recreation such as swimming.

Oil and grease includes a wide array of petroleum hydrocarbons, some of which are toxic to aquatic organisms at low concentrations. The main sources of oil and grease are leakage from engines, spills at fueling stations, overfilled tanks, restaurant waste oil disposal.

Metals (including lead, zinc, cadmium, copper, chromium and nickel) are commonly found in stormwater. Many of the artificial surfaces of the urban environment (e.g., galvanized metal, paint, automobiles, or preserved wood) contain metals, which enter stormwater as the surfaces corrode, flake, dissolve, decay, or leach. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.

Organic compounds (including toxic synthetic compounds such as adhesives, cleaners, sealants, and solvents) are widely applied and may be improperly stored and disposed. In addition, deliberate dumping of these chemicals into storm drains and inlets causes environmental harm to waterways.

Pesticides (including herbicides, fungicides, rodenticides, and insecticides) have been repeatedly detected in stormwater. As use of pesticides has increased, so too have concerns about the potential adverse effects of pesticides on the environment and human health. Accumulation of these compounds in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in those organisms that feed on them, such as fish and birds.

Gross Pollutants (trash, debris, and floatables) common to urban environments and industrial sites, may create an aesthetic "eye sore" in waterways. Gross pollutants also include plant debris (such as leaves and lawn-clippings from landscape maintenance), animal excrement, street litter, and other organic matter. When these substances decay in streams, lakes, and estuaries dissolved oxygen levels are depressed, sometimes causing fish kills.

Recognizing that the focus areas for the County are residential communities, pathogens (primarily from pet waste), sediment, and household pesticides and other toxic materials are the pollutants of concern.

1.5 Elements and Organization of the Program

The County's SWMP is a comprehensive environmental program that addresses a wide range of activities under various departments. The SWMP builds upon many existing environmental programs and activities.

This SWMP Planning Document is organized into three sections (Figure 1-2):

Section 1 introduces the County's environment, explains the legal basis for the SWMP, discusses pollutants of concern, and lays out the major elements of the SWMP.

Section 2 describes the six program elements and their corresponding control measures and measurable goals[3] that will be implemented. Each control measure consists of recommended best management practices (BMPs), as applicable. BMPs are the standard acceptable practices (or methods) for controlling, preventing, reducing, or removing pollutants in urban stormwater. Measurable goals for modifying or developing new BMPs are designed to address regulatory requirements or sources of pollutants that are not adequately addressed through existing activities. The six program elements are:

1. Public Education and Outreach

[3] Also commonly known as "performance standards".

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

Requirements for each control measure as stated in the Small MS4 General Permit are given at the beginning of each program element's section.

Section 3 describes the County's plan to implement the SWMP and includes descriptions of:

- Management roles and responsibilities for program implementation,
- Staffing requirements
- Fiscal resources available,
- Recordkeeping procedures, and
- Assessment activities.

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. This framework provides a complete cycle of assessing the problem, developing a program to address the problem, implementing the program as designed, and evaluating its effectiveness.

Full implementation of the SWMP will be a long-term process. 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.

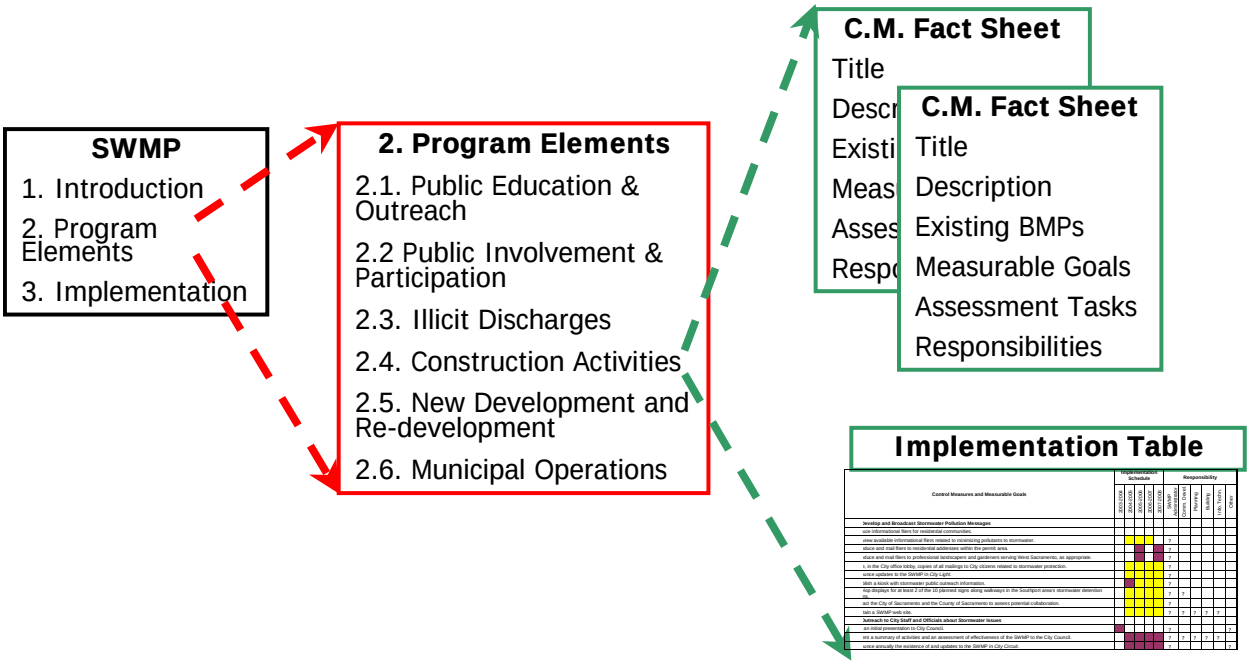


Figure 1-2. SWMP Planning Document organization, highlighting detail in the program elements' sections. Each program element section (only 2.4 is expanded as an example) describes the elements content and requirements in the Small MS4 General Permit, followed by various control measures ("C.M."). An implementation table indicates the fiscal years that each measurable goal will be undertaken and which County department is responsible for each goal.

1.6 Purpose and Goals of Program Elements

In the context of this SWMP, the minimum control measures are the foundation of the program elements. The purpose and goal of the six key program elements are described in the following sections.

1.6.1 Public Education and Outreach

This program element describes the current and planned public education and outreach activities that address stormwater quality. The goal is to educate the general population about stormwater quality and steps that they can take to protect it.

1.6.2 Public Involvement and Participation

This program element describes the current and planned public involvement and participation activities that address stormwater quality. The goal is to recommend water quality control measures that the public can implement. Also, the citizens will be invited to participate in refining this SWMP.

1.6.3 Illicit Discharges

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

1.6.4 Construction Activities

This program element describes the controls to reduce the discharge of pollutants associated with construction activities. The goal is to control pollutants associated with construction activities by requiring a construction site to implement adequate water quality control measures and by enforcing the implementation of the requirements through adequate construction site inspections.

1.6.5 New Development and Redevelopment

This program element describes the controls to reduce the discharge of pollutants associated with runoff from new development and redevelopment projects after construction is complete. The goal is to require the installation of permanent water quality control measures during the development application approval process. The design of the control measures will be verified through the plan review and approval process. Enforcement of the construction and operation of the control measures will be done through field inspections (covered under the Construction Activities program element). The program also includes measures to ensure the long-term maintenance of permanent control measures.

1.6.6 Municipal Operations

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

2 PROGRAM ELEMENTS

This section of the Stormwater Management Program (SWMP) Planning Document describes the program elements to be proposed by the County. The activities planned address the various sources of pollutants in stormwater runoff from the urbanized areas of the County. The program elements and control measures have been grouped by source/function categories as shown in Table 2-A.

Table 2-A. Index to control measures in each program element

Control Measure Acronym	Control Measure Title
Section 2.1: Public Education and Outreach	
PEO1	Broadcast Stormwater Messages
PEO2	SWMP Information on the County Web Site
Section 2.2: Public Involvement and Participation	
PIP1	Public Input on SWMP
PIP2	Community Volunteerism and Participation
Section 2.3: Illicit Discharges	
ID1	Stormwater Quality Control Ordinance for Illicit Discharge
ID2	Illicit Discharge Detection and Elimination Activities
Section 2.4: Construction Activities	
CA1	Stormwater Quality Control Ordinance for Construction Sites
CA2	Construction Activity Plan Review
CA3	Construction Site Inspections
Section 2.5: New Development and Re-Development	
NDRD1	Stormwater Quality Control Ordinance for Post-Construction Controls
NDRD2	Land Development Plan Review
Section 2.6: Municipal Operations	
MO1	Employee Education and Training
MO2	Signage, Roadwork and Street Sweeping Activities
MO3	Storm Drain System Inspection and Maintenance
MO4	County Facilities Stormwater Management Practices

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

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

At the end of each program element section is a table summarizing the control measures, along with their implementation schedule and responsible positions or departments.

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

Program Element Title **Control Measure Acronym (example PEO1)**

Control Measure Title: This provides the title of the control measure.

Control Measure Objective: This provides a brief description of the activities, sources or pollutants to be addressed by the control measure.

DESCRIPTION

This section outlines the purpose and scope of the control measure.

EXISTING BMPS AND RELATED ACTIVITIES

This section describes existing BMPs and activities associated with this control measure. The County itself may not be responsible for all activities (e.g., volunteer groups and countywide programs), but they affect the local community nonetheless.

MEASURABLE GOALS

This section describes the quantifiable goals of the control measure, including activities to be conducted by the County to comply with the storm water regulations. Activities include such things as reviewing or developing documents or procedures, providing training, revising schedules, eliminating practices, etc.

ASSESSMENT TASKS

This section provides a quantitative approach to verify the County's efforts to implement the control measure.

RESPONSIBILITY

County 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

The Public Education and Outreach Program focuses on educating the public 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 County to implement a public education program to distribute educational materials to the community or to 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

Control measures in this section focus on educating the residential communities of El Macero and Willowbank, while broadcasting messages to the larger County, as practicable.

PEO1 pertains to education and outreach materials to County citizens. The County will confer with the Yolo County RCD and the UC Davis Master Gardener Program to mail fliers to residents in El Macero and Willowbank on appropriate pesticide use and alternative pest management techniques. This information will also be mailed to professional landscapers and gardeners serving these communities and others in throughout the County. Golf course maintenance supervisors in the County (particularly in El Macero) will be interviewed to determine their level of environmental stewardship. All mailings will also be available in the County office lobby.

POE2 pertains to outreach efforts regarding stormwater issues to the community through the County's web site. Relevant documents (for example, this SWMP and the Small MS4 General Permit), mailers, photos, and press releases will be included on the web site.

2.1.3 Supporting Control Measures

The Public Participation and Involvement program element plays a collaborative role in educational efforts. Presentations to and discussions with the Board of Supervisors, advisory committees, and interested citizens serve to spread the stormwater message. Support to volunteer groups serves as a hands-on educational tool. Activities managed by the Recycling Coordinator provide additional outreach to the community and educate citizens about the steps they can take to properly dispose of pollutant sources. School education programs in the City of Davis provide an additional educational component.

Control Measure Title:	Broadcast Stormwater Messages
Control Measure Objective:	Educate County residents about impacts of pollutants in stormwater and about the County's Stormwater Management Program

DESCRIPTION

Printed materials are a common way to inform the public about stormwater quality. The target audience is homeowners and professional landscapers in the El Macero and Willowbank communities, although much of the informational material will be broadcast to a countywide audience. The County's ever-expanding and readily accessible web site will allow for rapid retrieval of information.

EXISTING BMPS AND RELATED ACTIVITIES

- The Yolo County Agriculture Department has primary responsibility for enforcing agricultural laws and regulations pertaining to pesticide use. The Department implements countywide programs for both pest detection and weed and vertebrate pest management. The Department works with farmers to implement best management practices for protecting water quality.
- Landscape and gardening businesses that apply pesticides are required to have a Maintenance Gardener Pest Control Business License. To qualify, applicants must obtain a Qualified Applicator Certificate, issued by the State, and register with the County agricultural commissioner. The County Health Department's Environmental Health Division (EHD) deals with licensees because of chemical uses. EHD notifies businesses of new regulations for pesticides and enforces compliance with regulations. These programs are designed to protect human health and the environment, including water quality.
- The Yolo County Resource Conservation District's (RCD's) mission is to protect, improve, and sustain the natural resources of Yolo County by 1) demonstrating conservation practices through co-operative land users, 2) educating the public in resource conservation and enhancement, and 3) providing information and expertise. Because of the significant agricultural base in the County, the RCD focuses its efforts on rural farmers and reduce stormwater impacts through outreach efforts that reduce erosion from agricultural lands. Its current boundaries of responsibility exclude the incorporated cities.
- The University of California Cooperative Extension's Master Gardener Program (http://ceyolo.ucdavis.edu/Gardening_and_Master_Gardening/) provides educational material for assessing the need for (and, if so, alternatives to) pesticides. This Program focuses on solving problems with home gardeners. A large library and set of informational brochures are available for self-education. Agricultural extension experts are also available for on-site visits and consultation.
- The Cities of Davis and Woodland host composting classes, available upon request as packets. Composting contains yard waste and food scraps that may otherwise be exposed to stormwater.

- The City of Davis has a school education program for environmental issues. Residents in the El Macero and Willowbank communities attend schools in Davis.
- The County's main office (public lobby) provides brochures on used oil recycling, chemical spill reporting, park and land conservancies in the County, water management programs, septic tank cleaning, building permits, and a County-sponsored newsletter on Cache Creek.

MEASURABLE GOALS

1. Produce informational fliers for residential communities. The fliers will list the major impacts of pollutants in stormwater and actions that the public should take to minimize impacts. Along with a message about the potential impacts and hazards of pollutants in stormwater runoff, the fliers will focus on the major sources of stormwater pollutants from residential areas, in particular:
    - Concrete waste from minor work that occurs in residential areas;
    - Proper disposal of paint and solvents and used oil; and
    - Proper yard maintenance techniques, such as herbicide and pesticide use.
2. Confer with permitted municipalities in the County (Cities of Woodland, Davis and West Sacramento) regarding a countywide stormwater message.
    a. Review available informational fliers related to minimizing pollutants in stormwater to glean information that could be useful in Yolo County's program. Gather information from and confer with:
        - UC Davis Master Gardener Program
        - Yolo County Agriculture Department
        - Yolo County RCD
        - Yolo County Health Department.
    b. Produce and mail one set of fliers to residents in El Macero and Willowbank. Lightweight flyers and brochures will be added to general mailings, such as utility bills or notices about County services, to minimize the cost of postage.
    c. Produce and mail one set of fliers to professional landscapers and gardeners serving Yolo County.
3. Place in the County office lobby copies of educational materials related to stormwater protection.
4. Interview golf course maintenance supervisors in El Macero to determine their level of environmental stewardship. If appropriate, assist staff with developing a plan to improve management practices that minimize impacts to receiving waters. "A Guide to Environmental Stewardship on the Golf Course", Second Edition, is published by Audubon International ($25). The chapters on Water Quality Management and Chemical Use Reduction and Safety would be particularly pertinent to concerns about impacts to stormwater.

ASSESSMENT TASKS

1. Track distribution of outreach material including addressees, quantity, date.
2. Document any comments or suggestions made by the community regarding outreach materials.
3. Document contacts with golf course maintenance supervisors.

RESPONSIBILITY

The SWMP Administrator, the Assistant Director for Public Works, is primarily responsible for implementing this control measure.

Control Measure Title: SWMP Information on the County Web Site

Control Measure Objective: Maintain a SWMP web site through the County's web site to inform viewers about the County's Stormwater Management Program.

DESCRIPTION

Web sites are an alternative source of information that is available anywhere and at any time. The County's web site will be enhanced to provide information on the SWMP.

EXISTING BMPS AND RELATED ACTIVITIES

- The County has a web site (www.yolocounty.org) that can be updated daily. Public service announcements of upcoming events and public meetings, and available reports are given through this link. The web site also contains encroachment and building permit forms and instructions.

MEASURABLE GOALS

1. Set up a separate web page for the SWMP within the Public Works Department's web page.
2. Allow for download of documents related to the SWMP:
   - This SWMP document
   - Small MS4 General Permit
3. Include links to additional information:
   - The State Water Resources Control Board's stormwater program.
4. Provide information related to the County's SWMP:
   - Contact information for the SWMP Administrator
   - Pesticide use, irrigation practices, and other steps that the public can take to improve stormwater quality (see PEO1)
   - Reference and links to stormwater-related County ordinances

ASSESSMENT TASKS

1. Identify new information to be conveyed on the SWMP web site.
2. Include a "counter" on the web site to count each time the SWMP web site is accessed.
3. Document any comments or suggestions made by the community regarding the content of the web site.

RESPONSIBILITY

The Information Technology Division Director will assign the development of the SWMP web site to appropriate staff. The SWMP Administrator, the Assistant Director for Public Works, will provide files and information in electronic format to the webmaster. All divisions of Planning and Public Works will review the web site and provide useful information, as warranted.

Table 2-B. Public Education and Outreach Program – Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008-	SWMP Administrator	Info. Technol.	Planning	Building	Envir. Health	Other
PEO1 Develop and Broadcast Stormwater Messages											
1. Produce informational fliers for residential communities.											
a. Confer with permitted municipalities regarding a countywide stormwater message.	■					●					
b. Review available informational fliers related to minimizing pollutants in stormwater.		■		■		●				◐	
c. Produce and mail one set of fliers to residents in El Macero and Willowbank.			■		■	●				◐	
d. Produce and mail one set of fliers to professional landscapers and gardeners serving Yolo County.			■		■	●				◐	
2. Place, in the County office lobby, copies of all mailings to County citizens related to stormwater protection.			■	■	■	●					◐
3. Interview golf course maintenance supervisors in El Macero to determine their level of environmental stewardship. Provide information to improve environmental stewardship, as appropriate.				■		●					
PEO2 SWMP Information on the County Web Site											
1. Set up a separate web page for the SWMP within the Public Works Department's web page.		■				◐	●	◔	◔	◔	◔
2. Allow for download of documents related to the SWMP		■				◐	●				
3. Include links to additional information.		■				◐	●				
4. Provide information related to the County's SWMP.		■	■	■	■	◐	●	◔	◔	◔	◔

■ 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

The Public Involvement and Participation Program focuses on educating the public and businesses about what can be done 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.

2.2.1 Permit Requirements for Public Involvement and Participation

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

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

This program element supports volunteer activities in the focus communities while involving countywide representatives in development of the SWMP.

PIP1 pertains to promoting public input on the SWMP through ongoing relationships and interaction between County staff and administrators and citizens.

PIP2 pertains to promoting volunteer activities in target communities. The County will facilitate and encourage involvement of local citizens in the cleanup of Old Putah Creek and the SDDD. Emergency contact options for reporting hazardous waste will be maintained. Ongoing hazardous waste disposal and recycling programs will be continued.

2.2.3 Supporting Control Measures

Education and outreach activities of the SWMP encourage citizens to participate in various County programs such as marking drain inlets and to review and comment on the SWMP. The County's recycling program's outreach activities provide information to citizens regarding alternatives for waste recycling.

Control Measure Title:	Public Input on SWMP
Control Measure Objective:	Promote public participation in the development and review of the SWMP. Their input will provide valuable information and guidance for appropriate implementation of the SWMP.

DESCRIPTION

Public announcements, calls for input, and meetings are excellent ways to inform citizens about stormwater impacts in addition to gaining support for the proposed stormwater management program. Key issues, especially those that directly affect the public, can be described during these meetings to increase awareness about citizen responsibility, costs, and expected benefits. Stakeholders might include citizens, local school groups, community leaders, local and state government representatives, and business owners.

EXISTING BMPS AND RELATED ACTIVITIES

- The County complies with all existing State and local public notice requirements regarding the adoption of public plans or policies to be implemented by the County. Legal notices are posted either at the Administration Building at 620 Court Street or at the Planning and Public Works Building at 292 West Beamer, or at both. Where they are posted depends on what makes the most sense depending on the nature of the notice. Press releases are sent out as required to Cal Aggie, Daily Democrat, Davis Enterprise, West Sacramento News-Ledger, West Sacramento Press, Sacramento Bee, and Winters Express.
- The Parks, Recreation and Wildlife Committee, an advisor to the Board of Supervisors, is charged with making recommendations on issues that impact or address parks, habitat and open space. Each Board member has two appointees on the Committee and a Board member sits on the committee as well. This committee advises on and promotes activities that are protective of water quality.
- The Water Resources Association of Yolo County (http://www.dcn.davis.ca.us/go/wra/citcom.htm) addresses current water issues in Yolo County. Association participants include various volunteer groups, Chambers of Commerce, farmers, and the Yolo County Resources Conservation District. Several active volunteer organizations and stakeholder groups are potentially interested in stormwater quality issues in the County:
  - **Cache Creek Technical Advisory Committee (TAC)** – The TAC works under the Cache Creek Watershed Stakeholders Group to provide technical oversight and advice to enhance and protect watershed resources.
  - **Putah Creek Council** – The Council is dedicated to the protection and enhancement of Putah Creek through advocacy, education, and activism. It hosts stream clean-up activities and facilitates an Adopt-A-Reach program.
  - **Lower Putah Creek Coordinating Committee** – The Committee was set up as a consent decree for diversions from Solano Dam. Members are interested in water quality

from that point to the Bypass. This committee is required to have a Board of Supervisor and Putah Creek Council member as members.

- **Yolo Basin Foundation** – The Foundation was instrumental in the creation of the Vic Fazio Yolo Wildlife Area, located in the Yolo Bypass where the SDDD discharges.
- **Riparian Improvement Organization (RIO)** – RIO organizes volunteers for hands-on projects such as placing markers on storm drains ("Don't Pollute – Drains to Wetlands") and cleaning up drainage channels and detention ponds.

MEASURABLE GOALS

1. Comply with all State and local public notice requirements for the adoption and periodic revisions of the SWMP.
   - Post public notices either at the Administration Building at 620 Court Street or at the Planning and Public Works Building at 292 West Beamer, or at both, depending on the nature of the notice.
   - Post the SWMP document on the County web page.
2. Notify stakeholder groups that the SWMP document is available for review and comment. At a minimum contact:
   - Water Resources Association of Yolo County
   - Cache Creek Technical Advisory Committee
   - Putah Creek Council
   - Lower Putah Creek Coordinating Committee
   - Yolo Basin Foundation
   - Riparian Improvement Organization (RIO).
3. Conduct a workshop (advertised and open to the public) with the County Board of Supervisors' Parks, Recreation and Wildlife Committee and the Water Resources Association of Yolo County regarding the SWMP.
   - Discuss the importance of protecting stormwater quality, particularly in urban environments.
   - Discuss the SWMP's elements and control measures.
   - Describe ongoing activities complying with the SWMP.
   - Discuss recommended changes to measurable goal.
4. Update County Board of Supervisors members and participants concurrently with submittals of annual Permit Compliance Reports. Present a summary of activities and an assessment of effectiveness of the SWMP to the Board of Supervisors, prior to each submittal of the annual Permit Compliance Reports to the RWQCB (August 15 each year of the first five-year permit term).

ASSESSMENT TASKS

1. Receive, address and log all comments received regarding the SWMP.

RESPONSIBILITY

The SWMP Administrator, the Assistant Director for Public Works, is primarily responsible for implementing this control measure.

Control Measure Title:	Community Volunteerism and Participation
Control Measure Objective:	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 most storm drain systems discharge runoff directly into local waterbodies. Monitoring and cleanup activities allow concerned citizens to become directly involved in protecting stormwater quality. 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

- Yolo County Division of Integrated Waste Management facilitates hazardous waste turn-in days every other month at the Yolo County Central Landfill for all citizens and businesses of Yolo County. Each event generally serves between 300 and 400 people. They are advertised in the Davis Enterprise, Daily Democrat, Winter's Express, West Sacramento News and West Sacramento Press. The cable TV stations in Davis and Woodland are also informed, as well as the Chambers of Commerce. In addition, 30,000 fliers are provided to the cities for distribution in local schools.
- The County's employs a full-time Recycling Coordinator, who manages a strong recycling program. Major activities include a yearly used oil campaign publicized through television and radio commercials and brochures. The County has also produced for 2003 a recycling calendar, providing information on waste collection days, contacts, and other information sources, handed out at the hazardous waste collection events. The Coordinator also operates a booth at the Yolo County Fair and at Public Works Week. Recyclable paper, plastics and metals are collected curbside weekly in most urban areas. Computers, stereos, printers, monitors and televisions are accepted at the landfill during regular business hours.

MEASURABLE GOALS

1. Formalize a volunteer coordination process for County-supported activities to be used in stream cleanup activities and other volunteer activities related to stormwater.
2. Facilitate annual stream monitoring and clean up efforts within the County coordinated by local volunteer organizations by providing material (tools, trash bags, trash collection) support. Facilitate one volunteer event annually. Organizations to contact directly include:
    - Lower Putah Creek Coordinating Committee
    - Yolo Basin Foundation
    - Riparian Improvement Organization (RIO).

ASSESSMENT TASKS

1. Record facilitated stream clean-up activities, including locations and quantities of trash and other materials removed from the stream reaches.

RESPONSIBILITY

The Division of Integrated Waste Management, under the Direction of the Division Manager, facilitates the hazardous waste turn-in days. The Parks and Resources Management Division, under the Direction of the Division Manager, facilitates volunteer activities. The SWMP Administrator, the Assistant Director for Public Works, will maintain contact with volunteer organizations and support their activities, as appropriate.

Table 2-C. Public Involvement and Participation Program Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Planning	Recycling Coordinator	Building	Envir. Health	Other
PIP1 Public Input on SWMP											
1. Comply with all State and local public notice requirements for the adoption and periodic revision of the SWMP.						●					
2. Notify stakeholder groups that the SWMP document is available for review and comment.						●					
3. Conduct an open workshop with the County Board of Supervisors' Parks, Recreation and Wildlife Committee.						●					
4. Update County Board of Supervisors members and participants concurrently with submittals of Permit Compliance Reports.						●					
PIP2 Community Volunteerism and Participation						●					
1. Formalize a volunteer coordination process for County-supported activities.							●				
2. Facilitate annual stream monitoring and clean up efforts within the County.						◐	●				

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

Most urban storm drain systems convey flows other than stormwater. These non-stormwater discharges enter the storm drain system from a variety of sources, such as landscape irrigation. Illicit discharges are another source of pollutants that enters the storm drain system 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 pollutant discharge. Illegal dumping is the intentional dumping of prohibited materials into the conveyance system, streets, inlets or basins, and the improper disposal of material on land that is then discharged to the storm drain system when it rains.

Non-stormwater discharges caused by illicit discharges can be a source of pollutants that may adversely impact receiving waters. Because of this, the Small MS4 General Permit requires the County to "effectively prohibit" non-stormwater discharges to the storm drain system.

2.3.1 Permit Requirements for Illicit Discharges

The Small MS4 General Permit requires the County to develop, implement and enforce a program to detect and eliminate illicit discharges into the storm drain system. At a minimum, the Permittee must:

1. Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all waters of the state and other MS4s that receive discharges from those outfalls;
2. Develop and implement a plan to detect and address non-stormwater discharges to the system, including illegal dumping, that are not authorized by a separate NPDES permit;
3. 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
4. Adopt an ordinance, policy, or other regulatory mechanism, to effectively prohibit non-stormwater discharges into the storm sewer system and implement appropriate enforcement procedures and actions.

Several non-stormwater discharges must be addressed if the County or RWQCB identifies them as significant contributors of pollutants. These discharges include:

- water line flushing
- landscape irrigation
- diverted stream flows
- rising ground waters
- uncontaminated ground water infiltration to separate storm sewers
- uncontaminated pumped ground waters
- discharges from potable water sources
- foundation drains
- air conditioning condensation
- irrigation water
- springs
- water from crawl spaces pumps
- footing drains
- lawn watering
- individual residential car washing
- flows from riparian habitats and wetlands

- dechlorinated swimming pool discharges

To date, none of these discharges have been identified as significant contributors of pollutants in urban areas of the County.

2.3.2 Control Measures for the Illicit Discharges Program

Illicit discharges are largely controlled through existing activities and County policies. Control measures noted here provide for the continuation and improvement of these activities, as well as providing a stronger legal basis for enforcement.

ID1 pertains to a Stormwater Management Ordinance that would enforce the prohibition of illicit discharges into County storm drain systems. The County will review existing County ordinances, evaluates model ordinances, and, if necessary, develops a stormwater management ordinance to enforce this program element. If not provided already, the stormwater ordinance would provide County inspectors with adequate legal authority and enforcement and allow for a fee program.

ID2 pertains to identifying and addressing illicit discharges to the storm drain system through an inspection program. The program for the communities of El Macero and Willowbank will be conducted annually. The County will prepare and periodically update a map of storm drain systems, receiving water outfalls, and major infrastructure for these communities.

2.3.3 Supporting Control Measures

Many County operations such as hazardous waste pickup activities, storm drain system maintenance, street sweeping and roadwork, partially address this program element's intent. The Public Education and Outreach Program and Municipal Operations Program elements also 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. Non-stormwater discharges such as irrigation runoff is addressed in the PEO1.

Control Measure Title:	Stormwater Quality Control Ordinance for Illicit Discharge
Control Measure Objective:	Develop a County ordinance to enforce the illicit discharge detection and elimination program element.

DESCRIPTION

Ordinances are the most effective means for the County to prohibit illicit discharges to the storm drain system. The County will develop an ordinance with language supporting the detection and elimination of illicit discharges by prohibiting such discharges and providing for enforcement of compliance.

EXISTING BMPS AND RELATED ACTIVITIES

- 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). The Small MS4 General Permit does not require any additional effort on the part of the County. There are no industrial facilities in the targeted residential communities; however, one other urbanized area under the County's jurisdiction, along Kentucky Avenue adjacent to the City of Woodland, has some industrial facilities.
- There is no mandatory garbage collection in the unincorporated County, although there is currently an ordinance against unauthorized dumping.
- EHD enforces County ordinances for sewage disposal and does outreach, inspections, and enforcement particularly as relates to septic tanks and septic tank pumps (County Code, Title 6, Chapter 5). EHD issues permits for the installation, repair, and abandonment of domestic sewage disposal (septic) systems. EHD assists septic contractors and homeowners requesting information by providing information to callers or on-site visits. EHD also investigates improper sewage disposal practices as reported by the public. These activities redice the likelihood of stormwater contamination from improperly maintained or sited septic systems.

MEASURABLE GOALS

1. Review and evaluate existing County ordinances regulating illicit discharges to the storm drain system, such as:
    - Sewage disposal
    - Unauthorized dumping
    - Littering
    - Non-stormwater discharges
    - Illegal discharges.
2. Evaluate available model ordinances for applicability in the County.
    - Model Urban Runoff Program example stormwater management ordinance

- City of Sacramento stormwater quality ordinance.

3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the prohibition of non-stormwater discharges into the storm drain system.
   a. Draft Ordinance in Year 2.
   b. Finalize Ordinance in Year 3.
4. Establish a legally enforceable fine schedule for ordinance violators.

ASSESSMENT TASKS

1. List associated County ordinances reviewed in context of illicit discharges.
2. List model ordinances reviewed in context of illicit discharges.
3. Record adoption of a Stormwater Quality Control Ordinance with illicit discharge provisions.

RESPONSIBILITY

The SWMP Administrator, Rick Moore, is primarily responsible for developing the Stormwater Quality Control Ordinance. The County Counsel, EHD and Planning & Public Works Department relying on this ordinance for enforcement capability will support this effort by review and input.

Control Measure Title:	Illicit Discharge Detection and Elimination Activities
Control Measure Objective:	Maintain County practices aimed at detecting and eliminating illicit discharges.

DESCRIPTION

Identifying and removing illicit discharges is a measure for reducing stormwater pollutants. Systematic mapping and inspection of the storm drain system, combined with a response procedure for public complaints, will effectively control illicit discharges. Identifying and eliminating failing septic systems will help control contamination of ground and surface water supplies from untreated wastewater discharges.

EXISTING BMPS AND RELATED ACTIVITIES

- The County maintains maps showing all major infrastructure and waterways within the County's jurisdictional boundaries (maps for El Macero and Willowbank are provide in Attachment 1).
- Applications for business licenses require that information on handling, storage, use and disposal of hazardous chemicals be sent to the Environmental Health Division (EHD). Businesses handling hazardous materials/wastes are required to develop an Emergency Response Plan that includes a spill prevention and clean-up plan. These Plans are on file at EHD and local fire departments. The El Macero Country Club is the only business identified in the focus communities that handles hazardous materials, which mainly consist of pesticides for the golf course and disinfectants for the swimming pool. Business' located in the focus communities will receive informational fliers.
- EHD inspects industries that pose potential threats to the environment, such as hazardous waste handlers. They also inspect restaurants for sanitation requirements. Personnel may enter facilities identified to have potential health and safety issues related to wastewater discharges or other illicit discharges.
- The communities of El Macero and Willowbank are both served by Davis Waste Removal for weekly garbage collection and recycling.
- Inspection of storm drain systems is currently focused on ensuring hydraulic capacity. The City of Davis inspects the SDDD and reports problems to local fire departments and to EHD.
- Illegal dumping or hazardous environmental conditions, including complaints by residents and business reporting illegal dumping or illicit connections to the storm drain system, can be reported to EHD directly during business hours or by dialing 911 at other times to activate a response.
- Most County residences (outside of the incorporated cities) are on septic tanks, although Esparto, Madison, and Knights Landing have sanitary sewer systems and treatment ponds. El Macero is connected to the City of Davis' sewage system, while Willowbank homes have septic systems. The City of Davis inspects El Macero's sewer system as part of normal municipal activities.

- EHD is responsible for vector control activities. A staff person specializing in vector control is available on request basis to visit sites and to provide resources and information.
- Fire protection in Yolo County is based on a volunteer fire department system. There are 17 independent fire departments operating as separate districts within the County. The City of Davis Fire Department serves El Macero and Willowbank. Local Fire Departments conduct fire-training activities and other non-emergency activities that result in non-stormwater discharges. Each local fire department is responsible for managing flows generated during its non-emergency activities to prevent them from being discharged to the storm drain system.
- EHD manages an Emergency Response Team, trained in Hazmat Level 1, on-call 24 hours per day (530-666-8930). The Team is comprised of EHD staff and fire departments from the major entities (Cities of Davis, Woodland, and West Sacramento, and the University of California at Davis). Local fire departments are contacted for physical response, with assistance from EHD. The Team responds if the local fire department is not capable of responding independently. The Team responds to all spills and leaks of hazardous and non-hazardous materials. Clean-up activities include measures to prohibit or limit flows to the storm drain system. The team is also responsible for classifying the material contracting for disposal of hazardous materials, and declaring the area safe.

MEASURABLE GOALS

1. Update storm drain system maps for the communities of El Macero and Willowbank.
2. Conduct visual characterization annually of the waste material collected in catch basins to determine the type of waste material being removed from the catch basins inlets. Inspections will be conducted by County employees of the Roads Division of the Department of Planning and Public Works. An inspection will be conducted during the rainy season to observe any visible pollutants in stormwater and in the dry season to detect illicit connections. Illicit connections will be investigated to determine their source and appropriate action taken to eliminate the illicit connection.
    a. Develop a checklist or mapping system for visual water quality monitoring of the storm drain systems. Classify pollutants in terms of (1) trash and litter, (2) oil and grease, (3) dirt and sediment, and (4) leaves and other yard waste.
    b. Use the checklist as a basis for field staff to alert EHD to investigate evidence of illicit connections or illegal discharges to storm drain systems in the County.
3. Respond to all citizen complaints of illicit discharges and illegal dumping of hazardous materials. Maintain the emergency response procedures to address complaints by residents and businesses reporting illegal dumping or illicit connections to the storm drain system. Local fire departments are the first responders, followed by assistance from the Emergency Response Team, as necessary. Complaints can be reported to:
    - Environmental Health Division (EHD) (530-666-8646) during regular business hours. If the illicit discharge is not of an "emergency" nature, it can be handled by the EHD, or, if of an emergency nature,
    - Emergency Response (911) at any time.

4. Implement appropriate enforcement action against any individuals or businesses found causing illegal discharges. Violators may be reported by concerned citizens, or an illicit connection may be discovered by County employees and traced to its source.
5. Continue EHD practices for enforcing sewage disposal related to septic systems:
   - Issue permits for the installation, repair, and abandonment of domestic sewage disposal (septic) systems.
   - Assist septic contractors and homeowners requesting information by providing information to callers or on-site visits.
   - Investigate improper sewage disposal practices as reported by the public.
6. Send residents of Willowbank notification of septic tank pumpout requirements.
7. Continue bi-monthly promotion and implementation of countywide hazardous waste collection activities.
   - Advertise in the Davis Enterprise, Daily Democrat, Winter's Express, West Sacramento News and West Sacramento Press
   - Inform the cable TV stations in Davis and Woodland
   - Inform the Chambers of Commerce in Davis, Woodland and West Sacramento
   - Provide fliers to the cities for distribution in their schools.
8. Continue the County recycling program's outreach efforts. Provide information on disposal options (collection days, contacts, and additional information sources) through appropriate media for:
   - Undertake a used oil campaign yearly
   - Accept computers, stereos, printers, monitors and televisions at the landfill during regular business hours.

ASSESSMENT TASKS

1. Document changes to the storm drain system map.
2. Record citizen complaints and responses regarding illicit discharges to the storm drain system.
3. Record illicit discharges investigated, including date and location of incident, and type and quantity of material dumped or discharged.
4. Record enforcement actions taken regarding illicit discharges.

RESPONSIBILITY

The Engineering Division, under the direction of the Assistant Director for Public Works, is primarily responsible for implementing this control measure. EHD and the Fire Department are responsible for responding to reports of hazardous waste spills. The City of Davis inspects and maintains El Macero's sanitary sewer system, Willowbank's surface runoff areas, and the SDDD. The SWMP Administrator, the Assistant Director for Public Works, will oversee the development and use of an inspection checklist and training field crews.

Table 2-D. Illicit Discharges Program Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Engineering	County Council	Fire Dept.	Envir. Health	Other
ID1 Stormwater Quality Control Ordinance for Illicit Discharge											
1. Review and evaluate existing County ordinances.						●		◐		◐	
2. Evaluate available model ordinances for applicability in the County.						●		◐		◐	
3. If necessary, adopt Stormwater Quality Control Ordinance that incorporates the prohibition of illicit discharges.											
a. Draft Ordinance.						●		◐			
b. Finalize Ordinance.						●	◔	◐		◔	
4. Establish a fine schedule for ordinance violators.						●	◐			◐	
ID2 Illicit Discharge Detection and Elimination Activities											
1. Update storm drain system maps for the communities of El Macero and Willowbank.						◐	●				
2. Conduct visual characterization annually of the waste material collected in catch basins.											
a. Develop a checklist for visual water quality monitoring of the storm drain systems.						●	◐				
b. Use the checklist as a basis for alerting EHD to investigate evidence of illicit connections or illegal discharges to storm drain systems in the County.						◔	●				
3. Respond to all citizen complaints of illicit discharges and illegal dumping of hazardous materials.						◔			●	●	
4. Implement appropriate enforcement action against any individuals or businesses found causing illegal discharges.						◔				●	
5. Continue EHD practices for enforcing sewage disposal related to septic systems.						◔				●	
6. Continue the County recycling program's outreach efforts.						◔		●			
7. Continue bi-monthly promotion and implementation of countywide hazardous waste collection activities.						◔		●			
8. Send residents of Willowbank notification of septic tank pumpout guidelines.						◔		●			

2.4 Construction Activities Program

Stormwater draining from construction sites can be a significant source of pollutants. Failure to implement adequate erosion and sediment control measures can result in more significant contributions of sediment to waters than 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 and paint).

2.4.1 Permit Requirements for Construction Activities

The Small MS4 General Permit requires the County to develop, implement and enforce a program to ensure controls are in place that will reduce pollutants in stormwater draining from construction sites. Within the permit area (i.e., the communities of El Macero and Willowbank), the program must apply to all construction projects that disturbs 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 would disturb more than one acre) and that discharge into the County's storm drain systems. At a minimum, the County must:

1. Adopt, maintain, and enforce an ordinance, policy, or other regulatory mechanism to require erosion and sediment controls at the construction sites, as well as sanctions to ensure compliance, to the extent allowable under federal, state or local law;
2. Require construction site operators to implement appropriate and effective erosion and sediment control BMPs;
3. Require construction site operators to control all pollutant sources at the construction site that may cause adverse impacts to water quality, including, but not limited to, construction materials and waste discarded building materials, concrete truck washout, chemicals, fuel, litter and sanitary waste;
4. Implement procedures for site plan review that incorporate consideration of potential water quality impacts from construction activities;
5. Implement procedures for receipt of and response to information submitted by the public; and
6. Implement procedures for site inspections 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 controls, Item 3 requires pollutant sources to be controlled. This control is also typically addressed through the adoption of an ordinance.

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

2.4.2 Control Measures for the Construction Activities Program

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. There are no urbanized areas within the County's jurisdiction that currently have significant construction.

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). The County will require that development sites larger than one acre provide copies of their SWPPPs to its inspectors.

CA2 incorporates consideration of potential water quality impacts from construction activities during construction site plan and BMP review procedures. The County will develop standards for erosion and sediment control on construction sites.

CA3 implements inspection procedures to address stormwater management at construction sites. Plan checkers and inspection staff will continue to be trained to recognize proper erosion and sediment controls and stormwater quality BMPs appropriate for construction activities and land development in Yolo County.

2.4.3 Supporting Control Measures

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

Control Measure Title:	Stormwater Quality Control Ordinance for Construction Sites
Control Measure Objective:	Adopt a Stormwater Quality Control Ordinance to implement and enforce County design standards for erosion and sediment control plans and Storm Water Pollution Prevention Plans (SWPPPs) for defined construction sites.

DESCRIPTION

Ordinances are the most effective means for the County to control the discharge of pollutants from construction sites. The County will develop an ordinance with language supporting planning and inspection of practices and controls on construction sites to eliminate or minimize sediment and other pollutants from entering the storm drain system.

EXISTING BMPS AND RELATED ACTIVITIES

- Storm Water Pollution Prevention Plans (SWPPPs) are required by State regulation – but not County ordinance – for construction sites impacting lands larger than one acre.

MEASURABLE GOALS

1. Review the Construction Activities Storm Water General Permit.
2. Evaluate available model ordinances for applicability in the County.
   - Model Urban Runoff Program example stormwater management ordinance
   - EPA model ordinance (available at www.epa.gov/nps/ordinance/mol2.htm)
   - County of Sacramento stormwater quality ordinance.
3. If necessary, adopt a Stormwater Quality Control Ordinance to control the discharge of sediment and other construction site pollutants into the storm drain system. The ordinance will require submittal of grading plans, erosion and sediment control plans, and SWPPPs to the County.
   a. Draft Ordinance in Year 2.
   b. Finalize Ordinance in Year 3.
4. Establish an enforcement program with penalties. The enforcement program will be adopted by the Board of Supervisors to assure compliance with County ordinances.

ASSESSMENT TASKS

1. List example ordinances reviewed in developing the County ordinance for construction activities.
2. Record adoption of a Stormwater Quality Control Ordinance with construction activities provisions.

3. Document establishment of a penalty schedule for ordinance violators.

RESPONSIBILITY

The SWMP Administrator, the Assistant Director for Public Works, is primarily responsible for developing the Stormwater Quality Control Ordinance. The County Counsel, EHD and Planning & Public Works Department relying on this ordinance for enforcement capability will support this effort by review and input.

Control Measure Title:	Construction Activity Plan Review
Control Measure Objective:	Establish standard conditions of approval and engineering design standards and specifications for stormwater quality measures to be used during construction activities.

DESCRIPTION

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

EXISTING BMPS AND RELATED ACTIVITIES

- Uniform Building Code (UBC) standards for building sites generally are used as the basis for comparison.
- The County is in the process of developing new standard specifications and plans that generally follow Sacramento County's standards documents for construction sites. These standards include a Storm Drainage Design section with standard grading, erosion and sediment control plans and specifications.
- All land development applications are reviewed by the Planning and Public Works Department for appropriate construction site activities. Building Division reviews the plans for individual units (a single home, for instance). The Engineering Division reviews plans if requested by the Planning Division. Measures determined to be necessary are written into the conditions of approval for the project.
- To comply with CEQA requirements for subdivision development applications, the Planning Division establishes necessary mitigation measures to ensure significant environmental impacts will not occur as a result of construction activities.

MEASURABLE GOALS

1. Evaluate current erosion and sediment controls and stormwater quality BMPs for construction sites.
2. Review available construction site stormwater BMPs for application in the County:
   - EPA guidance on their web (sitehttp://cfpub.epa.gov/npdes/stormwater/menuofbmps/con_site.cfm)
   - California Construction BMP Handbook (http://www.cabmphandbooks.org).
3. Develop standards and specifications for construction site stormwater BMPs. These will be enforceable through ordinance and the county code enforcement program.
   - Erosion control and sediment control
   - Contractor's activities that may cause adverse impacts on water quality.

4. Notify local builders and developers of the availability for purchase of revised standards and specifications.
5. Establish standard conditions of approval for protecting against erosion and other causes of water quality degradation 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. Require proof of coverage (i.e., NOI) under the State's Construction Activities Storm Water General Permit, when appropriate.
6. Develop a checklist to be used by Building and Engineering Division staff while reviewing land development applications and plans for compliance with construction site controls.
7. Conduct training workshops with the Building and Engineering Division staff to:
    - Educate construction contractors regarding the County's stormwater quality policies and standards for construction activities.
    - Train Planning and Engineering staff responsible for development application review in construction activity controls. Training of appropriate staff will begin in Year 3, the year that the ordinance is adopted, and will be completed during Year 4, when the enforcement program is established. All staff involved in the review of land development applications will participate in the workshops.

ASSESSMENT TASKS

1. Adoption of standards and specifications for grading and erosion control.
2. Establishment of standard conditions of approval.
3. Verify mailing of notification of available standards to local contractors and developers.
4. Record the number of Erosion and Sediment Control Plans received, reviewed and approved/disapproved by County staff.
5. Record the number of SWPPPs received and reviewed by the County.

RESPONSIBILITY

The Building, Engineering and Planning Divisions, under the direction of their respective division managers, are responsible for implementing this control measure. The SWMP Administrator, the Assistant Director for Public Works, will assist with staff training and reviewing all standards developed.

Control Measure Title:	Construction Site Inspections
Control Measure Objective:	Implement a construction site inspection program with review of stormwater quality control BMPs.

DESCRIPTION

Proper construction and maintenance of construction activity BMPs is critical for the protection of water quality. The County will provide adequate inspection during the construction and maintenance of these BMPs. The County inspectors will also confirm that post-construction stormwater BMPs in development plans are being constructed and implemented.

EXISTING BMPS AND RELATED ACTIVITIES

- The Planning and Public Works Department has an established construction inspection program. Inspectors visit each construction site during active phases of public improvements and private development to record the activities conducted at the site and to ensure construction is being completed according to plans.
- Inspection frequency depends on the scale of the activity, critical junctures in progress, and weather concerns (such as the beginning of the rainy season). The Department inspects subdivisions being constructed in the unincorporated County to check on the use of appropriate BMPs minimizing erosion and other pollutant sources, although there is no real authority to do so.
- If responsible parties do not comply with verbal guidance on appropriate BMPs, the County will write them a letter to clarify the issue. If they still refuse to comply, the County will notify the RWQCB and/or the County Department of Environmental Health.
- One inspector has had some training in stormwater quality control BMPs and uses a BMP guide from the training class as a standard.
- Public complaints for construction activities are routed to the Building Division. Division personnel respond to each call. Response generally consists of a site visit to view the problem, checks for violations of UBC standards, and enforcement actions, if necessary.

MEASURABLE GOALS

1. Develop a standard inspection form or checklist to be used in the field to ensure consistent review of erosion and sediment control and other stormwater quality control measures. 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 the storm drain system (e.g., chlorinated waters from main line testing, concrete wash waters, and contractor equipment rinse waters).

2. Coordinate inspection activities with code inspectors and other field inspection personnel to ensure site inspections are conducted during all phases of construction.
    - Inspect sites prior to the beginning of the wet season as a dry-weather screening process to identify priority sites.
    - Establish priority sites based on their potential to pollute stormwater (i.e. amount of disturbed area, cooperation of contractor, etc.).
    - Inspect priority construction sites monthly during the wet season.
3. Expand pre-construction meetings for all projects greater than one acre to include a review of erosion and sediment control plans, stormwater quality control measures, and other relevant County requirements regarding stormwater quality management.
4. Train construction site inspection staff. The training may include:
    - Conducting pre-construction meetings about the County's stormwater quality issues and policies.
    - Erosion and sediment controls and other stormwater quality control requirements for construction activities.
    - Post-construction stormwater BMPs requirements for new development and significant redevelopment.
    - Procedures for enforcing code compliance, such as issuance of citations or notices of noncompliance.
5. Receive and respond to information submitted by the public regarding stormwater runoff impacts due to construction projects. As is currently the case, concerned citizens can contact the Department of Planning and Public Works or the Environmental Health Division with their concerns and the appropriate County personnel will respond. The appropriate contact numbers will be provided on the informational fliers.

ASSESSMENT TASKS

1. Document creation of a checklist including inspection of stormwater quality controls.
2. Record the construction sites requiring coverage under the Construction Activities Storm Water General Permit, the number of inspections conducted by County staff, a description of deficiencies found, type of enforcement action(s) taken, and any follow-up actions taken by the County.
3. Record publicly submitted information regarding impacts of stormwater runoff from construction sites.
4. Record the number of pre-construction meetings conducted by County staff that incorporate discussion of erosion and sediment controls and stormwater quality control measures.
5. Record training sessions held for construction contractors and for staff responsible for reviewing construction plans.
6. Record training sessions held for field inspection staff.

7. Interview or create a feedback process for field staff to report recurring concerns regarding stormwater quality issues at construction sites to the SWMP Administrator.
8. Conduct field spot inspections by the SWMP Administrator to verify that inspections are being adequately conducted regarding stormwater quality issues.

RESPONSIBILITY

The Building and Engineering Divisions are primarily responsible for implementing this control measure. The SWMP Administrator will assist in developing the standard inspection form or checklist, training inspectors, and conducting spot inspections of BMPs.

Table 2-E. Construction Activities Program Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Engineering	Planning	Building	County Council	Other
CA1 Stormwater Quality Control Ordinance for Construction Sites											
1. Review the Construction Activities Storm Water General Permit.		■				●	◐	◐	◐	◔	
2. Evaluate available model ordinances for applicability in the County.		■				●	◐	◐	◐	◔	
3. Adopt a Stormwater Quality Control Ordinance with construction site provisions, if necessary.											
a. Draft the ordinance		■				●				◐	
b. Finalize the ordinance and apply countywide.			■			●	◔	◔	◔	◐	
4. Establish an enforcement program with penalties.				■		●					◐
CA2 Construction Activity Plan Review											
1. Evaluate current erosion and sediment controls and stormwater quality BMPs for construction sites.	■					●	◐	◐	◐		
2. Review available construction site stormwater BMPs for application in the County.	■					●	◐	◐	◐		
3. Develop standards and specifications for construction site stormwater BMPs.		■	■	■	■	◐	◐	◐	●		
4. Notify local builders and developers of the availability for purchase of revised standards and specifications.				■		◐		●	●		
5. Establish standard conditions of approval for erosion and stormwater quality control.				■		◐	●	●	●		
6. Develop checklists or similar method for reviewing land development applications and plans.				■		◐	●	●	●		
7. Conduct training workshops with the Building and Engineering Division staff.				■		◐	●		●		

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Engineering	Planning	Building	County Council	Other
CA3 Construction Site Inspections											
1. Develop a standard inspection form or checklist.						◐	●		●		
2. Coordinate inspection activities with code inspectors and other field inspection personnel.						◔	●		●		
3. Expand pre-construction meetings for all projects greater than one acre to include stormwater quality management.						◐	◐		●		
4. Train construction site inspection staff.						◐	●		●		
5. Receive and respond to information submitted by the public.						◐			●		

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

Numerous water quality studies have shown impacts on receiving water caused by stormwater runoff 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 runoff that comes in contact with these pollutants are 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 post-construction stormwater quality control measures. The control measures 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

The Small MS4 General Permit requires the County to develop, implement, and enforce a program to minimize the long-term impacts of stormwater runoff from new development and redevelopment projects within the permit area (i.e., El Macero and Willowbank). The program must ensure that long-term BMPs that prevent or minimize water quality impacts are incorporated into the design of these projects. At a minimum, the program must:

1. Develop and implement strategies which include a combination of structural and/or non-structural BMPs appropriate for the community, and
2. Adopt and enforce an ordinance, policy, or other regulatory mechanism that requires projects include the incorporation, and long-term operation and maintenance of appropriate long-term BMPs.

The Small MS4 General Permit does not specify which BMPs can be used at any site. Rather, it is the responsibility of the County to develop its own guidance and standards or to specify measures appropriate for local conditions. The strategies employed by the County must reflect the conditions of the County, including size, receiving waters, and amount of anticipated construction.

2.5.2 Control Measures for the New Development and Re-development Program

Control measures presented in this section address stormwater runoff from public and private newly developed and redeveloped sites. Note that there are currently no land development plans for urbanized areas of the County to which the General Permit apply (i.e., contiguous to permitted cities).

NDRD1 establishes adequate legal authorities through a Stormwater Quality Control Ordinance to require post-construction stormwater BMPs. General Plan policies (to be revised in 2004) will be reviewed for consistency with this SWMP and modified, if necessary.

NDRD2 implements land development plan and BMP review procedures that incorporate consideration of potential water quality impacts from land development. The County will develop standards that incorporate measures to minimize pollutant discharges to the storm drain system. The County will confer with the Cities of Davis, Woodland and West Sacramento to be as consistent as possible with development standards. Review staff will be trained to recognize post-construction stormwater BMPs appropriate for land development in Yolo County.

2.5.3 Supporting Control Measures

Public education and outreach programs promote awareness of the importance of stormwater quality controls. Public participation in the development and implementation of the General Plan is also relevant. The Construction Activities Program works in parallel with this program element as sites are inspected during construction and post-construction.

Control Measure Title:	Stormwater Quality Control Ordinance for Post-construction Controls
Control Measure Objective:	Develop a Stormwater Quality Control Ordinance, if necessary, to require post-construction control measures for new development or re-development projects.

DESCRIPTION

Ordinances are the most effective means for the County to ensure that post-construction stormwater management is provided for new and re-development sites. The County will develop an ordinance with language supporting incorporation of post-construction BMPs.

EXISTING BMPS AND RELATED ACTIVITIES

- The County's General Plan was adopted in 1983. The new revision should be completed in 2006.
- The County has a Flood Damage Prevention Ordinance. A Flood Development Permit is required for building, grading, filling, excavation or other construction within the 100-year floodplain. The County oftentimes requires a drainage plan to insure that flooding is not induced. Vegetated retention basins are normally required for subdivisions.
- The Planning Department establishes land use conditions and controls through County Code (Title 8, Land Development and Zoning) and other legally binding development plans and documents to ensure orderly and consistent land development and protection of the environment and natural resources.

MEASURABLE GOALS

1. Review existing County ordinances and policy statements for consistency with future revisions of this SWMP.
   - General Plan policy statements and action items
   - Flood Damage Prevention Ordinance
   - Land Development and Zoning ordinances
2. Evaluate available model ordinances for applicability in the County.
   - Model Urban Runoff Program example stormwater management ordinance
   - County of Sacramento stormwater ordinances.
3. If necessary, adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of post-construction stormwater BMPs.
   a. Draft Ordinance in Year 2.
   b. Finalize Ordinance in Year 3.

4. An enforcement mechanism with penalties will be adopted by the County Board of Supervisors to insure proper legal authority.

ASSESSMENT TASKS

1. List model ordinances reviewed in context of post-construction stormwater BMPs.
2. Record adoption of a Stormwater Quality Control Ordinance with post-construction stormwater BMP provisions.

RESPONSIBILITY

The SWMP Administrator, the Assistant Director for Public Works, is primarily responsible for developing the Stormwater Quality Control Ordinance. County Counsel, EHD and the Planning & Public Works Department relying on this ordinance for enforcement capability will support this effort by review and input.

Control Measure Title:	Land Development Plan Review
Control Measure Objective:	Develop standard conditions of approval for land development projects. Develop a document review process for staff to ensure post-construction measures 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. Post-construction stormwater BMPs chosen will need to consider the local environment and seek a combination of source and treatment stormwater BMPs to reduce pollutants. The County will adopt a planning process that identifies implementation strategies (e.g., adopt a combination of source and/or treatment stormwater BMPs), and operation and maintenance policies and procedures.

EXISTING BMPS AND RELATED ACTIVITIES

- The County has standard designs for curb, gutter, sewer, manholes, and other capital improvements for land development.
- All land development applications are reviewed by the Planning and Public Works Department for appropriate design. The Planning Division manages zoning issues and map approvals. The Engineering Division provides engineering review support to the Planning Division. Measures determined to be necessary are written into the conditions of approval for the project, including measures deemed necessary for stormwater quality protection.
- To comply with CEQA requirements for subdivision development applications, the Planning Division establishes necessary mitigation measures to ensure significant environmental impacts will not occur as a result of land development.
- For subdivisions, a "tentative map" must be submitted that shows drainage facilities and has enough topographic information to allow an evaluation of drainage and sewage disposal, among other things. The approximate location of areas subject to flooding or stormwater overflows must be indicated. All areas covered by water and all watercourses must be preserved. A flow diagram is also required showing how stormwater will be evacuated. The County reviews the tentative map and the developer is required to meet the requirements imposed by the County, all of which may not be covered by the "standard plans". For instance, stormwater retention ponds, which commonly are required for subdivisions, are not a part of the County's standard plans. However, conditions of approval are required before the Planning Commission approves final maps. Improvements are accepted when the construction is completed in conformance with the development plans and conditions of approval.
- The Planning Division's Land Use Program is designed to protect the environment, public health, and the quality of life through an environmental review process of proposed land use. It consists of a review of all development proposals in Yolo County including the four incorporated cities. Personnel are assigned to review proposed subdivisions, use permits, lot

line adjustments, building permits, Environmental Impact Reports, business licenses, parcel maps, and zone changes. Environmental Health staff review these projects to identify possible health hazards and any environmental impact that can result from the implementation of these various proposed activities. Requirements and recommendations from Environmental Health are presented through the land use development process to mitigate or prevent any foreseeable health hazards or environmental degradation in the areas of hazardous materials and waste, solid waste, water supply, sewage disposal, vector control, food, housing, and recreational health.

- In general, there are not any long-term maintenance or operations agreements with developers. After acceptance and approval of final maps by the County, operations and maintenance typically become the responsibility of a Community Services District (CSD), a County Service Area (CSA), or the County itself. The difference between a CSD and a CSA is that a CSD is independent of the County and a CSA is governed under the auspices of the Board of Supervisors. The communities of Willowbank and El Macero each pay to support CSAs. Neither community is designed with any permanent structural BMPs that require maintenance.
- Planning and Public Works site plan reviewers are occasionally provided training in proper design of source and treatment stormwater BMPs.

MEASURABLE GOALS

1. Develop land development standards and specifications for post-construction stormwater BMPs that comply with the criteria and guidance specified or referenced in the Yolo County Code and General Plan.
    - Review the Small MS4 General Permit's example (Attachment 4).
    - Evaluate the "standard plans" to reflect additional land development requirements for minimizing impacts of land development on stormwater.
    - Confer with the Cities of Davis, Woodland and West Sacramento through the Yolo County Stormwater Coordination Committee to be as consistent as possible with development standards.
2. Evaluate the standard conditions of approval for post-construction stormwater BMPs based on the type of land development project. The review process will include verification of compliance with the standards and specifications developed as part of the measurable goal described above. Continue to coordinate plan review activities for post-construction stormwater BMPs between the Planning, Engineering and Environmental Health Divisions for the submittal, review, comment and approval of land development plans.
3. Develop checklists or similar method to be used by Building and Engineering Division staff while reviewing development plans for compliance with County standards and policies.
4. Notify local construction contractors and developers that standards and specifications are available for purchase. Add materials to standard packet for development permits.
5. The measurable goals regarding inspection of post-construction BMPs discussed in the Construction Activities Program (CA3) are incorporated into the NDRD Program by reference.

6. Develop a process to insure the post-construction monitoring and maintenance of post-construction structural BMPs.
7. Conduct a workshop for Planning and Engineering Divisions staff responsible for reviewing plans, along with local developers, regarding post-construction stormwater BMPs:
   - Established standard conditions
   - Mitigation measures
   - County requirements
   - Engineering standards.

ASSESSMENT TASKS

1. Adopt land development standards and specifications for post-construction stormwater BMPs.
2. Record the number of plans reviewed that incorporated stormwater quality controls for development projects.
3. Identify long-term BMP maintenance agreements for sites developed after 2002.
4. Establish a process to track and record that stormwater quality measures are constructed, operated and maintained post-construction.
5. Record County-sponsored staff training events.
6. Document mailers to local contractors and developers.

RESPONSIBILITY

The Planning, Engineering and Environmental Health Divisions are responsible for implementing this control measure. The SWMP Administrator will assist with developing checklists and training staff, and for coordinating responsibilities among staff.

Table 2-F. New Development and Redevelopment Program Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Engineering	Planning	Building	Envir. Health	County Counsel
NDRD1 Stormwater Quality Control Ordinance for Post-construction Stormwater BMPs											
1. Review existing County ordinances and policy statements for consistency with future revisions of this SWMP.						●	◐	◐	◐		
2. Evaluate available model ordinances for applicability in the County.						●	◐	◐	◐		
3. Adopt a Stormwater Quality Control Ordinance that incorporates the inclusion of post-construction stormwater BMPs, if necessary.											
a. Draft the ordinance.						●	◔	◔	◔		◐
b. Finalize the ordinance.						●	◔	◔	◔		◐
4. Establish an enforcement mechanism with penalties.						◐	◐	◐	●		
NDRD2 Land Development Plan Review											
1. Develop land development standards and specifications for post-construction stormwater BMPs.						◐	●	●	●		
2. Evaluate the standard conditions of approval for post-construction stormwater BMPs based on the type of land development project.						◐	●	●	●		
3. Develop checklists for reviewing development plans.						◐	●	●	●		
4. Notify local construction contractors and developers that development standards and specifications are available for purchase.						◐	●	●	●		
5. Develop a process to insure the post-construction monitoring and maintenance of post-construction structural BMPs.						◐	●	●			
6. Conduct a workshop for Planning and Engineering Divisions staff.						◐	●	●			

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 County Operations Program

Addressing County operations conducted by public agencies is a focus of the Small MS4 General Permit since such activities can be significant sources of stormwater pollutants. By implementing stormwater BMPs for County operations, the County 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 County Operations

The Permittee must develop and implement an operations and maintenance program that will prevent or reduce pollutants in runoff from County operations. At a minimum, the Permittee must:

1. Consider all County activities and identify those that may contribute pollutants to stormwater, such as park and open space maintenance, fleet and building maintenance, new construction and land disturbances, storm drain system maintenance, flood management, and pesticide and herbicide use;
2. Select and implement BMPs which will reduce or eliminate the pollutant contributions from these activities to the MEP; and
3. Train new and existing employees about the impacts of stormwater pollutants from County activities and how to implement the BMPs selected to prevent and reduce these impacts.

Major County facilities such as the corporation yard are already required to develop Storm Water Pollution Prevention Plans (SWPPPs) that overlap significantly with the requirements in the Small MS4 General Permit. Activities related to land disturbance and pesticide use are addressed elsewhere in this document.

2.6.2 Control Measures for the County Operations Program

Control measures for this program element focus on the Planning and Public Works Department's activities, including employee training, roadwork, storm drain maintenance, and SWPPP development and implementation. The County does not maintain any open spaces in the permitted areas.

MO1 develops an employee training programs to address pollutants resulting from municipal operations.

MO2 continues and improves roadwork countywide and street sweeping activities in the El Macero and Willowbank communities.

MO3 continues and improves inspections and maintenance of the storm drain systems, particularly in the El Macero and Willowbank communities.

MO4 implements SWPPPs for designated County facilities.

2.6.3 Supporting Control Measures

Additional control measures that partially address this program element include detecting and eliminating illicit discharges to the storm drain systems (ID2).

Control Measure Title:	Employee Education and Training
Control Measure Objective:	Increase County employee awareness of stormwater pollutants and BMPs for reducing pollutants from municipal operations.

DESCRIPTION

In-house employee training programs are useful to teach employees about stormwater management, potential sources of contaminants, and best management practices (BMPs). Employee training programs instill personnel with a thorough understanding of their responsibility to minimize pollutants discharged to the storm drain system. 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 conducts monthly safety meetings. Attendance is mandatory. The meetings last for about one hour. Attendance at the meetings and special training is recorded in a permanent logbook.

MEASURABLE GOALS

1. Include discussions of stormwater quality and responsibilities for implementing stormwater BMPs at monthly safety meetings for County employees responsible for implementing control measures in the SWMP. Train employees working in these areas:
   - Illicit discharge detection and elimination (see control measure ID2)
   - Signage and roadwork
   - Storm drain systems maintenance
   - County facilities.
2. Regularly circulate educational materials on stormwater management issues to employees, e.g., the journal *Stormwater*.

ASSESSMENT TASKS

1. Record monthly safety meetings and other training sessions that include discussion related to stormwater quality. Record the date, location and employees in attendance.
2. Review employees' knowledge and awareness of information presented regarding pollution prevention. Conduct additional training and/or revise training materials as needed based on the results of the review.

RESPONSIBILITY

Division Directors are primarily responsible for implementing this control measure. The SWMP Administrator will assist (or conduct) training sessions.

Control Measure Title:	Signage, Roadwork and Street Sweeping Activities
Control Measure Objective:	Implement procedures, practices and schedules to ensure County roadwork activities minimize stormwater pollutants.

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 drainage structures can help alleviate the impacts of these pollutants. Modifications in roadway resurfacing practices can also help reduce pollutant loads to stormwater and protect the quality of receiving waters.

EXISTING BMPS AND RELATED ACTIVITIES

The County maintains signs and painted indicators throughout the County following these BMPs:

- Use water-based paint products that do not contain heavy metals.
- Apply paint in a manner to minimize over spray and spillage and is scheduled only during the dry periods.
- Use reflectorized (not painted) signs that do not produce any liquid pollutants.

Public Works is responsible for the maintenance and repair of all public streets, curbs, gutters, sidewalks, storm drains, and parking lots. Activities relevant to minimizing pollutants to the storm drain systems include:

- Asphalt work is scheduled during the dry season only.
- Maintenance and repair work are typically scheduled during the dry season.
- Spills like fuel or oil are contained using kitty litter if it is relatively small; large spills trigger notification to the EHD Hazmat Team (see Section 2.3 for a detailed description of the Team's responsibilities).
- The El Macero County Service Area contracts with Davis Waste Removal to sweep streets in the El Macero subdivision on a biweekly basis (every two weeks). Street sweeping is not done in Willowbank because there are no curbs or gutters in Willowbank.

MEASURABLE GOALS

1. Continue to maintain signs and painted indicators throughout the County following acceptable BMPs:
    - Use water-based paint products that do not contain heavy metals.
    - Apply paint in a manner to minimize over spray and spillage and is scheduled only during the dry periods.

- Use reflectorized signs, where possible.

2. Develop a BMP checklist and implement stormwater quality control BMPs for County activities related to asphalt and concrete removal, patching, resurfacing and surfacing sealing.
3. Maintain biweekly street sweeping in El Macero.

ASSESSMENT TASKS

1. Document development of a concrete and asphalt work BMP Fact Sheet.
2. Implement a supervisory oversight program in which supervisors verify and document that employees are correctly implementing BMPs.
3. Use data characterizing street sweeping tailings to determine areas that should be targeted for more frequent cleaning or more focused public outreach.

RESPONSIBILITY

The Roads Superintendent is primarily responsible for implementing this control measure. The SWMP Administrator, the Assistant Director for Public Works, will assist in these efforts by providing educational material.

Control Measure Title:	Storm Drain Systems Maintenance
Control Measure Objective:	Implement maintenance procedures, practices and schedules to minimize pollutants entering storm drain systems.

DESCRIPTION

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

EXISTING BMPS AND RELATED ACTIVITIES

The vast majority of the storm drain systems maintained by the County consists of open, unlined channels. Maintenance activities include:

- The County annually inspects and cleans drainage inlets and channels. Most of the unincorporated County's storm drain system is roadside ditches, inspected annually prior to winter (rainy season) and on an ongoing basis as road maintenance is done throughout the County.
- The County inspects annually and maintains, as needed, Willowbank's surface drainage in developed areas. Field crews respond to reports of any blockages.
- The County inspects and maintains El Macero's storm drain system (pipe network) when blockage problems are apparent. The County will explore the possibility of contracting with the City of Davis to include cleaning of the El Macero drain inlets in their routing cleaning activities.
- The City of Davis maintains Old Putah Creek and the SDDD (the receiving waters of stormwater from El Macero and Willowbank) and the El Macero Pump Station (at the terminus of the SDDD) annually.
- Weeds in County ditches are controlled using two common herbicides (Roundup and 2,4-D). The Roundup is used in low concentrations to "mow" the roadside grasses and 2,4-D is a broadleaf herbicide that controls noxious weeds. The result is a filter strip that cleans roadside runoff . Weather conditions are monitored to assure that the products are not applied if a rain event is expected within six hours of spraying. The herbicide is used in accordance with manufacturer's recommendations. Prior to the wet season, ditches are bladed with a grader to remove sedimentation and restore hydraulic capacity.

MEASURABLE GOALS

1. Continue to inspect catch basin inlets and drainage channels annually. Drainage inlets will be cleaned if they contain debris that could lead to blockage. If there is evidence that non-stormwater discharges have occurred, then the probable source will be ascertained (if possible) and appropriate steps taken to eliminate the non-stormwater discharge.

ASSESSMENT TASKS

1. Record routine inspections and maintenance of the storm drainage inlets and conveyance system indicating date, location, and observations/activities.
2. 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 Roads Division, under the direction of the Road's Superintendent, is primarily responsible for implementing this control measure, with support from the Stormwater Program Administrator, the Assistant Director for Public Works. The City of Davis and Yolo County Flood Control Agency are responsible for inspecting and maintaining Old Putah Creek and the SDDD downstream of the permit area.

Control Measure Title:	Stormwater Management Practices at County Facilities
Control Measure Objective:	Implement Storm Water Pollution Prevention Plans (SWPPPs) for designated County facility.

DESCRIPTION

County facilities can set a positive example of appropriate stormwater management at its facilities. Facilities can develop and implement Storm Water Pollution Prevention Plan (SWPPP) to formalized their stormwater management activities. A SWPPP includes a site description and identifies BMPs that address potential sources of pollutants to the storm drain system. The major objectives of a SWPPP are to help identify the sources of pollutants that affect the quality of stormwater, and to describe and ensure the implementation of practices to reduce pollutants in stormwater.

EXISTING BMPS AND RELATED ACTIVITIES

The County operates several properties to facilitate its operations: County Airport, County Jail, County Corporation Yard, Agricultural Department vehicle parking area, sewage treatment ponds in Esparto, a solid waste transfer station near Esparto, and the County landfill.

- The County has developed and is currently implementing a Storm Water Pollution Prevention Plan (SWPPP) for the airport. The SWPPP document describes each site, identifies potential pollutant sources, characterizes site conditions that could lead to pollutants entering the storm drain system, lists implementation team members, includes log sheets for training, inspections, and maintenance, and identifies BMPs implemented to control pollutant discharges.
- The County's fleet is maintained at the County's corporation yard. Vehicle maintenance services constitute approximately 3% of the facility's activities, and are done inside a building. In prior years when more vehicles were maintained there, staff developed and implemented a SWPPP for the facility. Although fewer vehicles are now maintained on site, the SWPPP is still being implemented. Highlighted practices include:
  - There are no fueling stations on site.
  - The vehicle steam-cleaning wash area is equipped with an oil-water separator.
  - Paint products and asphalt patching are stored under cover.
  - Paints are water-based and biodegradable.
  - Other chemicals (such as pesticides) are not commonly stored on the property.
- The minimum permitted flow rate for a treatment facility that must have a SWPPP is 1 MGD. Although the Esparto sewage treatment facility has a design capacity of 1,000,000 gallons per day (gpd), its permitted flows are less: the maximum permitted flow rates at the facility are: 360,000 gpd during dry weather and 600,000 gpd during wet weather. Thus, this facility is not required to develop and implement a SWPPP.

MEASURABLE GOALS

1. Continue to implement SWPPPs for County facilities, where required.

ASSESSMENT TASKS

1. Record SWPPP implementation and monitoring of activities or operations that potentially impact stormwater quality.
2. Record changes to SWPPPs for any County facilities.

RESPONSIBILITY

The Planning and Public Works Director is primarily responsible for implementing this control measure. The SWMP Administrator, the Assistant Director for Public Works, will review facilities' status for SWPPPs.

Table 2-G. County Operation Program Implementation Schedule and Responsibility

Control Measures and Measurable Goals	Implementation Schedule					Responsibility					
	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	SWMP Administrator	Engineering	Planning	Building	Plan.&PW	Other
MO1 Employee Education and Training											
1. Include discussions of stormwater quality and SWMP responsibilities at monthly safety meetings.						◐	●	●	●		
2. Regularly circulate educational materials on stormwater management issues to employees.						◐	●	●	●		
MO2 Signage, Roadwork and Street Sweeping Activities											
1. Continue to maintain signs and painted indicators throughout the County following acceptable BMPs.						◐	●				
2. Develop a BMP checklist and implement stormwater quality control BMPs in County activities related to asphalt and concrete removal, patching, resurfacing and surfacing sealing.						◐	●				
3. Maintain biweekly street sweeping in El Macero.						◐					●
MO3 Storm Drain Systems Maintenance											
1. Continue to inspect annually and clean (as needed) catch basin inlets and drainage channels.						◐	●				●
MO4 Stormwater Management Practices at County Facilities											
1. Continue to implement the SWPPPs for County facilities, where required.						◐				●	●

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

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 County. 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 County 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.
- County staff is accountable to the County Board of Supervisors and to the citizens of Yolo County.

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. County's departments and key activities related to the SWMP are illustrated in Figure 3-1. Departments involved by program element are illustrated in Figure 3-2.

3.1.1 Stormwater Management Program (SWMP) Administrator

The SWMP Administrator, the Assistant Director for Public Works, within the Planning and Public Works Department, will provide general oversight for this program. The Administrator will assume no direct supervision over a department, division or employee. The Administrator will serve as the coordinator between the various responsible parties for day-to-day business relating to the SWMP, such as setting meetings, conducting program evaluations and preparing reports and submittals for the Board of Supervisors and the RWQCB. The SWMP Administrator is responsible for collecting comments and updating the SWMP as appropriate.

The SWMP Administrator has organized the Yolo County Stormwater Coordination Committee, comprised of the Small MS4 General Permit holders in the County, namely the University of California at Davis, and the Cities of Davis, Woodland, and West Sacramento. The group met on two occasions prior to submittal of their first SWMPs with the NOI. The group will continue to meet approximately twice annually to discuss common issues and seek opportunities for collaboration.

3.1.2 Planning and Public Works Department

The Planning and Public Works Department includes four divisions implicated in this SWMP: Building, Planning, Integrated Waste Management and Engineering. Each division is responsible for developing and implementing various measurable goals of the program elements.

- **Building** – This Division is charged with the enforcement of the Uniform Building Code (among others) through a program of permitting, plan review, inspection and enforcement. It is implicated in the Construction Activities Controls element.
- **Engineering** – This Division oversees construction projects, flood information, engineering services, and road maintenance. It is implicated in the Construction Activities Controls and County Operations elements.
- **Integrated Waste Management** – This Division manages waste collection and disposal programs throughout the County. The main operating center is the County Landfill. It is implicated in the Public Involvement and Participation and the Illicit Discharge Controls elements.
- **Planning** – This Division is responsible for several permit programs that pertain, at least in part, to stormwater management: Building permits, business licenses, flood development permits, General Plan amendments, site plan review, and land use permits.

3.1.3 Health Department, Environmental Health Division

The mission of the Environmental Health Division (EHD) is to protect and enhance the quality of life of Yolo County residents by identifying, assessing, mitigating and preventing environmental hazards. EHD is responsible for components of control measures in three elements: Public Education and Outreach, Illicit Discharge Controls, and New Development and Redevelopment Controls.

3.1.4 Clerk to the Board of Supervisors

Provides logistical support to the Board of Supervisors.

3.1.5 County Counsel

The County Counsel, appointed by the Board of Supervisors, is the legal advisor for County officials, departments, schools, and special districts. The County Counsel's office represents the County in all civil law matters, prepares ordinances, resolutions, and contracts, and investigates the legality of claims made upon the County.

3.1.6 Separate Implementing Entities

The County relies on the Cities of Davis and Woodland to satisfy some of its permit obligations. County and City staff have reviewed their respective SWMPs to assure consistency in the areas of water supply and storm drain system maintenance and operations.

Residential communities Willowbank and El Macero, adjacent to or near the City of Davis boundary, pay County Service Area fees that fund various arranged services related to this SWMP:

- The City of Davis Public Works Department inspect and maintain El Macero's sanitary sewer system and the South Davis Drainage Ditch.
- The Fire Department, along with the Yolo County EHD, responds to fires and hazardous material spills in both communities.
- The City of Davis Public Works Department maintains the water supply systems and garbage collection for both communities.
- Davis Waste Removal, under contract with the City of Davis Public Works Department, sweeps the streets in El Macero.

The north side of Kentucky Avenue, bordering the jurisdictional boundaries of the City of Woodland, is a contiguous urban area. The County will discuss the possibility of using stormwater management services from the City to maintain that area. If feasible, the County will write and sign a Memorandum of Understanding (MOU) between the County and the City of Woodland to implement measures to manage stormwater discharges.

Figure 3-1. Stormwater Management Program activities by responsible department

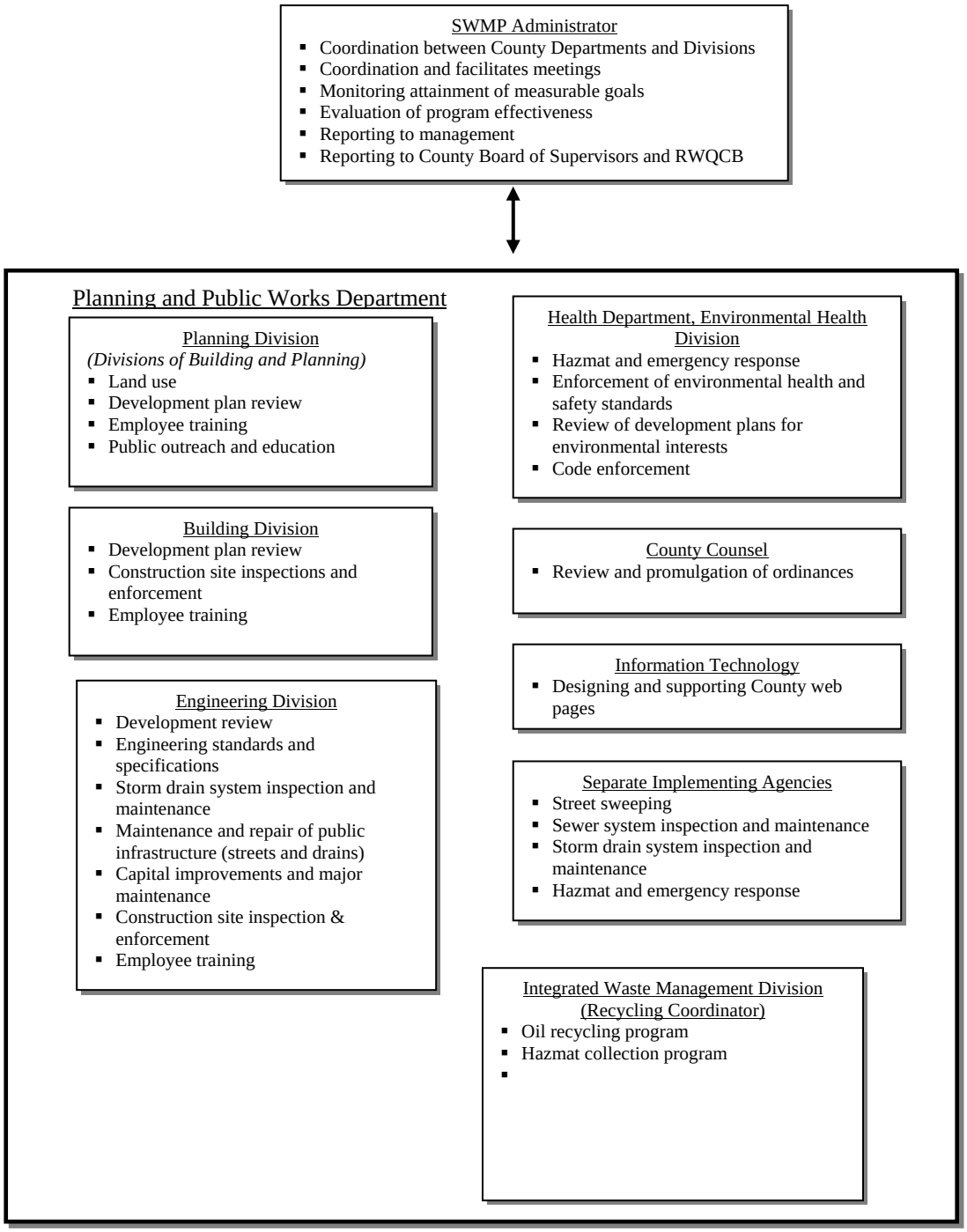
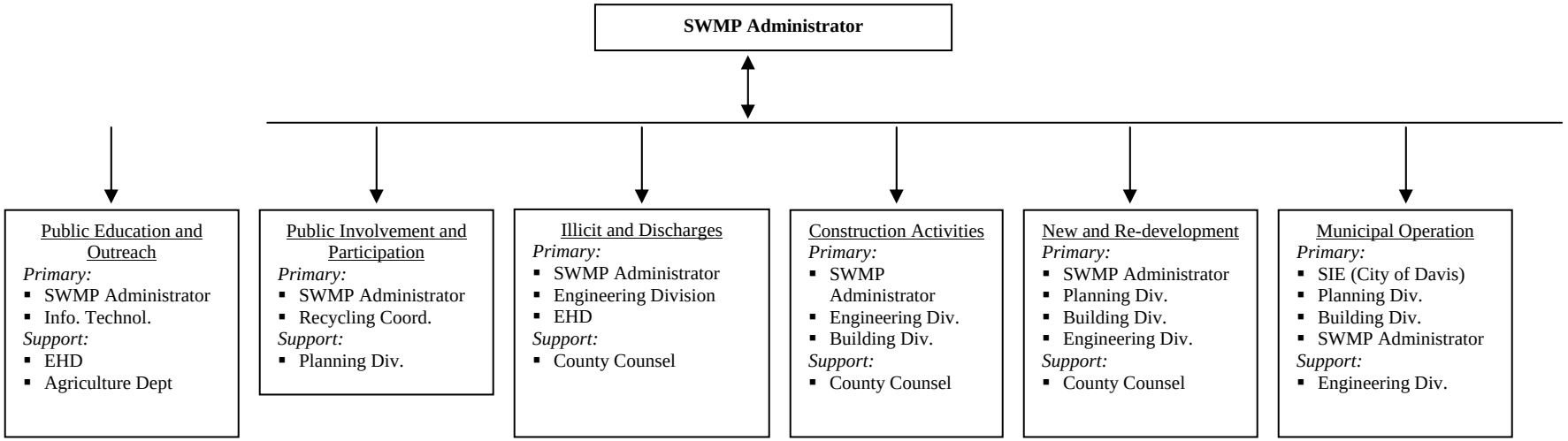


Figure 3-2. Management of SWMP Program Elements



3.2 Program Staffing Resources

BMPs under the six program elements will incorporate existing work activities or build from existing resources as much as reasonably possible. Incorporating BMPs into existing resources and activities will be the most effective approach the County could pursue. Incorporating the SWMP into daily activities will also improve with County management involvement and adequate coordination and cooperation between departments. The degree of impact that the program may have on staffing resources varies depending on the control measures and current activities of the responsible departments. For at least the first year of this program, the Assistant Director for Public Works will assume the SWMP Administrator position.

3.3 Statement of Funding Adequacy

Initially, the County will utilize existing funding sources to implement most aspects of the SWMP. The need for additional funds for program elements will be evaluated as part of the annual review process.

3.4 Recordkeeping

The County 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 Planning and Public Works Department, 292 West Beamer Street in Woodland.

Erosion and sediment control plans, SWPPPs and development plans are stored at the Planning and Public Works Department.

3.5 Assessment Activities

The County will monitor the implementation of this SWMP, evaluate and report on its effectiveness, and strive for continuous improvement. The SWMP Administrator will be responsible for overseeing the entire program's implementation and evaluating its effectiveness. County Board of Supervisors will monitor progress in implementing the SWMP's measurable goals through annual reporting and presentations.

3.5.1 Monitoring

The SWMP Administrator will monitor implementation of the SWMP's measurable goals. This oversight will assess compliance with the Small MS4 General Permit, along with measuring and improving the effectiveness of the SWMP in its current and planned form.

The SWMP Administrator will update the Pollutants of Concern section based on any available monitoring results.

3.5.2 Program Evaluation

Each control measure has assessment tasks to assist the County in determining its effectiveness. The effectiveness of the SWMP also will be determined by evaluating:

- Compliance with the SWMP schedule,
- Appropriateness of the control measures and associated BMPs in the SWMP to reduce the discharge of pollutants to the MEP,
- Program costs compared to budgeted costs, and
- Progress towards meeting the measurable goals.

3.5.3 External Reporting

This section discusses reporting requirements for complying with the Small MS4 General Permit.

3.5.3.1 Permit Compliance Reports

The County 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 permit reports will be submitted in years two and four of the five-year term. The RWQCB may require additional reporting. Reports are to include:

- Status of compliance with permit conditions (as described in the SWMP) and progress towards achieving measurable goals;
- Results from assessment tasks;
- Evaluation of the SWMP's overall effectiveness and assessment of appropriateness of control measures and associated BMPs;
- Results of information collected and analyzed, including results of monitoring, special studies, or research projects;
- Work plan for the subsequent reporting cycle;
- Proposed changes to any program elements, with justification; and
- Change in the person(s) or position(s) responsible for implementing and coordinating the SWMP.

3.5.3.2 Noncompliance Reporting

The County will report any noncompliance with the permit. Available information will be reported orally to the RWQCB within **24 hours** from the time that County personnel become aware of the circumstances. The oral communication will include information regarding:

- Any unanticipated bypass or upset which exceeds any effluent limitation in the permit;
- Any discharge of treated or untreated wastewater, or raw or potable water resulting from pipeline breaks, obstructions, surcharges, or other circumstances;
- Any unauthorized spill or discharge;
- Any other violation of the permit.

A written description of the circumstances will be submitted to the RWQCB within **5 days** of becoming aware, providing a description of the noncompliance and its cause, the period of noncompliance (including dates and times, and anticipated time to continue if not yet corrected), and the steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance.

3.5.3.3 New Outfall Report

Newly constructed major outfalls not identified in the SWMP will be reported to the RWQCB at least 90 days prior to construction of the outfall. The report will include the following information:

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

3.5.4 Continuous Improvement

This SWMP is a "living document" that may be updated annually in response to program assessments. In addition to SWMP oversight provided by the SWMP Administrator, and implementing the assessment tasks provided at the end of each control measure, the County will:

- Identify and conduct special studies, as needed, to assist in program effectiveness evaluation activities.
- Investigate participating in other municipal, state or federal BMP studies if determined beneficial to the County's program.
- Review any publicly available monitoring results for stream reaches downstream of the permitted urban areas.

Glossary

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 urban 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 define the parts of section 3.

Outfall – A point source at the point where a municipal separate stormwater drainage discharges to waters of the United States and does not include open conveyances connecting two municipal separate stormwater drainages, 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 runoff.

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 storm drain 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, County, 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 sewer systems.

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

MS4s are also referred to as storm drain systems.

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 pollutants in stormwater draining from the site.

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