

# WHITEWATER RIVER REGION STORMWATER MANAGEMENT PLAN

June 2009 January 2011, Revised

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT COUNTY OF RIVERSIDE, COACHELLA VALLEY WATER DISTRICT CITIES OF BANNING, CATHEDRAL CITY, COACHELLA, DESERT HOT SPRINGS, INDIAN WELLS, INDIO, LA QUINTA, PALM DESERT, PALM SPRINGS AND RANCHO MIRAGE

# TABLE OF CONTENTS

<u>S</u>	<u>ECTION</u>		<u>Page</u>
1.0	Prog	RAM MANAGEMENT	1-1
	1.1	Purpose	1-1
	1.2	Regulatory Framework	
	1.3	Organization.	
	1.4	Permit Area	
	1.5	Area-wide Programs	1-7
		1.5.1 Hazardous Materials Spill Response	
		1.5.2 Commercial/Industrial Compliance Assistance Program	
		1.5.3 Household Hazardous Waste and Anti-freeze, Batteries, Oil, Latex Paint Programs	
		1.5.4 Conditionally Exempt Small Quantity Generators of Hazardous Waste	
		1.5.5 Public Education and Outreach Program	
	1.6	Legal Authority	1-8
	1.7	Enforcement and Compliance Strategy	1-8
		1.7.1 Prioritize Violations	
		1.7.2 Enforcement and Compliance Responses	
		1.7.3 Recordkeeping and Reporting of Enforcement Actions	1-15
		1.7.4 Training for Enforcement	1-15
	1.8	Fiscal Analysis	
		1.8.1 Whitewater River Watershed Benefit Assessment Area	
		1.8.2 County Service Area 152	
		1.8.3 General Fund	1-16
2.0	DETEC	CTION AND ELIMINATION OF ILLICIT CONNECTIONS AND ILLEGAL DISCHARGES	
	2.1	Discharge Limitations	2-1
	2.2	Surveillance and Source Identification	
		2.2.1 Field MS4 Surveillance	
		2.2.2 Reporting	
		2.2.3 Detection, Response, Investigation, Cleanup, and Enforcement	
		2.2.4 Sanitary Waste Management	
		2.2.5 Swimming Pool Discharges	
	2.3 2.4	Litter Control	
	2.5	and Latex Paint (ABOP) Collection Programs	
		Waste (CESQG)	
	2.6	Training	
	2.7	Evaluation/Assessment	2-9
3.0	Соми	IERCIAL/INDUSTRIAL PROGRAM	3-1
	3.1	Inspection and Source Identification	3-1
	3.2	General Permit-Industrial Coordination	
	3.3	Oil & Grease Evaluation for Additional Controls	
	3.4	Commercial/Industrial Source Database	
	3.5	Training	
	3.6	Evaluation/Assessment	

4.0	DEVE	LOPMENT PLANNING AND PERMITTING	4-1
	4.1 4.2	Introduction	4-34-54-74-84-94-11
	4.4	Evaluation, Assessment, and Reporting	4-12
5.0	PRIVATE CONSTRUCTION ACTIVITIES		
	5.1 5.2 5.3 5.4 5.5 5.6 5.7	Private Development Construction Activities.  Construction Site BMPs.  Construction Site Prioritization.  Construction Site Inspections  Enforcement.  Regional Board Notification Requirements  Training Requirements	5-2 5-5 5-6 5-8 5-8
	5.8	Evaluation, Assessment, and Reporting	
6.0	PERMITTEE FACILITIES AND OPERATIONS		
	6.1 6.2 6.3 6.4 6.5 6.6	Planning for Post-Construction BMPs in Permittee Public Works Projects Permittee Construction Activities Operation and Maintenance of Permittee Facilities 6.3.1 Sewage Systems 6.3.2 Landscape Maintenance 6.3.3 Streets and Roads 6.3.4 MS4 Facilities 6.3.5 Other Permittee Facilities and Operations Fire Fighting Agency BMPs Training for Permittee Maintenance Employees Evaluation / Assessment	6-2 6-3 6-3 6-4 6-4 6-11 6-11
7.0	Publ	IC EDUCATION AND OUTREACH PROGRAM	7-1
	7.1 7.2 7.3 7.4	Introduction	7-1 7-2 7-3 7-3 7-4
		7.5.1 Outreach Objectives	

	7.6	Residential Education and Outreach	
		7.6.1 Vehicle Washing and Maintenance	
		7.6.2 Landscaping	
		7.6.3 Home Maintenance	
		7.6.4 Illegal Dumping	
	77	7.6.5 Pet Ownership	
	7.7	Evaluation / Assessment	/-14
8.0	Moni	TORING PROGRAM	8-1
	8.1	Introduction	
	8.2	Goals and Objectives	
	8.3	Whitewater River Region Water Quality Monitoring Program	
		8.3.1 Data Management	
		8.3.2 Source Identification	
		8.3.3 MS4 Characterization	
	8.4	8.3.4 Water Quality Monitoring	
	0.4	Program Implementation	
		8.4.2 Dry Weather Monitoring	
		8.4.3 Special Studies	
	8.5	Reporting	
9.0		GRAM REPORTING, EVALUATION, AND REVISION	
7.0			
	9.1	Annual Reporting	
	9.2	Program Evaluation	
	9.3	SWMP Revisions	9-5
List	of Figu	JRES .	
		IS4 Permit Area Map	1-6
		evelopment Planning and Permit Process	
		hecklist – Projects Requiring Project-Specific WQMPs Whitewater River Region	
_		xample Construction Site Inspection Form	
8*			
List	OF TAB	LES	
Table	1-1. Pri	oritization Factors for Violations	1-9
		verity of Violations	
Table	1-3. En	forcement Responses for Violations Where Overlapping Authority Exists	1-13
		mmary of BMPs for Other Development Projects	
Table	5-1. Co	nstruction Site BMPs	5-3
Table	5-2. Co	nstruction Site Prioritization Matrix	5-5
Table	6-1. Pe	rmittee Facilities and Operations	6-6
Table	6-2. Po	tential Pollutants of Concern	6-8
		rmittee Facilities Inventory	
		tential Source Control BMPs for Permittee Facilities and Activities	
		blic Education and Outreach Methods	
		blic Management Methods	
Table	8-1 Hi	storical Whitewater River Region Sampling Sites	8-4

January 2011

#### LIST OF APPENDICES

- A Glossary of Terms, Abbreviations, and Acronyms
- B 2008 MS4 Permit
- C Implementation Agreement
- D IC/ID Reporting Forms
- E Model Database Formats
- F Sanitary Sewer Spill Response Procedure
- G Hazardous Waste/Hazardous Materials Facility Storm Water Compliance Survey and Food Facility Storm Water Compliance Survey
- H Whitewater River Region Water Quality Management Plan for Urban Runoff
- I Project-Specific WQMP Review Checklist
- J Permittee Construction Notice of Intent and Notice of Termination
- K Facility Pollution Prevention Plan Template
- L BMPs for Fire Fighting Agency Activities
- M Standardized Permittee Annual Reporting Forms

January 2011 iv

# 1.0 PROGRAM MANAGEMENT

# 1.1 Purpose

The Whitewater Region Storm Water Management Plan (SWMP) describes those activities and programs implemented by the Permittees to manage Urban Runoff to comply with the requirements of the National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit (MS4 Permit) for the Whitewater River Region. A glossary of the terms, abbreviations and acronyms used in this document is provided in Appendix A.

#### 1.2 Regulatory Framework

The effort to control Pollution associated with stormwater/Urban Runoff is the result of over thirty years of legislative effort beginning with the Federal Water Pollution Control Act, which is also referred to as the Clean Water Act (CWA). The CWA was amended in 1972 to provide that the discharge of Pollutants to Waters of the United States is effectively prohibited unless the discharge is in compliance with a NPDES permit. In 1987 Congress enacted the Water Quality Control Act that amended portions of the CWA and included §402(p), which established requirements for permitting stormwater discharges. CWA §402(p) required that the United States Environmental Protection Agency (USEPA) establish regulations setting forth a program of NPDES applications and corresponding permits for stormwater discharges associated with industrial activities and for stormwater discharges from MS4s. CWA §402(p) also requires that NPDES MS4 permits include:

A requirement to effectively prohibit non-stormwater discharges into the MS4; and

Controls to reduce the discharge of Pollutants to the maximum extent practicable (MEP), including management practices, control techniques and systems, design and engineering methods and such other provisions as the Administrator or the State determines appropriate for the control of such Pollutants.

USEPA's Final Rule for NPDES Permit Application Regulations for Stormwater Discharges became effective December 17, 1990 and is often referred to as the "Phase I stormwater regulations." The Phase I stormwater regulations are administered nationwide through the USEPA's NPDES program. The Phase I stormwater regulations require that the management program for a MS4 includes a comprehensive planning process which involves public participation and, where necessary, inter-governmental coordination, to reduce the discharge of Pollutants to the MEP using management practices, control techniques and systems, design and engineering methods, and such other provisions which are appropriate. The Phase I stormwater regulations also specify who is covered; prescribes a variety of required information-gathering, planning, and reporting activities; and sets forth a schedule for compliance. The Phase I stormwater regulations also set forth requirements for specific industrial activities.

In response to the Phase I stormwater regulations, the Riverside County Flood Control & Water Conservation District (District), the County of Riverside (County), the Coachella Valley Water District (CVWD), and the Cities of Banning, Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage (collectively, Permittees) submitted Part 1 and Part 2 applications to the California Regional Water Quality Control Board – Colorado River Basin

Region (Regional Board). The Regional Board issued the first MS4 Permit for the Whitewater River Region (Order No. 96-015) in May 1996. In compliance with the 1996 MS4 Permit, the Permittees prepared and implemented the initial SWMP and submitted an application for renewal of their area-wide MS4 Permit in December 2000. The Regional Board adopted the 2001 MS4 Permit (Order No. 01-077) in September 2001. In March 2006 the Permittees submitted a Report of Waste Discharge (ROWD), including a revised SWMP, as an application for renewal of the MS4 Permit that expired on September 5, 2006. In May 2008, the Regional Board adopted the 2008 MS4 Permit (R7-2008-0001). The Permittees currently operate under the 2008 MS4 Permit and implement the programs described in this SWMP.

Programmatic improvements have been incorporated into this SWMP based on the Permittees' experience in implementing the prior SWMP, findings of the monitoring program, enhancements to the NPDES MS4 compliance programs in the Santa Ana River and Santa Margarita River regions of Riverside County, and implementation of statewide water quality policies. Components of the prior SWMPs that have proven most effective have been carried forward and incorporated into the current SWMP. Taking into account the unique nature of the Coachella Valley's desert environment, this 2009 SWMP continues to emphasize source control measures and strong public education/outreach efforts as being the most effective way to manage Urban Runoff in this highly arid region. A copy of the 2008 MS4 Permit (R7-2008-0001) adopted in May 2008 is provided in Appendix B.

# 1.3 Organization

The 2008 MS4 Permit identifies the District and the County as Principal Permittees and the CVWD and the cities as Co-Permittees. Under this organizational framework the Principal Permittees are responsible for coordinating collective Permittee activities, including report preparation and submittals to the Regional Board.

The Permittees established the NPDES Desert Task Force Advisory Committee (DTF) to facilitate coordination of program development and implementation policy and funding issues. The 2008 MS4 Permit requires each Permittee to formally designate representatives to the DTF and require regular attendance and participation in subcommittees. The Permit requires the DTF to meet at least quarterly. The DTF meets as needed, generally monthly, to disseminate information, discuss issues, and coordinate Permittee actions to implement the SWMP and facilitate MS4 Permit compliance.

To establish the working framework among multiple agencies, in early 2008 the Permittees updated the Implementation Agreement, a copy of which is provided in Appendix C. The Implementation Agreement reinforces the roles and responsibilities of each Permittee established by the 2008 MS4 Permit. Specific provisions of the Implementation Agreement included cost sharing for the Public Education and Outreach Program activities and water quality monitoring.

This SWMP is organized into the following program elements:

♦ Section 1, Program Management – This section describes the purpose of the SWMP, the regulatory framework related to Urban Runoff quality management, organization of the SWMP, the Permit Area addressed by the MS4 Permit and the SWMP, the area-wide compliance programs implemented on behalf of the Permittees, legal authority of the Permittees to implement the compliance program, the strategy for enforcing Permittee ordinances and a description of the sources of funding for implementation of the compliance program.

- ♦ Section 2, Detection and Elimination of Illicit Connections and Illegal Discharges (IC/ID) This program involves screening, detection, and elimination to the MEP of IC/ID to the MS4. This program is implemented at both the area-wide and individual Permittee levels. The SWMP has been enhanced to provide for more formalized inspections of the MS4. In addition, descriptions of existing oversight programs for portable toilets and individual septic systems have been incorporated into the Whitewater River Region program.
- ♦ Section 3, Commercial/Industrial Program The Commercial/Industrial program is implemented primarily through area-wide outreach, education, and facility visits. The program continues to include technical training for the Permittees' staff regarding BMPs and stormwater management at industrial and commercial sites.
- ♦ Section 4, Development Planning and Permitting Development Planning and Permitting program requirements continue to focus on integrating stormwater management measures into current development review processes within the Permittees' Planning and Public Works Departments. In addition, Priority Development Projects are required to prepare and implement Water Quality Management Plans (WQMPs).
- Section 5, Private Construction Activities The Construction program is closely linked to the Development Planning and Permitting program and continues to require construction projects under the jurisdiction of the Permittees to implement appropriate BMPs, and provides for prioritization, inspection, and enforcement for construction site compliance with Storm Water Ordinances.
- ♦ Section 6, Permittee Facilities and Operations This program area is targeted at the Permittees' facilities and operations, including various departments within the Permittee's Public Works frameworks. Employee training activities are a key aspect of stormwater management at the Permittee level. To provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSOs), on May 2, 2006, the State Water Resources Control Board (SWRCB) adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems¹ (Sanitary Sewer Order). The Sanitary Sewer Order requires public agencies that own or operate sewage systems to develop and implement Sewer System Management Plans (SSMPs) and report all SSOs through the SWRCB's online SSO database. The SWMP acknowledges that the Permittees will support the implementation of the compliance programs developed by the sanitary sewer system operators in response to the Sanitary Sewer Order. The Permittees operate facilities that have the potential to contribute Pollutants to Urban Runoff but which do not fall under the General Industrial Permit. For such facilities, the Permittees prepare and implement Facility Pollutant Prevention Plans (FPPPs) which describe BMPs to manage Pollutants.
- ♦ Section 7, Public Education Program The Public Education and Outreach Program includes a media campaign that takes advantage of countywide resources to develop and increase public awareness of Urban Runoff issues on a regional scale in both English and Spanish. The enhancements to the Public Education and Outreach Program that have been implemented by the District are reflected in this SWMP. These enhancements include significant revisions to the Public Education and Outreach Program to educate the general public regarding residential

SWRCB Water Quality Order No. 2006-0003, available at http://www.waterboards.ca.gov/board\_decisions/adopted\_orders/water\_quality/2006/wqo/wqo2006\_0003.pdf

activities such as vehicle washing and maintenance, landscaping, home maintenance, pet ownership, and illegal dumping. The Public Education and Outreach Program also includes:

- The use of public awareness surveys to gauge the effectiveness of the program;
- The use of new advertisements, promotional materials, brochures and other media to increase stormwater awareness; and
- Updates to the web site, 1-800 line, and other outreach channels.
- ♦ Section 8, Monitoring Program Water quality sampling and analysis is conducted in the Whitewater River Region to characterize runoff and establish a baseline set of water quality conditions. The District developed and implements a monitoring program based on the requirements outlined in Section L, Monitoring and Reporting, of the 2008 MS4 Permit, with reference to the Water Quality Control Plan, Colorado River Basin (Basin Plan) and the guidance in the Model Monitoring Program (MMP) for Municipal Separate Storm Sewer Systems in Southern California. The MMP was prepared by the Southern California Stormwater Monitoring Coalition (SMC), which consists of the Permittees, Regional Water Quality Control Boards, citizen's groups, Southern California Coastal Watershed Research Project (SCCWRP), private consultants, and other agencies. The Permittees in the Whitewater River Region, in conjunction with the MS4 Permittees of the other major watersheds within Riverside County (Santa Ana River Region and Santa Margarita River Region), have created a Consolidated Monitoring Program to coordinate monitoring programs across the regions.
- ♦ Section 9, Program Reporting, Evaluation, and Revision The Permittees prepare Annual Reports regarding program implementation for submittal to the Regional Board. The Permittees also evaluate the effectiveness of the program elements to identify revisions to the program that will subsequently be reflected in an updated SWMP.

#### 1.4 Permit Area

The area covered under the MS4 Permit, referred to as the "Whitewater River Region," is defined as the area shown in the Permit Area Map (Figure 1-1). The Permittees update the Permit Area Map each year in the Annual Report. The Whitewater River Region includes the urbanized areas that lie approximately between Banning and the San Gorgonio Pass area to the northwest and the Salton Sea to the southeast. It is important to recognize that agricultural activities are exempt from regulation under the CWA and the MS4 Permit and the Permittees do not have legal jurisdiction over discharges into their respective MS4s from:

- ♦ California and federal facilities,
- ♦ Utilities and special districts, and
- Native American tribal lands.

Although not included in the Whitewater River Region, discharges from these areas and agricultural activities may significantly affect Receiving Water quality. In addition, other point and non-point source discharges otherwise permitted by or under the jurisdiction of the Regional Board may also affect water quality in the Whitewater River Region. The Permittees will apply the Development Planning and

Construction program requirements described in Sections 4 and 5 of this SWMP to projects outside of the Whitewater River Region, but within the Whitewater River watershed.

The area of Riverside County in the Whitewater River Region, and under the jurisdiction of the Regional Board, is approximately 350 square miles, which is less than 5 percent of the 7,300 square miles within Riverside County. Thirteen of the 24 municipalities within Riverside County are under the jurisdiction of the Regional Board.

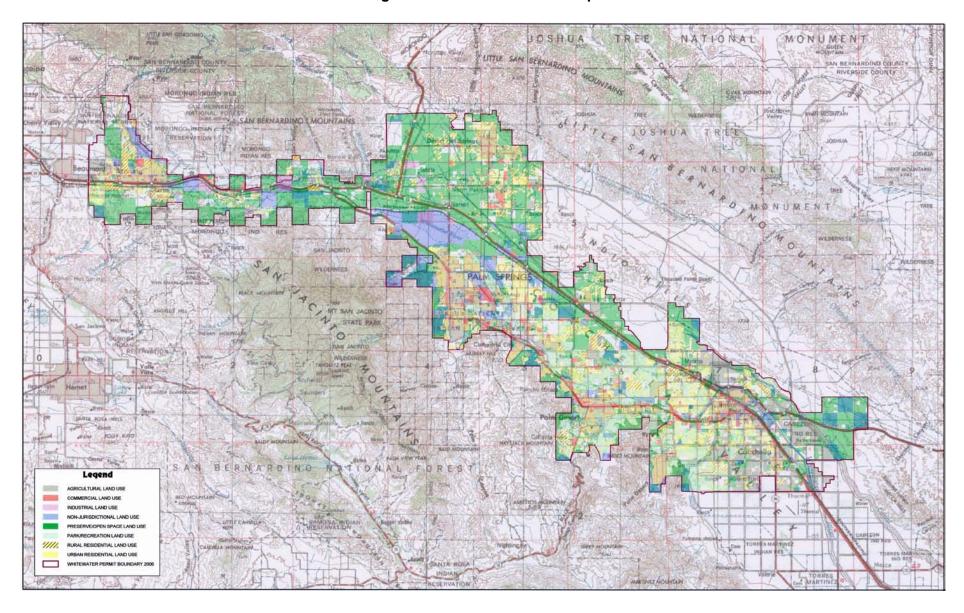


Figure 1-1. MS4 Permit Area Map

#### 1.5 Area-wide Programs

The Permittees currently employ four area-wide programs to implement certain BMPs. Each program is established through an agreement between the District and the agency providing the service. With the budget woes, there is a possibility that these programs may be impacted and changes may occur without prior notification to the Permittees. If any programs are impacted, the Permittees will work on revising the SWMP to reflect any changes.

#### 1.5.1 Hazardous Materials Spill Response

The Riverside County Fire Department Hazardous Materials Emergency Spill Response Team (HAZMAT Team) is a major component of the area-wide source control efforts implemented by the Permittees. The HAZMAT Team responds to incidents of spills and illegal dumping of hazardous material throughout Riverside County. The HAZMAT Team directly oversees and directs incident response and clean-up of hazardous material with the goal of preventing discharges into the environment—including the MS4—whether the source is Illegal Dumping or accidental releases/spills.

# 1.5.2 Commercial/Industrial Compliance Assistance Program

The Commercial/Industrial Compliance Assistance Program (CAP) consists of contract services provided by Riverside County's Department of Environmental Health (DEH) to utilize existing inspection programs of commercial and industrial facilities to facilitate MS4 Permit compliance. The CAP involves focused outreach to approximately 7,382 food service facilities through annual visits and to over 1,900 hazardous materials and industrial facilities in Riverside County approximately once every two years. In addition, the Department of Building and Safety has implemented a Business License Program that funds comprehensive stormwater regulatory compliance inspections in the unincorporated portions of Riverside County.

# 1.5.3 Household Hazardous Waste and Anti-freeze, Batteries, Oil, Latex Paint Programs

The Household Hazardous Waste (HHW) and Anti-freeze, Batteries, Oil, Latex Paint (ABOP) programs are principal components of the Permittees' source control efforts. Both programs are implemented by the Riverside County Waste Management Department (RCWMD) and provide practical alternatives to improper disposal of household hazardous wastes that might otherwise be disposed into the MS4.

#### 1.5.4 Conditionally Exempt Small Quantity Generators of Hazardous Waste

The Conditionally Exempt Small Quantity Generators (CESQGs) Program is managed by the RCWMD and is available to businesses that generate small quantities (27 gallons or 220 pounds) of hazardous waste or 2.2 pounds of extremely hazardous waste (i.e., wastes that would cause death, disabling personal injury, or serious illness) per month. The RCWMD collects hazardous waste from eligible businesses within Riverside County and provides proper labeling and documentation assistance. The CESQG program provides an alternative to improper disposal of hazardous waste that might otherwise be disposed into the MS4.

# 1.5.5 Public Education and Outreach Program

The Public Education and Outreach Program is broad-based and communicates the importance of Urban Runoff management and Pollution Prevention to the general public and to targeted construction, commercial, and industrial sources through the use of various media. The goal of the program is to perform outreach to citizens by presenting clear and consistent messages that explain the connections between everyday activities and their impact on water quality.

# 1.6 Legal Authority

The Permittees are required to establish adequate legal authority to implement the provisions of the MS4 Permit in accordance with federal regulations at 40 CFR 122.26. The Permittees have established this legal authority to implement the 2008 MS4 Permit. Legal authority is then maintained and exercised by the Permittees with jurisdiction over the MS4. The District and CVWD rely on the principle of "combined legal authority" as outlined in the USEPA Part 2 Permit Application Guidance. As special districts, the District and CVWD lack the "police power" expressly granted to cities and counties by California's constitution from which "land use authority" is derived. The County of Riverside Board of Supervisors has designated the Director of the County's Transportation & Land Management Agency to administer the County's storm water ordinance and implementation of the SWMP.

### 1.7 Enforcement and Compliance Strategy

An Enforcement and Compliance Strategy for ensuring that construction sites, commercial establishments, and industrial facilities operate in compliance with Storm Water Ordinances was developed jointly by the Phase I MS4 Permittees in the Santa Ana and Santa Margarita River Regions. That Enforcement and Compliance Strategy has been incorporated into this Whitewater River Region SWMP to document the enforcement approach implemented by the Permittees.

The goal of the Enforcement and Compliance Strategy is to enforce Storm Water Ordinances fairly and consistently throughout the Whitewater River Region. However, there is no clear, standard approach to handling all of the enforcement situations that may be encountered. Generally, the professional judgment of code enforcement staff will guide the appropriate level of response. Sections 1.7.1 through 1.7.3 provide guidelines for Permittees in implementing enforcement actions appropriate for a given violation.

#### 1.7.1 Prioritize Violations

The Permittees' Storm Water Ordinances cover a wide range of prohibited activities with varying magnitudes of potential impact on the Beneficial Uses of Receiving Waters. For example, discharges of either hazardous materials (e.g., solvents and pesticides) or non-hazardous materials (e.g., food wastes, trash, and debris) into the MS4 are violations of Storm Water Ordinances subject to enforcement. Similarly, an accidental spill resulting from negligent management of materials or wastes into a catch basin inlet and an IC/ID are both violations. Prioritizing violations is important in focusing local resources on those violations that may have the greatest potential impact on Receiving Water quality.

It is not feasible to quantify the magnitude of violations of the Storm Water Ordinances. Instead, prioritizing violations is based on many factors, including the experience and professional judgment of code enforcement staff. The factors that should be considered in prioritizing violations of Storm Water Ordinances are presented in Table 1-1.

Table 1-2 has been developed to promote consistency in the Permittees' enforcement actions throughout the County. Table 1-2 categorizes the severity of violations based on the factors and circumstances associated with a violation; it also provides the criteria chosen to characterize the severity of a violation as "high", "medium", or "low." For example, using Table 1-2, the accidental dumping of 20 gallons of trash several hundred yards away from an Ephemeral Stream would be considered a "low" priority violation. However, the intentional discharge of 2,000 gallons of pesticide directly into aquatic wildlife habitat would be a "high" priority violation.

However, violations may not clearly fall into any single priority level described in Table 1-2. It is more likely that a violation would be characterized by factors representing more than one of the priority levels described in Table 1-2. In this case, a subjective evaluation of the violation would be required to select the priority level most representative of the characteristics and circumstances surrounding the violation.

**Table 1-1. Prioritization Factors for Violations** 

Prioritization Factor	Description
Characteristics of the Potential Pollutant	Based on chemical characteristics and potential to impact Beneficial Uses of Receiving Waters. The more toxic, hazardous, or detrimental a Pollutant is to the Beneficial Uses of the Receiving Waters, the higher the priority identified for the discharge and the associated violation should be.
Sensitivity of the affected Receiving Waters	The priority of the violation should be considered directly proportional to the sensitivity of the affected Receiving Waters because, for example, a more sensitive Receiving Water may suffer severe adverse effects from the discharge of a particular Pollutant whereas a less sensitive Receiving Water may suffer no adverse effects from the same Pollutant discharge. It is also important to consider that a Receiving Water may be highly sensitive to one Potential Pollutant discharge while, at the same time, completely insensitive to another Potential Pollutant. Examples of Receiving Waters that may be particularly sensitive include those designated with municipal supply or wildlife habitat Beneficial Uses.
Proximity of Receiving Waters	The closer a Receiving Water is to the discharge, the less chance there is for dispersion, dilution, or degradation of the Potential Pollutant. Therefore, the closer the discharge is to Receiving Waters, the higher is the priority of the violation.
Magnitude of discharge (volume and mass)	A larger Illegal Discharge should be of a higher priority than a smaller Illegal Discharge because an increase in the magnitude of the Pollutant discharge increases the extent of impact of the discharge on the environment.
Responsiveness of the discharger in taking corrective actions	A discharger who is responsive and implements a good faith effort to correct a violation is more likely to minimize adverse impacts to surface water quality than a discharger who takes no action to correct a violation. Therefore, the priority of a violation should decrease as the responsiveness of the discharger increases.
Intent of the discharger	Consideration as to whether the violation was accidental, the result of an accident, the discharger was deliberately attempting to circumvent regulations, etc.
Frequency of the violation	Continuous or recurring violations of Storm Water Ordinances should be of a higher priority than isolated occurrences of violations. The more frequent a violation, the more likely that the discharge will impact surface water quality.
Previous history of non- compliance of the responsible party	Subsequent violations from a discharger with a history of non-compliance should result in a higher priority compared to a discharger with a good history of compliance because a history of non-compliance is evidence of a discharger's lack of concern for complying with Storm Water Ordinances.

**Table 1-2. Severity of Violations** 

Factors Affecting	Severity Priority Level			
the Severity of Violations	High	Medium	Low	
Pollutant characteristics	Hazardous materials (e.g., pesticides and solvents)	Metals, nutrients, Sediment, other non- Hazardous Materials	Trash and Debris	
Sensitivity of Receiving Waters	Drinking water source, wildlife refuge	Recreational reservoir, riparian habitat	Dry, ephemeral stream	
Proximity of Receiving Waters	Adjacent	Several hundred feet away	Several hundred yards away	
Discharge magnitude	1,000's gallons	100's gallons	10's gallons	
Responsiveness of discharger	No action to contain or mitigate discharge	Reactive to control discharge when requested (i.e., cooperative)	Implements spill control plan at own initiative or shows good faith effort to respond	
Intent of violation	Intentional	Discharge due to lack of controls or negligence	Implemented and maintained controls that failed (i.e., accident)	
Frequency of violation	Continuous	Intermittent	Isolated incident	
Previous history of discharger	Enforcement and cleanup historically resisted or more than one previous violation	Enforcement and cleanup performed only when threatened with enforcement or one previous violation	Enforcement and cleanup performed when requested and no previous violations	

# 1.7.2 Enforcement and Compliance Responses

The enforcement/compliance response should be based on the severity of the violation. The hierarchy for the types of enforcement/compliance responses available, in order of increasing severity, is:

- 1. Education and information;
- 2. Verbal warning;
- 3. Written warning,
- 4. Notice of Non-Compliance;
- 5. Administrative Compliance Order;
- 6. Stop Work Order or Cease and Desist Order;
- 7. Civil citation or injunction, including misdemeanors and infractions;
- 8. Administrative fine; and
- 9. Referral to the Environmental Crimes Strike Force.

The general use of enforcement responses by the Permittees and the Regional Board depending on the severity of the violation is described in Table 1-3.

#### 1.7.2.1 Education and Warnings

To promote voluntary compliance, the Permittees provide education and verbal and written warnings. Education is provided at each step of the enforcement process and is intended to provide guidance regarding methods to achieve compliance. Verbal and written warnings are intended to communicate the compliance requirements and to identify potential administrative and enforcement actions that may result from further non-compliance.

#### 1.7.2.2 Administrative Remedies

**Notice of Non-Compliance.** The Notice of Non-Compliance constitutes a basic request that the property owner or facility operator rectify the condition causing or threatening to cause non-compliance with the Storm Water Ordinances. The Notice of Non-Compliance is generally issued when one or more of the following circumstances exist:

- The violation or threat is not significant and has been short in duration,
- The responsible party is cooperative and has indicated a willingness to remedy the conditions,
- ♦ The violation or threat is an isolated incident, and
- The violation or threat does not affect and will not harm human health or the environment.

**Administrative Compliance Orders.** The Administrative Compliance Order is generally an appropriate enforcement tool in the following circumstances:

- ◆ An actual condition of non-compliance exists, but the condition cannot be remedied within a relatively short period of time.
- ♦ The owner of the property or facility operator has indicated willingness to come into compliance by meeting milestones established in a reasonable schedule.
- The violation does not pose an immediate threat to human health or the environment.

**Stop Work Order or Cease and Desist Order.** The Stop Work Order or Cease and Desist Order are appropriate when the immediate action of the owner of property or operator of a facility is necessary to stop an existing discharge, which is occurring in violation of a Storm Water Ordinance. The Cease and Desist Order may also be appropriately issued as a first step in ordering the removal of Nuisance conditions, which threaten to cause an unauthorized discharge of Pollutants if exposed to rain or surface water runoff. The Cease and Desist Order is generally issued when one or more of the following circumstances exist:

- ♦ The violation or threat is immediate in nature and may require an emergency spill response or immediate nuisance abatement if left unattended.
- ◆ The violation or threat exhibits a potential situation that may harm human health or the environment.
- ♦ The inspector's contacts with the property owner or facility operator indicate that further authority of the Permittee may need to be demonstrated before remedial action is forthcoming.
- The inspector's prior Notices of Non-Compliance have not obtained a favorable response.

Prior to issuance of any Administrative Compliance Order, Cease and Desist Order or commencement of other civil or criminal enforcement action against any Person, the Permittee should deliver to the Person a written Notice of Non-Compliance, which states the act or acts constituting the violation and directs that the violation be corrected. The Notice of Non-Compliance should provide the Person with a reasonable time period to correct the violation before further proceedings are brought against the Person. However, a Notice of Non-Compliance should not be the first enforcement method used if egregious or unusual circumstances indicate that a stronger enforcement method is appropriate.

#### 1.7.2.3 Criminal Enforcement

**Misdemeanors**. Criminal enforcement is appropriate when evidence of non-compliance indicates that the violator of the Storm Water Ordinance has acted willfully with intent to cause, allow, continue, or conceal a discharge in violation of the ordinance.

**Infractions.** At the discretion of the Permittees' attorneys, misdemeanor acts may be treated as infractions. Factors that the attorney may use in determining whether the misdemeanor is more appropriately treated as an infraction may include:

- The duration of the violation or threatened violation.
- ♦ The compliance history of the person, business or entity.
- The effort made to comply with an established compliance schedule.
- The existence of prior enforcement actions.
- ♦ The actual harm to human health or the environment from the violation.

**Issuance of Civil Citation or Injunction.** Where criminal enforcement is indicated, the inspector will issue a citation including:

- ♦ The name and address of the violator,
- ♦ The provisions of the Storm Water Ordinance violated,
- The time and place of required appearance before a magistrate.

The offending party must sign the citation thereby promising to appear. If the cited party refuses to sign the citation, the inspector may cause the arrest of the discharger, or may refer the matter to the city attorney/county counsel for issuance of a warrant for arrest. Inspectors should be aware that cited parties have the right to demand the immediate review by a magistrate, and such a request must be granted. Inspectors should respond to such a request by referring the request to the Permittee police or sheriff department.

**Administrative Fine.** An administrative fine may be imposed, after approval, for non-compliance with a Storm Water Ordinance.

#### 1.7.2.4 Referral to Environmental Crimes Task Force

The Riverside County Environmental Crimes Task Force (telephone number 800-304-6100) is a committee designed to pursue enforcement of serious environmental crimes. Referral of a case to the Environmental Crimes Task Force may occur after repeated attempts at obtaining compliance have failed

or if a criminal violation or activity is suspected. Permittees maintain their authority to pursue criminal enforcement of their ordinances in addition to the referral to the Environmental Crimes Task Force.

#### 1.7.2.5 Appropriate Enforcement/Compliance Responses

Permittees will emphasize and encourage voluntary compliance with Storm Water Ordinances to the MEP. Table 1-3 lists appropriate enforcement responses that correspond to the severity priority level of a violation as determined from Table 1-2. Permittees and the Regional Board will work cooperatively in implementing enforcement/compliance responses according to Table 1-3 unless there is justification for implementing alternate actions. In general, the Regional Board will take the lead in initiating enforcement actions related to high-priority incidents and the Permittees will take the lead in initiating enforcement actions related to medium and low-priority incidents. Both the Regional Board and the Permittees will enforce their respective regulations and ordinances in support of the enforcement lead. Finally, the Regional Board will take all enforcement actions related to compliance with the NPDES General Permits/Waste Discharge Requirements issued by the SWRCB.

Table 1-3. Enforcement Responses for Violations Where Overlapping Authority Exists

Levidous Consulto		Lead Enforcement Agency	
Incident Severity Priority Level	Appropriate Enforcement Responses <sup>1</sup>	Permittee	Regional Board Support
High	Referral to Environmental Crimes Task Force	Х	
	Administrative Fine	Х	X
	Civil Citation or Injunction	Х	X
	Infraction or Misdemeanor	Х	X
Medium	Infraction	Χ	X
	Misdemeanor	Χ	X
	Stop work order or cease and desist order	Χ	
	Administrative compliance order	Χ	
	Notice of non-compliance	Χ	
Low	Administrative compliance order	Х	
	Notice of non-compliance	Х	
	Written warning	Х	
	Verbal warning	Х	
	Education and information	Χ	

<sup>1</sup> Education and information should be incorporated into all enforcement responses.

# 1.72.6 Coordination of Enforcement/Compliance Activities with Other Permittees

Coordination with other Permittees and government agencies, including the Regional Board, is essential for successful implementation of an enforcement/compliance program. A single Permittee does not control the entire MS4, nor does any single Permittee have authority to take enforcement action for violations occurring outside of its jurisdiction. Further, other governmental agencies may have additional enforcement authorities that are appropriate to the situation. Each Permittee will coordinate its enforcement activities, as practicable, with the appropriate Permittee (or Permittees) and agency (or agencies) in accordance with the following guidelines:

- Enforcement will be coordinated when multiple agencies have jurisdiction and an agency has not been able to obtain compliance by the discharger.
- Unless otherwise agreed to in writing, the lead enforcement agency role will be assigned on the basis of the origin of the discharge.
- The Regional Board will be the lead enforcement agency for higher priority discharges.
- Investigation and other relevant information will be shared among the participating agencies in a timely fashion.

**Lead Enforcement Agency's Responsibilities.** The lead enforcement agency will assume the following responsibilities:

- Coordinating activities and assigning responsibilities (e.g., investigations, site visits, etc.) among participating agencies;
- Maintaining communication and information exchange among participating agencies; and
- Ensuring that follow-up actions are implemented.

**Enforcement Activities Directory.** A list of contact names identifying who should be contacted to coordinate enforcement activities for each Permittee, as well as the Regional Board and other potentially interested agencies is submitted with each Annual Report. This list is maintained and distributed to the Permittees and others as appropriate by the District to facilitate coordination of enforcement activities.

# 1.7.2.7 Coordination with the Regional Board

Under the Porter-Cologne Water Quality Control Act, the State has provided the Regional Water Quality Control Boards with overriding authority to manage water quality and administer compliance with state and federal water quality law. This authority includes the ability to impose more significant fines and other sanctions than the Permittees. With this authority, the Regional Board may be more effective in obtaining the cooperation and compliance from those who violate stormwater regulations. The Regional Board will be notified by the Permittees when findings of potential non-compliance with the NPDES General Permits/WDRs issued by the SWRCB or Regional Board have been identified or when Permittees have been unable to obtain the compliance of a party responsible for violating Storm Water Ordinances. The list of contact names maintained by the District will identify the appropriate Regional Board staff to contact to initiate coordination of enforcement activities or to notify the Regional Board of potential findings of non-compliance. Where appropriate, notifications of potential non-compliance should be forwarded to the designated Regional Board contact person by the Permittee's stormwater compliance coordinator.

#### 1.7.2.8 Coordination with Other Agencies

In addition to the Regional Board, Permittees may also find it useful or necessary to coordinate or report findings of potential non-compliance to other government agencies with jurisdiction over water quality issues including the California Department of Fish and Game, the United States Fish and Wildlife Service, and the USEPA. The list of contact names maintained by the District will identify the appropriate staff at these agencies that should be contacted to initiate coordination of enforcement activities or to notify of potential findings of non-compliance.

# 1.7.3 Recordkeeping and Reporting of Enforcement Actions

Records that should be retained regarding the Enforcement and Compliance Strategy include the following:

- ♦ Documentation of staff training;
- ♦ Commercial and industrial facility database;
- ◆ Inspection documentation (such as note[s] and/or photo[s]);
- ♦ Copies of warning letters, violation notices, etc.;
- ♦ Documentation of follow-up actions;
- Contact reports from meetings or conversations with violators, Permittees, or other agencies; and
- Copies of notifications of potential non-compliance.

The 2008 MS4 Permit does not specify a minimum period for record retention with regard to enforcement actions; however, consistent with requirements specified in the General Permit for Stormwater Discharges Associated with Industrial Activities<sup>2</sup> (General Permit-Industrial), the Permittees maintain compliance records for a minimum of five years.

Each Permittee will prepare a summary of enforcement actions to document implementation of the Enforcement and Compliance Strategy. The summary will document the responsible party, address, type of facility, description of violation, date of initial violation, and enforcement/compliance actions implemented for violations identified by a Permittee. The summary of each Permittee's enforcement actions will be included in Annual Reports, utilizing the IC/ID database format included in Appendix E.

#### 1.7.4 Training for Enforcement

Training is provided to the Permittees' enforcement/compliance program staff so that they can recognize and respond to violations in an appropriate manner. Permittees may choose to send their employees to District offered training, or other offsite or in-house training. Therefore, staff involved in implementing a Permittee's enforcement/compliance program are made aware of the local, state, and federal regulations related to the MS4 Permit and the procedures developed to enforce these regulations.

Permittees provide storm water enforcement training to staff that are involved in inspections of industrial facilities and construction sites, enforcement of Storm Water Ordinances, administration of the enforcement/compliance program, and other staff as appropriate.

Staff training addresses the following areas:

- Requirements of the Permittees' Storm Water Ordinances;
- Requirements of the 2008 MS4 Permit and SWMP;
- Requirements of the General Permit- Industrial and General Permit- Construction; and
- Requirements of the Enforcement/Compliance Strategy.

<sup>&</sup>lt;sup>2</sup> SWRCB Order No. 97-03-DWQ; NPDES No. CAS000001

Industrial facility and construction site inspectors also receive training regarding storm water pollution prevention plans (SWPPs) for construction sites, and selection of appropriate BMPs for industrial facilities and construction sites. Knowledge of the applicable requirements and the overall storm water program helps inspectors and other staff to recognize potential violations, respond with appropriate levels of enforcement, and effectively coordinate with other agencies. The Permittees individually maintain a log of trained staff which is summarized in the Annual Reports.

# 1.8 Fis cal Analysis

The Permittees use three sources of fiscal resources to implement the SWMP:

- ♦ Whitewater River Watershed Benefit Assessment Area
- ♦ County Service Area 152
- ♦ General Fund

#### 1.8.1 Whitewater River Watershed Benefit Assessment Area

The Whitewater River Watershed Benefit Assessment Area (WWBAA) was established in 1991 as the District's funding source for MS4 Permit compliance program activities. The WWBAA covers the northwesterly portion of the Whitewater River Region including County and city jurisdictions that lie within the District's service area. Assessments are calculated on the basis of proportional stormwater runoff and are enrolled on the property tax bills generated by the County Tax Assessor's office. WWBAA revenues fund both area-wide MS4 program and the District's individual MS4 Permit compliance activities.

#### 1.8.2 County Service Area 152

The County of Riverside formed County Service Area (CSA) 152 in 1991 to provide funding for MS4 Permit compliance activities. The County developed a modified assessment methodology that was activated in FY-1995-96 and began using the Transportation and Land Management Agency's Geographic Information System to perform the assessment calculations. The cities of Banning, Cathedral City, Coachella, Desert Hot Springs, Indio, La Quinta, Palm Desert, Palm Springs, and Rancho Mirage are annexed into CSA 152. These cities determine their individual assessment rates and decide the method of allocating funds among their respective stormwater management programs.

#### 1.8.3 General Fund

As described previously, the cities of Banning, Cathedral City, Coachella, Indio, and Palm Desert are included in CSA 152. However, each city currently imposes no annual assessment (\$0.00). These cities, along with the County, City of Indian Wells and CVWD rely on general or "ad valorem" tax revenues to finance their respective stormwater management programs. The Permittees intend to continue to use these existing funding sources to implement the SWMP during the 2008 MS4 Permit.

# 2.0 DETECTION AND ELIMINATION OF ILLICIT CONNECTIONS AND ILLEGAL DISCHARGES

This program element is designed to detect and eliminate IC/IDs to the MS4 to the MEP. Three types of IC/IDs are addressed under this program:

- ◆ <u>Illicit Connection</u>: An Illicit Connection is any connection to the MS4 that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term Illicit Connection includes all non-stormwater discharges and connections except discharges pursuant to an NPDES permit, allowable non-stormwater discharges identified in Section C of the MS4 Permit, and other discharges authorized by the Executive Officer of the Regional Board. Examples of Illicit Connections could include sanitary sewer connections, industrial process waters, and floor drains.
- ◆ Illegal Discharge: An Illegal Discharge is any discharge to a MS4 that is not composed entirely of stormwater except discharges pursuant to a separate NPDES Permit, allowable non-stormwater discharges identified in Section C of the MS4 Permit, and other discharges authorized by the Executive Officer of the Regional Board. Illegal Discharges can be any non-stormwater discharge, which enters or has the potential to enter the MS4 through surface drainage, Illicit Connections or illegal dumping. Examples of Illegal Discharges could include boiler blowdown, contact cooling water, commercial vehicle wash water, residential engine degreasing, and drainage from secondary containment or waste dumpsters.
- ♦ Illegal dumping: Illegal dumping is any discharge of Pollutants into the MS4 through either legal connections, such as catch basins, or by direct dumping into creeks, streams, and channels. In addition, illegal dumping includes the illegal disposal of Pollutant material in the drainage channels, creeks, and streams throughout the Whitewater River Region such that stormwater has the potential to mobilize and carry the Pollutant material to other portions of the MS4 and to Receiving Waters. Examples of illegal dumping could include the disposal of used oil, paint, improper management of pet waste, and wash water from a mobile carpet cleaner or mobile auto detailer.

The IC/ID program element addresses:

- ♦ Discharge limitations
- Current activities focusing on BMP implementation, evaluation and assessment
- ♦ BMPs to manage stormwater/Urban Runoff and non-stormwater discharges
- Training for the Permittees' staff in IC/ID identification, investigation, elimination, and BMPs

# 2.1 Discharge Limitations

The following discharge limitations are implemented by the Permittees:

- 1. The Permittees, to the MEP, prohibit Illicit Connections to the MS4, prohibit Illegal Discharges from entering the MS4, and require controls to reduce the discharge of Potential Pollutants.
- 2. The discharge of Urban Runoff from the Permittee's MS4 to waters of the United States containing Pollutants, which have not been reduced to the MEP, is prohibited.

- 3. The Permittees need <u>not</u> prohibit the following discharges unless identified by the Permittees or the Regional Board as a significant source of Pollutants to the Receiving Waters:
  - a. Discharges covered by NPDES permits or written clearances issued by the Regional Board or SWRCB;
  - b. Potable water line flushing and other potable water sources;
  - c. Passive footing drains;
  - d. Water from crawl space pumps;
  - e. Discharges from landscape irrigation, lawn/garden watering and other irrigation waters;
  - f. Dechlorinated swimming pool discharges;
  - g. Non-commercial vehicle washing (e.g., residential car washing excluding engine degreasing and car washing fundraisers by non-profit organizations);
  - h. Diverted stream flows;
  - i. Rising ground waters and natural springs;
  - j. Ground water infiltration as defined in 40 CFR 35.2005(20) and uncontaminated pumped groundwater;
  - k. Flows from riparian habitats and wetlands;
  - 1. Street washing activities;
  - m. Emergency water flows (i.e., fire fighting flows and other flows necessary for the protection of life and property) do not require BMPs and need not be prohibited.
  - n. Waters not otherwise containing wastes as defined in California Water Code §13050 (d); and
  - o. Other types of discharges identified and recommended by the Permittees and approved by the Regional Board.

A discharge may include stormwater and other types of discharges as indicated above.

If it is determined by the Permittees that any of these discharges cause or contribute to violations of Water Quality Standards or are significant contributors of Pollutants to Waters of the United States, the Permittees will either prohibit these discharges from entering the MS4 or ensure that appropriate BMPs are implemented to the MEP to reduce or eliminate Pollutants associated with the discharge.

Non-stormwater discharges from Permittees' activities into Waters of the U.S. are prohibited unless the non-stormwater discharges are permitted by an NPDES permit or are included in Item 3, above. If permitting or immediate elimination of the non-stormwater discharges is impractical, the Permittees will submit to the Regional Board a proposed plan to address the non-stormwater discharges.

#### 2.2 Surveillance and Source Identification

#### 2.2.1 Field MS4 Surveillance

Field surveillance of the MS4 consists of:

♦ Source identification

#### ♦ Routine field inspection of the MS4

The Permittees report new major receiving water outfall locations, additions or modifications to major structural controls, and additions to the list of industrial operations covered under the General Permit-Industrial in the Annual Reports. Each Annual Report includes a list of commercial establishments and industrial facilities as documented through (1) the CAP for the incorporated cities and (2) the Business Licensing Program managed by the Transportation Land Management Agency–Department of Building and Safety for the unincorporated area. These source identification efforts are further described in Section 3, Commercial/Industrial Program.

#### The Permittees:

- Implement the IC/ID MS4 field inspection schedule established within the Permittees' respective jurisdictions. A target list of industries that are known to be contributing substantial pollutant loads to the MS4 is maintained as part of the CAP described in Section 3.1.
- ♦ Document field inspections during the performance of existing field activities, including recording and forwarding IC/ID observations to appropriate jurisdictions.

District maintenance staff, Co-Permittee code enforcement or public works staff, and County staff of the Transportation Land Management Agency—Transportation Department, Code Enforcement Department, Building and Safety Department, other designated County Departments, Lighting and Landscape Maintenance Districts, or County Service Areas routinely patrol and inspect the MS4 facilities and infrastructure that they own and operate and report IC/ID incidents. Co-Permittees have instructed staff, including building inspectors, fire department, street or road maintenance staff, and community service staff to identify and report IC/ID incidents while in the field performing their specific duties. Inspections of Permittee catch basins are performed by public works staff either as part of routine maintenance, or on a periodic (semi-annual/annual) basis. The District and CVWD perform field inspections of their respective elements of the MS4 as part of ongoing facility maintenance programs. If an IC/ID is observed during field inspections of the MS4, the observation is documented on the IC/ID Investigation Report form included in Appendix D.

The Permittees maintain a database of the IC/ID investigations. The database tracks the outcome of the case and all types of enforcement actions. The model IC/ID database format is included in Appendix E. Routine industrial/commercial facility inspections and outreach are addressed through the CAP described in Section 3.1.

#### 2.2.2 Reporting

The purpose of standardized reporting is to formalize the procedures followed for incident documentation and follow up. The Permittees have developed a program for reporting and documenting IC/IDs and spills. The Permittees use the IC/ID Incoming Complaint form and the IC/ID Investigation Report form included in Appendix D to document reports of IC/ID. The forms are also used by staff to record observations in the field of improper discharge. Incidents involving hazardous materials are documented using the California Office of Emergency Services (OES) Emergency Release Follow-up Notice Reporting Form (304) (see Appendix D). Since an IC/ID is usually reported to code enforcement, public works, or fire department staff, a case number is assigned to the reported incident. Within 24 hours of receipt of notification or observation by staff or a third party, the Permittees initiate an investigation of all spills, leaks, and/or Illegal Discharges to the MS4. For sewage spills, the Permittees refer to a Sanitary

Sewer Overflow Guidance Document (Appendix F). All sanitary sewer overflows are reported to the sewering agency with jurisdiction.

MS4 Permit Section F.1.a.x requires that the Permittees with jurisdiction for the spill will immediately report (within 24 hours of becoming aware of the circumstances) all discharges that endanger human health or the environment to the Regional Board at 760-346-7491 and the OES at 800-852-7550. At a minimum the following spills, leaks, and/or Illegal Discharges will be reported immediately or within 24 hours of becoming aware of the circumstances:

- ♦ Any sewage spill above 1,000 gallons or that could impact water contact recreation
- ♦ Any oil spill that could impact wildlife
- ♦ Any hazardous material spill where residents are evacuated
- Any spill of reportable quantities of hazardous waste (as defined in 40 CFR 117 and 40 CFR 302)
- Any other spill or discharge that is reportable to the OES, such as:
  - Any spill or other release of one barrel or more of petroleum products at a tank facility
  - Discharges of any hazardous substances or sewage, into or on any waters of the state
  - Discharges that may threaten or impact water quality
  - Any found or lost radioactive materials
  - Discharges of oil or petroleum products, into or on any waters of the state
  - Hazardous liquid pipeline releases and every rupture, explosion or fire involving a pipeline.

Other spill incidents, including any unauthorized discharges that are not reportable to the OES, are reported to the Regional Board's Executive Officer as part of the Annual Report. The report will contain a description of the non-compliance, the cause, the duration, and the actual or anticipated time for achieving compliance. The report will also include complete details of the steps that the Permittee has taken, or intends to take, in order to prevent recurrence.

# 2.2.3 Detection, Response, Investigation, Cleanup, and Enforcement

The purpose of this activity is to address the procedures followed for detection, response, investigation, cleanup, and enforcement related to IC/ID. The Permittees have programs in place to survey their MS4 facilities to identify and eliminate Illicit Connections. Some of the Permittees conduct this aspect of their MS4 Permit compliance program as a part of the routine maintenance of their MS4 facilities. Illicit Connections identified during these surveys are documented and removed where necessary in order to comply with the MS4 Permit requirements.

The Permittees actively seek to eliminate and prohibit IC/IDs to the MS4. In addition, the Permittees implement and improve routine inspection and monitoring and reporting programs for their MS4. If routine inspections or dry weather monitoring indicate IC/IDs, they are investigated and eliminated or permitted<sup>3</sup> as soon as possible, but no later than sixty (60) calendar days after receipt of notice by

January 2011 2-4

-

Unauthorized non-stormwater discharges to surface waters and a MS4 must be permitted through the applicable Regional Board.

Permittee staff or from a third party. However, Illicit Discharges that are a serious threat to public health or the environment are eliminated immediately and reported to the OES and the Regional Board. The Permittees may also pursue enforcement actions against those that have caused IC/IDs as described in Section 1.7.

The Co-Permittee public works or code enforcement staff respond to notification of Illegal Discharges by taking phone calls, assessing the magnitude of the discharge, and either initiating direct follow-up or referring the call to County HAZMAT (if a significant quantity of hazardous materials is reported). The Permittees continue to support the HAZMAT crews responding to IC/ID incidents.

Permittees meet the following minimum guidelines when responding to reports of IC/IDs:

- If the reported incident is outside of a Permittee's jurisdiction, referral to the appropriate agency and/or the Regional Board is made.
- Permittees respond to reports of IC/IDs within their jurisdiction.
- ◆ Inspections performed in response to a report are documented using the IC/ID Investigation Report form (Appendix D).
- When appropriate, samples of Illegal Discharges are collected. The procedure for collecting IC/ID samples is provided in the Consolidated Monitoring Program, which is available on the District's website.
- Enforcement actions are taken, if necessary.

Each Permittee maintains a database of their IC/ID investigations, including types of enforcement action taken and the resolution of the case. The Permittees use the IC/ID Responsible Party form (Appendix D) to document outreach materials provided to the party responsible for the IC/ID, follow-up visits, and enforcement actions taken with regard to the resolution of the IC/ID.

A toll-free "hotline" (800-506-2555) has been established in conjunction with the SW/CWPP to specifically receive public complaint calls regarding improper discharges. The hotline staff is trained to notify the appropriate responders of any hazardous or non-hazardous material release to the MS4 such as oil, paint, or other suspicious discharges. The Permittees use the IC/ID Incoming Complaint form (Appendix D) to document reports received from the public.

#### 2.2.4 Sanitary Waste Management

To provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSOs), on May 2, 2006, the SWRCB adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems<sup>4</sup> (Sanitary Sewer Order). The Sanitary Sewer Order requires public agencies that own or operate sewage systems to develop and implement Sewer System Management Plans (SSMPs) and report all SSOs through the SWRCB's online SSO database.

As required by the Sanitary Sewer Order, each Permittee that owns or operates a sanitary sewage system must develop and implement a SSMP. The SSMP includes provisions for proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, a SSMP includes a spill response plan that

<sup>&</sup>lt;sup>4</sup> SWRCB Water Quality Order No. 2006-0003.

establishes standard procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

The Permittees take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Permittees take all feasible steps to contain and mitigate the impacts of an SSO as per the Sanitary Sewer Overflow Guidance Document (Appendix F). In the event of an SSO, the Permittee will take feasible steps to prevent untreated or partially treated wastewater from discharging into flood control channels or waters of the United States by blocking the MS4 and by removing the wastewater from the MS4 facility.

The DEH regulates septic tanks and portable toilets under County Ordinance No. 712. This ordinance requires sanitary waste haulers to inform residential septic tank pumping customers in writing of:

- The number of compartments within the system to be pumped
- An assessment of tank condition as to necessity for pumping chambers, in addition to the primary chamber. For routine maintenance, all compartments of a septic tank should be made available for pumping of liquid and solids.
- ♦ The number of compartments actually pumped
- ♦ The number of gallons removed
- ♦ The pH value of the load

In cooperation with the DEH, the Permittees have identified procedures to control septic system failures to prevent impacts on Urban Runoff quality and continue to follow procedures established by the California Department of Public Health to address such failures. The County also implements regulations adopted by the SWRCB pursuant to California Water Code §13290-13291.7 through a memorandum of understanding with the Regional Board. The design review of septic systems is performed by DEH through Memorandums of Understanding with the Regional Boards.

In addition, Ordinance No. 650 establishes the construction requirements for septic systems, and in conjunction with the California Health and Safety Code §5411 and §5461, establishes the authority and responsibility of the DEH to investigate septic system failures. The DEH will investigate complaints received to determine if improper discharges from a septic system have occurred and to identify the parties responsible. Staff use a variety of enforcement tools including citation, criminal prosecution and summary abatement to mitigate discharges from septic system failures.

The majority of septic system failures are confined to the owner's property and are effectively abated, providing minimal impact to the MS4. In cases where there are clustered failures or violations indicating a previously unknown or deteriorating geological condition, DEH has and continues to provide additional investigations to identify the geological condition and its extent. Where necessary for the ongoing control of on-site waste generation, DEH provides support to efforts to bring sewers to the community.

#### 2.2.5 Swimming Pool Discharges

In addition to MS4 inspections, the Permittees may address swimming pool discharges in one of the following ways:

 Permittees with land use authority may issue permits for swimming pool drainage that require the pool owner/operator to stop chlorinating the pool for three to seven days, and to test the

dechlorinated water for confirmation of an acceptable level of total chlorine residual (0.1 mg/L) in the water prior to discharge.

- Permittees may encourage the pool owner/operator to hire a professional pool draining company to haul the water offsite for proper disposal.
- Permittees may encourage or require the pool owner/operator to reuse/recycle the pool water by draining it gradually onto a landscaped area.
- Where the discharge of pool water to the sanitary sewer is not allowed or not feasible, the release of dechlorinated swimming pool water into the MS4 is conditionally allowable. In general, the guidelines for such releases require that pool owners/operators ensure that all the following criteria are met:
  - The total residual chlorine does not exceed 0.1 mg/L (parts per million).
  - The pH is between 6.5 and 8.5.
  - By visual observation the water is free of algae, filter media, vegetative debris, and other materials.
  - There is no discharge of pool cleaning wastes.
- ♦ Each Permittee has adequate legal authority to halt an IC/ID incident that results in the improper disposal of swimming pool discharges.

#### 2.3 Litter Control

The Permittees implement control measures to reduce and/or to eliminate the discharge of Pollutants, including trash and debris, from the MS4 to the Receiving Waters to the MEP. In the Whitewater Region, information related to these control measures is included in the Annual Report. Typical litter control activities may include public education, street sweeping, code enforcement activities targeted at illegal dumping, watershed cleanup events and/or other activities implemented by the Permittees collectively or individually.

# 2.4 Household Hazardous Waste (HHW) Collection and Anti-freeze, Batteries, Oil, and Latex Paint (ABOP) Collection Programs

The Permittees participate in the HHW and ABOP collection programs in conjunction with the Riverside County Waste Management Department (RCWMD). The RCWMD took over operation of the HHW and ABOP collection programs in 2007 from DEH. The programs have been in existence since 1993 to discourage illegal disposal and to assist residents in properly disposing potentially hazardous or toxic materials.

The District supports three permanent HHW/ABOP collection sites; one is located in the Whitewater River Region. The sites are open Saturdays from 9:00 AM until 2:00 PM with the exception of holiday weekends. Mobile and permanent site locations may vary over time. Details, site locations, maps and schedules of operation for both the HHW and ABOP collection events are available on the Internet at <a href="http://www.rivcowm.org/hhw/hhw\_schedule.html">http://www.rivcowm.org/hhw/hhw\_schedule.html</a> or by calling 800-304-2226.

Examples of wastes that are accepted at HHW collection events include the following items:

- ♦ Bathroom chlorine bleach, deodorizers, air fresheners, disinfectants, mercury-containing devices, nail polish remover, shoe dye, toilet/tub/tile cleaners, hair dye.
- ♦ Kitchen aerosol cans, aluminum cleaner, ammonia, drain openers, floor care products, furniture polish, oven cleaner, microwave oven.
- ♦ Workshop & Hobby Caulking, gun cleaner, fiberglass & epoxy resins, latex paint, oil-based paint, paint stripper, paint thinner/turpentine, photographic chemicals, varnish, wood preservative, glue, roof coating, hobby chemicals pool/spa chemicals, lighter fluid, paint stripper with solvent, paint thinner, , caulking material, latex & oil based paints.
- ♦ Gardening fertilizer, fungicide, insecticides/pesticides, aerosol insecticides, slug and snail poison, weed killer/herbicides, rodent bait/poison, BBQ propane tanks.
- ◆ Garage antifreeze, auto batteries, carburetor cleaner, chrome polish, engine degreaser, gasoline, diesel fuel, motor oil, oil filters, transmission & brake fluid, fluorescent tubes/bulbs, televisions, computers, rodent poison
- ♦ Miscellaneous artist's paints, camp propane tanks, batteries (all), flea powder, kerosene/lamp oil, lighter fluid, moth balls/flakes, pool/spa chemicals, rug cleaner, sharps/needles, spot remover w/solvent, electronic devices.

No wastes from businesses or non-profit facilities or activities are accepted at HHW collection events. Examples of wastes that are not accepted at HHW collection events include the following items: ammunition, asbestos or other remediation waste, compressed gas cylinders greater than 40 pounds, explosives, infectious or medical waste other than home-generated sharps, radioactive waste, non-residentially generated waste, waste generated outside of Riverside County.

# 2.5 Program for Conditionally Exempt Small Quantity Generators of Hazardous Waste (CESQG)

Another program designed to eliminate improper and illegal disposal of hazardous waste is the Conditionally Exempt Small Quantity Generators (CESQGs) Program. The CESQGs Program is managed by the RCWMD and is available to businesses that generate small quantities (27 gallons or 220 pounds) of hazardous waste or 2.2 pounds of extremely hazardous waste per month.

The RCWMD collects hazardous waste from eligible businesses within Riverside County and provides proper labeling and documentation assistance. Hazardous waste collected by the CESQG Program is transported to a state-permitted processing facility. The waste is further processed and packaged for off-site recycling (oil filters, oil, latex paint, antifreeze, and batteries) or destructive incineration (pesticides, corrosives, flammables, oil-based paint).

The most common CESQGs in Riverside County are dry cleaners, painters, home improvement contractors, furniture refinishers, print shops, photo-finishing, auto shops, photographers, educational and vocational shops, builders, landscapers, non profit organizations, (including city governments/agencies, school districts and churches) and property managers.

Eligible businesses with a USEPA identification number (for hazardous waste generators) can arrange for a collection appointment by calling the RCWMD at 800-952-5566. Additional information on the CESQGs Program is available on the RCWMD website:

http://www.rivcowm.org/hhw/CESQG\_Program.html.

# 2.6 Training

During routine MS4 facility inspections, maintenance staff may come across evidence of potential Stormwater Pollution and/or Illicit Discharges. Therefore, training Permittee staff to recognize and respond appropriately to stormwater pollution problems is an integral part of the IC/ID program.

For the Permittees, a variety of training methods including video presentations, formal staff meetings, informal briefings by code enforcement staff, and fire department "First Responder Courses" have been used to educate personnel on Urban Runoff issues. The SW/CWPP has developed formal Permittee employee training workshops. The workshops are devoted to address both stormwater and non-stormwater issues for IC/ID, materials storage and many other functional BMP areas, such as maintenance and public works construction activities. The workshops are generally offered at least twice a year—in the spring and in the fall.

The Permittees' NPDES coordinators document their respective staff training activities and forward the information to the District annually for inclusion in the Annual Report. The documentation includes pertinent information such as, but not limited to, the number of staff in attendance and the type of training received. NPDES coordinators attend at least one training session annually at any of the existing training forums available in the local area. NPDES coordinators use existing Permittee forums to hold briefings for appropriate staff on commercial/industrial stormwater issues. The Co-Permittees attend training workshops developed through the Public Education and Outreach Program (Section 7 of the SWMP) and use video presentations that are available for internal staff training.

Training for the IC/ID program may be conducted in conjunction with training for other portions of the Whitewater River Region stormwater program discussed in Section 3, Commercial/Industrial Program; Section 5, Private Construction Activities; Section 6, Permittee Facilities and Operations; and Section 7, Public Education and Outreach Program.

#### 2.7 Evaluation/Assessment

Evaluation and assessment of BMP performance and Permittee compliance is accomplished primarily through reporting and documentation. The annual evaluation and assessment requirements for the IC/ID program are:

- Number of Permittee employees trained, including the topic and date.
- Implementation of established procedures, such as use of standardized IC/ID reporting forms
- ♦ Collect information and maintain data (electronically) on IC/ID reports:
  - Number of reports received
  - Number of cases investigated/responded to
  - Source of IC/ID
  - Final outcome of case (e.g., spill/connection was terminated and cleaned up, source owner/operator educational visit, warning letter, referral to enforcement agency, and enforcement action)

♦ Number of enforcement actions issued/taken (e.g., notice of non-compliance, notice of violation and order to comply, referral to District Attorney for prosecution)

# 3.0 COMMERCIAL/INDUSTRIAL PROGRAM

The purpose of this program area is to conduct source identification and outreach to reduce discharges of Pollutants from both commercial businesses and industrial operations to the MEP.

# 3.1 Inspection and Source Identification

The Permittees coordinate with the DEH, the Regional Board staff, and others as necessary, to develop a targeted list of industries, which are potential sources of Pollutant loads to the MS4. The Permittees further worked with the DEH to develop the regional CAP to enhance outreach to those facilities and to assist Permittees with identification of potential IC/IDs. In addition, the County Department of Building and Safety maintains the business registration and licensing program database that includes businesses in the unincorporated area.

Regionally, the DEH implements the CAP as an extension of its oversight and inspection of industrial and commercial sources for other regulatory programs. The surveys performed as part of the CAP are generally conducted at frequencies required by other regulatory programs. However, lower priority threats to water quality, such as restaurants, may be surveyed at lesser frequencies. The Department of Building and Safety has implemented a new Industrial Commercial Inspection Program (ICIP) in the unincorporated area. The scope of the ICIP is to perform comprehensive stormwater regulatory compliance inspections in the unincorporated area.

In April 2004, the District and the DEH executed an agreement that provides continued support for the area-wide CAP. The CAP involves a detailed stormwater compliance survey for facilities that must secure a hazardous materials permit for storing, handling or generating such materials and for retail food facilities. Many types of industrial and commercial establishments are inspected by the DEH Hazardous Materials Management staff including those that conduct automobile mechanical repair, maintenance, fueling, or cleaning operations, automobile or other vehicle body repair or painting operations, and painting or coating operations. All hazardous material permit facilities are surveyed for NPDES compliance at least twice during the MS4 Permit term. As of November 2008 there were approximately 7,382 retail food facilities in Riverside County, all of which are formally surveyed for NPDES compliance at least once every five years.

During the CAP surveys of the hazardous materials permit facilities the following BMPs are verified:

- ♦ Hazardous waste/materials storage areas are clean, no signs of leakage, and protected from rainfall and runoff;
- ◆ Trash bin areas are clean, the bin lids are present and not missing or in disrepair, the bins are not filled with liquid, and no signs of leakage from the trash bins;
- ♦ Aboveground tanks have been properly maintained including no signs of leakage, and secondary containment in good condition;
- Onsite storm drain inlets are protected from inappropriate non-stormwater discharges;
- Oil/water separators are connected to sanitary sewer and not a septic system;
- ♦ Wash water from wash pads (steam cleaning or high pressure cleaning) is directed to the sanitary sewer and not a septic system, and does not discharge to parking lot, soil, or the MS4;

- Non-hazardous mop bucket wash water is discharged to sanitary sewer via clarifier;
- Parking lot areas are free of trash, debris, and fluids other than water; and
- Facility has coverage under the General Permit-Industrial, if appropriate.

These specific topics are addressed in questions 1-10 of the "Hazardous Waste/Hazardous Materials Facility Stormwater Compliance Survey" form included in Appendix G.

During the CAP restaurant surveys the following minimum BMPs are verified:

- Oil and grease wastes are not discharged onto a parking lot, street or adjacent catch basin;
- ◆ Trash bin areas are clean, the bin lids are closed, the bins are not filled with liquid, and the bins have not been washed out into the MS4;
- ♦ Floor mats, filters and garbage containers are not washed in adjacent parking lots, alleys, sidewalks, or streets and that no wash water is discharged to MS4s; and
- Outdoor seating areas, sidewalks, and drive-through lanes are cleaned by sweeping, not by hosing down, and that the facility operator uses dry methods for spill cleanup.

These specific topics are addressed in questions 1-8 of the "Food Facility Stormwater Compliance Survey" form included in Appendix G.

The DEH submits completed survey reports to the District on a monthly basis, and the District forwards copies of the completed survey reports to the respective Permittees. Each Permittee may conduct additional follow-up inspections at facilities for which an inspection item was noted as "requires follow-up".

#### 3.2 General Permit-Industrial Coordination

Many manufacturing and industrial operations are subject to the requirements of the General Permit-Industrial. The Permittees use the CAP surveys to identify facilities lacking General Permit-Industrial coverage within their respective jurisdictions. The Permittees also require proof of compliance with the General Permit-Industrial prior to issuance of a business license or a certificate of occupancy for new industrial facilities.

The CAP includes educational outreach to the facilities and completion of a stormwater compliance survey. In conducting a facility survey, if it appears that the facility may be required to have coverage under the General Permit-Industrial and the facility operator indicated that a Stormwater Pollution Prevention Plan (SWPPP) is not onsite, the inspector provides the facility operator with an informational sheet on the requirements of the General Permit-Industrial and makes a notes on the compliance survey that the SWPPP was not available onsite. The implementation schedule for CAP surveys is prioritized to address targeted industrial facilities.

The District offers educational brochure(s) for Permittee inspectors to hand out. Specific brochures available each year are described in the Annual Reports.

#### 3.3 Oil & Grease Evaluation for Additional Controls

The Permittees have evaluated the need for additional controls for oil and grease and concluded that such controls are not needed. This conclusion was based on the following factors:

- ♦ In general, low levels of oil and grease have been consistently reported in the Whitewater River Region monitoring program and they are not contributing to water quality impairment.
- ♦ The Permittees have developed a comprehensive strategy to address oil and grease that involves focused outreach, adequate legal authority, and Source Control BMPs.
- ♦ Treatment Control BMPs for oil and grease are still not proven to be highly effective in controlling the relatively low concentrations typically found in Urban Runoff.
- The Permittees are monitoring research efforts for various BMP programs statewide.

Additionally, the Permittees have prohibited through ordinance, order or similar means, IDs to the MS4, including but not limited to:

- Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
- Discharges resulting from the cleaning, repair, or maintenance of any type of equipment or machinery including motor vehicles, cement-related equipment, and portable toilet servicing;
- Discharges of wash water from mobile operations such as oily or greasy discharges from mobile automobile washing, and/or discharges from steam cleaning, power washing, and carpet cleaning, etc.;
- Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials; and
- ♦ Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).

#### 3.4 Commercial/Industrial Source Database

Each Permittee with land use authority develops and maintains a source database of commercial and industrial facilities within their respective jurisdictions. Permittee maintenance of the source database includes regularly updating the database for information obtained during facility inspections or other sources. The Permittees' source databases of commercial and industrial facilities include the following categories:

- ♦ Restaurant
- ♦ Automotive Service
- ♦ Industrial
- Mobile Cleaning Business (tracked by Permittees through a business license or some other process/procedure)

A model commercial and industrial source database format is included in Appendix E.

# 3.5 Training

CAP inspectors and Permittee staff that conduct commercial/industrial inspections receive annual training regarding the following topics:

- Selection, implementation, and maintenance of appropriate or minimum BMPs for industrial or commercial facilities,
- ♦ The General Permit-Industrial and NOI requirements,
- ♦ The local jurisdiction's Stormwater Ordinance and other local jurisdiction resolutions and codes related to protection of water quality,
- ♦ TMDL obligations and Pollutants of Concern,
- ◆ The local jurisdiction's enforcement and compliance strategy/policy for industrial commercial facilities,
- ♦ The MS4 Permit and the SWMP, and
- ♦ How to provide guidance to facility operators on proper selection, implementation and maintenance of industrial/commercial BMPs.

This training is generally offered at least twice a year—in the spring and in the fall.

#### 3.6 Evaluation/Assessment

Evaluation and assessment for the Commercial/Industrial program performance and Permittee compliance is accomplished primarily through the following reporting and documentation activities:

- Number of commercial and industrial facilities in the source database, by type:
  - Restaurant
  - Automotive Service
  - Industrial
  - Mobile Cleaning Business
- Number of commercial and industrial facilities visited:
  - Satisfactorily implements BMPs
  - Educational materials provided or other types of enforcement
  - Referral to Environmental Crimes Task Force or Regional Board
- Number of Permittee employees trained, including the topic and date.

Evaluation and reporting of these metrics will be initiated in the 2009-2010 Annual Report.

## 4.0 DEVELOPMENT PLANNING AND PERMITTING

#### 4.1 Introduction

The Permittees have modified the SWMP to address the MS4 Permit requirements related to the planning and permitting of New Development and Redevelopment Projects within their jurisdictions that:

- ♦ Are discretionary and fall into one or more of the following Priority Development Project categories:
  - Single-family hillside residences that create 10,000 square feet or more of impervious area where the natural slope is 25% or greater;
  - Single-family hillside residences that create 10,000 square feet of impervious area where the natural slope is 10% or greater where erosive soil conditions are known;
  - Commercial and industrial developments of 100,000 square foot or more;
  - Automotive repair shops [includes Standard Industrial Classification (SIC) codes 5013, 7532, 7533, 7534, 7537, 7538, and 7539];
  - Retail gasoline outlets disturbing greater than 5,000 square feet;
  - Restaurants disturbing greater than 5,000 square feet;
  - Home subdivisions with 10 or more housing units; and
  - Parking lots of 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to Urban Runoff.

Or

◆ Discharge into the MS4 and disturb an area of one acre or more, or disturb less than one acre, but are part of a larger common plan of development or sale (referred to as Other Development Projects).

The objective of the Development Planning and Permitting Program is to ensure that controls are in place to prevent or minimize water quality impacts from New Development and Redevelopment Projects to the MEP. The development approval and permitting processes carries forth project-specific requirements in the form of conditions of approval, design criteria, tracking, inspection, and enforcement actions. Figure 4-1 is a flow diagram that generally depicts the development planning and permit process.

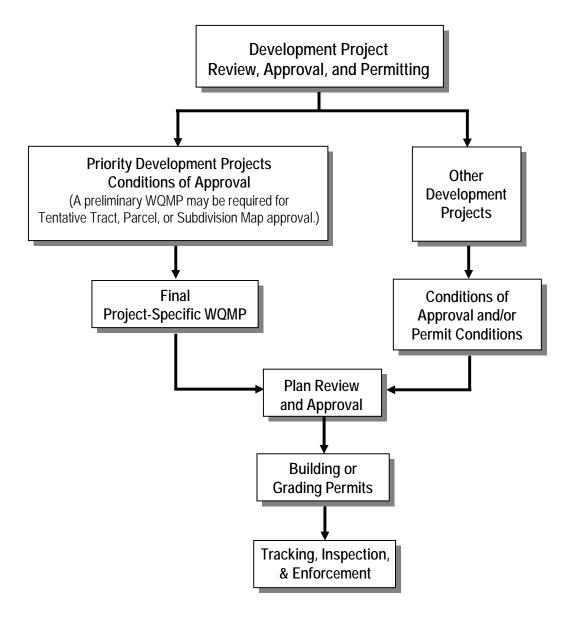


Figure 4-1. Development Planning and Permit Process

Since some Priority Development Projects are subject to discretionary approval during the planning phase (land use entitlement) and ministerial approval for subsequent grading or building permits, project applicants may be required to submit a preliminary project-specific WQMP for discretionary project approval (land use entitlement). The level of detail in a preliminary project-specific WQMP submitted during the land use entitlement process depends upon the level of detail known about the overall project design at the time project approval is sought. Project applicants are required to submit for Permittee review and approval, a final project-specific WQMP that is in substantial conformance with the preliminary project-specific WQMP prior to the issuance of any building or grading permit.

## 4.2 Identifying Development Projects Requiring a Project-Specific WQMP

Priority Development Projects<sup>5</sup> submitted to the Permittees after June 15, 2009 are conditioned to require the preparation, review, and approval of a project-specific WQMP that is in conformance with the "Whitewater River Region Water Quality Management Plan for Urban Runoff," prior to issuance of the first approval or permit. The primary objective of the "Whitewater River Region Water Quality Management Plan for Urban Runoff" is to ensure that the land use approval and permitting process of each Permittee will minimize the impact of Urban Runoff to the MEP through application of Site Design, Source Control, and Treatment Control BMPs on a project-specific and/or sub-regional or regional basis. At its discretion, a Permittee may require a project-specific WQMP for Priority Development Projects submitted prior to June 15, 2009.

To ensure that Priority Development Projects are identified as early in the planning process as possible, the Permittees utilize a checklist to document the determination as to whether a project requires a project-specific WQMP or not. An example checklist that may be used by the Permittees for this purpose is shown in Figure 4-2.

<sup>&</sup>lt;sup>5</sup> Priority Projects" as defined in Section F.1.c.iv of the MS4 Permit and shown in Figure 4-2.

## Figure 4-2. Checklist – Projects Requiring Project-Specific WQMPs Whitewater River Region

# Checklist for Identifying Discretionary New Development or Redevelopment Projects as Priority Development Projects Requiring a Project-Specific WQMP Whitewater River Region

Project File No.	
Project Name	
Project Location	
Project Description	
Project Applicant Information (Name, Address, Telephone No.)	

Proposed Project Consists of or Includes:	Yes	No
Single-family hillside residences that create 10,000 square feet, or more, of impervious area where the natural slope is 25% or greater.		
Single-family hillside residences that create 10,000 square feet, or more, of impervious area where the natural slope is 10% or greater where erosive soil conditions are known.		
Commercial and industrial developments of 100,000 square feet or more.		
Automotive repair shops [Standard Industrial Classification (SIC) codes 5013, 7532, 7533, 7534, 7537, 7538, and 7539].		
Retail gasoline outlets disturbing greater than 5,000 square feet.		
Restaurants disturbing greater than 5,000 square feet.		
Home subdivisions with 10 or more housing units.		
Parking lots of 5,000 square feet or more, or with 25 or more parking spaces, and potentially exposed to Urban Runoff.		

<sup>1</sup> Descriptions of SIC codes can be found at http://www.osha.gov/pls/imis/sicsearch.html.

## **DETERMINATION: Circle appropriate determination.**

Any question answered "YES" Project requires a project-specific WQMP.

All questions are answered "NO" Project requires incorporation of Site Design BMPs and Source

Control BMPs imposed through Conditions of Approval or Permit

conditions.

## 4.2.1 Other Development Projects

The Permittees require Other Development Projects (projects that are not Priority Development Projects, but discharge into the MS4 and disturb an area of one acre or more, or disturb less than one acre, but are part of a larger common plan of development or sale) to incorporate a combination of Structural and Non-Structural Source Control BMPs, as applicable and feasible, into project plans through conditions of approval or building/grading permit conditions. A summary of the BMP requirements for Other Development Projects is shown in Table 4-1. Brief descriptions of the Non-Structural and Structural Source Control BMPs are provided in Appendix H, the Whitewater River Region Water Quality Management Plan for Urban Runoff, Sections 4.5.2.1 and 4.5.2.2, respectively.

Table 4-1. Summary of BMPs for Other Development Projects

	Source Control BMPs				
	Required for all Other Development Projects				
	Education/Training for Property Owners, Operators, Tenants, Occupants, or Employees				
Non-Structural	Activity Restrictions				
(See Appendix H,	Irrigation System and Landscape Maintenance				
Section 4.5.2.1)	Common Area Litter Control				
	Street Sweeping Private Streets and Parking Lots				
	Drainage Facility Inspection and Maintenance				
	Required for all Other Development Projects that incorporate the target project features (e.g., fueling areas, maintenance bays, loading docks, outdoor storage areas, etc.)				
	Storm Drain Inlet Stenciling and Signage				
	Landscape and Irrigation System Design				
	Protection of Slopes and Channels				
	Provide:				
	<ul> <li>Community Car Wash Racks</li> </ul>				
Structural	<ul> <li>Wash Water Controls for Food Preparation Areas</li> </ul>				
(See Appendix H,	Proper Design and Maintenance of:				
Section 4.5.2.2)	<ul><li>Fueling Areas</li></ul>				
	<ul> <li>Air/Water Supply Area Drainage</li> </ul>				
	<ul> <li>Trash Storage Areas</li> </ul>				
	<ul> <li>Loading Docks</li> </ul>				
	<ul> <li>Maintenance Bays</li> </ul>				
	<ul> <li>Vehicle and Equipment Wash Areas</li> </ul>				
	<ul> <li>Outdoor Material Storage Areas</li> </ul>				
	Outdoor Work Areas or Processing Areas				

#### 4.2.2 Conditions of Approval

The Permittees have reviewed and revised their standard conditions of approval to ensure that the standard conditions are not in conflict with any provisions of the MS4 Permit, the SWMP, the General Permits-Construction, the General Permit-Industrial, and adopted Total Maximum Daily Load allocations within their jurisdiction. For example, a condition requiring "sweeping or washing public access points

within 30 minutes of dirt deposition" should be revised to specify that "washing" must include capture and proper disposal of all wash water.

To minimize the short-term and long-term impacts of Urban Runoff on Receiving Water quality from Priority Development Projects and Other Development Projects, Permittees have reviewed and will revise, or supplement their standard conditions of approval or building/grading permit conditions that may be used to include the following conditions or the equivalent, as deemed appropriate:

- Prior to the issuance of a building or grading permit, the applicant shall submit to the Permittee for review and approval a project-specific WQMP that:
  - Addresses Site Design BMPs such as minimizing impervious areas, maximizing permeability, minimizing directly connected impervious areas, creating reduced or "zero discharge" areas, and conserving natural areas;
  - Incorporates the applicable Source Control BMPs as described in the Whitewater River Region WQMP and provides a detailed description of their implementation;
  - Incorporates Treatment Control BMPs as described in the Whitewater River Region WQMP and provides information regarding design considerations;
  - Describes the long-term operation and maintenance requirements for BMPs; and
  - Describes the mechanism for funding the long-term operation and maintenance of the BMPs.
- ◆ Prior to issuance of any building or grading permits, the property owner shall record a "Covenant and Agreement" with the County-Clerk Recorder or other instrument on a standardized form to inform future property owners of the requirement to implement the approved project-specific WQMP. Other alternative instruments for requiring implementation of the approved project-specific WQMP include: requiring the implementation of the project-specific WQMP in Home Owners Association or Property Owner Association Conditions, Covenants and Restrictions (CC&Rs); formation of Landscape, Lighting and Maintenance Districts, Assessment Districts or Community Service Areas responsible for implementing the project-specific WQMP; or equivalent. Alternative instruments must be approved by the Permittee prior to the issuance of any building or grading permits.
- Prior to the issuance of any grading or building permits for projects that will result in soil disturbance of one or more acres of land, the applicant shall demonstrate that coverage has been obtained under California's General Permit for Stormwater Discharges Associated with Construction Activity or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects, as appropriate, by providing a copy of the Notice of Intent submitted to the SWRCB and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) number or other proof of filing.
- If the project will cause soil disturbance of one acre or more, the project must comply with either the General Permit for Stormwater Discharges Associated with Construction Activity or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects and shall prepare and implement a stormwater pollution prevention plan (SWPPP). Where applicable, the project applicant shall cause the approved final

project-specific WQMP to be incorporated by reference or attached to the project's SWPPP as the Post-Construction Management Plan. A copy of the up-to-date SWPPP shall be kept at the project site and be available for review upon request.

- Prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall:
  - Demonstrate that all structural BMPs have been constructed and installed in conformance with approved plans and specifications; and
  - Demonstrate that applicant is prepared to implement all non-structural BMPs included in the approved project-specific WQMP, conditions of approval, or building/grading permit conditions.
  - Demonstrate that an adequate number of copies of the approved project-specific WQMP are available for the future owners/occupants (where applicable).
- ♦ For industrial facilities subject to the General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) code, prior to grading or building permit close-out and/or the issuance of a certificate of use or a certificate of occupancy, the applicant shall demonstrate that coverage has been obtained by providing a copy of the Notice of Intent submitted to the SWRCB and a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing.

### 4.2.3 Review and Approval of Project-Specific WQMPs

Project-specific WQMPs may be submitted as "preliminary" during the discretionary or land use entitlement phase depending upon the level of detail known about the overall project design at the time project approval is sought. However, prior to issuance of grading or building permits, the project applicant must submit the final project-specific WQMP for review and approval by the Permittee. The review and approval of a final project-specific WQMP is one of the last critical points at which a Permittee can impose conditions or standards that will minimize the impacts of Urban Runoff. To assist the Permittees in conducting thorough and consistent reviews of project-specific WQMPs, the Permittees utilize a WQMP Review Checklist. An example Project-Specific WQMP Review Checklist is included as Appendix I. For purposes of annual reporting and tracking project-specific WQMPs, the Permittees developed a standardized worksheet that is included in Appendix E.

When reviewing project-specific WQMPs submitted for approval, Permittees assess the potential project impacts on Receiving Waters and ensure that the project-specific WQMP adequately identifies such impacts, including all pollutants and hydrologic conditions of concern. The Permittees assess, as a whole, the BMPs identified in the project-specific WQMP to ensure that the applicant has adequately addressed the potential pollutants and hydrologic conditions of concern associated with the proposed project. The project-specific WQMP is a project planning level document and as such is not expected to contain final BMP design drawings and details (these will be in the construction plans). However, the project-specific WQMP must identify and denote the location of selected structural BMPs, provide design parameters including hydraulic sizing of treatment BMPs, and convey final design concepts. BMP fact sheets can be used in conjunction with project-specific design parameters and sizing to convey design intent. BMP fact sheets typically contain detailed descriptions of each BMP, applications, advantages/disadvantages,

design criteria, design procedure, and inspection and maintenance requirements to ensure optimal performance of the BMPs.

### 4.2.4 Plan Review and Approval: Issuance of Grading or Building Permits

#### 4.24.1 Standard Construction Notes for Plans

Prior to the issuance of a grading or building permit, Permittees require the applicant to include on the plans the following notes (or notes of substantially similar intent) that address pollution prevention to the MEP during the construction phase of a project on a year-round basis:

- Erosion control BMPs shall be implemented and maintained to minimize and/or prevent the entrainment of soil in runoff from disturbed soil areas on construction sites.
- ◆ Sediment control BMPs shall be implemented and maintained to prevent and/or minimize the transport of soil from the construction site.
- Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking, or wind.
- ◆ Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to eliminate or reduce transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.
- ♦ BMPs shall be inspected prior to predicted storm events and following storm events, and shall be properly maintained.
- Runoff from equipment and vehicle washing shall be contained at construction sites and must not be discharged to Receiving Waters, adjacent roadways, catch basins, or other components of the local storm drain system.
- All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- ♦ At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- ◆ Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit, the General Permit for Stormwater Discharges Associated with Construction Activity, or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives, and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of such materials should occur in a specified

and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.

- Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited. Discharging non-contaminated groundwater produced by dewatering activities may require a National Pollutant Discharge Elimination System (NPDES) permit or Waste Discharge Requirements (WDRs) issued by the Colorado River Basin Regional Water Quality Control Board.
- Construction sites shall be managed to minimize the exposure time of disturbed soil areas through phasing and scheduling of grading to the extent feasible and the use of temporary and permanent soil stabilization.

#### 4.2.4.2 Plan Review and Approval for Priority Development Projects

Construction plans submitted by the applicant for plan review must incorporate the structural BMPs identified in the approved final project-specific WQMP. Once a Priority Development Project<sup>6</sup> reaches the plan review phase, the project applicant should have an approved final project-specific WQMP in accordance with Section 2.2 of the Whitewater River Region Water Quality Management Plan for Urban Runoff (Appendix H).

To gain an understanding of the water quality issues and structural BMPs required, Permittees review the relevant CEQA documentation (including the Mitigation Monitoring and Reporting Program) if applicable, the conditions of approval, and the project-specific WQMP as part of the plan review process. Construction plans are reviewed for consistency with the project-specific WQMP. If the selected BMPs were approved in concept during the land use entitlement process, the applicant is required to submit detailed construction plans showing locations and design details of all BMPs that are in substantial conformance with the preliminary approvals. The construction plans are reviewed to assure that the plans are consistent with the BMP design criteria and guidance provided in Appendix H, the Whitewater River Region Water Quality Management Plan for Urban Runoff.

#### 4.2.4.3 Plan Review and Approval for Other Development Projects

For Other Development Projects (projects that do not qualify as Priority Development Projects), applicants will typically submit a grading or building permit application with construction plans that incorporate the Source Control BMPs required by the conditions of approval.

#### 4.2.5 Permit Closeout, Certificates of Use, and Certificates of Occupancy

The end of the construction phase is typically accompanied by the close out of permits and issuance of certificates of use and/or occupancy. The Permittees use this juncture to assure satisfactory completion of all requirements in a project-specific WQMP or the conditions of approval for Other Development Projects by requiring the applicant to demonstrate, where applicable, that:

♦ All structural BMPs have been constructed and installed in conformance with approved plans and specifications.

<sup>&</sup>lt;sup>6</sup> Priority Projects" as defined in Section F.1.c.iv of the MS4 Permit and shown in Figure 4-1.

- ♦ A mechanism or agreement acceptable to the Permittee has been executed for the long-term funding and implementation, operation, maintenance, repair, and/or replacement of BMPs.
- ♦ The applicant is prepared to implement all non-structural BMPs. For example, an HOA can show that they have educational materials available; or an owner/operator of a commercial or industrial facility can show that they have training materials available for their employees and a training schedule; or an owner/operator or an HOA can show that they have documented either through policy and procedure or through contract the responsibilities of maintenance staff.
- An adequate number of copies of the project-specific WQMP, if applicable, are available onsite.
- ◆ Industrial facilities subject to the General Permit for Stormwater Discharges Associated with Industrial Activity as defined by Standard Industrial Classification (SIC) code provide proof of coverage by providing a copy of the Notice of Intent (NOI) submitted to the SWRCB and/or a copy of the notification of the issuance of a Waste Discharge Identification (WDID) Number. Additionally, Permittees may verify coverage by accessing a searchable database of facilities with coverage under the General Permit for Stormwater Discharges Associated with Industrial Activity. The database is maintained by the SWRCB and is searchable by Regional Board, WDID number, operator name or city, facility name or city, county, and primary SIC code. The website address for the database is:

http://water101.waterboards.ca.gov/dwqdas/stormwater/search/IndSearch.asp

BMPs for Priority Development Projects and Other Development Projects cannot be considered effective unless a mechanism is in place to provide for long-term reliability, which is achieved through proper implementation, operation, and maintenance. Therefore, once construction of a project is complete, assurance is required for the long-term implementation, operation and maintenance of BMPs, and most particularly for Treatment Control BMPs.

The responsibility for implementation, operation, and maintenance of BMPs may be with a private entity or a public agency (for example, a Permittee) under various arrangements and with various funding sources. The responsibility to provide for the long-term implementation, operation, and maintenance of BMPs associated with Priority Development Projects or Other Development Projects may:

- Remain with a private entity (property owner, home owners association, etc.); or
- ♦ Be transferred to a public entity (e.g., a city, county, special district, etc.) through dedication of the property; or
- Be transferred to a public entity, or another private party through a contract.

Following satisfactory inspection, the Permittee may accept structural BMPs within public right-of-ways, and may accept structural BMPs on land dedicated to public ownership. Upon acceptance, responsibility for operation and maintenance will transfer from the developer or contractor to the appropriate entity, including the funding mechanism identified in the approved final project-specific WQMP for Priority Development Projects or the conditions of approval or building/grading permit conditions for Other Development Projects.

If a property owner or a private entity retains or assumes responsibility for implementation, operation, and maintenance of BMPs, the Permittee will require an agreement that can take the form of:

- ♦ A Covenant and Agreement recorded with the County Recorder,
- ♦ A Home Owners Association or Property Owners Association Covenants, Codes, and Restrictions.
- The formation of, or annexation to, a maintenance district or assessment district, or
- ♦ Other instrument sufficient to guarantee long-term implementation, operation, and maintenance of BMPs.

Examples of requirements for typical maintenance mechanisms and a sample of a Covenant and Agreement are provided in Appendix H (Whitewater River Region Water Quality Management Plan for Urban Runoff, Exhibits E and F, respectively).

## 4.3 Training

## 4.3.1 Educational Program for Developers and Contractors

The Whitewater River Region Water Quality Management Plan contains the legal, administrative, and technical information needed to acquaint developers and contractors with the requirements for post construction BMPs in Priority Development Projects. It also provides information relevant and useful to Other Development Projects. The Whitewater River Region Water Quality Management Plan for Urban Runoff is available through the Permittee websites and as part of the review process for project planning and permitting. The Permittees may also coordinate with other groups (e.g., agencies, building or planning industry associations, etc.) to provide training to the property owners, developers, builders, architectural and engineering firms, planning firms, etc.

#### 4.3.2 Training Programs for Municipal Development Planning Staff

Permittee staff responsible for implementing development planning and permitting requirements of the MS4 Permit receive annual training regarding the following topics:

- Federal, state and local water quality laws and regulations applicable to development projects,
- ♦ The connection between land use decisions and short and long-term water quality impacts; and
- ♦ How impacts to Receiving Water quality resulting from development can be minimized via the WQMP process.

The Permittees have developed a PowerPoint presentation that can be provided to municipal development planning staff. Permittee staff with development planning and permitting responsibilities may also attend other Permittee sponsored training, training sponsored by industry associations (e.g., Building Industry Association, American Society of Civil Engineers, etc.), the California Storm Water Quality Association, or training sponsored by other entities in lieu of Permittee sponsored training. The Permittees individually maintain a log of trained staff and type of training, and then include this information in the Annual Reports.

## 4.4 Evaluation, Assessment, and Reporting

Evaluation and assessment of BMP performance and Permittee compliance will continue to be accomplished primarily through reporting and documentation. The following evaluation and assessment measures are used to evaluate the Development Planning and Permitting Program:

- ♦ Identification of any changes to Permittee municipal code or policy requirements for on-site storage and infiltration of Urban Runoff for New Development and Redevelopment projects within their jurisdiction
- ♦ Assessment of the degree of implementation of Site Design BMPs relative to the measurable goal of having 100% of the Treatment Control BMP requirement (Section F.1.c.v.4 of the 2008 MS4 Permit) achieved through the use of Site Design BMPs. Achievement toward this goal is tracked on a project-specific WQMP basis determined by the percentage of total project area subject to treatment control requirements that is addressed using site design concepts.
- Identification of common deficiencies observed in reviewing Project-Specific WQMPs.
- Number of Permittee employees trained, including the topic and date.

## 5.0 PRIVATE CONSTRUCTION ACTIVITIES

## 5.1 Private Development Construction Activities

Construction related activities conducted at project sites such as clearing and grubbing, soil import or export, grading operations, storage and handling of materials, fueling, equipment maintenance, etc. present opportunities for introducing potential pollutants into the MS4. The MS4 Permit requires that Permittees continue to implement and enforce a program to reduce pollutants in any urban runoff to the MS4 from construction activities that result in a land disturbance of one acre or more, and from construction activities that disturb less than one acre but that are part of a larger common plan of development or sale. Therefore, the Permittees implement the following procedures related to construction activities:

◆ Verify that applicants for private construction projects requiring coverage under the General Permit for Stormwater Discharges Associated with Construction Activity or the General Permit for Stormwater Discharges Associated with Construction Activity from Small Linear Underground/Overhead Projects (General Permits-Construction) have filed an NOI prior to the issuance of a building or grading permit or other approvals. Additionally, Permittees may verify coverage by accessing a searchable database of construction sites with coverage under the General Permits-Construction. The database is maintained by the SWRCB and is searchable by Regional Board, WDID number, owner name or city, developer name or city, and county. The website address for the database is:

http://water101.waterboards.ca.gov/dwqdas/stormwater/search/ConSearch.asp

- Maintain ordinances or other regulatory mechanisms to require erosion and sediment controls, as well as sanctions or other effective mechanisms, in order to ensure compliance to the extent allowable under State or local law.
- ◆ Maintain procedures for site plan review which incorporate consideration of potential water quality impacts.
- Require construction site operators to implement appropriate erosion and sediment control BMPs.
- Require construction site operators to control waste such as discarded building materials, concrete truck wash-out, chemicals, litter, and sanitary waste at the construction site that may cause adverse impacts to water quality.
- ♦ Conduct construction site inspections for compliance with its ordinances, regulations, codes and the Water Quality Management Plan (WQMP) when approved.

SWRCB Order No. 99-08-DWQ; NPDES General Permit No. CAS000002. http://www.waterboards.ca.gov/water\_issues/programs/stormwater/docs/finalconstpermit.pdf

<sup>8</sup> SWRCB Order No. 2003-0007-DWQ; NPDES General Permit No. CAS000005. http://www.waterboards.ca.gov/water\_issues/programs/stormwater/linear\_const.shtml#lup

Section 4.2.4.1, Standard Construction Notes for Plans, describes standard notes that Permittees require the applicant to include on plans to address pollution prevention during the construction phase of a project on a year-round basis.

#### 5.2 Construction Site BMPs

Each Permittee requires the use of minimum BMPs that address pollution prevention by construction site owners, developers, contractors and other responsible parties, as appropriate, through standard notes that must appear on grading plans (See Section 4.2.4.1). The construction site BMPs appropriate for use during construction are listed in Table 5-1 with cross references to the BMP designations used in the 2003 California Stormwater Best Management Practice Handbook, Construction<sup>9</sup> and the Caltrans Construction Site BMP Manual (March 2003)<sup>10</sup>. Since BMP technology is constantly changing, the jurisdictional Permittee may consider other BMPs of equivalent or better performance on a case-by-case basis.

California Stormwater Quality Association. January 2003. <a href="http://www.cabmphandbooks.com/">http://www.cabmphandbooks.com/</a> or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

California Department of Transportation. March 2003.
<a href="http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM">http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM</a> 303 Final.pdf

**Table 5-1. Construction Site BMPs** 

BMP Name	California Stormwater BMP Handbook Construction	Caltrans Construction Site BMP Manual					
Temporary Erosion Control (Soil Stabilization)							
Scheduling	EC-1	SS-1					
Preservation of Existing Vegetation	EC-2	SS-2					
Hydraulic Mulch	EC-3	SS-3					
Hydroseeding	EC-4	SS-4					
Soil Stabilizer/Binder	EC-5	SS-5					
Straw Mulch	EC-6	SS-6					
Geotextiles or Mats	EC-7	SS-7					
Wood Mulch	EC-8	SS-8					
Earth Dikes and Drainage Swales	EC-9	SS-9					
Velocity Dissipation Devices	EC-10	SS-10					
Slope Drains	EC-11	SS-11					
Streambank Stabilization	EC-12	SS-12					
Temporary Sediment Control							
Silt Fence	SE-1	SC-1					
Sediment Basin	SE-2	SC-2					
Sediment Trap	SE-3	SC-3					
Check Dam	SE-4	SC-4					
Fiber Rolls	SE-5	SC-5					
Gravel Bag Berm	SE-6	SC-6					
Street Sweeping	SE-7	SC-7					
Sandbag Barrier	SE-8	SC-8					
Straw Bale Barrier	SE-9	SC-9					
Drain Inlet Protection	SE-10	SC-10					
Temporary Tracking Control							
Street Sweeping	SE-7	SC-7					
Temporary Construction Entrance	TR-1	TC-1					
Stabilized Construction Roadway	TR-2	TC-2					
Temporary Entrance / Outlet Tire Wash	TR-3	TC-3					
Temporary Wind Erosion Control							
Wind Erosion Control	WE-1	WE-1					
Temporary Construction Entrance	TR-1	TC-1					
Stabilized Construction Roadway	TR-2	TC-2					
Non-Stormwater Management Polluti							
Water Conservation Practices	NS-1	NS-1					
Dewatering	NS-2	NS-2					
Paving and Grinding Operations	NS-3	NS-3					
Temporary Stream Crossing	NS-4	NS-4					

BMP Name	California Stormwater BMP Handbook Construction	Caltrans Construction Site BMP Manual		
Clear Water Diversion	NS-5	NS-5		
Illicit Connection / Discharge	NS-6	NS-6		
Potable Water / Irrigation	NS-7	NS-7		
Vehicle and Equipment Cleaning	NS-8	NS-8		
Vehicle and Equipment Fueling	NS-9	NS-9		
Vehicle and Equipment Maintenance	NS-10	NS-10		
Pile Driving Operations	NS-11	NS-11		
Concrete Curing	NS-12	NS-12		
Material Over Water	NS-14	NS-13		
Concrete Finishing	NS-13	NS-14		
Demolition Adjacent to Water	NS-15	NS-15		
Waste Management and Materials Poll	ution Control			
Material Delivery and Storage	WM-1	WM-1		
Material Use	WM-2	WM-2		
Stockpile Management	WM-3	WM-3		
Spill Prevention and Control	WM-4	WM-4		
Solid Waste Management	WM-5	WM-5		
Hazardous Waste Management	WM-6	WM-6		
Contaminated Soil Management	WM-7	WM-7		
Concrete Waste Management	WM-8	WM-8		
Sanitary / Septic Waste Management	WM-9	WM-9		
Liquid Waste Management	WM-10	WM-10		

BMP Fact Sheets listed in this table can be obtained at:

<sup>1.)</sup> California Stormwater BMP Handbooks – <a href="http://www.cabmphandbooks.com/">http://www.cabmphandbooks.com/</a> or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

<sup>2.)</sup> Caltrans Construction Site BMP Manual – <a href="http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm">http://www.dot.ca.gov/hq/construc/stormwater/factsheets.htm</a> or <a href="http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM\_303\_Final.pdf">http://www.dot.ca.gov/hq/construc/stormwater/CSBMPM\_303\_Final.pdf</a>

#### 5.3 Construction Site Prioritization

In establishing priorities for the inspection of construction sites disturbing one acre or more, the Permittees categorize such construction sites within their jurisdiction as either high priority (high threat to Receiving Water quality) or normal priority. The Permittees have identified construction site prioritization criteria that are used in assigning either high priority or normal priority to construction sites that disturb areas equal to or greater than 1 acre. In order to standardize prioritization and inspection frequency based upon priority, the Permittees developed a matrix for the relationship between priority, threat to Receiving Water quality, and inspection frequency. This Construction Site Prioritization Matrix is presented in Table 5-2. After each inspection, the priority assigned to the construction site is reassessed based upon the prioritization matrix shown in Table 5-2 and the subsequent inspection frequency is determined.

**Table 5-2. Construction Site Prioritization Matrix** 

Priority	Criteria (a)	Wet Season <sup>(a)</sup> Inspection Frequency
High	Project Size	Once each month
	Sites that disturb an area greater than 50 acres	
	<u>Project Location</u>	
	Sites that disturb greater than one (1) acre and directly discharge to a 303(d) listed waterbody identified as impaired by sediment, siltation, or turbidity <sup>(b)</sup>	
	Soil Erosion Potential	
	Hillside sites that disturb an area greater than five acres	
	History of Compliance	
	Sites that disturb an area greater than one (1) acre with a low-range score (0-50%) on the site inspection/verification checklist	
	Sites that received repeated verbal notification of non-compliance based site inspection/verification checklist	
Normal	Project Size	Once during the wet
	Sites that disturb an area of one (1) acre or greater and less than 50 acres	season
	History of Compliance	
	Sites that are predominantly in compliance based upon the site inspection/verification checklist	

<sup>(</sup>a) Wet season: Generally from August 1 – October 1 and November 1 – May 1 (Consistent with Caltrans definition of rainy season for the eastern desert areas.)

<sup>(</sup>b) See http://www.waterboards.ca.gov/coloradoriver/water\_issues/programs/tmdl/rb7\_303d\_list.shtml

## 5.4 Construction Site Inspections

Each Permittee conducts construction site inspections within their existing building/grading inspection framework. At a minimum, the following items are addressed during construction site inspections:

♦ For projects of one acre or more, verify that an NOI in compliance with the applicable General Permit-Construction has been submitted to the SWRCB. Verification is typically made by reviewing a copy of the NOI Receipt letter from the SWRCB showing the Waste Discharge Identification (WDID) Number issued for the site. Additionally, Permittees may verify coverage by accessing a searchable database of construction sites with coverage under the General Permits-Construction. The database is maintained by the SWRCB and is searchable by Regional Board, WDID number, owner name or city, developer name or city, and county. The website address for the database is:

http://water101.waterboards.ca.gov/dwqdas/stormwater/search/ConSearch.asp

- For projects of one acre or more, verify that a SWPPP is on-site.
- ♦ Confirm compliance with the Permittee's ordinances including the storm water ordinance, regulations, codes and the WQMP when approved.
- Check for poorly managed authorized non-storm water discharges or evidence of unauthorized non-storm water discharges that may be potential illicit connections or illegal discharges to a MS4.

Some Permittees have chosen to document this construction site inspection information on a separate form, while other Permittees have chosen to incorporate this information into existing inspection forms. An example construction site inspection form is shown in Figure 5-1. Based on the inspection findings, the Permittees implement follow-up actions as necessary.

During the course of inspecting construction sites, if it appears that a construction site is required to comply with one of the General Permits-Construction, the Permittee's inspector asks the construction site manager whether or not a NOI has been submitted to the SWRCB. If not, the inspector issues a correction notice and notifies the appropriate Permittee stormwater program representative, who in-turn notifies the Regional Board staff. Permittees may also choose to request a current listing from the Regional Board of all construction sites within their jurisdiction covered under the General Permits Construction to facilitate this aspect of construction site compliance. In addition, the Permittee's inspectors provide educational materials to contractors at the inspected sites.

## Figure 5-1. Example Construction Site Inspection Form





## STORMWATER NPDES DESERT TASK FORCE Construction Activity Compliance Inspection Insert Permittee Department Insert Permittee Address

						Date:			
TRACT/PARCEL #:	WDID#:		WEATHER:			SITE INSPECTION PRIORITY LEVEL:			
							☐ HIGH ☐ NORMAL		
APN:	GRADING PERMIT #:		SIZE/DIST	URBED ACREAGE: OFFICE USE: □-PAID			SE:		
SITE NAME AND ADDRE	ESS:			PROPERTY OWNER A	AND MAILI	NG ADDRES	SS (IF DIFFERENT):		
CROSS STREETS:		INSPEC	TED BY:		PHONE	#:	DATE FOR REINSPECTION:		
FUTURE SITE USAGE:	☐ RESIDENTIAL ☐ COMMERCIAL			POST-CONSTRUCT NOTES-	TON BMP	s ON-SITE: [	YES NO		
or not in compliance  1. PERMITS:  Copy of NOI Copy of WDI	located at the project s D Notification Letter loc eral Permit for Stormwa	mittee Na site? (MS4 cated at th	ame] Storn 4 Permit Se ne project si	nwater Ordinance, location F.1.d.5.a) te? (MS4 Permit Sect	ocal pern	nits, regula			
	OLLUTION PREVENT				not, Reg	ional Board	d must be notified.		
BMPs in place Project site Effective con  4. EROSION CONTR No evidence No evidence	nbination of erosion and	d sedimen manufactu present?	nt controls o	n site? denuded slopes?					
<ul><li>□ No evidence</li><li>□ No evidence</li></ul>	of sediment outside the of construction site sed of "Track-out" observe	diment on d on surfa	City-mainta	ined streets, downstre	eam storn te?	n drains and			
	that structural controls						rges to the streets or storm		
VIOLATIONS:  Verbal v	varning:			□ Writt	en warnir	ng: (attach c	convi		
	attach copy)			VI 11/10/10/10		ttach copy)	ору)		
Other:									
RECEIVED BY:		NAI	ME/SITE CO	NTACT (PRINT):			24-HOUR PHONE:		
DATE:			CORRECTE	D NOT CORRECT	ED		PAGE OF		
REGIONAL BOARD NO	TFICIATION:	DA	1992	TIME:			CONTACT:		

#### 5.5 Enforcement

If determined during a routine inspection or an inspection in response to a complaint that a site/project is non-compliant with the Permittee's storm water or erosion control ordinance, the Permittee begins enforcement procedures that may include:

- 1. Education and information,
- 2. Verbal warning,
- 3. Written warning,
- 4. Notice of non-compliance,
- 5. Administrative compliance order,
- 6. Stop work order or cease and desist order,
- 7. Civil citation or injunction,
- 8. Administrative fine, and
- 9. Referral to the Environmental Crimes Strike Force.

Enforcement procedures are described in more detail in Section 1.7 of the SWMP. As described in Section 1.7, the severity of the violation is based on various factors. After considering the various factors, the Permittee determines the level of enforcement required consistent with the enforcement levels described in Table 1-3 of Section 1.

### 5.6 Regional Board Notification Requirements

The Permittees notify the Regional Board when staff observe potential non-compliance with the Construction Activity Permits or other order or permit issued by the SWRCB or Regional Board. Such notifications are made by telephone (760-346-7491) and email within 2 working days of receiving notice from its staff. Upon providing notification to the Regional Board, no further action is taken by Permittee staff with respect to enforcement of the General Permits-Construction. However, the Permittee continues with progressive enforcement of its ordinances, rules, regulations, and permits at the site as described in Section 1.7 of the SWMP.

## 5.7 Training Requirements

To support effective stormwater and non-stormwater pollution prevention the Permittees have developed and provide annual informational training sessions to staff conducting construction site inspections. Construction training modules provide a construction stormwater orientation for field inspectors and address the following topics:

- ♦ MS4 Permit requirements,
- ♦ General Permits-Construction requirements, and
- Site inspection criteria and priorities.

The annual training for construction site inspectors is conducted prior to August 1, the start of the wet season. The Permittees individually maintain a log of trained staff and report training in their annual reports. The training program is reviewed and updated as necessary to address concerns in the Whitewater River Region.

January 2011  $\overline{5-8}$ 

## 5.8 Evaluation, Assessment, and Reporting

Evaluation and assessment of BMP performance and Permittee compliance with the Private Development Construction Activities Program is accomplished primarily through reporting and documentation of the following information:

- ♦ Verification that construction site prioritization criteria adequately identify sites that pose a high threat to Receiving Water quality.
- The number of construction site inspections conducted for sites disturbing one acre or more.
- The number of construction site referrals to the Regional Board.
- Number of Permittee employees trained, including the topic and date.

For purposes of annual reporting, the Permittees developed a standardized spreadsheet for listing construction sites disturbing one acre or more within their jurisdiction and the associated priority, inspection, and enforcement information. The standardized spreadsheet is included in Appendix E.

## 6.0 PERMITTEE FACILITIES AND OPERATIONS

## 6.1 Planning for Post-Construction BMPs in Permittee Public Works Projects

The requirement for managing the quality and quantity of stormwater runoff applies to Permittee public works projects in the Whitewater River Region meeting the definition of New Development or Redevelopment just as it applies to private development. Although the Permittees do not plan, design, or construct most of the Priority Development Project categories<sup>11</sup> per se (see SWMP Section 4.1), some Permittee public works projects may have similar functions or characteristics, or may conduct similar activities after construction is completed. For example, a corporation yard may include a vehicle and equipment maintenance facility, which is very similar to an automotive repair shop. Other examples are a civic center or library that is very similar in its characteristics to that of a commercial office building, and a senior citizens center or a jail may have a cafeteria, which is similar to a restaurant. Additionally, public works projects that discharge into the MS4 and disturb an area of one acre or more, or disturb less than one acre, but are part of a larger common plan of development (referred to as Other Development Projects) will incorporate permanent structural and non-structural BMPs that prevent or minimize water quality impacts to the MEP. This approach is consistent with the General Permits-Construction that require post-construction (permanent) stormwater management measures be installed and a satisfactory long-term maintenance plan be established in order to terminate coverage.

The process for planning, design, approval, and construction oversight of Permittee projects differs from the process of planning and permitting for private sector development projects. For example, typically private sector projects are regulated through a process of a development plan approval (i.e., conditions of approval); building or grading permit applications, and permit conditions. In comparison, Permittee projects may undergo design review by the Permittee's contracting agency; be issued permits or similar administrative authorizations; and are then regulated through the enforcement of contract terms and approved plans and specifications.

Each Permittee incorporates Site Design and Source Control (structural and non-structural) BMPs into the process of planning, designing, and preparing construction plans and specifications for their public works projects. For those public works projects that qualify as a Priority Development Project, the planning and design conforms to MS4 Permit Section F.1.c.v (WQMP Design Standards) that addresses (1) peak discharge rates, (2) Site Design BMPs, (3) Source Control BMPs, and (4) Treatment Control BMPs. Where a Permittee requires retention of Urban Runoff at a level equivalent to, or greater than, the Volumetric or Flow-Based Treatment Control BMP design criteria specified in the MS4 Permit (Section F.1.c.v.4) for its public works projects as it does for private development, additional Site Design BMPs and Treatment Control BMPs are not required.

Where applicable, the operation and maintenance procedures for the project-specific Site Design, Structural Source Control, and Treatment Control BMPs included in a Permittee's public works project are incorporated into a Facility Pollution Prevention Plan. Upon completion of construction and when contract close-out occurs, the responsibility for implementation, operation, and maintenance of BMPs will

<sup>11</sup> Permit Section F.1.c.iv

transfer from the contractor to the appropriate Permittee department and become part of the Permittee Facilities and Operations Program (see SWMP Section 6.3).

Each Permittee has developed and implemented policies and procedures to ensure that the planning and design of its public works projects reflect these requirements for managing the quality and quantity of stormwater runoff to prevent or minimize water quality impacts to the MEP.

#### 6.2 Permittee Construction Activities

For Permittee public works construction projects outside the Whitewater River Region, the Permittees submit a NOI to the SWRCB with the appropriate fee to obtain coverage under the General Permits-Construction. However, the Permittees notify the Regional Board (rather than the SWRCB) of their public works construction projects within the Whitewater River Region that would normally require coverage under the General Permits-Construction, by completing and submitting the Notice of Intent included as Attachment A to the MS4 Permit. The Notice of Intent is submitted to the Regional Board prior to the start of construction and no fee is required. A copy of the Notice of Intent for public works construction projects within the Whitewater River Region is provided in Appendix J.

The Permittees develop and implement Construction SWPPPs consistent with the requirements of the General Permits-Construction for construction activities that exceed one acre or more of disturbed soil. SWPPPs are retained on-site for the entire duration of project construction. The SWPPPs include a description of allowable non-stormwater discharges that may occur and identify, wherever feasible, alternatives to eliminate or minimize allowable non-storm water discharges. Public works construction projects monitoring includes site inspections before anticipated storm events and after actual storm events to:

- Verify SWPPP implementation,
- Identify areas contributing to discharges of stormwater from the construction site, and
- ◆ Determine if adequate BMPs have been properly implemented and maintained, or whether additional BMPs are needed.

Permittees retain records of construction site inspections for at least five years. The inspection records include date of inspection, individual(s) who performed the inspection, and the observations made. Instances of noncompliance or anticipated noncompliance are reported to the Regional Board within 30 days of identification of the noncompliance and include a description of the noncompliance, actions necessary to achieve compliance, and a schedule for achieving compliance. If requested by the Regional Board, Permittees perform additional site inspections, submit reports and certifications, or perform sampling and analysis.

A Notice of Termination is submitted to the Regional Board within 30 days of the completion of each Permittee construction project. A copy of the Notice of Termination for public works construction projects within the Whitewater River Region is provided in Appendix J.

Emergency public works projects required to protect public health and safety are not required to prepare a SWPPP, nor are they required to file a NOI or provide advance notice to the Executive Officer of planned changes that may result in non-compliance with the General Permits-Construction. In addition, routine

maintenance activities associated with BMPs implemented as part of a Permittee's Facility Pollution Prevention Plans (See Section 6.3.5) are exempt from coverage under the General Permits-Construction.

## 6.3 Operation and Maintenance of Permittee Facilities

#### 6.3.1 Sewage Systems

To provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSOs), on May 2, 2006, the SWRCB adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems <sup>12</sup> (Sanitary Sewer Order). The Sanitary Sewer Order requires public agencies that own or operate sewage systems to develop and implement Sewer System Management Plans (SSMPs) and report all SSOs through the SWRCB's online SSO database. As required by the Sanitary Sewer Order, each Permittee that owns or operates a sanitary sewage collection system greater than one mile in length must develop a SSMP. The SSMP includes provisions for proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP includes a spill response plan that establishes standard procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.

The following Permittees have obtained coverage under the Sanitary Sewer Order and are developing SSMPs in compliance with that order:

- ♦ Coachella Valley Water District
- ♦ City of Banning
- ♦ City of Coachella
- ♦ City of Palm Springs

The Permittees take feasible steps to eliminate SSOs. In the event that an SSO does occur, the Permittees take feasible steps to contain and mitigate the impacts of an SSO by following the Sanitary Sewer Overflow Guidance Document (Appendix F). In the event of an SSO, the Permittees take feasible steps to prevent untreated or partially treated wastewater from discharging into MS4 facilities or waters of the United States by blocking off the MS4 facilities and by removing the wastewater from the MS4. In addition, the Permittees provide the operators of sanitary sewer systems access to their MS4 facilities for the purpose of allowing control of SSOs or for the purpose of limiting the impact to Receiving Waters once a SSO has entered the MS4. (Sanitary waste management is also described in SWMP Section 2.2.4.)

#### 6.3.2 Landscape Maintenance

Each Permittee requires that pesticides be applied in conformance with existing state and federal regulations. Additionally, some Permittees have developed and implement an Integrated Pest Management (IPM) program.

-

<sup>&</sup>lt;sup>12</sup> SWRCB Water Quality Order No. 2006-0003.

#### 6.3.3 Streets and Roads

The Permittees utilize BMP Fact Sheet SC-70 (Road and Street Maintenance) from the California Stormwater BMP Handbook–Municipal<sup>13</sup> as a model for common road maintenance activities and implement the appropriate BMPs for their streets and roads maintenance activities conducted by Permittee staff. Additionally, the Permittees incorporate applicable BMPs into streets and roads maintenance contracts and require their contractors to implement the appropriate BMPs.

#### 6.3.4 MS4 Facilities

The Permittees develop maintenance schedules for the structural control and treatment control BMPs and the MS4, implement those maintenance schedules, and report on the BMP and MS4 maintenance activities annually. These maintenance schedules address clean-out schedules and frequencies for the Permittees' catch basins, open channels, debris basins, and retention/detention basins. The legibility and condition of stencils, markers, or signs to discourage illegal dumping to the MS4 is verified as part of the MS4 facilities maintenance. Stencils, markers, and signs are replaced or reapplied as necessary. As described in SWMP Section 2.2.3, the Permittees implement a field program for the detection and elimination of illegal discharges and illicit connections to the MS4. Wastes and materials removed are disposed of per applicable laws and appropriate BMPs are implemented to minimize impacts to the Receiving Waters to the MEP.

## 6.3.5 Other Permittee Facilities and Operations

The Permittees have identified the types of Permittee facilities they operate, the activities conducted at those facilities, and those activities conducted that have the potential to contribute Pollutants to Urban Runoff as shown in Table 6-1. Where applicable, Permittee facilities such as wastewater treatment plants, airports, and landfills have coverage under the General Permit-Industrial or under an individual NPDES permit or Waste Discharge Requirements, and have developed and implemented an industrial facility Stormwater Pollution Prevention Plan when required by the applicable permit.

Identification of the Potential Pollutants at each type of Permittee facility was necessary in order to select appropriate candidate BMPs to reduce Pollutants in Urban Runoff to the MEP. Table 6-2 identifies Pollutants of Concern that may be associated with activities conducted at or based from Permittees' municipal facilities.

Facility-specific Pollution Prevention Plans are prepared, implemented, and maintained for Permittee facilities that have maintenance areas or outdoor storage areas. Such Permittee facilities are listed in Table 6-3. Facility-specific Pollution Prevention Plans are reviewed annually and updated by the Permittees when necessary to reflect changed conditions. The Permittee facilities listed in Table 6-3 are inspected annually with regard to appropriate BMP implementation. Re-inspections and corrective actions are taken where deficiencies are found. The inspection reports, and documentation of resulting corrective actions, are kept for five years and are incorporated into the Pollution Prevention Plans. A template facility-specific Pollution Prevention Plan for Permittee facilities, including an annual inspection form, is provided in Appendix K.

Based on the facilities, associated activities and the Pollutants of Concern that were identified, a list of potential Source Control BMPs was developed by the Permittees. The Permittees have identified BMPs

-

 $<sup>^{13}\</sup> http://www.cabmphandbooks.com/Municipal.asp$ 

for municipal activities including street sweeping, catch basin cleaning, maintenance yards, vehicle and equipment maintenance areas, waste transfer stations, corporation and storage yards, parks and recreational facilities, landscape maintenance, swimming pool operation and maintenance, and the application of pesticides.

This list utilizes the BMP designations used in the 2003 California Stormwater Best Management Practice Handbooks<sup>14</sup> (Industrial and Municipal Handbooks). The list of potential Source Control BMPs includes:

#### Industrial Handbook References

SC-10 Non-Storm Water Discharges	SC-34 Waste Handling and Disposal
SC-11 Spill Prevention, Control and Cleanup	SC-35 Safer Alternative Products
SC-20 Vehicle and Equipment Fueling	SC-40 Contaminated or Erodible Areas
SC-21 Vehicle and Equipment Cleaning	SC-41 Building & Grounds Maintenance
SC-22 Vehicle and Equipment Repair	SC-42 Building Repair and Construction
SC-30 Outdoor Loading /Unloading of Materials	SC-43 Parking/Storage Area Maintenance
SC-31 Outdoor Liquid Container Storage	SC-44 Drainage System Maintenance
SC-33 Outdoor Storage of Raw Materials	

### Municipal Handbook References

SC-10	Non-Storm Water Discharges	SC-43 Parking/S	Storage Area Maintenance	
SC-11 Spill	Prevention, Control and Cleanup	SC-60 Housekee	eping Practices	
SC-20 Vehi	cle and Equipment Fueling	SC-61 Safer Alte	ernative Products	
SC-21 Vehi	cle and Equipment Cleaning	SC-70 Road and	Street Maintenance	
SC-22 Vehi	cle and Equipment Repair	SC-71 Plaza and	d Sidewalk Cleaning	
SC-30 Outo	loor Loading/Unloading	SC-72 Fountains	s & Pools Maintenance	
SC-31 Outo	loor Container Storage	SC-73 Landscape Maintenance		
SC-32 Outo	loor Equipment Maintenance	SC-74 Drainage	System Maintenance	
SC-33 Outo	loor Storage of Raw Materials	SC-75	Waste Handling and Disposal	
SC-34 Was	te Handling and Disposal	SC-76 Water and	d Sewer Utility Maintenance	
SC-41 Build	ling and Grounds Maintenance			

This list is not intended to be all-inclusive. However, the BMPs listed are both effective and widely accepted. Permittees also consult other sources of BMP information and consider implementation of additional methods and measures as appropriate. These BMPs are incorporated into the facility-specific Pollution Prevention Plans, as appropriate. A matrix identifying potential BMPs that may be appropriate to implement for Permittee facilities and their associated activities is presented in Table 6-4. Fact sheets describing each of the Source Control BMPs can be viewed or downloaded from http://www.cabmphandbooks.com/.

California Stormwater Quality Association. January 2003. <a href="http://www.cabmphandbooks.com/">http://www.cabmphandbooks.com/</a> or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

**Table 6-1. Permittee Facilities and Operations** 

Type of Permittee Facility	Operations of Concern Conducted					
Corporate Yards <sup>1</sup>	Loading, unloading, handling, and storage of animal wastes, anti-freeze, asphalt, batteries, chemicals, concrete, diesel wastes, emulsions, fertilizer, fuel, green wastes, hazardous materials, new and used pil, paint products, pesticides, scrap metal, solvents, trash and debris, and wash water					
	Filling of aboveground and underground storage tanks (ASTs and USTs) with fuels					
	Dispensing of fuels to vehicles, equipment, and portable fuel containers					
	Vehicle and equipment parking and storage					
	Vehicle, equipment, and material washing and steam cleaning					
	Leak and spill cleanup					
	Landscape, garden, and general maintenance and cleaning					
Parks & Recreation	Landscape, garden, and general maintenance and cleaning					
Facilities, including Golf Courses	Paving, Painting, solid waste management, fertilizer and pesticide application, reclaimed water application					
Civic or Community Centers & Libraries	Landscape, garden, and general maintenance and cleaning					
Warehouses	Loading, unloading, handling, and storage of materials					
	Landscape, garden, and general maintenance and cleaning					
Fire and Police Stations, including Fire Training	Loading, unloading, handling, and storage of antifreeze, chemicals, new and used oil, scrap metal, and trash and debris					
Facilities	Filling of ASTs and USTs with fuels					
	Dispensing fuel					
	Vehicle and equipment maintenance					
	Vehicle and equipment parking and storage					
	Vehicle washing and steam cleaning					
	Leak and spill cleanup					
	Landscape, garden and general maintenance and cleaning					
	Fire retardant use/cleanup					
	Equipment storage, maintenance and cleaning					
Hazardous Materials	Loading, unloading, handling, and storage of potentially hazardous materials					
Storage Facilities <sup>2</sup>	Leak and spill cleanup					
Animal Shelters	Loading, unloading, handling, and storage of animal wastes, chemicals, and fuel					
	Vehicle, equipment, and material washing					
	Leak and spill cleanup					
	Landscape, garden, and general maintenance and cleaning					

Type of Permittee Facility	Operations of Concern Conducted				
Swimming Pools	Storage and use of chemicals, including chlorine				
	Filter maintenance and backwashing				
	Landscape, garden, and general maintenance and cleaning				
Potable Water Treatment	Loading, unloading, handling, and storage of materials				
Facilities	Filling of ASTs and USTs with fuels				
	Vehicle washing and steam cleaning				
	Leak and spill cleanup				
	Landscape, garden, and general maintenance and cleaning				

- 1 Corporation yards include equipment, transit maintenance, public works, fleet maintenance, and parks and recreation equipment yards.
- 2 Includes permanent household hazardous waste collection facilities

**Table 6-2. Potential Pollutants of Concern** 

Potential Pollutants	Material Loading, Unloading, Handling, or Storage	Filling of ASTs & USTs	Dispensing Fuel	Vehicle & Equipment Maintenance	Vehicle & Equipment Parking and Storage	Vehicle & Equipment Material Washing & Steam Cleaning	Leak & Spill Cleanup	Landscape, Garden, and General Maintenance & Cleaning
Animal Wastes	Х							
Anti-freeze	Х			Χ	Χ		Χ	
Asphalt	Х							
Acid	Х			Χ				
Chemicals	X			Χ	Χ		Χ	
Concrete	Х						Χ	
Diesel Wastes	Х			Χ			Χ	
Emulsions	Х						Χ	
Fertilizer	Х						Χ	
Fuel		Χ	Χ	Χ			Χ	
Green Wastes	Х							Χ
Hazardous Materials	Х			Χ	Χ		Χ	Χ
Herbicides	Х						Χ	Χ
New/Used Oil	Х			Χ			Χ	
Oil and Grease Spills	Х			Χ	Х	Χ	Χ	
Paint Products	Х						Χ	Χ
Pesticides	Х						Χ	Χ
Scrap Metal	Х			Χ				
Solvents	Х			Χ			Χ	
Trash and Debris	Х							Χ
Wash Waters						Χ		

**Table 6-3. Permittee Facilities Inventory** 

Note: This inventory reflects only those Permittee facilities that have maintenance areas or outdoor storage areas. This inventory does not include Permittee facilities having coverage under individual NPDES permits or the General Permit-Industrial.

Permittee	Corporate Yards	Parks & Recreation Facilities	Civic or Community Centers & Libraries	Ware- houses	Fire Stations	Police Stations	Hazardous Materials Storage Facilities*	Animal Shelters	Swimming Pools	Potable Water Treatment Facilities
County of Riverside	5	1	0	0	22	0	0	0	0	0
Banning	1	0	0	0	1	0	0	0	0	1
Cathedral City	1	8	3	0	3	1	0	0	0	0
Coachella	1	5	0	0	1	0	1	0	2	5
Desert Hot Springs	1	5	1	0	2	1	1	0	1	0
Indian Wells	1	1	1	0	1	1	1	0	0	0
Indio	1	0	0	0	0	0	0	0	0	0
La Quinta	1	12 Parks 1 Golf Course 1 Fitness Center	4	0	3	2	0	0	1	0
Palm Desert	3	1	0	0	3	1	0	0	0	0
Palm Springs	1	2 Rec Center; 1 golf course	0	0	4	1	1	0	1	0
Rancho Mirage	1	4	3	0	2	1	0	0	0	0
Coachella Valley Water District	2	0	0	0	0	0	0	0	0	0
Riverside County Flood Control & Water Conservation District	0	0	0	0	0	0	0	0	0	0

<sup>\*</sup> Includes household hazardous waste collection facilities.

June 2009 6-9

## Table 6-4. Potential Source Control BMPs for Permittee Facilities and Activities

Activities	BMP References from Industrial & Commercial Handbook <sup>(1)</sup>										BMP References from Municipal Handbook <sup>(2)</sup>																										
	SC-10	SC-11	SC-20	SC-21	SC-22	SC-30	SC-31	SC-32	SC-33	SC-34	SC-35	SC-40	SC-41	SC-42	SC-43	SC-44	SC-10	SC-11	SC-20	SC-21	SC-22	SC-30	SC-31	SC-32	SC-33	SC-34	SC-41	SC-43	09-DS	SC-61	SC-70	SC-71	SC-72	SC-73	SC-74	SC-75	SC-76
Material Loading/Unloading/Handling/Storage						Χ	Χ	Χ	Χ									Χ				Χ	Χ		Χ												
Waste Handling and Disposal	Χ							Χ		Χ							Χ									Χ			Χ							Χ	
Filling of ASTs/USTs			Χ															Χ	Χ																		
Dispensing Fuel			Χ															Χ	Χ																		
Vehicle/Equipment Maintenance/Repair					Χ						Χ							Х			Χ			Χ													
Vehicle/Equipment Parking and Storage																																					
Vehicle and Equipment Cleaning	Х			Х				Х			Х						Х			Х										Х							
Leak and Spill Cleanup	Х	Х					Х	Х									Х	Х											Х								
Construction														Χ																							 
Landscaping, Garden, and General Maintenance and Cleaning	Х										Χ	Х	Х	Х	Х	Х	Х										Х	Х	Х	Χ	Х	Χ	Χ	Χ	Х		Х

#### Notes:

(1) California Stormwater Quality Association. January 2003. California Stormwater Best Management Practice Handbook – Industrial and Commercial. <a href="http://www.cabmphandbooks.com/">http://www.cabmphandbooks.com/</a> or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

(2) California Stormwater Quality Association. January 2003. California Stormwater Best Management Practice Handbook – Municipal. <a href="http://www.cabmphandbooks.com/">http://www.cabmphandbooks.com/</a> or CASQA, P.O. Box 2105, Menlo Park, California, 94026-2105.

June 2009

## 6.4 Fire Fighting Agency BMPs

In coordination with the Riverside County Fire Agencies, the Permittees developed a list of appropriate BMPs to be implemented to reduce Pollutants from fire fighting training activities, fire hydrant/sprinkler testing or flushing, and BMPs feasible for emergency fire fighting flows. These fire fighting agency BMPs and the strategy for providing training and updating the list of BMPs are described in Appendix L.

## 6.5 Training for Permittee Maintenance Employees

Staff involved in implementing a Permittee's maintenance program receive annual training on the following topics:

- Requirements of the local storm water ordinances
- ◆ Requirements of the MS4 Permit and SWMP
- ◆ Source Control BMPs listed in SWMP Section 6.3.5
- Fertilizer and Pesticide Management
- ◆ Permittee Facilities Pollution Prevention Plans
- Other applicable pollution control measures

Permittee streets and roads maintenance staff also periodically conduct tailgate training to review the model fact sheet of BMPs for common road maintenance activities.

Permittee staff responsible for restricted use pesticide application are trained and certified under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA) requirements and the California Food and Agriculture Code. The Permittees maintain a list of pesticide application personnel and their certifications. Additionally, landscape maintenance contractors contracted by Permittees for pest management or pesticide application are required to be certified.

The District, in consultation with the Permittees, has reviewed and updated the training and educational materials for Permittees' employees. The updated training and educational materials will be implemented during the 2009-2010 fiscal year. Training is provided twice a year for Permittee maintenance staff. Permittee staff may also attend training sponsored by third parties (for example, California Stormwater Quality Association) in lieu of Permittee-sponsored training. The Permittees individually maintain a log of trained staff and report training in the Annual Reports.

#### 6.6 Evaluation / Assessment

Evaluation and assessment of the Permittee Facilities and Activities BMP performance and Permittee compliance will be accomplished primarily through the following reporting and documentation activities:

- Permittee employee training (including tailgate training) including the topic, date, and number of employees trained.
- The number of new outfalls and structural controls added to Permittees' MS4s.
- ♦ Annual review of sewage spill response plans and revision, as necessary, to reflect current conditions.
- Annual review and updating of the Permittees' facility inventory (Table 6-3).
- ♦ Annual self-inspections of Permittee facilities.
- Annual review and updating of the list of pesticide application personnel and their certifications.

June 2009 6-11

• MS4 facility maintenance activities, including verification of signage on inlets to MS4 facilities.

Additionally, in compliance with Section F.1.a.ix of the 2008 MS4 Permit, Permittees that own and operate landfills and SARA Title III facilities, monitor pollutants in runoff from those landfills and SARA Title III facilities in compliance with existing Regional Board WDRs. Monitoring data compiled and provided to the Regional Board in compliance with the WDRs is incorporated into each Annual Report by reference.

June 2009 6-12

# 7.0 PUBLIC EDUCATION AND OUTREACH PROGRAM

#### 7.1 Introduction

Public education and outreach is an essential part of a MS4 permit compliance program. Developing programs to increase public awareness and to involve the public can be an effective method for controlling pollution associated with Urban Runoff. Emphasizing the relevant impact of Urban Runoff to target audiences increases the likelihood that messages will be noticed and that the audiences will support and participate in program implementation. As Principal Permittee, the District has developed a strong area-wide Public Education and Outreach program on behalf of the Permittees.

To leverage finite resources, the Public Education and Outreach Program partners with various entities to promote pollution prevention and environmental awareness. The District maintains an Internet website that provides information to residents and businesses about the problem of Urban Runoff Pollution and offers simple Urban Runoff Pollution Prevention activities. The website also provides materials order forms for all educational materials. The website also has a tracking mechanism for the number of queries. The website address is <a href="http://www.floodcontrol.co.riverside.ca.us/stormwater/">http://www.floodcontrol.co.riverside.ca.us/stormwater/</a>

## 7.2 MS4 Permit Requirements

The District continues to expand implementation of public information activities, and other appropriate outreach activities to facilitate the development and implementation of the Whitewater River Region SWMP. In general, the Public Education and Outreach Program meets the following goals:

- Incorporation of public involvement in the program development and implementation process.
- ◆ To continue to participate in joint outreach efforts to ensure that a consistent and effective message on Urban Runoff Pollution Prevention is brought to the public.
- To target residents, and commercial and industrial establishments.
- ◆ To measurably increase the awareness of Urban Runoff issues.
- ◆ To develop targeted BMP guidance for specific Pollutants and residential and business activities, including identification of actions to prevent sewage spills.
- ♦ To promote the 1-800 hotline for reporting clogged storm drains, faded or missing catch basin decals or markers, illegal dumping from residential, industrial, construction and commercial sites into public streets, the MS4 and water bodies, and providing general Urban Runoff and BMP information.

June 2009 7-1

## 7.3 Objectives

The Public Education and Outreach Program element has established the following guiding objectives:

- Foster broad public awareness of water Pollution concerns;
- ◆ Increase public acceptance of Pollution Prevention activities to curtail everyday human behaviors that contribute to water quality problems;
- ◆ Educate/inform the general public, regulators and key local government and state decision makers on Urban Runoff conditions in Riverside County;
- Promote stewardship of local water resources.

Pollution Prevention education based upon BMPs is a major focus of the Public Education and Outreach Program. The Public Education and Outreach Program includes three categories: public behavior, business activity, and Potential Pollutants. Table 7-1 identifies typical audience and outreach methods for the three categories of the Public Education and Outreach Program.

**Table 7-1. Public Education and Outreach Methods** 

Category	Audience	Potential Outreach Methods
Public Behavior	Residents; General Public	<ul> <li>Pamphlets • Brochures • Calendar • Radio • TV/Cable</li> <li>Billboards • Utility Bill Inserts • Door Hangers</li> <li>Newspaper Inserts • Direct Mail • Advertisements</li> <li>Community Events • Surveys • Community Presentations • Internet Website • 1-800 line</li> </ul>
	Students	<ul> <li>Classroom Presentations</li> <li>DVDs &amp; Videos</li> <li>Workbook Materials</li> <li>Children's Workshops</li> <li>Contests</li> <li>Internet Website</li> </ul>
	Home Gardeners	<ul> <li>Focused Brochures</li> <li>Posters</li> <li>Composting Workshops</li> <li>Newspaper Inserts</li> <li>Home &amp; Garden Shows</li> <li>Flower Shows</li> </ul>
Business Activity	Commercial; Industrial (restaurants, automotive service centers, gasoline service stations, pavement cutting, etc.)	Brochures
	Mobile Operators (auto maintenance; vehicle washing; mobile carpet, drape and furniture cleaning; mobile steam cleaning)	<ul> <li>Brochures • Information at Public Permit Counters</li> <li>Site Inspections (base of operations) • Trade Shows</li> <li>Chambers of Commerce • Business License Counters</li> </ul>
	Groundskeepers, landscape installation, nurseries, greenhouses	<ul><li>Focused Brochures</li><li>Posters</li><li>Workshops</li><li>Newspaper Inserts</li><li>Site Inspections (base of operations)</li></ul>
	Architects; Developers	<ul> <li>Focused Brochures</li> <li>Information at Public Permit Counters</li> <li>WQMP Workshops</li> <li>Information at Public Planning Counters</li> <li>Riverside County Stormwater Quality BMP Design Handbook</li> </ul>
	General Contractors; Construction Contractors	<ul><li>Focused Brochures</li><li>Information at Public Permit Counters</li><li>Site Inspections</li></ul>
Potential Pollutants	Users or Generators of fertilizers, pesticides, chemicals, and other pollutants	<ul> <li>Pamphlets • Brochures • TV/Cable • Utility Bill Inserts</li> <li>Newspaper Inserts • Advertisements • Community Events</li> <li>Community Presentations • Surveys • Internet • Licensing</li> </ul>

June 2009 7-2

## Program Management Objectives:

Program management objectives serve as a management strategy for Public Education and Outreach Program implementation and development and include:

- Encourage/educate/inform the regulators, Permittee personnel and other key local government and state decision makers on the purpose, use and elements of the SWMP;
- Solicit public involvement in the development of local water quality programs;
- Focus on water quality issues specific to the Whitewater River Region.
- Coordinate public education efforts with adjacent Urban Runoff management programs and other related education programs to share resources, coordinate outreach efforts, and avoid duplication of effort; and
- ♦ Adapt public education programs and objectives, based on feedback surveys, monitoring data, and other methods, to address changing MS4 program needs and objectives.

These objectives are achieved through techniques such as local coordination meetings, participation in regional organizational efforts, advertising and outreach to adjacent programs. Table 7-2 identifies secondary objectives and typical techniques used to implement them.

Category	Potential Outreach Methods
SWMP Education (Section 7.5.2.1)	NPDES Desert Task Force Advisory Committee
Public Participation (Section 7.5.2.2)	<ul> <li>Information at Public Permit Counters • Public Workshops • Public Notifications</li> <li>Posting Notices on Web Sites • Notifying Interested Parties</li> </ul>
Program Coordination (Section 7.5.2.3)	<ul> <li>Participation in California Association of Stormwater Quality Agencies</li> <li>Participation in various Watershed Management Efforts</li> <li>Direct contact with adjacent or overlapping program managers (Stormwater, Waste, others)</li> </ul>
Adaptive Management (Section 7.5.2.4)	<ul> <li>Surveys of attendants of public fairs and events • Online web surveys • Review of monitoring data</li> <li>Participation in surveys organized and coordinated by other local/state agencies</li> <li>Staff Feedback • Incorporation of new state or federal guidelines or information</li> </ul>

**Table 7-2. Public Management Methods** 

## 7.4 Implementation

#### 7.4.1 NPDES Desert Task Force Advisory Committee

The DTF provides oversight and guidance for the implementation of the Public Education and Outreach Program in the Whitewater River Region. The District's Public Education Specialist works directly with the DTF on the development and implementation of the Public Education and Outreach Program in the Whitewater River Region.

June 2009 7-3

## 7.4.2 Program Framework

The Public Education and Outreach Program is implemented at a countywide, regional and local level. The following subsections describe how the Public Education and Outreach Program is implemented at each level.

## 7.4.2.1 Countywide Level

As Principal Permittee for the County's three MS4 permits, the District is the administrator for the Public Education and Outreach Program and is responsible for developing a consistent and effective message on Urban Runoff Pollution prevention throughout the County. This countywide program consists of developing a program image and core message, implementing education programs, and coordinating events and interagency activities. The Public Education and Outreach Program maintains a consistent look, theme and focus of the public education materials in each region to promote familiarity in most communities. Countywide public education activities coordinated by the District include school education programs, distribution of public education materials to countywide inspection programs, participation in state organizations such as the CASQA, coordinating with and taking the lead with other county agencies on various advertising campaigns, developing a look and theme for all public education materials and operation of the County's 24-hour toll-free pollution hotline (800-506-2555).

## 7.4.2.2 Regional Level

The Public Education and Outreach Program is also tailored for each of the three regions in the County. This approach integrates elements of the countywide program while focusing on the specific geography and water quality issues of the area and allows the program to address the impacts of local activities on local water quality. As Principal Permittee, the District incorporates regional public education requirements established by each region's MS4 permit. The District also works with the Permittees to identify and address regional public education needs. Regional public education needs are established through formal and informal public education committees who discuss public education requirements and funding requirements each year. Regional public education programs may include participation in large community fairs, customized public education materials to address regional water quality issues, and participation in other local agencies' regional public education efforts.

#### 7.4.2.3 Local Level

In addition to the countywide and regional public education activities undertaken by the District, each Permittee may undertake public education activities to address local needs or MS4 Permit requirements. These local activities may include distribution of public education information during construction site/business inspections; distribution of public education materials at front counters, local fairs and other community activities; and/or development of specific public education programs/materials to address specific needs.

## 7.5 Program Components

The following subsections identify specific programs implemented by the Permittees to address program objectives. These programs are adaptively managed by the Permittees to meet the changing needs of the Public Education and Outreach Program based on changing regulations, water quality conditions, and feedback surveys.

## 7.5.1 Outreach Objectives

## 7.5.1.1 Public Behavior Education Program

The following programs are implemented to foster broad public awareness of Urban Runoff Pollution concerns; increase public acceptance of Pollution Prevention activities to curtail everyday human behaviors that contribute to water quality problems; and to promote stewardship of local water resources:

- ♦ School Education Outreach. Outreach to schoolchildren is the core to developing an environmental ethic in the next generation that can help prevent Pollution of Urban Runoff. The objective of this element of the Public Education and Outreach Program is implementation of a coordinated and comprehensive program that combines multiple elements − classroom or assembly presentations, teacher workshops and field events, and has the greatest potential to leave a lasting impression on school children. The program is implemented through a contract with the Riverside-Corona Resource Conservation District and focuses on kindergarten through 6<sup>th</sup> grade. Flyers on how to conduct an environmentally friendly car wash are passed out to secondary schools and secondary school level student organizations.
- Brochures. Brochures regarding illegal dumping, disposal of household hazardous waste and antifreeze, batteries, oil and paint disposal information, lawn and garden maintenance brochures, car washing, fertilizer, pesticide and household chemical use, pet care brochure, and landscape & gardening guide.
- Outreach Materials. Various materials including dust pans, pens, pencils, etc., based on availability and budget are provided free of charge to the public at community events to promote pollution prevention activities.
- ◆ 1-800 Hot Line. The District operates a countywide 1-800 hotline number to encourage the public to report clogged storm drains, faded or missing catch basin stencils, and illegal dumping from residential, industrial, construction and commercial sites into public streets, MS4 facilities and water bodies. This hotline is capable of receiving reports in both English and Spanish 24 hours/day seven days per week.
- ♦ Websites. The District operates a website that provides information on how to report illegal dumping, clogged storm drains and lack of curb markers, as well as provides information on upcoming activities, opportunities for public participation in program development, and general information about Urban Runoff pollution prevention techniques. It also provides information for children and teachers, as well as an online media library and materials order form. The link to the District's stormwater website is:

## http://www.floodcontrol.co.<u>riverside.ca.us/stormwater/</u>

In addition, the SWRCB and the Regional Boards maintain websites that provide information regarding the storm water regulatory program. The link to the SWRCB's stormwater website is:

http://www.swrcb.ca.gov/water\_issues/programs/stormwater/

The link to the Regional Board's stormwater website is:

http://www.waterboards.ca.gov/coloradoriver/water issues/programs/stormwater/

- Mailing Inserts. The District currently distributes various public education materials as mailing inserts. Public education materials have been distributed through mailings from the DEH, County Mail, County Libraries, County Fleet, County Transportation and Land Management, County Safety and County Agriculture, etc.
- ♦ Media Outreach. The District is evaluating the beneficial use of billboard campaigns to communicate pollution prevention concepts and information to the public.
- ♦ **Partnerships**. The District partners with several agencies:
  - Animal Care Services. The Riverside County Community Health Agency and the Riverside Pet Adoption Center provide independent and various pet owner services. County Community Health offers patrol services to contracted cities and unincorporated areas of the County. Both agencies routinely distribute education materials that provide guidelines for pet care activities throughout Riverside County.
  - Riverside County Waste Management Department and DEH. Riverside County Waste Management Department (RCWMD) manages the recycling and composting programs and utilizes a variety of educational materials to recommend alternatives for reducing, reusing and the recycling of unwanted hazardous products, food wastes, paper and aluminum. There has also been close coordination with RCWMD and DEH to ensure that the District promotes the proper disposal of unwanted waste in most forms of media print, as well as at outreach events. For example, the Permittees, via landfill waste tipping fees, contribute funds towards the operation and maintenance of several Antifreeze, Battery, Oil and Paint (ABOP) and HHW Recycling centers, both fixed and mobile, throughout the County. In further support of this activity, the DEH and RCWMD coordinate on the development of several outreach materials that identify the times and locations of HHW/ABOP recycling activities. These materials include two-page fliers that are mailed to residents via the Penny Saver, distributed at major community outreach events, and made available at public access offices.
  - Public Outreach Events. Participation in several public outreach events including the Tamale Festival and Date Festival.

## 7.5.1.2 Business Specific Education Program

The business education program consists of the development and distribution of formal BMP guidance for target business activities including mobile detailing, automotive service center and restaurant cleaning operations; and outreach to business associations. The business specific public education program also provides education to the business community regarding the General Permit-Industrial.

#### Industrial/Commercial

To promote activities that are protective of Receiving Waters, the Public Education and Outreach Program educates and informs landowners, tenants, business owners, and industrial operations regarding the need to implement appropriate BMPs to control non-storm water discharges and to properly maintain indoor and outdoor materials storage areas. The following countywide programs provide direct contact educational opportunities:

♦ Food Services Inspection Program. This program focuses on the inspection of retail and wholesale food facilities. The District collaborates with DEH to ensure that Urban Runoff

management issues are discussed during food services inspections. During these inspections food establishments are provided brochures identifying BMPs that should be employed while performing various maintenance activities. In addition, inspectors discuss common Pollution Prevention activities that food services facilities can undertake to prevent Pollution of Urban Runoff. The inspectors generally review appropriate methods for cleaning of dumpster and grease bin areas; replacement of leaking or dirty dumpsters; reducing liquid waste in trash and double bagging trash to prevent leaks; encouraging dry sweeping and using dry methods for spill clean up; disposing of wash water to the sanitary sewer rather than the MS4; stopping spills at their source; and proper maintenance of outdoor grease interceptors.

**Industrial/Commercial Business Inspection Program.** The District partners with the DEH Hazardous Materials Management Division (HMMD) to ensure that Urban Runoff management issues are discussed during HMMD's Conditional Use Permit inspections. HMMD implements the Hazardous Waste Inspection Program throughout Riverside County. Specialists in this program inspect facilities that generate hazardous waste, evaluate hazardous waste generating industries, investigate reports illegal hazardous waste disposal, and respond to emergency spills of hazardous chemicals. During inspections, specialists routinely distribute appropriate Urban Runoff Pollution Prevention brochures and posters to business owners, as appropriate. They also distribute brochures regarding the requirements of the General Permit-Industrial. In addition, inspectors discuss common Pollution Prevention BMPs that facilities can undertake to prevent Pollution of Urban Runoff. Common activities discussed include proper disposal of automotive fluids; working on transmissions, engines, and miscellaneous repairs; preventing and cleaning up leaks and spills/dry method clean up; control of wastewater discharges; vehicle fueling and battery removal and storage; solvent and grease management; metal grinding and finishing; storing and disposal of waste; outdoor parking and wash water management during outdoor cleaning; and steam cleaning practices.

The District has included direct outreach to businesses through advertising in business trades and booth presence at various business specific symposiums. The District is also considering a billboard campaign to deliver Pollution Prevention messages to target business activities. Information and materials may be delivered to the business community during trade shows, trade meetings, or other appropriate community events.

## Construction/New Development

- ◆ Construction Inspection Program. Each Permittee inspects construction projects within its jurisdiction to ensure compliance with their local ordinances and to ensure that sites are covered under the General Permits-Construction, as applicable. During these inspections, the inspectors discuss appropriate methods to prevent Pollutants from being mobilized at construction sites. In addition, Permittees inform contractors, operators, and staff about upcoming educational and training workshops on construction site erosion control and construction materials management sponsored by professional organizations and public agencies. Permittees also make associated public education materials available at the public counter and bulletin boards, as appropriate.
- ♦ New Development Reviews. The Permittees review proposed project plans during various stages of project planning (pre-application meetings, application review meetings, environmental document review, WQMP review, plan check, etc.). During these reviews, the Permittees

provide information regarding appropriate BMPs to developers and engineers to ensure their developments incorporate reasonable Site Design, Source Control, and Treatment Control BMPs.

The District maintains a website that provides downloadable Page Display Format (PDF) versions of brochures and posters, as well as additional information that businesses and developers can use to ensure that they are implementing appropriate BMPs at their sites. An online media library and materials order form is also available.

## 7.5.1.3 Potential Pollutants Education Program

The District has developed a number of brochures and outreach methods to address specific targeted pollutants such as fertilizers, pesticides, household hazardous waste chemicals, antifreeze, oil, batteries, and paint.

- **Partnerships**. The District partners with several agencies:
  - Riverside County Waste Management Department
  - Riverside County Agricultural Commissioner
  - Riverside County Code Enforcement
  - Air Quality Management District
  - Coachella Valley Water District
  - Natural Science Collaborative
  - Groundwater Guardians

Each agency is interested in most forms of media print, as well as at outreach events, to ensure the proper disposal of unwanted waste and emissions.

- ◆ **Public Outreach Events.** Participation in several public outreach events including the Tamale Festival and Date Festival.
- ♦ **Brochures**. Brochures include information on illegal dumping, disposal of household hazardous waste and antifreeze, batteries, oil and paint disposal information, lawn and garden maintenance brochures, car washing, fertilizer, pesticide and household chemical use, pet care brochure, and landscape and home garden care.
- Outreach Materials. Various materials including shop cloths, dustpans, U Mix-it spray bottles, etc., are provided free of charge to the public at community events to promote pollution prevention activities.
- ◆ 1-800 Hot Line. The District operates a countywide 1-800 hotline that local residents can use to report illegal dumping, clogged storm drains, obtain information on public education outreach programs and obtain schedules for household hazardous waste locations and dates.
- ♦ Website. The District operates a website that provides information on how to report illegal dumping, clogged storm drains and lack of curb markers, as well as provides information on upcoming activities, opportunities for public participation in program development, and general information about urban runoff pollution prevention techniques. It also provides information for

kids and teachers as well as an online media library and materials order form. The 1-800 Hot Line number is available at this website.

- Mailing Inserts. The District currently distributes various public education materials as mailing
  inserts. Public education materials have been distributed through mailings from the DEH and
  RCWMD and several Permittee communities.
- ♦ Media Outreach. The Permittees are looking at billboard campaigns to deliver pollution prevention concepts and information to a broader range of the public.

## 7.5.2 Management Objectives

In order for the SWMP to be an effective planning tool for reducing Pollutants in Urban Runoff, it is essential to involve the general public in the development of compliance documents, to train Permittee staff on the purpose, requirements and implementation of the programs outlined in the SWMP, to ensure that a consistent and cost effective message is brought to the public by coordinating with other regional education programs, and to ensure that the public education message is adaptively managed to ensure that it keeps up with the most recent regulatory requirements, watershed information, and changing MS4 program needs and objectives.

#### 7.5.2.1 SWMP Education

The District has incorporated methods into their SWMP programs to ensure that regulators, Permittee personnel and other key local government and state decision makers are educated regarding the purpose, use and requirements of the SWMP. The following paragraphs describe some of the specific practices used:

- ◆ DTF Each month the Whitewater River Region Permittees meet to discuss progress on SWMP development, upcoming activities, changes to the regulatory framework, and to present information on available latest BMP technologies. Special presentations are also occasionally made by other NPDES permit holders to discuss their programs and how they inter-relate with our programs. These meetings are open to the public. Members of regulatory agencies and other local government and state agencies are invited to attend, particularly when issues affecting their operations are addressed.
- ♦ Coordination Meetings with Other Agencies/Departments As needed, the District coordinates with other local governments and state agencies to discuss the requirements of the SWMP and the MS4 programs. These meetings are used to coordinate agency activities.
- ♦ Comment on CEQA Documents Each Permittee reviews CEQA documents for public and private projects in their jurisdictions. The CEQA review includes specific questions regarding water quality and compliance with the SWMP and local ordinances. These questions help to ensure that other public and private entities are aware of requirements for management of Urban Runoff.

#### 7.5.2.2 Public Participation

In order for the SWMP to be an effective planning tool for reducing Pollutants in Urban Runoff, it is essential to educate both the general public and other agencies on the purpose, requirements and implementation of programs outlined in the SWMP. The public participation process integrates public

values into the planning, decision-making and problem-solving process. Under the public participation approach, interested and affected persons are afforded opportunities to influence the planning and decision-making process prior to the identification of a recommended solution. This approach allows solutions to public sector problems to be developed that are much more likely to be acceptable to the public, and therefore, implementable.

The following methods are used to facilitate the public participation process:

- ♦ Open Meetings The District currently holds DTF meetings regarding the ongoing implementation of the SWMP and related water quality regulatory programs. These meetings are open to the public and they may provide comment on any activity that the District is undertaking in support of the SWMP.
- ◆ Public Notice The District and the Permittees use public notices, posted on their websites and in local newspapers, to notify the public of the upcoming development of compliance programs, or of the release of draft compliance documents. These notices identify the period in which public comment will be accepted, where public comments may be submitted, location and times of public meetings, and where printed copies of documents or supporting information is available for review. The compliance program documents are also posted on the websites.
  - The District's stormwater website is <a href="http://www.floodcontrol.co.riverside.ca.us/stormwater/">http://www.floodcontrol.co.riverside.ca.us/stormwater/</a>
  - The Regional Board also posts public notices on their web site, which is <u>www.waterboards.ca.gov/coloradoriver</u>
- Public Workshop The District may use formal or informal public workshops to facilitate an interactive discussion on draft compliance documents. These public workshops are usually publicly noticed at least two weeks prior to their date and are usually held in conjunction with publicly noticed comment periods.
- ♦ Community Meetings The District may use community meetings, such as city council meetings, Board of Supervisors meetings, or other forums, to solicit comments from the public and staff from other agencies.

#### 7.5.2.3 Program Coordination

A key factor in planning a cost effective and well-organized Public Education and Outreach Program is coordinating with existing, related programs at the local, state and national level. Such programs include Urban Runoff pollution programs being developed in counties adjacent to Riverside County and throughout California; environmental education programs at the community level offered through other local agencies, environmental organizations, or schools; and county-wide or municipal efforts to promote ride-sharing, recycling, water conservation, and proper household hazardous waste disposal. These programs are coordinated to deliver a consistent message to the public regarding Urban Runoff.

The District currently coordinates activities with several agencies and entities including the San Bernardino County MS4 Program; San Diego County MS4 Program; Orange County MS4 Program; CASQA; RCRCD, and Mission Resource Conservation District; DEH, County Agriculture, Building Industry Association, RCWMD, County Economic Development Agency, County Auditor-Controller's Office, the Regional Water Quality Control Boards, Air Quality Management District and Caltrans.

## 7.5.2.4 Adaptive Management

The success of the public education and outreach program will depend on its ability to assess its effectiveness and adapt to changing water quality issues within each region of Riverside County. The following tools may be used by the District to assess the effectiveness of the Public Education and Outreach Program or to determine changing needs:

- Monitoring Data The District is collecting Urban Runoff monitoring data from each region of Riverside County. This data is analyzed for trends in Pollutant loading and to see if Pollutant problems can be tied to particular activities or land uses. This data may be used to modify the Public Education and Outreach Program to address potential Pollutant problems or activity problems within specific regions or countywide.
- Public Surveys The District either conducts surveys or may coordinate with surveys conducted by others to assess the effectiveness of Permittee public education outreach activities. The District conducts a stormwater survey of attendees at community fairs. Results from these surveys are used to adaptively manage the Public Education and Outreach Program.
- Staff Feedback The District may modify the Public Education and Outreach Program based on Permittee feedback or knowledge of water quality issues affecting Riverside County or specific regions of Riverside County.
- ◆ Incorporation of New State or Federal Guidelines The District may modify the Public Education and Outreach Program to address changes to the regulatory framework or regulatory requirements for specific SWMP related programs or activities.

#### 7.6 Residential Education and Outreach

Residential education and outreach focuses on residential activities such as vehicle washing and maintenance, landscaping, home maintenance, illegal dumping, and pet ownership.

#### 7.6.1 Vehicle Washing and Maintenance

Vehicle washing and maintenance activities present opportunities for materials such as soap, motor oil, radiator fluid, etc. to enter the MS4. The Public Education and Outreach Program works cooperatively with the County's local motor oil recycling programs to distribute informational materials that address the importance of proper disposal of used motor oil. In addition, the Public Education and Outreach Program provides information on vehicle washing and maintenance related Pollution Prevention BMPs through distribution of brochures, utility inserts and flyer advertisements, presentations to student and adult audiences, etc.

The Public Education and Outreach Program informs the general public of Pollution Prevention BMPs related to vehicle washing and maintenance. The RCWMD implements motor oil recycling programs to encourage the proper disposal of used motor oil. The Public Education and Outreach Program provides education to the general public on the impacts of the following activities on Receiving Waters:

- ♦ Littering and other improper disposal,
- ♦ Dumping Pollutants into the MS4, and

♦ Leakage or dumping of gasoline, oil and grease, antifreeze and hydraulic fluid from vehicles into the streets.

## 7.6.2 Landscaping

Landscaping related activities such as mowing, fertilizing, weed control, etc. are potential sources of Urban Runoff pollution. The improper handling of grass clippings, chemical fertilizers and pesticides may introduce Pollutants into the MS4 and jeopardize the quality of the Receiving Waters.

The Public Education and Outreach Program has developed a landscape and gardening brochure to inform residents of the adverse effects of Pollution of Urban Runoff and to offer environmentally safe alternatives such as Integrated Pest Management and composting.

The brochures are distributed to the general public via local nurseries, garden workshops conducted by the Agricultural Commissioner and UC Riverside Cooperative Extension. Other environmental educational tools such as video, flyer inserts, etc. were also developed to help increase public awareness of Urban Runoff and Pollution Prevention.

The Public Education and Outreach Program provides display units with information on Urban Runoff Pollution, household hazardous waste, less toxic home gardening alternative products, etc. at public outreach events. The Public Education and Outreach Program will continue to implement the following activities to promote landscaping activities that are protective of Receiving Waters:

- ♦ Educate/inform the general public on the proper application and management of pesticides, fertilizers and herbicides, as well as the proper management of irrigation systems to prevent runoff to the MS4. Where appropriate, the Public Education and Outreach Program will coordinate with the Soil Conservation Service, Resource Conservation Districts, and UC Cooperative Extension.
- Educate/inform the general public of the impacts of dumping Pollutants into the MS4.
- Support the efforts of the HHW Program that provides a convenient means to properly dispose of oil, antifreeze, pesticides, herbicides, paints, solvents, and other potentially harmful chemicals.

#### 7.6.3 Home Maintenance

This category encompasses BMPs to facilitate the proper use and disposal of common household products such as insecticides, batteries, latex paints, varnishes, cleaners, etc. The Public Education and Outreach Program has developed a brochure to educate residents on the importance of proper disposal of household hazardous wastes as well as offer less toxic alternatives to commonly used household products. The District and the Permittees also sponsor HHW collection events and ABOP centers to encourage the proper disposal of household hazardous wastes.

The District addresses home maintenance related issues through the RCWMD HHW collection events and ABOP centers. The public education efforts may include radio campaigns, utility bill inserts, newspaper inserts, brochures, presentations, etc. as methods to inform the general public of the proper disposal of household hazardous wastes and to offer less toxic alternative products. The Public Education and Outreach Program will continue to implement the following activities to promote home maintenance activities that are protective of Receiving Waters:

- Educate/inform the general public on the impacts of dumping Pollutants into the MS4.
- Continue to support the efforts of the HHW Program to provide a convenient means to properly
  dispose of oil, antifreeze, pesticides, herbicides, paints, solvents, and other potentially harmful
  chemicals.

## 7.6.4 Illegal Dumping

This education component addresses residential activities that involve the improper disposal of waste materials into the MS4. Environmental educational tools including brochures, video, public service announcements, etc. have been developed to inform the general public of the impacts on Receiving Waters resulting from the improper disposal of Pollutants. Residential door hanger notices are used to make residents aware of potential improper discharges from their properties or by someone in their neighborhood. In addition, an MS4 facility marking program has also been implemented to remind residents that no dumping is allowed. The Public Education and Outreach Program implements the following activities to promote residential waste management activities that are protective of Receiving Waters:

- Educate/inform the general public on the impacts of littering and other improper disposal.
- Educate/inform the general public on the impacts of dumping Pollutants into the MS4.
- Develop a program, continue and/or expand an existing field program to detect and prevent dumping or routinely discharging Pollutants into the MS4.
- ◆ Coordinates educational and outreach efforts with County Code Enforcement on the impacts of illegal dumping of tires,

#### 7.6.5 Pet Ownership

The importance of proper clean-up and disposal of pet waste has been addressed and emphasized throughout the Public Education and Outreach Program campaign in various formats including educational brochures, two-page flyers, and related promotional materials, etc. The intent is to increase awareness of the adverse effects of improper disposal of pet waste and to promote responsible pet care to prevent Pollution of Urban Runoff.

The Permittees will continue to use an area-wide Public Education and Outreach Program to inform pet owners of the importance of responsible pet care and to curtail the improper disposal of pet wastes. The Public Education and Outreach Program also distributes a "focused" brochure for pet owners on proper disposal of pet wastes. The Public Education and Outreach Program will continue to implement the following activities to promote pet ownership activities that are protective of Receiving Waters:

- ♦ Educate/inform the general public regarding the need to clean-up and properly dispose of pet waste.
- Continue to implement and enforce leash laws and other pet laws (i.e., pet waste clean-up, no pets in public areas) in selected public-use areas.

## 7.7 Evaluation / Assessment

The primary performance targets for public education and outreach activities are the number of the audiences reached and their level of knowledge for prevention of Urban Runoff Pollution. The District leads implementation of the Public Education and Outreach Program. The evaluation and assessment of the Public Education and Outreach Program is accomplished by collecting data, categorized by the types of audiences and distribution media as follows.

- Number of educational materials distributed at community events, including the date and name of community event
- Number of educational materials distributed through Permittee public counters
- ♦ Approximate attendance at community events
- ♦ Local newspaper circulation estimates
- ♦ Total impressions from media outreach
- ♦ Usage (call volume, type) of the Pollution Prevention Program 1-800 hotline
- Information from the HHW Collection Program:
  - Event dates and number of days per event,
  - Type and amount of material collected, and
  - Advertisement expenditures by type (newspaper, banners, flyers, etc.) for the Permittees' internal use
- Number of regional public education outreach events conducted by type (e.g., construction, industrial, residential, new development, schools, general public, etc.), including topic and approximate attendance, where applicable
- Public surveys and media impression counts are used, where feasible, to assess the effectiveness of the Public Education and Outreach Program
- A summary of the scope and purpose (brief description) of the regional public education materials available to the various target audiences

# 8.0 MONITORING PROGRAM

#### 8.1 Introduction

The overall goal of the Permittee's water quality monitoring program for the Whitewater River Region is to characterize Urban Runoff discharges from the MS4. The District and the CVWD jointly implement the monitoring program and each district conducts monitoring activities in its respective jurisdiction. The District coordinates monitoring in the Whitewater River Region with required surface water quality sampling activities in two other MS4 Permit areas in Riverside County through the Consolidated Program for Water Quality Monitoring.

The current water quality monitoring program was established when the Regional Board adopted Monitoring and Reporting Program No. 96-015 with the first-term MS4 Permit in 1996. Since inception, the program has included monitoring the quality of wet and dry weather runoff and Receiving Waters. Soil samples from a detention basin were collected and analyzed in the 1996 and 2001 MS4 Permit terms.

## 8.2 Goals and Objectives

Specific monitoring objectives set during the 1996 and 2001 MS4 Permit terms were designed to:

- Assess the influence of land use on water quality;
- ◆ Detect illicit connections/illegal discharges (IC/IDs);
- ♦ Assess the effectiveness of water quality controls;
- ♦ Identify problem areas and/or trends;
- ♦ Identify Pollutants of Concern;
- ♦ Identify baseline conditions; and
- Establish and maintain a water quality database.

The major objectives of the Whitewater River Region monitoring program are:

- Objective 1: Develop and support an effective Urban Runoff management program;
- Objective 2: Identify those Receiving Waters which, without additional action to control Pollution from Urban Runoff, cannot reasonably be expected to achieve or maintain applicable Water Quality Standards;
- ◆ Objective 3: Characterize Pollutants associated with Urban Runoff and assess the influence of Urban land uses on Receiving Water Quality; and
- ♦ Objective 4: Analyze and interpret the collected data to identify trends, if any, both to prevent impairments through the implementation of preventive BMPs and to track improvements based on the MS4 management program.

Based on these objectives, the monitoring program of the 2008 MS4 Permit includes:

- ♦ In lieu of dry-weather sampling, an IC/ID program that encourages identification and elimination of sources of illicit dry-weather flows;
- The removal of the annual analysis of constituents that have not been identified in discharges;
- Monitoring program requirements that eliminate duplication of parameters being analyzed using multiple methods with different detection limits;
- Monitoring stations that better characterize Urban Runoff within the Permit Area; and
- A revised Annual Report format consistent with other regions.

## 8.3 Whitewater River Region Water Quality Monitoring Program

## 8.3.1 Data Management

Chemical data allow for comparisons with Basin Plan Water Quality Objectives, other benchmarks, and for comparisons between the monitoring stations. However, an understanding of potential water quality impacts on Receiving Waters requires an understanding of the flows throughout the MS4 and Receiving Waters.

The District uses a proprietary integrated hydrology/water quality data management system known as Hydstra <sup>15</sup>. The Hydstra system supports the export of water quality and hydrologic data to a variety of commonly used electronic formats. The District's monitoring database contains more than 30,000 discrete samples, including analysis results for over 100 chemical constituents for most samples.

The measurement of chemical constituents in Urban Runoff at the trace level is often difficult due to inherent variability of environmental samples, field sampling techniques, and analytical techniques. The Consolidated Monitoring Program outlines the quality assurance/quality control (QA/QC) procedures implemented to protect the integrity of water quality data gathered for the monitoring program. The QA/QC program is designed to enable an evaluation and validation of the analytical data for representativeness, accuracy, and precision. The Consolidated Monitoring Program includes separate descriptions for the field and laboratory portions of the QA/QC program.

Records containing monitoring information include:

- ◆ The date, exact place, and time of sampling or measurement(s);
- ◆ The individual(s) performing sampling or measurement(s);
- ◆ The date(s) analyses were performed;
- ♦ The analytical techniques or method used; and
- ♦ The results of such analyses.

Records of monitoring information, including calibration and maintenance records, and copies of reports required by the 2008 MS4 Permit will be retained for a period of at least five years from the date of the sample, measurement, report, or application. The lab reports are kept in electronic format and stored in a District database.

June 2009 8-2

\_

<sup>&</sup>lt;sup>15</sup> The use of company, trademark or brand names does not constitute a recommendation of a particular product.

#### 8.3.2 Source Identification

The monitoring program includes dry weather sampling to characterize non-storm Urban Runoff throughout the region and to support efforts to identify and eliminate IC/IDs to the MS4. Sampling is directed to sources that may identify Pollutants when visual observations or citizen complaints are made regarding a potential improper discharge.

#### 8.3.3 MS4 Characterization

The District has developed a system of MS4 maps to show District facilities using a Geographic Information System (GIS) application. The GIS application format includes the MS4 depicted over aerial photographs of the Whitewater River Region. Primary features are shown such as the Whitewater River, Tahquitz Creek, and the Coachella Valley Stormwater Channel (CVSC). The MS4 maps are periodically updated as necessary to include the MS4 facilities of all Permittees. Updated MS4 maps are submitted with the Annual Report.

## 8.3.4 Water Quality Monitoring

An effective monitoring program characterizes Urban Runoff discharges, identifies problem areas, and determines the impact of Urban Runoff on Receiving Waters. However, due to the limited annual rainfall and the ephemeral nature of most Receiving Waters within the Whitewater River Region, collecting sufficient wet and dry weather data to characterize discharges from the MS4 and assess improvement or degradation in water quality due to Urban Runoff can be challenging at best. There are limited flowing Receiving Waters with perennial flow that may be impacted by Urban Runoff under normal hydrologic conditions in the Whitewater River Region.

Although local climate and hydrology make consistent sample collection difficult, it is feasible to safely collect data from MS4 outfalls and certain Receiving Water stations during daylight hours of wet weather events that do not result in flash flood warnings and/or watches. Continual efforts to collect data for the ultimate purpose of characterizing Urban Runoff discharges, effectiveness of implemented BMPs, and determining the impacts of those discharges on Receiving Waters, will continue where applicable and feasible.

Table 8-1 outlines all monitoring stations implemented under the Consolidated Monitoring Program since the initial MS4 permit application in 1995-1996. Of these sites, three outfall and two Receiving Water stations will be used throughout the term of the 2008 MS4 Permit.

Table 8-1. Historical Whitewater River Region Sampling Sites

				Years Sampled (Fiscal years, July 1 – June 30)												
ID	Site Name*	Receiving Water	Туре	1995 1996	1996 1997	1997 1998	1998 1999	1999 2000	2000 2001	2001 2002	2002 2003	2003 2004	2004 2005	2005 2006	2006 2007	2007 2008
				Application	<b>1</b> s	t Term P	ermit (19	996 Perm	nit)		<b>2</b> <sup>n</sup>	d Term P	ermit (20	01 Perm	it)	
407	Palm Springs Lane 27, Sunrise SD	Tahquitz Wash	Outfall – Background	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
782	Ramsey Street Storm Drain	San Gorgonio River	Outfall	Х	Х	Χ	Χ	Х	Χ	Χ	Χ	Х	Х	Χ	Χ	Х
785	Avenue 52 Storm Drain	CVSC	Outfall					Χ		Χ	Χ	Χ				Х
798	Whitewater River at I-10	Whitewater River	Receiving Water	Х												
799	Whitewater River at Sinatra Drive	Whitewater River	Receiving Water			Х										
802	Farrel Basin	Chino Canyon Wash	Outfall		Х	Х	Х	Х		Χ	Х					
810	Chino Canyon Wash at Hwy 111	Whitewater River	Receiving Water		Х	Х				Χ						
811	Date Palm Dr Storm Drain	Whitewater River	Outfall		Χ				Χ			Χ	Χ			Χ
812	Tahquitz Canyon Wash at Hwy 111	Whitewater River	Receiving Water		Х	Χ	Χ			Χ						
813	Whitewater River above Aqueduct	Whitewater River	Receiving Water		Х	Х	Х	Х			Х	Х	Х	Χ	X	Х
814	Whitewater River at Avenue 72	Salton Sea	Receiving Water		Χ	Χ	Χ	Х	Χ	Χ	Χ	Х	Χ	Χ	Χ	Х
815	Palm Canyon Wash at Araby Drive	Whitewater River	Receiving Water													
817	Portola Avenue Storm Drain, Palm Desert	Whitewater River	Outfall		Х				_	Х	_			Х	_	_
819	Monroe St Storm Drain, Indio	CVSC	Outfall				Х				Х				Х	
884	CVSC at Avenue 52	CVSC	Receiving Water													

<sup>\*</sup> Site Names in **bold type** indicates monitoring stations for the 2008 MS4 Permit term.

## 8.4 Program Implementation

Monitoring will be conducted for field parameters, Constituents of Concern and Priority Pollutants as described in the following:

#### Field Parameters

- ♦ Water temperature (°C);
- pH;
- Electrical Conductivity (EC, mS/cm or μS/cm);
- ◆ Turbidity (NTU); and
- ♦ Dissolved Oxygen (DO, mg/L).

Additional parameters may be collected if necessary to characterize or document the IC/ID (oil and grease, etc.) or for use in follow up enforcement actions against sources of an IC/ID. The minimum levels of analysis for the field parameters will be monitored at the appropriate minimum levels and units for comparison with Basin Plan Objectives.

#### Constituents of Concern

Total Metals	Pathogen Indicator	Nutrients & Other
Arsenic	E. coli	Nitrate as Nitrogen
Barium		Nitrite as Nitrogen
Cadmium		Ammonia as Nitrogen
Chromium		Total Kjeldahl Nitrogen
Lead		Total Nitrogen (calculation)
Mercury		Ortho Phosphorous
Selenium		Total Phosphorus
		Total Dissolved Solids (TDS)

#### **Priority Pollutants**

Priority Pollutants to be monitored are shown in Attachment D of the MS4 Permit – List of Priority Pollutants. The minimum level of analysis is shown on Attachment E of the MS4 Permit – State Board Minimum Levels.

Sampling visits, including visits in which no water samples were collected, will be documented on field data sheets. At a minimum, the following will be documented:

- The date, exact place, and time of sampling or measurement(s);
- ◆ The individual(s) performing sampling or measurement(s);
- ◆ The date(s) analyses were performed;
- Type of sampling (wet weather, dry weather, IC/ID, grab or composite, bacteria);
- Results of field analyses (field parameters outlined above);

- ♦ Flow estimation or measurement;
- ♦ Field observations and/or conditions; and
- Any procedural variances due to site conditions at the time of the event.

If sampling results indicate that water quality conditions are outside of normal ranges, then the situation will be evaluated on a case-by-case basis.

## 8.4.1 Wet Weather Monitoring

**Outfall Monitoring** – Wet Weather Outfall Monitoring is conducted for the purposes of evaluating long term trends in Urban Runoff. Data collected from these stations will be used to assist in assessment of potential urban contributions to chronic water quality conditions identified from the Receiving Waters Monitoring Program. Results of the Wet Weather Outfall Monitoring are discussed in the Monitoring Annual Report as described in Section 8.5.

The following stations will be monitored as indicated:

Outfall Monitoring Location	Minimum No. Events/Year	Sample Type	Constituents
Ramsey Street Storm Drain (Hydron # 782) 33° 48' 35.0", -116° 51' 31.5"	2	Grab or Composite	Field Parameters
Portola Ave Outfall (Hydron # 817) 33° 44′ 16.8″, -116° 22′ 24.6″	2	Grab or Composite	Constituents of Concern  Add Priority Pollutants list to one
Avenue 52 Outfall (Hydron # 785) 33° 40' 17.4", -116° 08' 56.4"	2	Grab or Composite	sample event during 2nd, 3rd or 4th year of MS4 Permit

The USEPA Priority Pollutants are added to the constituent list for one wet-weather event during the second, third, or fourth year to determine if other Pollutants that have historically not been detected in excess of WQSs are becoming problematic.

Receiving Water Monitoring – Wet Weather Receiving Water Monitoring assesses conditions of the Coachella Valley Stormwater Channel (CVSC) during wet-weather conditions. When there is hydraulic connectivity throughout the Whitewater River Region, as evidenced by regional stormwater flows detected at Golf Center Parkway, the Upper Whitewater River will be monitored to assist with determination of natural background concentrations of field parameters and Constituents of Concern that may also be found in the Receiving Waters. Results of the Wet Weather Receiving Water Monitoring are discussed in the Monitoring Annual Report as described in Section 8.5.

The following stations will be monitored as indicated:

Receiving Water Monitoring Location	Minimum No. Events/Year	Type of Sample	Constituents
Upper Whitewater River (Hydron # 813)	2 (with connectivity	Grab or	Field Parameters
33° 59′ 01.5″, -116° 08′ 57.8″	to Golf Center Parkway)	Composite	Constituents of Concern

CVSC at Avenue 52 Bridge (Hydron # 884) 33° 40′ 20.9″, -116°08′57.8″	2	Grab or Composite	Add Priority Pollutants list to one sample event during 2nd, 3rd or 4th year of MS4 Permit
--	---	----------------------	--

## 8.4.2 Dry Weather Monitoring

Dry weather monitoring by Permittee staff focuses on the field identification and elimination of IC/IDs.

**Outfall IC/ID Monitoring** – Due to the general ephemeral nature of the Whitewater River Region during dry weather conditions, IC/IDs to Receiving Waters from MS4 outfalls are easily identified by field inspections.

When there is evidence of irregular flow or water quality conditions caused by an IC/ID activity, the Permittee(s) with jurisdiction over the outfall's tributary area will be notified of the potential IC/ID and be requested to conduct a follow-up IC/ID investigation. Results of IC/ID investigations are documented in the IC/ID database (see model format in Appendix E) and submitted with the Annual Report. SWMP Section 2.0 (Detection and Elimination of Illicit Connections and Illegal Discharges) describes requirements and procedures including identification, detection, investigation, enforcement, and reporting related to IC/ID. Section 4.B.3 of the Consolidated Monitoring Program provides IC/ID Field Procedures and numeric guidance that may be used to assess if an impairment may be occurring.

Dry weather samples from the following stations will be collected as indicated below. IC/ID monitoring will be conducted with *quarterly* visits at the following stations to look for evidence of non-typical flow and water quality conditions for each site. Results of the Dry Weather Monitoring are discussed in the Monitoring Annual Report as described in Section 8.5.

IC/ID Outfall Monitoring Location	Minimum No. Events/Year	Sample Type	Constituents	
Ramsey Street Storm Drain (Hydron # 782) 33° 48' 35.0", -116° 51' 31.5"	2	Grab or Composite		
Portola Ave Outfall (Hydron # 817) 33° 44' 16.8", -116° 22' 24.6"	2	Grab or Composite	Field Parameters  E. coli	
Avenue 52 Outfall (Hydron # 785) 33° 40' 17.4", -116° 08' 56.4"	2	Grab or Composite		

**Receiving Water Monitoring** – Dry Weather Receiving Water Monitoring is conducted for the purposes of evaluating the health of the perennial portion of the CVSC during dry weather conditions. The data collected will also be used to assist in assessment of potential Urban Runoff contributions to chronic water quality conditions identified from the Receiving Waters Monitoring Program. Results of the Dry Weather Receiving Water Monitoring are discussed in the Monitoring Annual Report as described in Section 8.5.

The following station will be monitored as indicated:

Receiving Water	Minimum No.	Sample	Constituents
-----------------	-------------	--------	--------------

Monitoring Location	Events/Year	Туре	
CVSC at Avenue 52 Bridge (Hydron # 884) 33° 40' 20.9", -116° 08' 57.8"	2	Grab or Composite	Field Parameters  Constituents of concern  Add Priority Pollutants list to one sample event during 2 <sup>nd</sup> , 3 <sup>rd</sup> or 4 <sup>th</sup> year of MS4 Permit

## 8.4.3 Special Studies

The MS4 Permit allows the Permittees, either individually or collectively, to continue participation in regional monitoring and scientific studies conducted by the Southern California Monitoring Coalition (SMC), the California Stormwater Quality Association (CASQA), and/or other regional groups or efforts in order to improve monitoring program design, parameter test methods, laboratory calibration, evaluate the effectiveness of BMPs, and/or advance the science and understanding of urban runoff impacts on Receiving Waters.

#### COACHELLA VALLEY STORMWATER CHANNEL TMDL

The Permittees have been coordinating with Regional Board staff to develop a TMDL to address bacterial indicators impairment of recreational Beneficial Uses in the CVSC. The perennial section of the CVSC, which begins at Valley Sanitary District's outfall (Indio) and continues to the Salton Sea, is a 303(d)-listed body for Bacterial Indicators. Only a portion of the perennial CVSC lies within the Permit Area – the portion beginning near Valley Sanitary District to the City of Coachella's eastern boundary. During FY 2005-2006, Regional Board staff initiated progress towards a formal TMDL adoption.

The Regional Board adopted a TMDL on May 16, 2007. Following adoption of the TMDL, the Regional Board directed staff to conduct three public workshops to discuss the TMDL requirements with affected stakeholders and other interested persons. In the meantime, the TMDL was forwarded to the State Board for its review and approval. The first public workshop was held on July 25, 2007, the second on November 19, 2007, and the third on April 23, 2008.

The TMDL was withdrawn from consideration at the SWRCB March 18, 2008 Board meeting due to oral and written comments made in connection with the first two workshops mentioned above. The Regional Board's Executive Officer determined that it would be appropriate to request the SWRCB to withdraw the TMDL from its agenda for approximately 18 months. The withdrawal request letter, dated January 18, 2008, and addressed to the SWRCB Executive Director, explained that the withdrawal was needed to address comments and concerns raised by the Coachella Valley agricultural community regarding the appropriateness of being named as a Responsible Party in the TMDL Implementation Plan without sufficient data.

To address this data gap, agricultural dischargers and CVWD proposed conducting the following tasks over an 18-month period:

- 1. For the first three months following State Board approval of the withdrawal request: the agricultural community would form a Task Force to develop a monitoring plan that would be submitted to the Regional Board Executive Officer for his review and approval;
- 2. For the next 12 months, the Task Force would conduct quarterly monitoring; and
- 3. For the last three months, the Task Force would prepare a report of the sampling results and submit the report to the Regional Board for its consideration of approval.

The State Board approved the withdrawal request, as announced in a public notice dated February 22, 2008. Since then, the agricultural community and CVWD formed a Task Force and submitted a Monitoring Plan to the Regional Board Executive Officer for review and approval on May 15, 2008. The Task Force completed monitoring in May 2009 and submitted its report to the Regional Board on August 17, 2009.

On June 17, 2010, the Regional Board approved an amendment to the Water Quality Control Plan for the Colorado River Basin Region to establish the Coachella Valley Stormwater Channel Bacterial indicators TMDL. The Responsible Parties to the TMDL are: Kent Seatech Corporation Fish Farm (NPDES permittee), Cal-Trans (MS4 permittee); and the city of Coachella (MS4 permittee).

There are several requirements that must be met within 90 days of USEPA approving the TMDL as part of Phase I. The first is that Quality Assurance Project Plans (QAPPs) shall be developed and submitted to the Regional Water Board Executive Officer for review and approval. Monitoring data will be provided to Regional Water Board staff on a quarterly basis and will be used to assess contributions of bacteria to CVSC from anthropogenic sources. Then the Regional Water Board staff will also begin to identify significant federal and tribal dischargers to CVSC and notify them of their role in TMDL implementation. Also, the Regional Water Board staff plans to develop a plan to conduct TMDL surveillance and track TMDL activities. The objectives of the plan are to assess monitoring data, measure milestone attainment, and determine compliance with the TMDL. Then pursuant to a request from the Regional Water Board, each tribal entity, in coordination with USEPA, shall submit a technical report describing measures to ensure that waste discharges to CVSC from tribal land do not violate or contribute to a violation of this TMDL.

Three years after the USEPA approves the TMDL, the Regional Water Board staff shall submit a written report to the Regional Water Board describing monitoring results, milestone attainment, and the need to revise the TMDL, if necessary.

Actions taken in Phase I (within three years after USEPA approves the TMDL) will determine whether WQOs have been achieved, sources of bacterial pollution have been identified, and whether additional actions are required in Phase II to meet WQOs. If monitoring and assessment in Phase I indicate that waste discharges to the CVSC from anthropogenic activities violate this TMDL, and that violations persist despite recommended operation and maintenance procedures and control measures in existing permits, the Regional Board will require the implementation of additional actions to control anthropogenic sources of bacteria in Phase II. After characterization of sources and a determination is made whether these sources are controllable, the Regional Board will require responsible parties to select and implement new and/or additional management practices (MPs) for Phase II. This determination shall take into consideration background conditions and cost factors. The Regional Board may revise MS4 permit water quality based effluent limitations, which may be expressed in terms of narrative MP requirements. The Regional Board may also consider revising WQOs for the CVSC to address natural background sources of bacteria. This revision would be accomplished by completing a Use Attainability Analysis (UAA) and establishing a Site Specific Objective (SSO). If an SSO is required, it would be developed by the end of Phase II, based on resource availability.

The District and the City of Coachella have continued to evaluate methods to address the urban contribution to the Bacterial Indicators impairment. The City of Coachella conducted a special study to identify and eliminate illicit discharges (IDs) within MS4 drainages directly tributary to the CVSC. The City of Coachella is completing their installation of dry wells attached to its storm drains that used to discharge into the CVSC, therefore, eliminating any discharge from those former outfalls.

# 8.5 Reporting

The Monitoring Report is a section of the Annual Report due to the Regional Board each year on January 15<sup>th</sup>. The monitoring report will include:

- ♦ Monitoring station locations;
- ♦ Frequency of sampling;
- Quality assurance/quality control procedures;
- ♦ Sampling and analysis protocols;
- ♦ Summary of the data/results;
- ♦ Methods of evaluating the data; and
- Graphical summaries of the data.

In addition, monitoring reports shall include an analysis of the findings of each monitoring year. The analysis will identify acute Water Quality problems that may be indicated by water quality parameters that are measured outside of normal ranges for that parameter based on historic water quality data.

Monitoring reports will also include identification and analysis of any long term trends in Storm Water or Receiving Water quality and analyze long term trends for signs of chronic water quality problems. The analysis will include identification of potential urban sources of chronic problems, effectiveness of existing BMP control measures, and recommend necessary next steps. Next steps may include allowing for additional time to statistically confirm a chronic water quality problem, additional data collection necessary to examine urban sources, potential revisions to the SWMP to address urban sources found to be contributing to the chronic condition, or other similar measures necessary to confirm and/or address the condition.

All monitoring reports shall use a standard report format and shall include the following:

- ♦ An introduction:
- Summary of Special Studies participated in during the reporting period;
- Comprehensive interpretations and conclusions; and
- Recommendations for necessary future actions.

# 9.0 PROGRAM REPORTING, EVALUATION & ASSESSMENT, AND REVISION

## 9.1 Annual Reporting

By January 15<sup>th</sup> of each year, the Permittees prepare an Annual Report summarizing the implementation of the component program elements described in the SWMP for submittal to the Regional Board. To support preparation of each Annual Report, the Permittees submit to the District documentation of their implementation of the Whitewater River Region SWMP compliance programs utilizing standardized reporting forms (see Appendix M). The reporting forms are amended by the Permittees, as needed, to facilitate changes in compliance programs or more accurate reporting of compliance programs. The Annual Reports provided by the each Permittee includes:

- ◆ The Permittees update the Permit Area Map each year in the Annual Report Updated MS4 maps are submitted with the Annual Report.
- A list of contact names identifying who should be contacted to coordinate enforcement activities for each Permittee, as well as the Regional Board and other potentially interested agencies, and attend the Desert Task Force Meetings, is submitted with each Annual Report.
- ♦ The summary of each Permittee's enforcement actions will be included in Annual Reports, utilizing the IC/ID database format included in Appendix E.
- ♦ The Permittees individually maintain a log of trained staff and report training and this information is summarized in the Annual Reports. The Permittees' NPDES coordinators document their respective staff training activities and forward the information to the District annually for inclusion in the Annual Report.
- ♦ The Permittees report new major outfall locations, additions or modifications to major structural controls
- ◆ The Permittees report a list of industrial operations covered under the General Permit-Industrial in the Annual Reports.
- ◆ Each Annual Report includes a list of commercial establishments and industrial facilities as documented through (1) the CAP for the incorporated cities and (2) the Business Licensing Program for the unincorporated area.
- ♦ Spill incidents, including any unauthorized discharges that are not reportable to the OES, are reported to the Regional Board's Executive Officer as part of the Annual Report.
- ♦ The Permittees implement control measures to reduce and/or to eliminate the discharge of Pollutants, including trash and debris, from the MS4 to the Receiving Waters to the MEP. In the Whitewater Region, information related to these control measures is included in the Annual Report.
- ♦ Annual evaluation and assessment requirements for the IC/ID program. IC/ID investigation results will be documented in the IC/ID database (see model format in Appendix E) and submitted with the Annual Report.

- For purposes of annual reporting, the Permittees developed a standardized spreadsheet for listing construction sites disturbing one acre or more within their jurisdiction and the associated priority, inspection, and enforcement information. The standardized spreadsheet is included in Appendix E.
- Public Information Program update and required information.
- ♦ Monitoring Section regarding the fiscal year.
- Other information as requested on the Annual Reporting forms sent out to Permittees.

# 9.2 Program Evaluation and Assessment

The Permittees regularly assess the component program elements of the SWMP to identify improvements that will promote the reduction of Pollutants in Urban Runoff to the MEP while also supporting the responsible management and allocation of the public resources available to implement the SWMP. During 2010, the Desert Task Force was asked to review the SWMP and suggest improvements to the document. An errata identifies and incorporates changes made in this SWMP in response to this assessment. Through the ongoing implementation of the Permittees' programs, additional errata or revisions to the SWMP may be proposed on an as-needed basis.

The short-term strategy for assessing the effectiveness of the SWMP focuses on quantitative, but indirect methods of assessment (that is, not directly based on the quality of Urban Runoff or Receiving Water quality). The Permittees will track the following data that are believed to have a positive influence on Urban Runoff and Receiving Water quality. Such information will be reported in either the Permittee-specific databases, or in the summary tables included in the annual report.

### Illicit Connection/Illegal Dumping (ID/IC), Litter, Debris, and Trash Control Program

- Number of Permittee employees trained, including the topic and date.
- Implementation of established procedures, such as use of standardized IC/ID reporting forms
- Collect information and maintain data (electronically) on IC/ID reports:
  - Number of reports received
  - Number of cases investigated/responded to
  - Source of IC/ID
  - Final outcome of case (e.g., spill/connection was terminated and cleaned up, educational visit to source owner/operator, warning letter, referral to code enforcement, etc.)
- Number of enforcement actions issued/taken (e.g., notice of non-compliance, notice of violation and order to comply, referral to District Attorney for prosecution)

## Commercial/Industrial Program

- Number of commercial and industrial facilities in the source database, by type:
  - Restaurant
  - Automotive Service
  - Industrial
  - Mobile Cleaning Business (tracked by Permittees through a business license or some other process/procedure)
- Number of commercial and industrial facilities visited:
  - Satisfactorily implements BMPs
  - Educational materials provided or other types of enforcement
  - Referral to Environmental Crimes Task Force or Regional Board
- Number of Permittee employees trained, including the topic and date.

## **Development Planning and Permitting Program**

- ♦ Identification of any changes to Permittee municipal code or policy requirements for on-site storage and infiltration of Urban Runoff for New Development and Redevelopment projects within their jurisdiction
- ♦ Assessment of the degree of implementation of Site Design BMPs relative to the measurable goal of having 100% of the Treatment Control BMP requirement (Section F.1.c.v.4 of the 2008 MS4 Permit) achieved through the use of Site Design BMPs. Achievement toward this goal is tracked on a project-specific WQMP basis determined by the percentage of total project area subject to treatment control requirements that is addressed using site design concepts.
- Identification of common deficiencies observed in reviewing Project-Specific WQMPs.
- Number of Permittee employees trained, including the topic and date.

#### **Private Construction Activities**

- ♦ Verification that construction site prioritization criteria adequately identify sites that pose a high threat to Receiving Water quality.
- The number of construction site inspections conducted for sites disturbing one acre or more.
- ♦ The number of construction site referrals to the Regional Board.
- Number of Permittee employees trained, including the topic and date.

## Permittee Facilities and Activities Program

- Permittee employee training (including tailgate training), including the topic, date, and number of employees trained.
- The number of new outfalls and structural controls added to Permittees' MS4s.
- ♦ Annual review of sewage spill response plans and revision, as necessary, to reflect current conditions.
- Annual review and updating of the Permittees' facility inventory (Table 6-3).
- ♦ Self-inspections of Permittee facilities.
- Review and updating of the list of pesticide application personnel and their certifications.
- MS4 facility maintenance activities, including verification of signage on inlets to MS4 facilities.
- ♦ Additionally, in compliance with Section F.1.a.ix, Permittees that own and operate landfills and SARA Title III facilities, monitor pollutants in runoff from those landfills and SARA Title III facilities in compliance with existing Regional Board WDRs. Monitoring data compiled and provided to the Regional Board in compliance with the WDRs is incorporated into each Annual Report by reference.

## **Public Education and Outreach Program**

The following metrics will be reported, as applicable to the efforts conducted in the specific reporting period. Specific efforts and resources may be adjusted from year to year.

- Approximate number of educational materials distributed at community events, including the date and name of community event
- Approximate number of educational materials distributed through Permittee public counters
- ♦ Approximate attendance at community events
- Estimated total impressions from media outreach
- ◆ Usage of the Pollution Prevention Program 1-800 hotline
- ♦ Information from the HHW Collection Program:
  - Event dates and number of days per event,
  - Type and amount of material collected, and
  - Advertisement expenditures by type (newspaper, banners, flyers, etc.) for the Permittees' internal use
- ♦ Approximate number of regional public education outreach and community events conducted by type (e.g., construction, industrial, residential, new development, schools, general public, etc.), including topic and approximate attendance, where applicable
- ♦ Public surveys and media impression counts are used, where feasible, to assess the effectiveness of the Public Education and Outreach Program

 A summary of the scope and purpose (brief description) of the regional public education materials available to the various target audiences

In addition to assessing the effectiveness of the various program elements, the Permittees conduct an assessment of the effectiveness of their overall programs. The legal authority and program management elements of the Permittee programs are also considered in this assessment. Major accomplishments and changes to be implemented in the subsequent year to improve the effectiveness of the program are included in the evaluation.

Annual Report data are presented in tabular form and summarized so that specific information is readily discernible and clearly illustrates the Permittees' compliance with the MS4 Permit. Each Annual Report includes a compliance status report for each Permittee, and when applicable, a Permittee's updated map of the urbanized area under their jurisdiction. Each Permittee's Annual Report contains a transmittal page with a certification signed by a duly authorized representative of the Permittee. When there have been changes in a Permittee's urbanized area, the District includes an updated Whitewater River Region MS4 Permit Area Map with the Annual Report.

The long-term strategy for assessing the effectiveness of the SWMP will focus on water quality data. The first step will be to develop and understand baseline data. Due to the inherent variability of urban runoff, years of monitoring data will be necessary to identify statistically significant trends or conclusions. Additionally, because there are numerous program elements being implemented concurrently and because other environmental regulation indirectly impacts the quality of urban runoff, the ability to identify cause-and-effect relationships between a specific program element and/or BMP and improvement in the quality of urban runoff is complicated, if not infeasible.

#### 9.3 SWMP Revisions

As part of the annual reporting process for the Whitewater River Region, the Permittees review each of the program elements of the SWMP, as well as the measures used to evaluate the effectiveness of those elements, in order to identify improvements or necessary revisions, if any. Each Annual Report includes the identified improvements and/or revisions where applicable. Appendices to the SWMP may be revised to update dynamic factual information, to improve format and usability, and to reflect ongoing program development resulting from the program evaluation process. A revised SWMP will be submitted with the Report of Waste Discharge in November 2012.