4.0 MUNICIPAL COMPONENT **1**

4.1 Introduction **1**

4.2 Streets, Roads, and Highways Element **3**
4.2.1 Background 3
4.2.2 Source Characterization 3
4.2.3 Best Management Practice Requirements 3
4.2.4 Program Implementation 3

4.3 Municipal Separate Storm Sewer System (MS4) Element **12**
4.3.1 Background 12
4.3.2 Source Characterization 12
4.3.3 Best Management Practice Requirements 12
4.3.4 Program Implementation 12

4.4 Solid Waste Facilities Element **20**
4.4.1 Background 20
4.4.2 Source Characterization 20
4.4.3 Best Management Practice Requirements 20
4.4.4 Program Implementation 20

4.5 Wastewater Facilities Element **30**
4.5.1 Background 30
4.5.2 Source Characterization 30
4.5.3 Best Management Practice Requirements 30
4.5.4 Program Implementation 30

4.6 Road Stations Element **40**
4.6.1 Background 40
4.6.2 Source Characterization 40
4.6.3 Best Management Practice Requirements 40
4.6.4 Program Implementation 40

4.7 Fleet Maintenance Element **49**
4.7.1 Background 49
4.7.2 Source Characterization 49
4.7.3 Best Management Practice Requirements 49
4.7.4 Program Implementation 49

4.8 Municipal Airfields Element 57
4.8.1 Background 57
4.8.2 Source Characterization 57
4.8.3 Best Management Practice Requirements 57
4.8.4 Program Implementation 57

4.9 Parks and Recreational Facilities Element 65
4.9.1 Background 65
4.9.2 Source Characterization 65
4.9.3 Best Management Practice Requirements 65
4.9.4 Program Implementation 65

4.10 Office Buildings and Other Municipal Facilities Element 73
4.10.1 Background 73
4.10.2 Source Characterization 73
4.10.3 Best Management Practice Requirements 73
4.10.4 Program Implementation 73

4.11 Pesticides, Herbicides, and Fertilizer Management Element 82
4.11.1 Background 82
4.11.2 Source Characterization 82
4.11.3 Best Management Practice Requirements 82
4.11.4 Program Implementation 83

4.12 Non-emergency Fire Fighting and Related Activities Element 88
4.12.1 Background 88
4.12.2 Source Characterization 88
4.12.3 Best Management Practice Requirements 88
4.12.4 Program Implementation 88

4.13 Special Events Element 95
4.13.1 Background 95
4.13.2 Source Characterization 95
4.13.3 Best Management Practice Requirements 95
4.13.4 Program Implementation 95

4.14 Municipal Employee Training Element 101
4.14.1 Not targeted 105

4.15 Program Review and Modification **111**

Attachment 4.1 – Municipal Source Inventory

Attachment 4.2 – Special Event Permits Inventory

Attachment 4.3 – Municipal Pesticide Usage Summary

TABLES:
Table 4.1.1 – Overview of Municipal Sources and Activities 2

Table 4.2.1 – Overview of Updated Roads Inventory by TTWQ Priority 4
Table 4.2.2 – Program Implementation and Assessment Results for the Streets, Roads, and Highways Element (Level 1 Outcomes) 6
Table 4.2.3 – Assessment of Knowledge and Behavior for the Streets, Roads, and Highways (Level 2 & 3 Outcomes) 7
Table 4.2.4 – Source Reductions from Streets, Roads, and Highways (Level 4 Outcomes) 10
Table 4.2.5 – Non-sweeping Debris Removal by Division and Road Station 11

Table 4.3.1 – Overview of Updated MS4 Inventory by Facility Type 13
Table 4.3.2 – Program Implementation and Assessment Results for the MS4 Element (Level 1 Outcomes) 15
Table 4.3.3 – Assessment of Knowledge and Behavior for the MS4 Element (Level 2 & 3 Outcomes) 17
Table 4.3.4 – Inspection and Maintenance Results for Inlets and Basins 18
Table 4.3.5 – Inspection and Maintenance Results for (non-self cleaning) Linear MS4 Systems 18
Table 4.3.6 – Inspection and Maintenance Results for Open Channels 18
Table 4.3.7 – Multi-year Comparison of Storm Drain Stenciling Results (FY 2001-02 to present) ..... **Error! Bookmark not defined.**
Table 4.3.8 – Source Reductions from MS4 Structures (Level 4 Outcomes) 19

Table 4.4.1 – Summary Information for Solid Waste Facilities Inventory Update 21
Table 4.4.2 – Program Implementation and Assessment Results for the Solid Waste Facilities Element (Level 1 Outcomes) 23
Table 4.4.3 – Assessment of Knowledge and Behavior for the Solid Waste Facilities Element (Level 2 & 3 Outcomes) 26
Table 4.4.4 – Overview of WPP Facility Audit Results for Solid Waste Facilities 29

Table 4.5.1 – Summary Information for Wastewater Facilities Inventory Update 31
Table 4.5.2 – Program Implementation and Assessment Results for the Wastewater Facilities Element (Level 1 Outcomes) 33
Table 4.5.3 – Assessment of Knowledge and Behavior for the Wastewater Facilities Element (Level 2 & 3 Outcomes) 36
Table 4.5.4 – Overview of WPP Facility Audit Results for Wastewater Facilities 38
Table 4.5.5 - Sanitary Sewer Overflow Events for FY 2011-12 39

Table 4.6.1 – Summary Information for Road Station Facilities Inventory Update 41
Table 4.6.2 – Program Implementation and Assessment Results for the Road Stations Element (Level 1 Outcomes) 43
Table 4.6.3 – Assessment of Knowledge and Behavior for the Roads Stations Element (Level 2 & 3 Outcomes) 46

Table 4.6.4 – Source Reductions from Road Station Parking Lots (Level 4 Outcomes) 47
Table 4.6.5 – Overview of WPP Facility Audit Results for Road Stations 47
Table 4.6.6 – Multi-year Comparison of Municipal Parking Lot Sweeping Results by DPW Roads Division 48

Table 4.7.1 – Summary Information for Fleet Maintenance Facilities Inventory Update 50
Table 4.7.2 – Program Implementation and Assessment Results for the Fleet Facilities Element (Level 1 Outcomes) 52
Table 4.7.3 – Assessment of Knowledge and Behavior for the Fleet Facilities Element (Level 2 & 3 Outcomes) 55
Table 4.7.4 – Overview of WPP Facility Audit Results for Fleet Maintenance and Fueling Facilities 56

Table 4.8.1 – Summary Information for Airfields Facilities Inventory Update 58
Table 4.8.2 – Program Implementation and Assessment Results for the Municipal Airfields Element (Level 1 Outcomes) 60
Table 4.8.3 – Assessment of Knowledge and Behavior for the Municipal Airfields Element (Level 2 & 3 Outcomes) 63
Table 4.8.4 – Overview of WPP Facility Audit Results for Airfields Facilities 64

Table 4.9.1 – Summary Information for Parks and Recreational Facilities Inventory Update 66
Table 4.9.2 – Program Implementation and Assessment Results for the Parks and Recreational Facilities Element (Level 1 Outcomes) 68
Table 4.9.3 – Assessment of Knowledge and Behavior for the Parks and Recreational Facilities Element (Level 2 & 3 Outcomes) 71
Table 4.9.4 – Overview of WPP Facility Audit Results for Parks and Recreational Facilities 72

Table 4.10.1 – Summary Information for Office Buildings and Other Municipal Facilities Inventory Update 74
Table 4.10.2 – Program Implementation and Assessment Results for the Office Buildings and Other Facilities Element (Level 1 Outcomes) 76
Table 4.10.3 – Assessment of Knowledge and Behavior for the Office Buildings and Other Facilities Element (Level 2 & 3 Outcomes) 80
Table 4.10.4 – Overview of WPP Facility Audit Results for Office Buildings and Other Facilities 81

Table 4.11.1 – Program Implementation and Assessment Results for the Pesticides, Herbicides, and Fertilizer Management Element (Level 1 Outcomes) 84
Table 4.11.2 – Assessment of Knowledge and Behavior for the Pesticides, Herbicides, and Fertilizer Management Element (Level 2 & 3 Outcomes) 85

Table 4.12.1 – Program Implementation and Assessment Results for the Non-Emergency Fire Fighting Element (Level 1 Outcomes) 91
Table 4.12.2 – Assessment of Knowledge for the Non-Emergency Fire Fighting Element (Level 2 Outcomes) 94

Table 4.13.1 – Program Implementation and Assessment Results for the Special Events Element (Level 1 Outcomes) 97
Table 4.13.2 – Assessment of Knowledge and Behavior for the Special Events Element (Level 2 & 3 Outcomes) 100

Table 4.14.1 – Program Implementation and Assessment Results for the Municipal Staff Training Element (Level 1 Outcomes) 102
Table 4.14.2 – Stormwater Awareness Training Results by Department 106

Table 4.15.1 – Planned Modifications to the Municipal Component 111

FIGURES:

Figure 4.1 – Overview of Departments and Groups Implementing the Municipal Component 1
Figure 4.2 – FY 2011-12 Program Implementation and Assessment Strategy for the Streets, Roads, & Highways Element 5
Figure 4.3 – FY 2011-12 Program Implementation and Assessment Strategy for the MS4 Element 14
Figure 4.4 – FY 2011-12Program Implementation and Assessment Strategy for the Solid Waste Facilities Element 22
Figure 4.5 – FY 2011-12 Program Implementation and Assessment Strategy for the Wastewater Facilities Element 32
Figure 4.6 – FY 2011-12 Program Implementation and Assessment Strategy for the Road Stations Element 42
Figure 4.7 – FY 2011-12 Program Implementation and Assessment Strategy for the Fleet Facilities Element 51
Figure 4.8 – FY 2011-12 Program Implementation and Assessment Strategy for the Municipal Airfields Element 59
Figure 4.9 – FY 2011-12 Program Implementation and Assessment Strategy for the Parks and Recreational Facilities Element 67
Figure 4.10 – FY 2011-12 Program Implementation and Assessment Strategy for the Office Buildings and Other Facilities Element 75
Figure 4.11 – FY 2011-12 Program Implementation and Assessment Strategy for the Pesticides, Herbicides, and Fertilizer Management Element 83
Figure 4.12 – FY 2011-12 Program Implementation and Assessment Strategy for the Non-Emergency Fire Fighting Element 90
Figure 4.13 – FY 2011-12 Program Implementation and Assessment Strategy for the Special Events Element 96

4.0 MUNICIPAL COMPONENT

4.1 Introduction

JURMP Section 6.0 establishes a programmatic framework for the implementation of activities to minimize the impact of discharges from municipal sites and sources on receiving waters in compliance with Permit Section D.3.a. This annual report section describes the programs and activities conducted by the County to implement its Municipal Component during Fiscal Year (FY) 2011-12. **Figure 4.1** illustrates the organizational relationship of the departments and groups with primary responsibility for implementing this component. **Table 4.1.1** provides an overview of the County's municipal source inventories, and provides a key to the report sections in which each is addressed. **Attachment 4.1** presents an updated, prioritized, watershed-based facilities inventory. Due to their size, updated inventories of linear features such as roads, stormwater conveyances, and sanitary sewer infrastructure are not included in **Attachment 4.1**. They are available upon request.

Figure 4.1 – Overview of Departments and Groups Implementing the Municipal Component

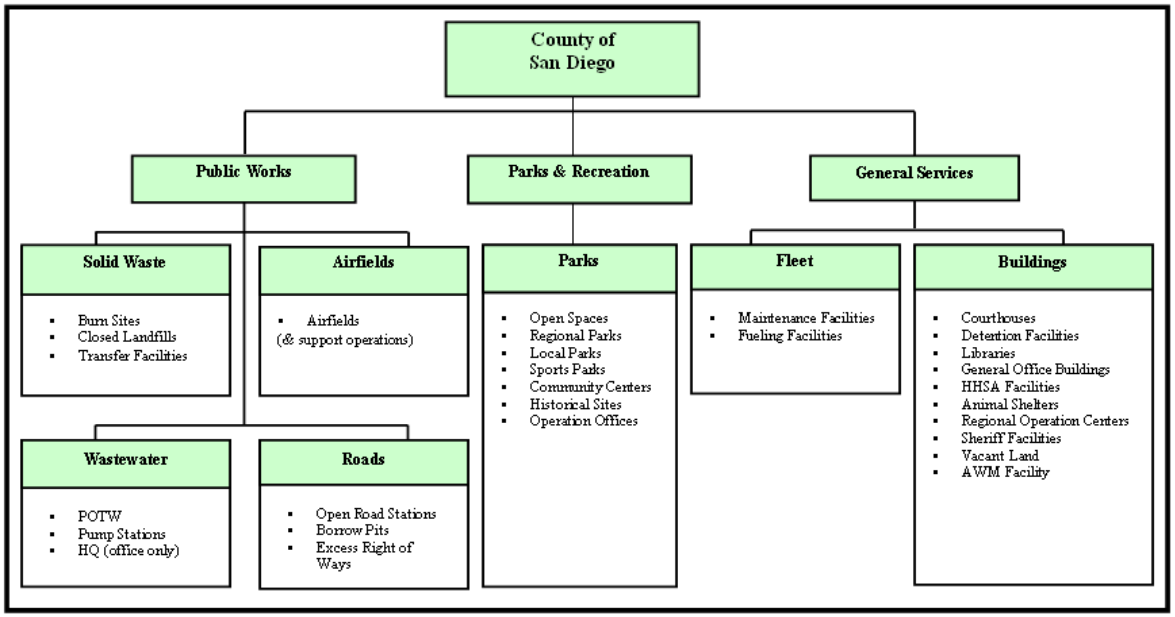


Table 4.1.1 – Overview of Municipal Sources and Activities

Source Type	Number as of July 1, 2011	Number as of June 30, 2012	Report Section
Streets, Roads, and Highways (Miles)	1,929	1,929	4.2
Municipal Separate Storm Sewer System (MS4) Inlets and Basins	18,974	18,975	4.2
Municipal Separate Storm Sewer System (MS4) Linear Channels (Miles)	1,994	2,067	4.3
Solid Waste Facilities	22	22	4.4
Wastewater Collection System (Sewer Pipeline in Miles)	450	450	4.5
Wastewater Facilities	18	18	4.5
Road Stations	21	21	4.6
Fleet Maintenance Facilities	27	27	4.7
Municipal Airfields	4	4	4.8
Parks and Recreational Facilities	92	91	4.9
Office Buildings and Other Municipal Facilities (including Household Hazardous Waste)	74	74	4.10
Pesticide, Herbicide, and Fertilizer Management (Applications)	2,201	2,276	4.11
Non-emergency Fire Fighting and Related Activities (Districts)	28	28	0
Special Events (Permits Issued)	297	361	4.13

4.2 Streets, Roads, and Highways Element

4.2.1 Background

The County's implementation and assessment strategy for the streets, roads, highways, and municipal parking facilities element is described in ***JURMP Section 6.2***. This annual report section describes the programs and activities conducted by the County to implement streets, roads and highways during FY 2011-12. The parking facilities element is described for roads in annual report **Section 4.6** and throughout the other sections based on applicability to the facility type.

4.2.2 Source Characterization

The County maintained 1,929 roadway miles located throughout the unincorporated area during FY 2011-12. As indicated above, updated reports are not included in this JURMP Annual Report due to their size, but are available on request. **Table 4.2.1** provides a breakdown of roads facilities by priority category and describes changes made to the inventory since its last update.

4.2.3 Best Management Practice Requirements

JURMP Section 6.2 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to streets, roads, and highways in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report.

4.2.4 Program Implementation

Figure 4.2 provides an overview of the major elements of the program implementation strategy for the County's streets, roads, and highways during FY 2011-12. **Table 4.2.2** presents Level 1 results for FY 2011-12 targets; **Table 4.2.3** presents Level 2 and 3 results; and **Table 4.2.4** presents Level 4 source reductions. All three tables also include implementation targets for FY 2012-13. Additional data on non-sweeping debris removal is provided in **Tables 4.2.5.**

Table 4.2.1 – Overview of Updated Roads Inventory by TTWQ Priority and Sweeping Results

Category	Total Curb-Miles	Frequency of Sweeping	Miles Swept	Litter Removed (tons)	Description of Activities
High Priority Roads (>20,000 ADT)	177	Twice / Month	4,870	1,063	The County maintains **1,929 roadway miles** throughout the unincorporated County. **3,736 curb-lane miles** were swept regularly, and according to their priority in FY 2011-12. "Total Curb-Miles" are the estimated miles of paved/concrete roads that have a curb, and are doubled (2-sides of a road with a curb). In addition, other paved County maintained roads, without curb-and-gutter, were swept as needed. A total of **24,145 miles** of County roads were swept with an estimated **8,532 of debris and litter** removed in FY 2011-12 See ***JURMP Section 6.2.2.2***, regarding the County's Average Daily Traffic (ADT) classification. As required by ***Permit Section D.3.a.(5)***, this classification provides a basis for the application of minimum sweeping frequencies to streets, roads, highways during FY 2011-12.
Medium Priority Roads (15,000-20,000 ADT)	96	Monthly	1,262	293	
Low Priority Roads (<15,000 ADT)	3,463	Annual	18,013	7,176	
Total Curb-Miles swept	**3,736**		**24,145**	**8,532**	

Streets, Roads, & Highways Element			
Program Implementation	**Target Audiences**		**Sources**
 - DPW Roads Management - DPW WPP	 - DPW Roads Staff - Adopt-a-Road Volunteers		 - Streets, Roads, & Highways
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training ☑ Roads hotline operation (858-874-4040) ☑ Adopt-a-Road program implementation **Feedback Activities** ☑ Maintenance inspections ☑ Surveys & tests	☑ General concepts ☑ Specific responsibilities	☑ Street & road sweeping ☑ Non-sweeping debris removal activities ☑ Debris removal by Adopt-a-Road volunteers	☑ Reductions from sweeping ☑ Reductions from non-sweeping debris removal activities ☑ Reductions from Adopt-a-Road debris removal activities
(See Table 4.2.2 for Level 1 Results)	**(See Table 4.2.3 for Level 2 and 3 Results)**		**(See Table 4.2.4 for Level 4 Results)**

Figure 4.2 – FY 2011-12 Program Implementation and Assessment Strategy for the Streets, Roads, & Highways Element

Outcome Level 1

Table 4.2.2 – Program Implementation and Assessment Results for the Streets, Roads, and Highways Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.2.1	No targeted.	R_I = None	No additional assessment currently needed	No targeted.	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		An annual review of ***JURMP Section 6.2*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of road facilities subsequent to the completion of FY 2011-12 (07-29-12). This update is described in **Table 4.2.1.**			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
☑ **Roads hotline operation** (T = confirmation)		(R_{I+A} = confirmation). As in previous reporting periods, a General Roads Information Hotline (858-874-4040) was operated throughout FY 2011-12 to provide the public a means of reporting accumulated trash or debris along County-maintained roadways.			

Outcome Level 1

Table 4.2.2 – Program Implementation and Assessment Results for the Streets, Roads, and Highways Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **Adopt-a-road program implementation** (T = confirmation)		(R_{I+A} = confirmation). The County continued to operate its Adopt-a-Road program throughout FY 2011-12. This year, 192 miles of roads were cleaned by 3,343 volunteers. See **Table 4.2.3** for implementation results.			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Tables 4.2.3** and **4.24**.			
☑ **Maintenance inspections**		***Permit Section D.3.a(7)(a)i.*** requires that all County-owned or operated roads, streets, and highways be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs.			
4.2.2	Inspect all improved County-maintained streets, roads, and highways (T = 3,736 curb-miles)	All improved (curbed and guttered) segments were inspected at least once (R_I = 3,736 curb-miles)	R_A = Complete	Inspect all improved County-maintained streets, roads, and highways	During FY 2011-12, 33,022 road inspections were conducted to determine maintenance and cleaning needs. Major County-maintained roads were generally inspected twice monthly and minor roads every other month. **Table 4.2.5** provides a breakdown of inspection numbers and road station debris removal statistics.
☑ **Surveys & tests**		Analysis for this group is located in the operations portion of **Table 4.14.4**.			

Outcome Levels 2 & 3

Table 4.2.3 – Assessment of Knowledge and Behavior for the Streets, Roads, and Highways (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎

Outcome Levels 2 & 3

Table 4.2.3 – Assessment of Knowledge and Behavior for the Streets, Roads, and Highways (Level 2 & 3 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**	See **Table 4.14.4**.			
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Street and road sweeping**	Sweeping is considered the most direct and effective means of eliminating debris from County maintained roadways and other portions of the MS4. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for improved roads, streets, and highways. 177 curb-miles were swept twice per month on average for a total of 4,870 high priority curb-miles swept this past fiscal year. 96 curb-miles were swept monthly for a total of 1,262 medium priority curb-miles swept this past fiscal year. 3,463 low priority curb-miles were swept annually. All 3,736 curb-miles were swept according to priority for a total of 24,145 curb-miles swept in FY 2011-12. See **Table 4.2.4** for estimated load reductions resulting from these activities.			
Sweeping Totals by Priority				
4.2.3	Sweep all high priority roads at least twice per month (T = 177 curb-miles swept twice monthly, 4,870 total annual miles)	R_I = 4,870 total curb-miles swept	R_A = Complete	Sweep all high priority roads at least twice per month (T = 177 curb miles swept twice monthly)
4.2.4	Sweep all medium priority roads at least monthly (T = 96 curb-miles swept monthly, 1,262 total annual miles)	R_I = 1,262 total curb-miles swept	R_A = Complete	Sweep all medium priority roads at least monthly(T = 96 curb miles swept once monthly)
4.2.5	Sweep all low priority roads at least once annually (T = 3,463 curb-miles)	R_I = 18,013 total curb-miles swept	R_A = Complete	Sweep all low priority roads at least once annually (T = 3,463 curb miles)

Outcome Levels 2 & 3

Table 4.2.3 – Assessment of Knowledge and Behavior for the Streets, Roads, and Highways (Level 2 & 3 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Total Curb-Miles				
4.2.6	Not targeted	R_I = 3,736 curb-miles	Not assessed	Not targeted
☑ **Non-sweeping debris removal activities**		Debris removal from road right-of-ways and other conveyances is a complementary and necessary supplement to the sweeping activities described above. Accumulations of debris and trash along roads and right-of-ways are routinely monitored and removed. Assigned staff at each Road Station conducts monthly visual inspections of right-of-ways and conveyances to identify facilities to be cleaned. Roads staff conduct the removal of debris and trash from the conveyances and report the amounts of collected debris monthly. Additional cleaning is conducted when complaints of debris and trash are reported, which are then assigned to the nearest Road Station for cleaning. See **Table 4.2.4** for estimated load reductions resulting from these activities.		
4.2.7	Not targeted	R_I = None	Not assessed	Not targeted
☑ **Debris removal by Adopt-a-Road volunteers**		As described above in **Table 4.2.2**, the County continued to operate its Adopt-a-Road program throughout FY 2011-12. The primary objective of this program is to engage volunteers in adopting and cleaning roadway sections. Participants clean their two-mile section of road at least four times per year. DPW staff provides plastic trash bags and orange safety vests to volunteers, and crews pick up and dispose of the filled trash bags. During FY 2011-12, volunteers adopted 95 segments of 61 roads, totaling 192 miles in the unincorporated County. A total of 3,343 people contributed 4,179 volunteer hours collecting 3,807 bags of trash. Because these activities are dependent on volunteer efforts, specific outcomes are not targeted. See **Table 4.2.4** for estimated load reductions resulting from these activities.		
4.2.8	Not targeted	R_I = 3,343 participants	Not assessed	Not targeted
4.2.9	Not targeted	R_I = 192 miles of road adopted and cleaned	Not assessed	Not targeted

Outcome Level 4

Table 4.2.4 – Source Reductions from Streets, Roads, and Highways (Level 4 Outcomes)

Reductions Achieved ☑		Explanation
☑ **Reductions from sweeping**		
4.2.10	R_I = 8,532 tons of debris removed from streets, roads, and highways	Through the sweeping efforts estimated above, 8,532 tons of debris was removed from streets, roads, and highways in the unincorporated County. Although the County has provided detailed accountings of its street sweeping activities since FY 2001-02, debris removal totals are not targeted. This is due to the fact that debris yields are highly variable, and largely beyond the ability of the County to control. See **Table 4.2.3** and **Table 4.2.1** for street sweeping results based on priority. Parking lot sweeping for Road Stations has been moved to **Section 4.6**.
☑ **Reductions from non-sweeping debris removal**		
4.2.11	R_I = 12,441 CY of non-sweeping debris removed	A total volume of 12,504 CY of debris was collected from non-sweeping activities. Non-sweeping activities includes the removal conducted by Roads Stations Division I & II of the debris, sand, and trash collected from conveyances, and culvert cleaning. See **Table 4.2.5** for additional data on debris removal.
☑ **Reductions from Adopt-a-Road activities**		
4.2.12	R_I = 76.5 CY of non-sweeping debris removed	An estimated volume of 76.5 CY of debris was collected from Adopt-a-Road activities.

Table 4.2.5 – Non-sweeping Debris Removal by Division and Road Station

Division / Road Station	No. of Road Inspections	CY Collected from Right of-Ways (ROW)	CY Collected from Conveyances[1]	Total CY Debris Collected
Division I				
Jamacha	5,694	0	0	0
Spring Valley	5,685	827	20	847
Alpine	3,276	245	0	245
Campo	804	1,853	778	2,631
Lakeside	2,664	274	34	308
Julian	1,104	1,295	31	1,326
Div. I SW	2,527	0	216	216
Division II				
Borrego	2,172	775	1,069	1,844
Ramona	2,040	277	95	372
San Marcos	3,804	75	290	365
Fallbrook	2,280	2,505	38	2,543
Valley Center	972	958	12	970
Const. Crew	0	10	9	19
Div. II SW Team	0	0	818	818
County Totals	**33,022**	**9,094**	**3,410**	**12,504**

[1] Conveyances are discussed in **Section 4.3**.

4.3 Municipal Separate Storm Sewer System (MS4) Element

4.3.1 Background

The County's implementation and assessment strategy for the MS4 element is described in ***JURMP Section 6.3***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.3.2 Source Characterization

The County maintains the publicly-owned portion of the MS4 within the unincorporated County. **Table 4.3.1** provides a simplified breakdown of MS4 structures by type and by priority category, and describes changes made to the inventory since its last update. As previously indicated, updated MS4 inventories are not included in this JURMP Annual Report due to their size, but are available on request.

4.3.3 Best Management Practice Requirements

JURMP Section 6.3 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to MS4 structures in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.3.4 Program Implementation

Figure 4.3 provides an overview of the major elements of the program implementation strategy for MS4 structures during FY 2011-12. **Table 4.3.2** presents Level 1 results for FY 2011-12 targets; **Table 4.3.3** presents Level 2 and 3 results. All three tables also include implementation targets for FY 2012-13. Additional MS4 documentation is provided in **Tables 4.3.4, 4.3.5, and 4.36. Table 4.3.7** provides data on storm drain stenciling and **Table 4.3.8** presents Level 4 source reductions.

Table 4.3.1 – Overview of Updated MS4 Inventory by Facility Type

Facility Type	Length (miles)	Number	Description of Changes
MS4 Open Channels (Self Cleaning)	4.5	Not applicable	During FY 2011-12 the number of storm drain inlets increased by 73 and the number of linear miles of non-self-cleaning MS4 was increased by 1 linear mile. The changes reflect additions of storm drain inlets and linear miles due to development and re-development of County infrastructure.
Linear MS4 Systems (Non-Self Cleaning)	2,062	Not applicable	
Storm Drain Inlets	Not applicable	18,960	
Catch Basins	Not applicable	15	
Total MS4	**2,067**	**18,975**	

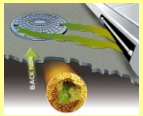
Municipal Separate Storm Sewer System (MS4) Element			
Program Implementation - DPW Flood Control Maintenance - DPW Roads Maintenance - DPW WPP	**Target Audiences** - - DPW Flood Control Maintenance, - DPW Roads Maintenance, & - DPW WPP Personnel		**Sources**  - MS4 Structures
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Maintenance inspections ☑ Surveys & tests **(See Table 4.3.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.3.3 for Level 2 and 3 Results)**	☑ MS4 cleaning ☑ Storm drain stenciling	☑ Debris removal **(See Table 4.3.8 for Level 4 Results)**

Figure 4.3 – FY 2011-12 Program Implementation and Assessment Strategy for the MS4 Element

Outcome Level 1

Table 4.3.2 – Program Implementation and Assessment Results for the MS4 Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.3.1	No targeted.	R_I = None	No additional assessment currently needed	No targeted.	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications (T = completion)		(R_{I+A} = completion). An annual review of ***JURMP Section 6.3*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of MS4 structures throughout FY 2011-12. This update is described in **Table 4.3.1**.			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. Feedback results for applicable staff are described below.			

Outcome Level 1

Table 4.3.2 – Program Implementation and Assessment Results for the MS4 Element (Level 1 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **Maintenance inspections**		***Permit Section D.3.a(3).*** Prescribes minimum cleaning frequencies for County-owned MS4 structures. Maintenance inspection results are used to assess and prioritize cleaning needs, and to ensure compliance with applicable permit directives. See **Table 4.3.4**, **Table 4.3.5,** and **Table 4.3.6** for more detailed maintenance results.			
4.3.2	Inspect all storm drain inlets and catch basins (T = 18,975 inlets and basins)	R_I = 27,233 facilities inspected	R_A = Complete	Inspect all storm drain inlets and catch basins (T = 18,975)	The County performed 27,233 MS4 inspections on 18,975 MS4 structures in FY 2011-12. Structures included storm drain inlets and catch basins.
4.3.3	Inspect all MS4 open channels and linear systems (T =2,067 linear miles)	R_I = 12,397 linear miles of MS4 structures inspected	R_A = Complete	Inspect all MS4 open channels and linear systems (T = 2,067 linear miles)	The County inspected 13,397 linear miles of MS4 FY 2011-12. Structures represented include linear MS4 systems (linear road drainage systems, curbed streets, gutters, ditches, man-made channels, drains, closed-pipes) and open channels.
☑ **Surveys & tests**		Analysis for this group is located in the operations portion of **Table 4.14.4..**			

Outcome Levels 2 & 3

Table 4.3.3 – Assessment of Knowledge and Behavior for the MS4 Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Section 4.14**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **MS4 cleaning**		Regular cleaning is considered the most direct and effective means of eliminating debris from County maintained MS4. ***Permit Section D.3.a(3)*** establishes minimum cleaning frequencies for these structures. Cleaning results are reported below.		
4.3.4	Not targeted	R_I = 20,998 MS4 structures cleaned	Not assessed	Not targeted
4.3.5	Not targeted	R_I = 978 linear miles of MS4 cleaned	Not assessed	Not targeted
The County cleaned 20,998 MS4 structures in FY 2011-12. MS4 structures included storm drain inlets and catch basins. The County also cleaned 978 linear miles of MS4 in FY 2011-12. MS4 structures represented include linear MS4 systems (linear road drainage systems, curbed streets, gutters, ditches, man-made channels, drains, closed-pipes) and open channels. See **Tables 4.3.4** through **4.3.6**.				
☑ **Storm drain stenciling**		Storm drain stenciling has been emphasized in the County's MS4 program for more than a decade. While early efforts were centered on identifying and stenciling existing drains, the County now focuses on new drains and re-stenciling as needed.		
4.3.6	Stencil all storm drains identified as needing stenciling or re-stenciling (T = 564 inlets)	R_I = 564 inlets stenciled	R_A = Complete	Stencil all storm drains identified as needing stenciling or re-stenciling
During MS4 inspections in FY 2011-12, County staff identified 564 storm drain inlets without stencils or requiring re-stenciling; all 564 were re-stenciled or decaled prior to the end of the reporting period.				

Table 4.3.4 – Inspection and Maintenance Results for Inlets and Basins

	MS4 Category	Total Number	Total Inspections	# of Structures with Waste Accumulation Exceeding Cleaning Criteria	# of Structures Cleaned	Trash and Debris Removed[2]
Flood Control	Storm Drain Inlets	2,079	3,330	0	1,954	2,061
	Catch Basins	7	8	0	8	136
Roads	Storm Drain Inlets	16,881	23,887	2,788	16,881	--
	Catch Basins	8	8	8	8	--

Table 4.3.5 – Inspection and Maintenance Results for (non-self cleaning) Linear MS4 Systems

	MS4 Category	Total Linear Miles	Linear Miles Inspected	Linear Miles of MS4 with Waste Accumulation Exceeding Cleaning Criteria	Linear Miles Cleaned	Trash and Debris Removed[3] (CY)
Flood Control	Linear MS4 systems (non-self cleaning)	57	63	0	39	1,289
Roads	Linear MS4 systems (non-self cleaning)	2,005	13,335	0	927	12,493

Table 4.3.6 – Inspection and Maintenance Results for Open Channels

MS4 Category	Total Linear Miles	Total Linear Miles Inspected	Linear Miles of Open Channels with litter	Linear Miles Cleaned	Trash and Debris Removed (CY)
Open Channels (self cleaning)[4]	4.5	13[5]	12	12	1,373

[2] Trash & Debris from Roads inlets & basins are included in Table 4.3.5.
[3] MS4 includes: linear road drainage systems, curbed streets, gutters, ditches, man-made channels, drains, closed pipes. *Trash & Debris volume includes Roads inlets & basins.
[4] Open channels that are self-cleaning include: lined and un-lined channels with > 100 cfs.
[5] Linear miles inspected and cleaned represent multiple inspections and cleanings during the annual reporting year.

Outcome Level 4

Table 4.3.7 – Source Reductions from MS4 Structures (Level 4 Outcomes)

Reductions Achieved ☑		Explanation
4.3.7	R_I = 15,155 CY of debris and litter removed from linear MS4 systems, inlets, and catch basins	Through the maintenance activities described above, 16,528 CY of waste were removed from MS4s in the unincorporated County. Due to the fact that debris yields are highly variable, and largely beyond the ability of the County to control, debris removal volumes are not targeted. See **Tables 4.3.4** through **4.3.6** for additional detail on trash and debris removal from MS4 structures.
4.3.8	R_I = 1,373 CY of debris and litter removed from open channels	
4.3.9	R_I = Total 16,528 CY debris and litter removed from MS4	

4.4 Solid Waste Facilities Element

4.4.1 Background

JURMP Section 6.4 establishes a programmatic framework for conducting activities to minimize the impact of discharges from solid waste facilities owned or operated by the County. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.4.2 Source Characterization

The County's solid waste facility inventory remained unchanged during FY 2011-12 (see **Attachment 4.1)**. **Table 4.4.1** summarizes these sources by watershed, threat-to-water-quality (TTWQ) priority, and provides a description of changes to the inventory that occurred during FY2011-12.

4.4.3 Best Management Practice Requirements

JURMP Section 6.4 and ***WPO Sections 67.804, 67.806, and 67.808*** identify County BMP requirements applicable to County -owned or -operated solid waste facilities. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.4.4 Program Implementation

Figure 4.4 provides an overview of the major elements of the program implementation strategy for solid waste facilities during FY 2011-12. **Table 4.4.2** presents Level 1 results for FY 2011-12 targets and **Table 4.4.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13 as applicable. **Table 4.4.4** presents FY 2011-12 audit results for solid waste facilities.

Table 4.4.1 – Summary Information for Solid Waste Facilities Inventory Update

Date of Inventory Update: 07-29-12			TTWQ Priority			Watershed									
Solid Waste Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
Burn Sites (Inactive)	6	0	3	3	0	1	0	1	1	0	2	0	0	0	1
Closed Landfills (Inactive)	12	0	11	1	0	0	2	3	1	1	1	0	3	1	0
Transfer Stations (Inactive)	4	0	0	0	4	0	0	0	1	0	0	0	1	0	2
Total	**22**	**0**	**14**	**4**	**4**	**1**	**2**	**4**	**3**	**1**	**3**	**0**	**4**	**1**	**3**
Description of Changes to Inventory: No changes for FY 2011-12															

Solid Waste Facilities Element			
Program Implementation - Solid Waste Facilities Management - DPW WPP	**Target Audiences** - Solid Waste Facilities Staff - Solid Waste Contractors		**Sources** - Solid Waste Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training ☑ Contract management **Feedback Activities** ☑ Facility inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.4.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.4.3. for Level 2 and 3 Results)**	☑ Drainage enhancement projects ☑ Soil erosion reduction projects	☒ Not targeted or assessed

Figure 4.4 – FY 2011-12 Program Implementation and Assessment Strategy for the Solid Waste Facilities Element

Outcome Level 1

Table 4.4.2 – Program Implementation and Assessment Results for the Solid Waste Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.4.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.***5 and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_I = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of solid waste facilities subsequent to the completion of FY 2011-12. This update is described in **Table 4.4.1**.			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for solid waste facilities staff and contractors are described below.			
☑ **Staff training**		See **Section 4.14.5.**			
☑ **Contract management**		The coordination of general administrative duties and management of field personnel at solid waste sites is managed by Tetra Tech. Tetra Tech identifies and details all task to be performed at solid waste sites under the existing Industrial General Permit such as training of personnel and analysis and sampling of representative storm water events.			

Outcome Level 1

Table 4.4.2 – Program Implementation and Assessment Results for the Solid Waste Facilities Element (Level 1 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in staff and contractors.			
☑ **Facility inspections**		The County maintains 12 closed landfills, 6 burn sites, and 4 closed transfer facilities pursuant to General Industrial and MS4 Permit requirements.			
4.4.2	Conduct monthly inspections of all inventoried landfills (T = 144 inspections)	R_I = 144 inspections conducted	R_A = Complete	Conduct monthly inspections of all inventoried landfills	Each facility was inspected monthly.
4.4.3	Conduct monthly inspections of all inventoried burn sites (T = 72 inspections)	R_I = 72 inspections conducted	R_A = Complete	Conduct monthly inspections of all inventoried burn sites	Seventy-two inspections were conducted during FY 2011-12. County maintained burn sites were inspected monthly pursuant to General Industrial Permit requirements. Landfill Management staff conducts inspections of each facility to determine the condition of the sites, stormwater conveyance and management systems, existing erosion control devices, and the need for additional erosion protection. In addition to routine inspections the burn sites are inspected within 24 hours of any significant rain event. This allows the County to quickly respond and appropriately allocate resources to any issue identified.
4.4.4	Conduct quarterly inspections of all inventoried transfer stations (T = 16 inspections)	R_I = 16 inspections conducted	R_A = Complete	Conduct quarterly inspections of all inventoried transfer stations	Sixteen inspections were conducted during FY 2011-12. Landfill Management staff conducts inspections of each transfer station facility to determine the condition of the sites, stormwater conveyance and management systems, existing erosion control devices, and the need for additional erosion protection.

Outcome Level 1

Table 4.4.2 – Program Implementation and Assessment Results for the Solid Waste Facilities Element (Level 1 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **WPP facility audits**	Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.				
4.4.5	Audit all high priority facilities (T = 14 facilities)	R_I = 14 high priority facilities audited	R_A = Complete	Audit all high priority facilities	The purpose of these audits is to provide an independent evaluation of facility compliance and BMP effectiveness in addition to that provided through Landfill Management Program inspections. During FY 2012-13, the WPP intends to conduct facility audits for all high priority solid waste facilities. Medium priority sites are audited twice during the Permit Cycle, but are not targeted to occur next fiscal year. Low priority sites are audited once during permit cycle but are not targeted to occur next fiscal year. Sites may be additionally audited on an as needed basis.
☑ **Surveys & tests**	Analysis for this group is located in the operations portion of **Table 4.14.4**.				

Outcome Levels 2 & 3

Table 4.4.3 – Assessment of Knowledge and Behavior for the Solid Waste Facilities Element (Level 2 & 3 Outcomes)

	FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**	See **Table 4.14.4**.			
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Drainage enhancement projects**	During FY 2011-12 the County performed drainage enhancement projects at the following landfill site: Bonsall Landfill. Drainage enhancement projects are conducted under permits by the Integrated Waste Management Board and the Regional Water Quality Control Board to avoid/repair reoccurring erosion control problems. Each project consists of filling low points to avoid ponding of waste, and also conducting repairs to areas that have erosion control problems. Specific drainage enhancement activities that occurred during FY 2011-12 as part of the corrective action plan at the Bonsall Landfill included re-establishment of drainage through new drainage conveyance features to promote positive flow of surface water.			
4.4.6	Complete identified drainage enhancement projects (T = Completion)	R_I = Drainage enhancement project completed	R_A = Complete	Address identified drainage issues at solid waste facilities.

Outcome Levels 2 & 3

Table 4.4.3 – Assessment of Knowledge and Behavior for the Solid Waste Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
☑ **Soil erosion reduction projects**		Mowing was conducted during the spring and early summer of 2012 to reduce wildfire hazard conditions and create a dry mulch layer to protect the sites' slopes and the top deck against erosion and run-off during the upcoming rainy season. Sites prepared in this manner were Alpine II, Bonsall, Cactus Park, Encinitas, Fallbrook 1C, Hillsborough, Jamacha, Gillespie, San Marcos, Palomar Airport, Ramona Buffer Property, Valley Center and Viejas Landfill. Vector control activities also reduce the potential for erosion. Throughout the year, vector control activities were conducted on the following sites; Bonsall, Cactus Park, Encinitas landfill and Burnsite, Hillsborough, Jamacha, Gillespie, San Marcos, Palomar, Poway, Ramona, Valley Center and Viejas Landfill. Additionally, owl boxes were installed at several of the landfills and burn sites as a green alternative to traditional bait station vector control.		
4.4.7	Address identified soil erosion issues at solid waste facilities (T = 13 facilities)	R_I = 13 facilities (13 facilities mowed and mulched; vector control activities also conducted at the facilities)	RA = Complete	Address identified soil erosion issues at solid waste facilities
☑ **Stormwater Audit Outcomes**		Of the two sites (Fallbrook Burnsite and the Bonsall Landfill) that were pending after being assessed in FY 2010-11, the Bonsall Landfill reached compliance for the pending corrective actions during FY 2011-12. However, Fallbrook Burnsite was unable to institute permanent BMPs to control areas affected by erosion, so temporary BMPs were installed. However since no permanent fix was instituted the Fallbrook burnsite still has not reached full compliance in FY 2011-12; this site is currently being assessed and corrective action plans have been created to consolidate and cap the burn ash. Property acquisition of affected areas is currently being conducted and assessment plans are being developed by the County of San Diego Solid Waste Management with the assistance of the Local Enforcement Agency (LEA) to obtain compliance at the Fallbrook Burnsite. Temporary BMPs have been implemented at the site to reduce soil erosion and to prevent burn ash and debris from leaving the site. A summary of audit results is located in Table 4.4.4.		

Outcome Levels 2 & 3

Table 4.4.3 – Assessment of Knowledge and Behavior for the Solid Waste Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
4.4.8	Complete identified drainage enhancement project for Bonsall Landfill (T = Completion)	R_I = Completed	R_A = Complete	Address identified drainage enhancement projects at solid waste facilities.

Table 4.4.4 – Overview of WPP Facility Audit Results for Solid Waste Facilities

Result Type		Number
A. General Results		
Facilities Audited		14
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		5
B. WPO Corrections Cited		
67.806	General BMPs	2
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	6
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		8
Completed		7
Pending		1

4.5 Wastewater Facilities Element

4.5.1 Background

The County's implementation and assessment strategy for the wastewater facilities element is described in ***JURMP Section 6.5***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.5.2 Source Characterization

The County manages five publicly-owned treatment facilities (POTWs) within the RWQCB Region 9. In addition, the County maintains a collection system of more than 450 miles of sanitary sewer pipeline augmented by 11 pump stations located in RWQCB Region 9. These wastewater treatment facilities, pump stations and sewer pipelines are maintained from two wastewater operations centers located in northern and southern San Diego County. The County operates sanitary sewer systems serving the communities of Alpine, Julian, Lakeside, Pine Valley, Spring Valley, Winter Gardens, East Otay Mesa and the San Pasqual Academy. **Table 4.5.1** provides a breakdown of wastewater facilities and describes changes made to the inventory since its last update.

4.5.3 Best Management Practice Requirements

JURMP Section 6.5 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to wastewater facilities in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.5.4 Program Implementation

Figure 4.5 provides an overview of the major elements of the program implementation strategy for the wastewater facilities during FY 2011-12. **Table 4.5.2** presents Level 1 results for FY 2011-12 targets and **Table 4.5.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. **Table 4.5.4** presents FY 2011-12 audit results for wastewater facilities. Additional documentation regarding sanitary sewer overflow (SSOs) events during FY 2011-12 is provided in **Table 4.5.5**.

Table 4.5.1 – Summary Information for Wastewater Facilities Inventory Update

Date of Inventory Update: 07-23-12			TTWQ Priority			Watershed									
Wastewater Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
POTW – Wastewater Treatment Facilities	5	0	0	5	0	0	0	0	1	0	2	0	0	0	2
Pump Stations	11	0	0	8	3	0	0	0	3	0	3	0	5	0	0
Headquarters (office only)	2	0	1	1	0	0	0	0	1	0	0	0	1	0	0
Total	**18**	**0**	**1**	**14**	**3**	**0**	**0**	**0**	**5**	**0**	**5**	**0**	**6**	**0**	**2**
Description of Changes to Inventory: No changes occurred to the Wastewater Facility Inventory during FY11-12.															

Wastewater Facilities Element			
Program Implementation - Wastewater Facilities Management - DPW WPP	**Target Audiences** - Wastewater Facilities Staff		**Sources** - Wastewater Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.5.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.5.3 for Level 2 and 3 Results)**	☑ Sanitary sewer collection system cleaning ☑ Sanitary sewer overflow (SSO) response	☒ Not targeted or assessed

Figure 4.5 – FY 2011-12 Program Implementation and Assessment Strategy for the Wastewater Facilities Element

Outcome Level 1

Table 4.5.2 – Program Implementation and Assessment Results for the Wastewater Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.5.1	Not Targeted.	R_I = None	R_A = Complete	Not Targeted.	No substantial modifications were identified during the review of the JURMP in FY 2011-12..
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.***5 and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of wastewater facilities subsequent to the completion of FY 2011-12 (07-23-12). This update is described in **Table 4.5.1.**			
4.5.2	Update TTWQ priority for County Maintained Facilities.	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	A comprehensive questionnaire was distributed in FY 2010-11 to County Wastewater Management leads to complete for all inventoried facilities and return to DPW WPP for further analysis. The questionnaire accounted for pollutant generating activities, pollutants of concern, compliance history, and areas located or tributary to an ESA or 303(d) for each County maintained facility. The results of the TTWQ were incorporated in the current inventory summarized in **Table 4.5.1.** County wastewater facility TTWQ priorities were re-assessed during FY 2011-12 during scheduled stormwater audits.

Outcome Level 1

Table 4.5.2 – Program Implementation and Assessment Results for the Wastewater Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.5.3**.			
☑ **Facility self-inspections**		***Permit Section D.3.a(7)(a)iv[2].*** requires that County wastewater facilities be inspected at least annually. Inspection results are used to assess and prioritize program implementation needs.			
4.5.3	Conduct monthly self-inspections of all inventoried facilities (T = 216 inspections)	R_I = 216 inspections conducted	R_A = Complete	Conduct at least quarterly self-inspections of all inventoried facilities	All POTWs, pump stations, and the operations center, were inspected monthly during FY 2011-12. Inspection staff evaluated compliance with BMP requirements, noted deficiencies, and provided schedules for required corrective actions. A total of 216 inspections were conducted at 18 facilities. Wastewater facilities were evaluated for TTWQ in FY 2010-11 and it was determined that high priority facilities will be conducted quarterly, medium facilities inspected semi-annually and low once annually. This criteria still exceeds Permit requirements. Inspections are conducted to verify that all BMPs are maintained, properly installed, and effective. Inspections include verifying the condition and effectiveness of: straw wattles along embankments, stored metal objects (raised & covered), debris abatement at all facilities, and soil stabilization (erosion control) as applicable to each facility.
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			

Outcome Level 1

Table 4.5.2 – Program Implementation and Assessment Results for the Wastewater Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.5.4	Audit all high priority facilities (T = 1 facilities)	R_I = 1 high priority facilities audited	R_A = Complete	Audit all high priority facilities	A total of eight wastewater facility audits (1 high and 7 medium) were conducted by the DPW WPP during FY 2011-12. The purpose of these audits is to provide an independent evaluation of facility compliance and BMP effectiveness in addition to that provided through facility self-inspections. Based on the results of audits for the past three years, few additional BMPs were warranted to prevent potential releases to the ESAs. A new threat-to-water quality (TTWQ) priority rating system was developed in 2010, which includes proximity to ESA, pollutant-generating-activities (PGAs), and past compliance history. Facilities were audited in FY 2011-12 based on their current priority and were reassessed during their respective audits with the new TTWQ priority system for the following fiscal year audit schedule. During FY 2012-13, the WPP intends to conduct facility audits for all high priority wastewater facilities, and will conduct audits on medium facilities that have not been audited a minimum of twice and low priority sites that have not been audited a minimum of once during the permit cycle. During FY 11-12, 8 audits were conducted and 1 facility identified as requiring corrective action. The deficiencies were corrected in a timely manner. A summary of audit results is located in **Table 4.5.4.**
4.5.5	Audit remaining medium priority facilities (T = 7 facilities)	R_I = 7 medium priority facilities audited	R_A = Complete	Audit any medium priority facilities not previously inspected twice during the permit cycle.	
☑ **Surveys & tests**		Analysis for this group is located in the operations portion of **Table 4.14.4**.			

Outcome Levels 2 & 3

Table 4.5.3 – Assessment of Knowledge and Behavior for the Wastewater Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Sanitary sewer collection system cleaning**		To prevent or limit infiltration from the sanitary sewer system the County conducts proactive inspection and maintenance programs. Personnel investigate locations exhibiting sewer-related discharge or odor. Closed Circuit Television (CCTV) cameras are used to inspect the structural integrity of the collection system. Potential problems are communicated to the appropriate sections to be placed on an accelerated cleaning schedule, or scheduled for repair/replacement. The County owns and operates 454 miles of sewer pipeline and systems in which it inspects multiple times annually. In FY 2011-12 a total of 454 miles of pipeline and systems were cleaned upon inspection (total accounts for cleaning some areas of the system more than once during the year). No instances of infiltration were noted. Also in FY 2011-12 the wastewater management division employed CCTV cameras as part of preventative maintenance to inspect 22 miles of pipe to verify that the structural integrity of the sewer pipes were in good condition and to ensure there was no blockage or debris that could cause future blockage.		
4.5.6	Conduct as-needed cleaning of the County's sanitary sewer collection system (T = 454 miles)	R_I = 454 miles of system cleaned (total accounts for cleaning some areas of the system more than once during the year)	R_A = Complete	Conduct as-needed cleaning of the County's sanitary sewer collection system See **Table 4.5.5**.
☑ **Sanitary sewer overflow (SSO) response**		Permit Section D.4.g requires the County to respond to, contain, and clean up all sewage that may discharge into its MS4. **Table 4.5.5** provides a summary of the SSOs and describes the actions taken by County staff to respond to, mitigate, and correct each spill. As shown, the County took measures to clean and mitigate the spills even in instances where they arose from private laterals.		

Outcome Levels 2 & 3

Table 4.5.3 – Assessment of Knowledge and Behavior for the Wastewater Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
4.5.7	Respond to and provide corrective measures for all SSOs from County wastewater facilities (T = 4 SSOs)	R_I = 4 SSOs responded to and corrected	R_A = Complete	Respond to and provide corrective measures for all SSOs from County wastewater facilities.
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.5.8	T = sweep all high priority parking facilities at least twice a month	R_I = 1 wastewater parking lot swept at least twice a month	R_A = Complete	Sweep all high priority parking facilities at least twice a month
Parking lots at wastewater facilities have been and continue to be swept at least annually and on an as needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules will be continued in FY 2012-13 based on the new prioritization (High = 2X month, Moderate = 1X month, Low = 1X year, Exempt = unpaved/unconnected lot).				

Table 4.5.4 – Overview of WPP Facility Audit Results for Wastewater Facilities

Result Type		Number
A. General Results		
Facilities Audited		8
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		1
B. WPO Corrections Cited		
67.806	General BMPs	0
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	2
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		2
Completed		2
Pending		0

Table 4.5.5 - Sanitary Sewer Overflow Events for FY 2011-12

No.	Date	Location	Description of Preventative and Corrective Measures Taken
1	10/11/2011	9364 Westhill Drive Lakeside, CA	At the Manhole in the center of the intersection of Marilla Dr. and Westhill Dr. Cleaned-up (mitigated effects of spill);Contained all or portion of spill; Restored flow; Returned all or portion of spill to sanitary sewer system
2	11/04/2011	Apple Street and Ramona Ave. Spring Valley, CA	Spill did not reach a separate storm drain. Spill flowed down gutter line, and was swept back into a manhole
3	01/30/2012	1606 Portola Ave. Spring Valley, CA	Spill did not reach a separate storm drain. Cleaned-up (mitigated effects of spill); Inspected sewer using CCTV to determine cause; Restored flow.
4	03/13/2012	2335 Alpine Boulevard, Alpine, CA	Spill did not reach a separate storm drain. Asphalt, Wood, Cardboard, dirt and other construction debris obstructed main. Cleaned-up (mitigated effects of spill); Contained all or portion of spill; Inspected sewer using CCTV to determine cause; Restored flow; Returned all or portion of spill to sanitary sewer system

4.6 Road Stations Element

4.6.1 Background

The County's implementation and assessment strategy for the road stations element is described in ***JURMP Section 6.6***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.6.2 Source Characterization

The County's Road Station facility inventory remained unchanged during FY 2011-12 (see **Attachment 4.1)**. **Table 4.6.1** summarizes these sources by watershed, threat-to-water-quality (TTWQ) priority, and provides a description of changes to the inventory that occurred during FY2011-12.

4.6.3 Best Management Practice Requirements

JURMP Section 6.6 and **WPO *Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to County road stations. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report.

4.6.4 Program Implementation

Figure 4.6 provides an overview of the major elements of the program implementation strategy for road stations during FY 2011-12. **Table 4.6.2** presents Level 1 results for FY 2011-12 targets; **Table 4.6.3** presents Level 2 and 3 results; and **Table 4.6.4** presents Level 4 source reductions. All three tables also include implementation targets for FY 2012-13. **Table 4.6.5** presents FY 2011-12 audit results for road stations. Additional documentation regarding road station parking-lot sweeping during FY 2011-12 is provided in **Table 4.6.6.**

Table 4.6.1 – Summary Information for Road Station Facilities Inventory Update

Date of Inventory Update: 07-31-12			TTWQ Priority			Watershed									
Road Stations Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
Road Stations	12	0	0	11	1	0	3	1	2	0	1	0	3	0	2
Borrow Pits	8	0	0	4	4	1	2	0	2	0	0	0	2	0	1
Leased Properties	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0
Total	**21**	**0**	**0**	**15**	**6**	**1**	**5**	**2**	**4**	**0**	**1**	**0**	**5**	**0**	**3**
Description of Changes to Inventory: No changes to the inventory for FY11-12															

Road Stations Element			
Program Implementation - Road Stations Management - DPW WPP	**Target Audiences** - Road Stations Staff - Lessees		**Sources** - Road Stations
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.6.2 for Level 1 Results)**	☑ General Concepts ☑ Specific Responsibilities **(See Table 4.6.3 for Level 2 and 3 Results)**	☑ Parking Lot Sweeping	☒ Not targeted or assessed. ☒ **(See Table 4.6.4 for Level 4 Results)**

Figure 4.6 – FY 2011-12 Program Implementation and Assessment Strategy for the Road Stations Element

Outcome Level 1

Table 4.6.2 – Program Implementation and Assessment Results for the Road Stations Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.6.1	No targeted.	R_I = None	R_A = 100% completion	No Targeted.	No substantial modifications were identified during the review of the JURMP in FY 2011-12. Modifications prior to June 2010 were compiled and used to update the JURMP on June 30, 2010. The next planned JURMP update will be during the reissuance of the Permit.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.***6 and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of road station facilities subsequent to the completion of FY 2011-12. This update is described in **Table 4.6.1.**			

Outcome Level 1

Table 4.6.2 – Program Implementation and Assessment Results for the Road Stations Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.6.2	Update TTWQ priority for County Maintained Facilities.	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	County roads' facility TTWQ priorities were accesses during FY 2011-12. A comprehensive questionnaire was distributed to Roads Crew Supervisors and facility leads to complete and return to DPW WPP for further analysis. The questionnaire accounted for pollutant generating activities, pollutants of concern, compliance history, and areas located or tributary to an ESA or 303(d) for each County maintained facility. The results of the TTWQ were incorporated in the current inventory summarized in **Table 4.6.1.**
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**.			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Tables 4.6.3** and **4.6.4**.			
☑ **Facility Self-Inspections**		***Permit Section D.3.a(7)(a)i.*** requires that all County-owned or operated road station facilities be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs.			
4.6.3	Conduct monthly self-inspections of all inventoried facilities (T = 252 inspections)	R_I = 252 inspections conducted	R_A = Complete	Conduct self-inspections monthly (T=252 inspections)	During the reporting period DPW Road Station Road Crew Supervisor's conducted monthly inspections at Road Stations, Borrow Pits, and leased properties for County operated facilities in Region 9. Standard inspection forms are used and inspection reports are generated. Corrective actions needed to remedy deficiencies are noted and implemented; previously noted deficiencies are re-inspected during subsequent inspection(s).

Outcome Level 1

Table 4.6.2 – Program Implementation and Assessment Results for the Road Stations Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			
4.6.4	Audit remaining medium priority facilities (T = 8 facilities)	R_I = 8 medium priority facilities audited	R_A = Complete	Not targeted	During FY 2012-13, the WPP will conduct audits on medium facilities that have not been audited a minimum of twice and low priority sites that have not been audited a minimum of once during the permit cycle. During FY 2011-12, 8 audits were conducted with two corrective actions required. A summary of audit results is located in Table 4.6.5.
4.6.5	Not targeted	R_I =NA	R_A = NA	Not targeted	
☑ **Surveys & tests**		Analysis for this group is located in the operations portion of **Table 4.14.4**			

Outcome Levels 2 & 3

Table 4.6.3 – Assessment of Knowledge and Behavior for the Roads Stations Element (Level 2 & 3 Outcomes)

FY 2010-11 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**..		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.6.6	T = sweep all high priority parking facilities at least twice a month	R_I = 8 road stations parking lots swept at least twice a month	R_A = Complete	Sweep all high priority parking facilities at least twice a month
4.6.7	T = sweep all moderate priority parking facilities at least once a month	R_I = 1 road station parking lot swept at least once a month	R_A = Complete	Sweep all moderate priority parking facilities at least once a month
4.6.8	T = sweep all low priority parking facilities at least once a year	R_I = 3 road stations parking lots swept at least once a year	R_A = Complete	Sweep all low priority parking facilities at least once a year
Parking lots at road station facilities have been and continue to be swept at least annually and on an as needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules continued in FY 2011-12 based on the new prioritization (High = 2X month, Moderate = 1X month, Low = 1X year, Exempt = unpaved/unconnected lot). See **Table 4.6.6** for detailed sweeping results.				

Outcome Level 4

Table 4.6.4 – Source Reductions from Road Station Parking Lots (Level 4 Outcomes)

Reductions Achieved ☑		Explanation
☑ **Reductions from Sweeping**		
4.6.9	751 CY of litter removed from parking lots	As described in the parking-lot sweeping efforts above, 751 CY of debris were removed from road station lots in the unincorporated County. See **Table 4.6.6** for additional multi-year analysis of results.

Table 4.6.5 – Overview of WPP Facility Audit Results for Road Stations

Result Type		Number
A. General Results		
Facilities Audited		8
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		2
B. WPO Corrections Cited		
67.806	General BMPs	0
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	2
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		2
Completed		2
Pending		0

Table 4.6.6 – Multi-year Comparison of Municipal Parking Lot Sweeping Results by DPW Roads Division

Road Station Sweeping	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12
Division I						
Number of Lots	6	6	6	5[6]	5	5
Miles Swept	161	146	133	119	119	131
Cubic Yards (CY) of Debris Collected	0	141	180	113	78	56
Division II						
Number of Lots	5	5	5	5	5	5
Miles Swept	613	522	527	460	507	391
Cubic Yards (CY) of Debris Collected	8	284	258	215	265	695
Combined Totals						
Number of Lots	11	11	11	10	10	10[7]
Miles Swept	774	668	660	579	626	521
Cubic Yards (CY) of Debris Collected	8	425	437	328	343	751
Ratio of CY per Mile Swept	0.01	0.63	0.66	0.56	0.55	1.44

[6] In FY 2009-10 Parking lots at the Road Facility in Jamacha and Division I Spring Valley were combined and reported as 1 parking lot. Thus, the number decreased from 6 to 5 lots.

[7] Only 10 parking lots are reported for the combined totals for Division I and II instead of the 12 total parking lots available, due to the minimal data reported for miles swept and cubic yards collected that becomes not reportable. .

4.7 Fleet Maintenance Element

4.7.1 Background

The County's implementation and assessment strategy for the fleet maintenance element is described in ***JURMP Section 6.7***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.7.2 Source Characterization

The County manages eight fleet maintenance facilities, and 19 fueling facilities within Region 9 during FY 2011-12 (see **Attachment 4.1**). **Table 4.7.1** summarizes these by watershed, threat-to-water-quality (TTWQ) priority, and provides a description of changes to the inventory that occured during FY 2011-12.

4.7.3 Best Management Practice Requirements

JURMP Section 6.7 and WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813 identify County BMP requirements applicable to County fleet maintenance facilities. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report.

4.7.4 Program Implementation

Figure 4.7 provides an overview of the major elements of the program implementation strategy for the fleet facilities during FY 2011-12. **Table 4.7.2** presents Level 1 results for FY 2011-12 targets and **Table 4.7.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. **Table 4.7.4** presents FY 2011-12 audit results for fleet facilities.

Table 4.7.1 – Summary Information for Fleet Maintenance and Fueling Facilities Inventory Update

Date of Inventory Update: 07-31-12			TTWQ Priority			Watershed									
Fleet Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
Maintenance Facilities	8	0	0	8	0	0	0	2	1	0	2	2	1	0	0
Fueling Facilities	19	0	0	13	6	0	3	3	2	0	3	2	3	1	2
Total	**27**	**0**	**0**	**21**	**6**	**0**	**3**	**5**	**3**	**0**	**5**	**4**	**4**	**1**	**2**

Description of Changes to Inventory: No changes for fiscal year 2011-12

Fleet Facilities Element			
Program Implementation - Fleet Facilities Management - DPW WPP	**Target Audiences** - Fleet Facilities Staff		**Sources** - Fleet Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.7.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.7.3 for Level 2 and 3 Results)**	☑ Parking lot sweeping	☒ Not targeted or assessed.

Figure 4.7 – FY 2011-12 Program Implementation and Assessment Strategy for the Fleet Facilities Element

Outcome Level 1

Table 4.7.2 – Program Implementation and Assessment Results for the Fleet Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.7.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.7*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of fleet maintenance facilities subsequent to the completion of FY 2011-12. This update is described in **Table 4.7.1.**			
4.7.2	Update parking lot sweeping schedule based on review of parking lot sweeping prioritization	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	Parking lots at Fleet facilities have been and continue to be swept at least annually and on an as needed basis. Minimal sweeping schedules vary by need and prioritization. Prioritization is based on presence of pavement, size, connection to the MS4, frequency of use, presence of trees/landscaping/eroding slopes, presence of fueling/maintenance, and production of significant sediment, trash, and debris.
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			

Outcome Level 1

Table 4.7.2 – Program Implementation and Assessment Results for the Fleet Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **Staff training**		See **Section 4.14.**.			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.7.3**.			
☑ **Facility self-inspections**		***Permit Section D.3.a (7) (a)i.*** requires that all County-owned or operated fleet maintenance be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs. Fleet maintenance facilities are maintained by DGS and commonly include fueling facilities. However, depending on the location, a fueling facility may be maintained and inspected by either DGS or DPW. Therefore, DPW maintained fueling facilities are reported separately from DGS maintenance and fueling facilities.			
4.7.3	DGS to conduct monthly self-inspections of all inventoried facilities (T = 216 inspections)	R_I = 216 inspections conducted	R_A = Complete	Conduct monthly self-inspections of all DGS Fleet facilities	216 inspections occurred at the 18 DGS fleet facilities monthly during FY 2011-12. The 18 DGS fleet facilities include all 8 DGS maintenance garages and 10 DGS fueling stations. DGS fleet facilities are inspected by DGS Fleet Team Leaders or Fleet Technicians and the fuel stations are inspected by the Fuel Management Specialist. Corrective actions needed to remedy deficiencies are noted in a checklist and corrected the same day. During previous years, all fleet facilities regardless of priority were self-inspected on a monthly basis. Starting in FY 2011-12, all County facilities were assessed based on the facilities' threat-to-water quality (TTWQ) and priority rating. The minimum frequency for inspections is annually for DGS maintained facilities.

Outcome Level 1

Table 4.7.2 – Program Implementation and Assessment Results for the Fleet Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.7.4	DPW to conduct monthly self-inspections of all inventoried facilities (T = 108 inspections)	R_I = 108 inspections conducted	R_A = Complete	Conduct monthly self-inspections of all DPW fueling facilities	108 self-inspections occurred at the 9 DPW fueling facilities monthly during FY 2011-12. The fueling stations that are located at DPW road stations are inspected as part of the self-inspections conducted at DPW road facilities.
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			
4.7.5	Audit half of all medium priority facilities every other year. (T = 6 facilities)	R_I = 6 medium priority facilities audited	R_A = Complete	Not targeted	During FY 2012-13, the WPP will conduct audits on medium facilities that have not been audited a minimum of twice and low priority sites that have not been audited a minimum of once during the permit cycle. During FY 11-12, six audits were conducted with no corrective actions required. A summary of audit results is located in Table 4.5.4.
4.7.6	Not targeted	NA	NA	Not targeted	
☑ **Surveys & tests**		See **Table 4.14.4**			

Outcome Levels 2 & 3

Table 4.7.3 – Assessment of Knowledge and Behavior for the Fleet Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.7.7	T = sweep all high priority parking facilities at least twice a month	R_I = 1 fleet parking lot swept at least twice a month	R_A = Complete	Sweep all high priority parking facilities at least twice a month
4.7.8	T = sweep all moderate priority parking facilities at least once a month	R_I = 5 fleet parking lot swept at least once a month	R_A = Complete	Sweep all moderate priority parking facilities at least once a month
4.7.9	T = sweep all low priority parking facilities at least once a year	R_I = 3 fleet parking lots swept at least once a year	R_A = Complete	Sweep all low priority parking facilities at least once a year
Parking lots at fleet facilities have been and continue to be swept at least annually and on an as needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules continued in FY 2011-12 based on the new prioritization (High = 2X month, Moderate = 1X month, Low = 1X year, Exempt = unpaved/unconnected lot). The currently sweeping priorities of fleet facilities are 1 High, 5 Moderate, 3 Low and 18 exempt.				

Table 4.7.4 – Overview of WPP Facility Audit Results for Fleet Maintenance and Fueling Facilities

Result Type		Number
A. General Results		
Facilities Audited		6
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		0
B. WPO Corrections Cited		
67.806	General BMPs	0
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	0
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		0
Completed		0
Pending		0

4.8 Municipal Airfields Element

4.8.1 Background

The County's implementation and assessment strategy for the Airfields Element is described in ***JURMP Section 6.8***. The County maintains and operates four municipal airports within Region 9. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.8.2 Source Characterization

Four (4) high priority County-owned airports were included in the County's inventory during FY 2011-12 (See **Attachment 4.1**). **Table 4.8.1** summarizes the airport inventory by watershed, threat-to-water quality (TTWQ) priority, and provides a description of changes to the inventory since it was last updated in September 2008. No changes in inventory or priority were made during FY2011-12.

4.8.3 Best Management Practice Requirements

JURMP Section 6.8 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to County municipal airports. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.8.4 Program Implementation

Figure 4.8 provides an overview of the major elements of the program implementation strategy for airfield facilities during FY 2011-12. **Table 4.8.2** presents Level 1 results for FY 2011-12 targets and **Table 4.8.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. **Table 4.8.4** presents FY 2011-12 audit results for Airport facilities.

Table 4.8.1 – Summary Information for Airfields Facilities Inventory Update

Date of Inventory Update: 07-29-12			TTWQ Priority			Watershed									
Airfields Facility Type	No. of Facilities	Change from Previous	High	Medium	Low	Santa Margarita (902)	San Luis Rey (903)	Carlsbad (904)	San Dieguito (905)	Peñasquitos (906)	San Diego River (907)	Pueblo (908)	Sweetwater (909)	Otay (910)	Tijuana (911)
Airport Facilities	4	0	4	0	0	0	1	1	1	0	1	0	0	0	0
Description of Changes to Inventory: No changes occurred during FY 2011-12.															

Municipal Airfields Element			
Program Implementation - DPW Airfield Facilities Management - DPW WPP	**Target Audiences** - DPW Airfield Facilities Staff - Leased Facilities Staff		**Sources** - Airfields and Leased Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ Inspections of leased facilities ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.8.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.8.3 for Level 2 and 3 Results)**	☑ Parking lot sweeping	☒ Not targeted or assessed.

Figure 4.8 – FY 2011-12 Program Implementation and Assessment Strategy for the Municipal Airfields Element

Outcome Level 1

Table 4.8.2 – Program Implementation and Assessment Results for the Municipal Airfields Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.8.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.8*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of airfields subsequent to the completion of FY 2011-12 (07-31-12). This update is described in **Table 4.8.1.**			
4.8.2	Update parking lot sweeping schedule based on review of Parking Lot Sweeping Prioritization	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	Parking lots at Airport facilities have been and continue to be swept at least annually and on an as-needed basis. Minimal sweeping schedules vary by need and prioritization. Prioritization is based on presence of pavement, size, connection to the MS4, frequency of use, presence of trees/landscaping/eroding slopes, presence of fueling/maintenance, and production of significant sediment, trash, and debris.

Outcome Level 1

Table 4.8.2 – Program Implementation and Assessment Results for the Municipal Airfields Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.8.3**.			
☑ **Facility self-inspections**		***Permit Section D.3.a(7)(a)i.*** requires that all County-owned or operated airfields be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs.			
4.8.3	Conduct self-inspections of all airports monthly during the 7 month rainy season and once during the dry season (T = 32 inspections)	R_I = 32 inspections conducted	R_A = Complete	Conduct self-inspections of all airports monthly during the 7 month rainy season and once during the dry season	County airports are inspected monthly during the wet season pursuant to General Industrial Permit requirements. Each airport conducted a minimum of monthly inspections during the rainy season and once during the dry season.
☑ **Inspections of leased facilities**		All leased facilities were inspected by DPW airport staff to verify that lessees are implementing BMPs and maintaining their sites.			
4.8.4	Inspect all leased facilities (T = 37 inspections)	R_I = 37 leased facilities inspections	R_A = Complete	Inspect all leased facilities	There were a total of 37 Airfield lessees in FY 2011-12. Number of lessees at each airport: Gillespie 12; Palomar 16; Ramona 5; Fallbrook 4.

Outcome Level 1

Table 4.8.2 – Program Implementation and Assessment Results for the Municipal Airfields Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			
4.8.5	Audit all high priority facilities (T = 4 facilities)	R_I = 4 high priority facilities audited	R_A = Complete	Audit all high priority facilities	The 4 airport facilities listed in the inventory were audited during the FY 2011-12. The purpose of these audits is to provide an independent evaluation of facility compliance and BMP effectiveness in addition to that provided through facility self-inspections. Results of the audit are provided to facility management, if deficiencies or questionable activities are observed a deadline is provided in which corrective actions must occur. All 4 airfields provided proof of corrective actions as requested as part of the audits conducted in FY 2011-12 and were found to be in substantial compliance with the County's WPO and the Permit. During FY 2012-13, the WPP intends to conduct facility audits for all high priority facilities. Stormwater Audits were conducted at all 4 airports during FY 2011-12. Corrective actions were required at 3 facilities and were completed in a timely manner. A summary of audit results is located in **Table 4.8.4**.
☑ **Surveys & tests**		See **Table 4.14.4**.			

Outcome Levels 2 & 3

Table 4.8.3 – Assessment of Knowledge and Behavior for the Municipal Airfields Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.8.6	T = sweep all high priority parking facilities at least twice a month	R_I = 3 Airport parking lots swept at least twice a month	R_A = Complete	Sweep all high priority parking facilities at least twice a month
4.8.7	T = sweep all moderate priority parking facilities at least once a month	R_I = 4 Airport parking lots swept at least once a month	R_A = Complete	Sweep all moderate priority parking facilities at least once a month
4.8.8	T = sweep all low priority parking facilities at least once a year	R_I = 7 Airport parking lots swept at least once a year	R_A = Complete	Sweep all low priority parking facilities at least once a year
Parking lots at airport facilities have been and continue to be swept at least annually and on an as needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules continued in FY 2011-12 based on the new prioritization (High = 2X month, Moderate = 1X month, Low = 1X year, Exempt = unpaved/unconnected lot).				

Table 4.8.4 – Overview of WPP Facility Audit Results for Airfields Facilities

Result Type		Number
A. General Results		
Facilities Audited		4
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		3
B. WPO Corrections Cited		
67.806	General BMPs	2
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	9
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		11
Completed		11
Pending		0

4.9 Parks and Recreational Facilities Element

4.9.1 Background

The County's implementation and assessment strategy for the parks and recreational facilities element is described in ***JURMP Section 6.9***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.9.2 Source Characterization

The County maintained 91 parks and recreation facilities located throughout the unincorporated area within Region 9 during FY 2011-12. Included among these are local and regional parks, open space preserves and an operations office (See **Attachment 4.1**). The County's park inventory was updated continuously during FY 2011-12, removing one park from the inventory during the fiscal year (see **Table 4.9.1**). Historical sites, sports parks, and community centers have been further defined within the inventory. **Table 4.9.1** summarizes these park sources by watershed, threat-to-water-quality (TTWQ) priority, and provides a description of changes to the inventory that occurred during FY 2011-12.

4.9.3 Best Management Practice Requirements

JURMP Section 6.9 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to Parks and Recreation facilities in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.9.4 Program Implementation

Figure 4.9 provides an overview of the major elements of the program implementation strategy for parks and recreational facilities during FY 2011-12. **Table 4.9.2** presents Level 1 results for FY 2011-12 targets and **Table 4.9.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. **Table 4.9.4** presents FY 2011-12 audit results for parks and recreational facilities.

Table 4.9.1 – Summary Information for Parks and Recreational Facilities Inventory Update

Date of Inventory Update: 07-31-12			TTWQ Priority			Watershed									
Park and Recreation Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
Open Space Parks	32	-1	0	15	17	1	6	5	5	0	11	0	0	2	2
Regional Parks	12	-2	1	11	0	0	1	1	2	0	5	0	1	1	1
Local Parks	30	+2	0	14	16	2	2	0	4	0	2	0	18	0	2
Sports Parks	5	0	0	5	0	0	0	0	1	0	2	0	2	0	0
Community Centers	3	0	0	3	0	0	1	0	0	0	1	0	1	0	0
Historical Sites	8	0	0	2	6	0	1	0	0	1	3	2	0	0	1
Operations Office	1	0	0	1	0	0	0	0	0	0	1	0	0	0	0
Total	**91**	**-1**	**1**	**51**	**39**	**3**	**11**	**6**	**12**	**1**	**25**	**2**	**22**	**3**	**6**

Description of Changes to Inventory: 1 facility was removed from the inventory from Local Parks category because it was placed incorrectly in this category and should be listed under leased facilities. Two Regional Parks were removed from this category and were added to the Local Parks category. 1 facility was removed from the Open Space Parks and was added to Local Parks. All changes made for the inventory were related to changes in facility type.

Parks and Recreational Facilities Element			
Program Implementation - DPR District Management - DPW WPP	**Target Audiences** - DPR Facilities Staff		**Sources** - Parks & Recreation Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.9.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.9.3 for Level 2 and 3 Results)**	☑ Parking lot sweeping	☒ Not targeted or assessed.

Figure 4.9 – FY 2011-12 Program Implementation and Assessment Strategy for the Parks and Recreational Facilities Element

Outcome Level 1

Table 4.9.2 – Program Implementation and Assessment Results for the Parks and Recreational Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.9.1	Nor Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.9*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of parks and recreational facilities subsequent to the completion of FY 2011-12 (07-31-12). This update is described in **Table 4.9.1.**			
4.9.2	Update TTWQ priority for County Maintained Facilities.	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	County park facility TTWQ priorities were accessed during FY 11-12. A comprehensive questionnaire was distributed to County Parks and Recreation leads to complete and return to DPW WPP for further analysis. The questionnaire accounted for pollutant generating activities, pollutants of concern, compliance history, and areas located or tributary to an ESA or 303(d) for each County maintained facility. The results of the TTWQ were incorporated in the current inventory summarized in **Table 4.9.1.**

Outcome Level 1

Table 4.9.2 – Program Implementation and Assessment Results for the Parks and Recreational Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.9.3**.			
☑ **Facility Self-Inspections**		***Permit Section D.3.a(7)(a)i.*** requires that all County-owned or operated parks and recreational facilities be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs.			
4.9.3	Self-inspect high priority park facilities quarterly (T = 1 facility)	R_I = 1 facility self–inspected quarterly	R_A = Complete	Self-inspect high priority park facilities quarterly	During FY 2011-12, 91 park facilities were inspected quarterly, totaling 364 self-inspections. Parks personnel conduct inspections of each facility to determine the condition of the sites, maintenance needed for the stormwater conveyance systems, and to assess the need for BMPs and pollution prevention measures.
4.9.4	Self-inspect medium priority park facilities semi-annually	R_I = 51 facilities self–inspected semi-annually	R_A = Complete	Self-inspect medium priority park facilities semi-annually	During previous years, all parks regardless of priority were self-inspected on a quarterly basis. Starting in FY 2011-12, all County facilities were assessed based on the facilities' threat-to-water quality (TTWQ) and priority rating. All parks facilities will be inspected at least once annually.
4.9.5	Self-inspect low priority park facilities annually	R_I = 39 facilities self–inspected annually	R_A = Complete	Self-inspect low priority park facilities annually	
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			

Outcome Level 1

Table 4.9.2 – Program Implementation and Assessment Results for the Parks and Recreational Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
4.9.6	Audit all high priority facilities (T = 1 facilities)	R_I = 1 high priority facility audited	R_A = Complete	Audit all high priority facilities	During FY 11-12, 20 audits were conducted and 6 facilities identified as requiring corrective action. The deficiencies were corrected in a timely manner except for 1 facility. The Tijuana River Park (TJRP) continues to have a pending status do to the trash and debris flowing into the park from the Mexico Border. During FY 2012-13, the WPP intends to conduct facility audits for all high priority solid waste facilities. Medium priority sites are audited twice during the Permit Cycle, but are not targeted to occur next fiscal year. Low priority sites are audited once during permit cycle but are not targeted to occur next fiscal year. Sites may be additionally audited on an as needed basis. A summary of audit results is located in Table 4.9.4.
4.9.7	Audit the remaining medium priority facilities (T = 10 facilities)	R_I = 19 medium priority facilities audited	R_A = Complete	Not Targeted	
4.9.8	Not targeted	R_I = NA	R_A = NA	Not Targeted	
☑ **Surveys & tests**		See **Table 4.14.4**.			

Outcome Levels 2 & 3

Table 4.9.3 – Assessment of Knowledge and Behavior for the Parks and Recreational Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.9.9	T = sweep all high priority parking facilities at least twice a month	R_I = 13 Park parking lot swept at least twice a month	R_A = Complete	Sweep all high priority parking facilities at least twice a month
4.9.10	T = sweep all moderate priority parking facilities at least once a month	R_I = 45 Park parking lot swept at least once a month	R_A = Complete	Sweep all moderate priority parking facilities at least once a month
4.9.11	T = sweep all low priority parking facilities at least once a year	R_I = 9 Park parking lots swept at least once a year	R_A = Complete	Sweep all low priority parking facilities at least once a year
Parking lots at park facilities have been and continue to be swept at least annually and on an as needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules continued in FY 2011-12 based on the new prioritization (High = 2X month, Moderate = 1X month, Low = 1X year, Exempt = unpaved/unconnected lot).				

Table 4.9.4 – Overview of WPP Facility Audit Results for Parks and Recreational Facilities

Result Type		Number
A. General Results		
Facilities Audited		20
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		6
B. WPO Corrections Cited		
67.806	General BMPs	5
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	6
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		11
Completed		10
Pending		1

4.10 Office Buildings and Other Municipal Facilities Element

4.10.1 Background

The County's implementation and assessment strategy for office buildings and other municipal facilities including household hazardous waste (HHW) is described in ***JURMP Section 6.10.*** This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.10.2 Source Characterization

A total of 74 facilities were included in the County's inventory during FY 2011-12 (See **Attachment 4.1**). **Table 4.10.1** summarizes these sources by watershed, threat-to-water-quality (TTWQ) priority, and provides a description of changes to the inventory during FY 2011-12.

4.10.3 Best Management Practice Requirements

JURMP Sections 6.10 (Office Buildings, Other, & Household Hazardous Waste) and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to County buildings. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.10.4 Program Implementation

Figure 4.10 provides an overview of the major elements of the program implementation strategy for building facilities during FY 2011-12. **Table 4.10.2** presents Level 1 results for FY 2011-12 targets and **Table 4.10.3** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. **Table 4.10.4** presents FY 2011-12 audit results for office buildings and other municipal facilities.

Table 4.10.1 – Summary Information for Office Buildings and Other Municipal Facilities Inventory Update

Date of Inventory Update: 07/31/12			TTWQ Priority			Watershed									
Office Buildings Facility Type	No. of Facilities	Change from Previous	High	Medium	Low	Santa Margarita (902)	San Luis Rey (903)	Carlsbad (904)	San Dieguito (905)	Peñasquitos (906)	San Diego River (907)	Pueblo (908)	Sweetwater (909)	Otay (910)	Tijuana (911)
Courthouses	5	0	0	4	1	0	0	0	0	0	1	4	0	0	0
Detention Facilities	5	0	2	3	0	0	0	0	0	0	1	1	0	1	2
Libraries	15	0	0	8	7	1	1	2	2	0	4	0	4	0	1
General Office Buildings	10	0	0	8	2	0	0	1	1	0	4	3	0	0	1
HHSA Facilities	20	0	1	16	3	1	0	3	1	2	7	6	0	0	0
Animal Shelters	2	0	0	2	0	0	0	1	0	0	0	0	1	0	0
Agriculture Weights and Measures	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0
Regional Operation Centers	6	0	3	3	0	0	0	1	0	0	3	2	0	0	0
Sheriff Facilities	9	0	0	8	1	1	1	1	1	1	3	0	1	0	0
Household Hazardous Waste Collection Facility	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0
Total	**74**	**0**	**7**	**52**	**15**	**3**	**2**	**9**	**6**	**3**	**23**	**16**	**7**	**1**	**4**

Description of Changes to Inventory: No changes for the inventory for FY11-12.

Office Buildings and Other Facilities Element			
Program Implementation - Office Buildings and Other Facilities Management - Maintained by DGS, DEH, COB and HHSA - DPW WPP	**Target Audiences** - Office Building and Other Facilities Staff - Lessees - Contractors		**Sources** - Office Buildings and Other Facilities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Facility self-inspections ☑ WPP facility audits ☑ Surveys & tests **(See Table 4.10.2 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.10.3 for Level 2 and 3 Results)**	☑ Parking lot sweeping	☒ Not targeted or assessed

Figure 4.10 – FY 2011-12 Program Implementation and Assessment Strategy for the Office Buildings and Other Facilities Element

Outcome Level 1

Table 4.10.2 – Program Implementation and Assessment Results for the Office Buildings and Other Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T)		Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.10.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.10*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its inventory of office buildings and other facilities subsequent to the completion of FY 2011-12 (07-31-12). This update is described in **Table 4.10.1.**			

Outcome Level 1

Table 4.10.2 – Program Implementation and Assessment Results for the Office Buildings and Other Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.10.2	Update TTWQ priority for County maintained facilities	R_I = Complete	R_A = Complete	Audited facilities will be reviewed upon inspection	County office building facility TTWQ priorities were accessed during FY 2011-12. A comprehensive questionnaire was distributed to County Offices and Buildings leads to complete and return to DPW WPP for further analysis. The questionnaire accounted for pollutant generating activities, pollutants of concern, compliance history, and areas located in or tributary to an ESA or 303(d) for each County maintained facility. The results of the TTWQ were incorporated in the current inventory summarized in **Table 4.10.1.**
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.10.3**.			
☑ **Facility self-inspections**		Although ***Permit Section D.3.a(7)(a)i.*** only requires that high priority facilities be inspected annually, the County has incorporated self-inspection requirements for all facilities covered under this program element. Inspection results are used to assess and prioritize maintenance needs.			
4.10.3	Self-inspect high priority facilities quarterly (T = 7 facilities)	R_I = 7 high priority facilities, inspected quarterly	R_A = Complete	Self-inspect high priority facilities quarterly	DGS Stormwater Action Team (SWAT) members accompany the point of contact at each site to perform inspections. Standard inspection forms are used and inspection reports generated. Corrective actions needed to remedy deficiencies are noted and implemented; previously noted

Outcome Level 1

Table 4.10.2 – Program Implementation and Assessment Results for the Office Buildings and Other Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.10.4	Self-inspect medium priority facilities bi-annually (T = 52 facilities)	R_I = 52 medium priority facilities, inspected bi-annually	R_A = Complete	Self-inspect medium priority facilities semi-annually	deficiencies are re-inspected during subsequent inspection(s). DGS monitored a total of 74 facilities in FY 2011-12 and completed a total of 287 inspections, which far exceeded the 147 required inspections. DGS spent in excess of $290,360 in labor and materials for stormwater compliance resulting in more than 85 productive man weeks. DGS proactively replaced conventional wattles and are moving towards walnut type waddles for durability and effectiveness. Additionally, DGS conducted multiple repairs of sprinkler systems through county sites to accommodate stormwater regulations
4.10.5	Self-inspect low priority facilities annually (T = 15 facilities)	R_I = 15 low priority facilities, inspected bi-annually	R_A = Complete	Self-inspect low priority facilities annually	
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			
4.10.6	Audit all high priority facilities (T = 7 facilities)	R_I = 7 high priority facilities audited	R_A = Complete	Audit all high priority facilities	A total of thirty-four 34 audits were conducted of Office Buildings and Other Facilities (including HHW) by DPW WPP during FY 2011-12. The purpose of these audits is to provide an independent evaluation of facility compliance and BMP effectiveness in addition to that provided through facility self-inspections. At the end of FY 2011-12, one high priority facility (San Pasqual
4.10.7	Audit at least 50% of medium priority facilities (T = 26 facilities)	R_I = 26 medium priority facilities audited	R_A = Complete	Audit the remaining medium priority facilities	

Outcome Level 1

Table 4.10.2 – Program Implementation and Assessment Results for the Office Buildings and Other Facilities Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.10.8	Audit remaining low priority sites	R_I = 1 low priority facility audited	R_A = Complete	Not targeted	Academy) had not completed corrective actions identified during the stormwater audit, but made progress toward compliance, facility send documentation from contractor timeline for the completion of the correction. The pending corrective actions were completed at the beginning of FY12-13. During FY 2012-13, the County intends to conduct facility audits for all high priority facilities, as well as selected medium priority facilities (medium priority sites are audited at least twice per permit cycle), low priority facilities will not be targeted. A summary of audit results are located in **Table 4.10.4**.
☑ **Surveys & tests**		See **Table 4.14.4**			

Outcome Levels 2 & 3

Table 4.10.3 – Assessment of Knowledge and Behavior for the Office Buildings and Other Facilities Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Parking Lot Sweeping**		Sweeping is considered the most direct and effective means of eliminating debris from County maintained parking lots. ***Permit Section D.3.a(5)*** establishes minimum sweeping frequencies for parking lots. Sweeping results are reported below.		
4.10.9	T = Sweep all DGS parking facilities based on lot priority	R_I = all parking lots at office buildings and other facilities have been swept according to lot priority	R_A = Complete	Sweep all DGS parking facilities based on lot priority
Parking lots at building facilities have been and continue to be swept at least annually and regularly on an as-needed basis. A parking lot sweeping schedule was updated at the end of FY 2010-11 based on review of the "Parking Lot Sweeping Prioritization" flow-chart. Sweeping schedules continued during FY2011-12 based on the new prioritization (Frequent = 2X month, Regular = 1X month, Minimal = 1X year, Exempt = unpaved/unconnected lot). The currently sweeping priority of Office Building facilities are 5 Frequent, 16 regular, 50 minimal and 4 exempt.				

Table 4.10.4 – Overview of WPP Facility Audit Results for Office Buildings and Other Facilities

Result Type		Number
A. General Results		
Facilities Audited		34
Facilities Cited for WPO Deficiencies (Section 67.804 Discharge Prohibitions)		14
B. WPO Corrections Cited		
67.806	General BMPs	6
67.808 / 67.809	Additional Minimum BMP Requirements for Business / Municipal Activities	28
67.813	Maintenance of BMPs	0
67.814	Inspection / Sampling	0
C. Corrective Actions		
Requested		34
Completed		33
Pending		1

4.11 Pesticides, Herbicides, and Fertilizer Management Element

4.11.1 Background

The County's implementation and assessment strategy for pesticides, herbicides, and fertilizer management element is described in ***JURMP Section 6.11***. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.11.2 Source Characterization

The County Department of Agriculture, Weights and Measures (AWM) applies herbicides to control weeds along County-maintained roads, County airports, closed landfills and water pollution control facilities. Pesticides are also applied at County-owned and operated facilities such as office buildings, courts, jails, schools, and social services sites. The department conducted 2,276 pesticide and herbicide applications during FY 2011-12. **Attachment 4.3** summarizes the quantity of each pesticide/herbicide applied, presents detailed pesticide and herbicide usage records for County departments and facilities. Staff also continued to integrate innovative pest management strategies and less-toxic pesticides into their pest management activities.

4.11.3 Best Management Practice Requirements

JURMP Section 6.11 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to pesticides, herbicides, and fertilizer management for municipal facilities in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report. Modifications planned as a result of these reviews are listed at the end of this section.

4.11.4 Program Implementation

Figure 4.11 provides an overview of the major elements of the program implementation strategy for these facilities during FY 2011-12. **Table 4.11.1** presents Level 1 results for FY 2011-12 targets and **Table 4.11.2** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13. Additional AWM BMP documentation is presented in **Table 4.11.3**.

Pesticides, Herbicides, and Fertilizer Management Element			
Program Implementation - Pesticides, Herbicides, & Fertilizer Management - DPW WPP	**Target Audiences** - Pesticides, Herbicides, & Fertilizer Management Staff		**Sources** - Pesticides, Herbicides, & Fertilizer Management
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training **Feedback Activities** ☑ Surveys & tests ☑ Special investigations **(See Table 4.11.1 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.11.2 for Level 2 and 3 Results)**	☑ Erosion prevention ☑ Pesticide and herbicide use reduction	☒ Not targeted or assessed

Figure 4.11 – FY 2011-12Program Implementation and Assessment Strategy for the Pesticides, Herbicides, and Fertilizer Management Element

Outcome Level 1

Table 4.11.1 – Program Implementation and Assessment Results for the Pesticides, Herbicides, and Fertilizer Management Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary. See **Table 4.15.1** for an updated list and schedule of modifications.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.11.1	Not Targeted	R_I = N/A	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.11*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, source inventories are reviewed and updated at least annually to ensure that they are current and complete, and that threat-to-water-quality prioritizations are correct. The County updated its pesticides and herbicides inventory subsequent to the completion of FY 2011-12 (07-28-12). This update is described in **Attachment 4.3.**			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Table 4.11.2**.			
☑ **Surveys & tests**		See **Table 4.14.4**			

Outcome Levels 2 & 3

Table 4.11.2 – Assessment of Knowledge and Behavior for the Pesticides, Herbicides, and Fertilizer Management Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness				
☑ **Knowledge of general concepts and specific responsibilities**		See **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation				
☑ **Erosion prevention**		AWM works with DPW staff to help reduce and prevent soil erosion at County landfills.		
4.11.2	Protect slopes from erosion (T = confirmation)	R_{I+A} = 25 acres of closed landfills re-vegetated (confirmation)		Protect slopes from erosion
4.11.3	Propagate or maintain vegetation to prevent erosion (T = confirmation)	R_{I+A} = 3 acres of land was fertilized due to poor regeneration rates (confirmation)		Propagate or maintain vegetation to prevent erosion
4.11.4	Consider the use of non-chemical means prior to resorting to pesticide or herbicide use (T = confirmation)	R_{I+A} = application of less-toxic chemicals and use of mechanical controls (confirmation)		Non identified

Outcome Levels 2 & 3

Table 4.11.2 – Assessment of Knowledge and Behavior for the Pesticides, Herbicides, and Fertilizer Management Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎

The IPC program continued their activities in support of San Diego County's solid waste / landfill program to satisfy stormwater regulation to prevent soil erosion. The AWM IPC conducted re-vegetation activities at these inactive and closed landfills throughout the County. Initial re-vegetation activities included the establishment of fast-growing, soil-building erosion control grasses and forb species. Following the successful establishment of these species, additional adaptive species, including native plant material, were seeded at the sites. Today, AWM uses a mixture of plants that are adapted to the various soil types in the San Diego region which demonstrate an ability to grow well during the winter months, provide good cover year-round, and produce aesthetically pleasing colors in the late spring. Appropriate BMPs to manage sediment runoff, including weed free mulch, weed free straw, straw waddles and straw mats, have also been deployed as necessary.

Additional seed mixes and fertilizer were spread as touch up activities on landfill areas that showed poor plant cover regeneration and/or poor fertility levels. Mowing was conducted during the spring and early summer of 2011 to reduce wildfire hazard conditions and create a dry mulch layer to protect the sites slopes against erosion and run-off during the upcoming rainy season.

The IPC program continues to integrate innovative strategies to use less toxic chemicals mixtures that have greater efficacy to reduce the number of re-treatments and therefore the amount of chemicals used. In addition, the staff supplements the use of herbicides with the use of mechanical controls, such as manually removing weeds to help decrease the number of chemical applications when possible. The application of pesticides, herbicides and fertilizers are conducted in a way to prevent any contamination of water ways. See **Table 4.11.3.**

☑ **Pesticide and herbicide use reduction**		AWM employs pollution prevention practices during chemical applications to reduce the amount of chemicals released into the environment.		
4.11.5	Reduce surface areas treated	R_I = 5566 acres were treated with pesticides/herbicides	R_A = Complete, 4.2% less surface area treated from FY 2010-11 (242 acre decrease)	None Identified
4.11.6	Reduce amount of pesticides used	R_I = 1459 gallons of pesticides/ herbicides applied	R_A = 12% increase of gallons applied from FY 2010-11 (161 gallon increase)	None Identified
4.11.7	Reduce total number of applications	R_I = 2276 total applications	R_A = 3.4% increase of applications from FY 2010-12 (75 application increased)	None Identified

Outcome Levels 2 & 3

Table 4.11.2 – Assessment of Knowledge and Behavior for the Pesticides, Herbicides, and Fertilizer Management Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
4.11.8	N/A	N/A	N/A	Increase the use of manual removal of invasive weeds at 5 infested sites currently treated with herbicides
4.11.9	N/A	N/A	N/A	Incorporate stormwater awareness training at AMW's Annual IPM Coordinators Training
4.11.10	N/A	N/A	N/A	Increase annual Pesticide self-compliance inspections to quarterly schedule

AWM decreased the amount of area in which they applied pesticides/herbicides during FY 2011-12 by approximately 4.2%, but increased the total amount of pesticide applied by 12%. The total number of applications also was increased by 3.4% (75 more applications). Increases in the amount of pesticides used (4.11.6) and number of applications (4.11.7) was due to AWM attaining an American Recovery and Reinvestment Act Grant which enabled AWM to employ 2 additional seasonal staff for 6 months to perform work on eradication of invasive weeds in the County. Amount of pesticide use does not include baits. See **Attachment 4.3** for detailed information on pesticide/herbicide usage**.**

Pollution prevention practices are employed during chemical applications. The only residuals generated are from spills and injection systems (truck sprayers) flushing. These residuals are always disposed properly. In addition, whenever possible, weeds or pests are manually removed to reduce the use of chemicals.

4.12 Non-emergency Fire Fighting and Related Activities Element

4.12.1 Background

The County's implementation and assessment strategy for non-emergency fire fighting activities element is described in ***JURMP Section 6.12.*** This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.12.2 Source Characterization

A number of local, state, and federal agencies and volunteers are responsible for fire and emergency services within the County. The County owns several facilities within County Service Areas and they are operated under contract with the County by Volunteer Departments. The County performs outreach to all 28 identified fire departments and districts and three fire station leased facilities within the unincorporated County in Region 9.

4.12.3 Best Management Practice Requirements

JURMP Section 6.12 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to County Non-Emergency Fire Fighting Activities. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report.

4.12.4 Program Implementation

Figure 4.12 provides an overview of the major elements of the program implementation strategy for non-emergency fire fighting activities during FY 2011-12. **Table 4.12.1** presents Level 1 results for FY 2011-12 targets and **Table 4.12.2** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13

Table 4.12.1 – Summary Information for leased facilities on County property

Date of Inventory Update: 07-31-12			TTWQ Priority			Watershed									
Leased Facility Type	**No. of Facilities**	**Change from Previous**	**High**	**Medium**	**Low**	**Santa Margarita (902)**	**San Luis Rey (903)**	**Carlsbad (904)**	**San Dieguito (905)**	**Peñasquitos (906)**	**San Diego River (907)**	**Pueblo (908)**	**Sweetwater (909)**	**Otay (910)**	**Tijuana (911)**
Fire Stations	3	0	0	0	3	0	0	0	2	0	0	0	0	0	1
Total	**3**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**1**
Description of Changes to Inventory: No changes to the inventory for FY2011-12.															

Non-Emergency Fire Fighting Element			
Program Implementation - Fire Fighting Management - DPW WPP	**Target Audiences** - Fire Fighting Staff		**Sources** - Non-Emergency Fire Fighting Activities
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates **Facilitation Activities** ☑ Staff training ☑ Education and outreach **Feedback Activities** ☑ Surveys & tests ☑ Special investigations **(See Table 4.12.1 for Level 1 Results)**	☒ Not targeted or assessed **(See Table 4.12.2 for Level 2 Results)**	☒ Not targeted or assessed	☒ Not targeted or assessed

Figure 4.12 – FY 2011-12 Program Implementation and Assessment Strategy for the Non-Emergency Fire Fighting Element

Outcome Level 1

Table 4.12.2 – Program Implementation and Assessment Results for the Non-Emergency Fire Fighting Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.12.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12. Modifications prior to June 2010 were compiled and used to update the JURMP on June 30, 2010. The next planned JURMP update will be during the reissuance of the Permit.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.12*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for this element are described below.			
☑ **Staff training**		See **Section 4.14.**			
☑ **Education and outreach**		During FY 2011-12, DPW WPP provided stormwater outreach materials to fire stations to encourage non-emergency fire fighting pollution prevention practices.			

Outcome Level 1

Table 4.12.2 – Program Implementation and Assessment Results for the Non-Emergency Fire Fighting Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.12.2	Distribute fact sheets or other outreach materials for non-emergency fire fighting activities (T = completion)	R_I = distribution of outreach materials for Fire Departments	R_A = Complete	Distribute outreach materials for non-emergency fire fighting activities	During FY 2011-12 outreach materials were distributed among fire departments within the unincorporated County in Region 9.
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Tables 4.12.2**.			
☑ **Facility Self-Inspections**		Permit Section D.3.a (7)(a) ix requires that fire departments leased on County property be inspected at least annually. Inspection results are used to assess and prioritize maintenance needs.			
4.12.3	Self-inspections of all County leased fire stations annually (T= 3 facilities)	R_I = 3 facilities inspected	R_A = Complete	Self-inspections of all County leased fire stations annually	During FY 2011-12, one County leased fire station was self-inspected monthly and the other two were inspected once. Starting in FY 2012-13, all County facilities will be inspected annually.
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the facility self-inspections described above.			

Outcome Level 1

Table 4.12.2 – Program Implementation and Assessment Results for the Non-Emergency Fire Fighting Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.9.6	Audit remaining facilities not conducted in previous FY (T = 1)	R_I = 1 facility audited	R_A = Complete	Not targeted	One audit of County leased fire stations was conducted in FY 2011-12. DPW WPP identified corrective actions at the facility, which were corrected in a timely manner. All leased fire stations have been categorized as low priority and have been audited once during the permit cycle. These facilities are not targeted to occur next fiscal year.
☑ **Surveys & tests**		See **Table 4.14.4**			

Outcome Level 2

Table 4.12.3 – Assessment of Knowledge for the Non-Emergency Fire Fighting Element (Level 2 Outcomes)

FY 2011-12 Targets ◎	Implementation Result ☑	Assessment Result ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness			
☑ **Knowledge of general concepts and specific responsibilities**	See **Table 4.14.4**.		

4.13 Special Events Element

4.13.1 Background

JURMP Section 6.13 establishes a programmatic framework to minimize the impact of discharges from special events occurring in the unincorporated County. Community Event Permits (CEP) and other special events permits are required by the County and are implemented by the associated department. This annual report section describes the programs and activities conducted by the County to implement this element during FY 2011-12.

4.13.2 Source Characterization

A total of 317 event permits (161 CEPs and 156 DPW-Road permits) were issued by the County during FY 2011-12 (see **Attachment 4.2.1 and 4.2.2**). Special events do not have fixed locations and may occur sporadically. Pollutants most commonly associated with special events are trash and litter. Special Events "that are expected to generate significant trash and litter" are specifically addressed in the Permit as requiring BMPs to prevent stormwater discharges. Thus, trash and litter are removed by the event coordinator at the conclusion of the event, as detailed in the event clean-up plan. Should the clean-up plan not be implemented as approved, the event organizer/manager may forfeit their security deposit and may receive additional oversight and requirements on any future events.

4.13.3 Best Management Practice Requirements

JURMP Section 6.13 and ***WPO Sections 67.801 - 67.806, 67.808 - 67.810, and 67.813*** identify County BMP requirements applicable to Special Events in the unincorporated County. These documents are reviewed for necessary updates or modifications during each fiscal year and during the development of this annual report.

4.13.4 Program Implementation

Figure 4.13 provides an overview of the major elements of the program implementation strategy for special events during FY 2011-12. **Table 4.13.1** presents Level 1 results for FY 2011-12 targets and **Table 4.13.2** presents Level 2 and 3 results. Both tables also include implementation targets for FY 2012-13.

Special Events Element			
Program Implementation - Special Event Management - DPW WPP	**Target Audiences** - Event Coordinators/Organizers and Managers and Volunteers		**Sources**
OUTCOME LEVEL 1 **Stormwater Program Activities**	**OUTCOME LEVEL 2** **Knowledge & Awareness**	**OUTCOME LEVEL 3** **Behaviors**	**OUTCOME LEVEL 4** **Source Reductions**
Program Administration ☑ Program reviews & updates ☑ Source inventory updates **Facilitation Activities** ☑ Staff training ☑ Event permitting ☑ Education & outreach to event applicants **Feedback Activities** ☑ Post-event inspections ☑ Surveys & tests **(See Table 4.13.1 for Level 1 Results)**	☑ General concepts ☑ Specific responsibilities **(See Table 4.13.2 for Level 2 and 3 Results)**	☑ BMP implementation during events	☒ Not targeted or assessed

Figure 4.13 – FY 2011-12 Program Implementation and Assessment Strategy for the Special Events Element

Outcome Level 1

Table 4.13.1 – Program Implementation and Assessment Results for the Special Events Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
Program Administration		A variety of administrative activities are necessary to support the operation and management of this element of the County's stormwater program. These are described below.			
☑ **Program reviews & updates**		Throughout each fiscal year, and during year-end program reviews, County staff provides a thorough review of all elements of its JURMP and ancillary program materials to determine whether modifications are necessary.			
Completion of identified program modifications		The status of program modifications identified in last year's JURMP Annual Report is described below.			
4.13.1	Not Targeted	R_I = None	R_A = Complete	Not Targeted	No substantial modifications were identified during the review of the JURMP in FY 2011-12.
Identification of additional needed program modifications		(R_{I+A} = completion). An annual review of ***JURMP Section 6.13*** and other ancillary program documentation was completed. A comprehensive review was performed during the development of this JURMP Annual Report. Due to the recent JURMP update in 2010, no additional modifications are necessary at this time.			
☑ **Source inventory updates** (T = completion)		(R_{I+A} = completion). In accordance with ***Permit Section D.3.a.(1)***, the County updated its inventory of special events subsequent to the completion of FY 2011-12. The updated list of past events is available in **Attachment 4.2.**			
Facilitation Activities		Facilitation activities are those which assist, encourage, or require changes in the knowledge or behaviors of the individuals and populations to which program activities are directed. Facilitation results for applicable staff are described below.			
☑ **Staff training**		See **Section 4.14**			
☑ **Event permitting**		Event permits are provided by different County departments depending on event requirements and departmental responsibility.			

Outcome Level 1

Table 4.13.1 – Program Implementation and Assessment Results for the Special Events Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.13.2	Not targeted	R_I = 161 CEPs issued by DEH	Not assessed	Not targeted	CEPs are issued to all non-profit organizations who conduct a special event in the unincorporated area of the County. Last year 143 CEPs were issued. This year the County issued 161 CEPs; 18 more than last year. See **Attachments 4.2.1** for the CEP inventory issued in FY 2011-12**.** DPW-Roads issue a special event permit if the event requires a road closure. If the event host is a non-profit organization then they are required to obtain both CEP and DPW-Roads permits. If the event host is not a non-profit organization then they do not obtain a CEP permit. Since both groups issue a separate permit, some of the events found within DPW-Roads permits inventory may also be found within the CEP permits inventory. Last year 154 DPW-Roads permits were issued. This year the County issued 156 DPW-Roads permits; 2 more than last year. See **Attachments 4.2.2** for the Special Event Road Permit inventory issued in FY 2011-12**.** The County continues to improve upon its stormwater program and implementation of post-event inspections for the special events permit process. The County is in the process of converting to a new database system and will attempt to implement a more effective method of tracking special events. All County departments involved in the process are collaborating to determine the most effective method for post-event inspections and tracking.
4.13.3	Not targeted	R_I = 156 permits issued from DPW-Road Special Events	Not assessed	Not targeted	
☑ **Education and outreach to event applicants**		DPW WPP will provide stormwater outreach materials to event coordinators to encourage the proper use of BMPs and pollution prevention practices.			

Outcome Level 1

Table 4.13.1 – Program Implementation and Assessment Results for the Special Events Element (Level 1 Outcomes)

FY 2011-12 Targets (T) ◎		Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎	Explanation
4.13.4	Not Targeted	R_I = None	R_A = Not Complete	Distribution of stormwater educational materials for Event Coordinators	During FY 2012-13 educational materials will be distributed to event coordinators upon submittal of application for permit.
Feedback Activities		Feedback Activities are conducted to determine whether and to what degree targeted changes are occurring in targeted staff. The implementation of feedback activities for this element is described below. Results of feedback obtained are provided in **Tables 4.13.2**.			
☑ **Post-Event Inspections**		Post-event inspections verify event clean-up. Currently post-event clean-up and inspections are a condition of the event permit and are required of event coordinators. However, road crews monitor areas and report areas to be cleaned if poor post-event clean-up is identified.			
☑ **WPP facility audits**		Audits conducted by DPW WPP staff provide an important verification that BMPs are being implemented and that facilities are maintaining regulatory compliance. Audits are conducted independently of the post-event inspections described above.			
4.13.5	Audit identified high priority events (T = 3 events)	R_I = 3 random high priority post-event audits	R_A = Complete	Audit high priority events at random	Three post-event audits were conducted by DPW WPP during FY 2011-12. The purpose of these audits is to provide an independent evaluation of event compliance and BMP effectiveness in addition to that provided through post-event self-inspections. Audits were performed the Monday morning following the event (events typically occur on weekends during non-business hours). All three post-event audits were found to be in compliance and no trash or debris identified from the events.
☑ **Surveys & tests**		See **Table 4.14.4**			

Outcome Levels 2 & 3

Table 4.13.2 – Assessment of Knowledge and Behavior for the Special Events Element (Level 2 & 3 Outcomes)

FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Outcome Level 2: Knowledge and Awareness			
☑ **Knowledge of general concepts and specific responsibilities**	Analysis of survey results is reported in **Table 4.14.4**.		
Outcome Level 3: Behaviors and BMP Implementation			
☑ **BMP implementation during events**	Through the permitting process, BMPs are required to be deployed during and after special events. The County continues to improve upon its stormwater program and implementation of BMP requirements at each special event. In FY 2011-12, County departments involved in the permit process worked together to determine the most effective method for post-event inspections and compliance tracking.		

4.14 Municipal Employee Training Element

During FY 2011-12, the County updated and provided two types of stormwater education to employees: Stormwater Awareness and Stormwater Implementation. As fully defined in the ***JURMP Section 10.2***, these two training programs are based on staff stormwater responsibilities. Every year target training audiences are reassessed and assignments are based on staff's current responsibilities and prior year training received. The primary training methods utilized are computer based on-line interactive tutorials or power-point presentations distributed through the County's Learning Management System (LMS) as well as interactive classroom style trainings. Pre- and Post-training quizzes were provided to County staff to assess changes in stormwater knowledge and awareness, as indicated throughout the Municipal training sub-sections. These training results as well as County Outreach results for FY 2011-12, are summarized in **Table 4.14.1** and presented in detail in **Table 4.14.2** through **Table 4.14.4**. Survey results for FY 2011-12 are summarized in **Table 4.14.5**.

Short training videos which cover very specific stormwater BMP information were created in FY 2010-11 for the County's municipal field staff. These "How-To-Videos" are called Stormwater Strategies and are offered as additional, non-mandatory focused training for field staff that want to learn more specialized BMP information. During FY 2011-12, "Erosion and Sediment Control" and "Housekeeping" were posted to YouTube for municipal staff to view. The other two videos, "How to Install Fiber Rolls" and "How to Protect Stormdrains," were posted in FY 2010-11 and were offered as optional training in FY 2011-12.

Outcome Level 1

Table 4.14.1 – Program Implementation and Assessment Results for the Municipal Staff Training Element (Level 1 Outcomes)

FY 2011-12 Targets (T)	Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Outreach to County Employees				
T = provide stormwater outreach to 3,400 County employees	R_I = an estimated 13,418 County employees reached (12,446 via email and news articles, 972 via new employee orientation)	R_A = Complete	Provide stormwater outreach to 3,400 County employees (T = 3,400)	County News featured an article "New Spin: Pest Identifier Wheel" to introduce a new integrated pest management (IPM) identification tool developed by the UC Cooperative Extension. The County helped to fund the development of the tool, which will help residents identify insect pests and potentially reduce improper use of pesticide. The article published in July, 2011, will help County employees know where to request the tool. Proper identification of pests will help to reduce pesticide use and potentially reduce pesticides in urban runoff. County news is shared by e-mail to over 12,446 County employees.
				County News Center published an article titled "Protecting Our Waterways" on February 6, 2012. The article reminded employees to be aware of common sources of urban runoff and simple options to prevent the sources around home and work. The article concluded with links to videos including how to install sandbags, how to keep our watershed clean and protecting storm drains. County News Center information is distributed through the County Intranet home page.
				Watershed awareness was promoted through distribution of 2,500 Think Blue San Diego Region calendars to County employees across 16 departments, from December 2011 to February 2012. Calendars have cartoons and messages that encourage good behaviors to common polluting behaviors each month. All newly hired County employees attend new employee orientation (NEO) within the first month of starting work with the County. During these orientations, a video titled "Clean Water & You" is shown and educational stormwater materials are made available.

Outcome Level 1

Table 4.14.1 – Program Implementation and Assessment Results for the Municipal Staff Training Element (Level 1 Outcomes)

FY 2011-12 Targets (T)	Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Staff Training				
Awareness Training	In FY 2011-12 the awareness training element was updated to include elements from the previous awareness and administrators trainings. This new, streamlined, training element targets two audiences. The first is the County employees that spend a significant amount of time outdoors due to out-of-office field activities, and therefore have the opportunity to observe and refer potential stormwater pollution. The second audience is staff with planning, development, administration, reporting or assessment responsibilities related to any program or activity described in the County's JURMP. The training objective is to educate staff to recognize potential stormwater violations and report them. The awareness training was administered primarily through the County's LMS. See **Table 4.14.2** for more detailed results.			
T = provide awareness training to all targeted County employees (1,859)	R_I = 1,300 employees received training	R_A = 70%	Provide awareness training to all targeted County employees	1,300 County employees took the Stormwater Awareness Tutorial. Although this interactive stormwater awareness tutorial is directed to a specific audience, it is also available through the County's LMS to any employee who desires to take the training. Those who desire a basic knowledge of stormwater pollution and want to participate in the reporting of stormwater violations are encouraged to view the tutorial.
Implementers	The Implementers training targets employees with direct stormwater implementation responsibilities. Program implementation includes those employees with any of the responsibilities described throughout the County's JURMP. Currently three implementer core training modules are assigned depending on staff's job responsibilities: planning, construction/SWPPP, and operations. See **Table 4.14.3** for more detailed results.			
Planning Implementers	In FY 2011-12 the planning implementer's training module was administered via the County's LMS. In FY 2011-12 the planning implementer's training module was updated to include the new HMP requirements and the County's newly adopted SUSMP.			

Outcome Level 1

Table 4.14.1 – Program Implementation and Assessment Results for the Municipal Staff Training Element (Level 1 Outcomes)

FY 2011-12 Targets (T)	Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
T = provide planning implementers training to all targeted County employees (189)	R_I = 189 employees received training	R_A = 100%	Provide implementers training to all targeted County employees	189 County employees with Project Planning responsibilities took the planning implementers' training. The training is available through the County's LMS to any employee who desires to take the training.
Construction/SWPPP Implementers	In FY 2011-12 the construction/SWPPP training was administered as a classroom training to all staff with construction/SWPPP job responsibilities. The training occurred in September 2011, before the start of the rainy season .			
T = provide implementers training to all targeted County employees (91)	R_I = 91 employees received training	R_A = 100%	Provide implementers training to all targeted County employees	91 County employees with Construction / SWPPP responsibilities took the Construction implementers' training.
Operations Implementers	The municipal implementer's training module focuses on stormwater BMPs and information specific to County operational activities at all general municipal facilities, and provides content that encourage positive changes in attitudes and behaviors regarding stormwater pollution prevention at municipal facilities. It increases the knowledge and understanding of the impacts of urban runoff, general concepts of urban runoff management, and staff responsibilities. This module was administered to municipal operations staff through the County LMS system.			
T = provide implementers training to all targeted County employees (540)	R_I = 536 employees received training	R_A = 99%	Provide implementers training to all targeted County employees	536 County employees with Municipal Facility operations responsibilities took the Implementers' trainings. The training is available through the County's LMS to any employee who desires to take the training.

Outcome Level 1

Table 4.14.1 – Program Implementation and Assessment Results for the Municipal Staff Training Element (Level 1 Outcomes)

FY 2011-12 Targets (T)	Implementation Result (R_I)	Assessment Result (R_A)	Next Fiscal Year Targets	Explanation
Supplemental Training	Supplemental training is any stormwater training beyond the required awareness, administers or implementer's training which is provided to employees when any significant programmatic changes occur such as Permit or Ordinance revisions or to enhance employee's skill set or ability to carry out stormwater responsibilities. Two types of supplemental trainings were offered in FY 2010-11. Various classroom trainings were offered to staff with planning responsibilities to enhance their skill set and to train them on new programmatic changes. How-to-videos, called Stormwater Strategies were offered as supplemental, non-mandatory training on various different stormwater BMP topics. These videos were offered via a video posted on the County's YouTube channel.			
Classroom Trainings	During the FY 2011-12, the County offered additional planning trainings to employees as supplemental to the standard implementer's training modules. These trainings were held in classrooms and topic specific. 12 employees receive training on an overview of hydromodification, 20 employees received hands-on training of the SDHM sizing tool program for HMP, and 10 employees received training on the SCCWRP hydromodification screening tool for channel susceptibility (all day training including lecture and field work).			
Not Targeted	R_I = 42 employees received training	Not assessed	Not targeted	42 County employees received supplemental training.
Stormwater Strategies How-To-Videos	How-To-Videos are short videos posted on YouTube and offered to municipal staff for additional, focused training on stormwater strategies. These trainings are not mandatory and offered to municipal staff to enhance their skill set in specific areas relating to stormwater BMPs.			
Distribute how two videos (T = 2)	R_I = 4 videos distributed (1,185 views on YouTube)	R_A = Complete	Not targeted	In FY 2011-12 two videos, "Erosion and Sediment Control BMPs" and "Housekeeping" were distributed for viewing on YouTube. Two additional videos, "How to Install Fiber Rolls," and "How to Protect Stormdrains" were distributed in FY2010-11 and were offered again in FY2011-12. E-mails were sent out to County employees informing them of the videos. "How to Install Fiber Rolls" had a total of 202 views, "How to Protect Stormdrains" had a total of 174 views, "Erosion and Sediment Control BMPs" had 712 views, and :housekeeping" had 97 views on YouTube. Some hits represent non-County employees.

Table 4.14.2 – Stormwater Awareness Training Results by Department

Employees Needing Training	Employees Trained	% Completion
Air Pollution Control District		
62	62	100%
Agriculture, Weights and Measures		
127	127	100%
General Services		
23	23	100%
Environmental Health		
170	170	100%
Parks and Recreation		
19	19	100%
Public Works		
118	118	100%
Sheriff		
1,340	781	58%
Combined Total		
1,859	**1,300**	**70%**

Table 4.14.3 – Stormwater Implementers Training Results by Department and Subject Area

Employees Needing Training	Employees Trained	% Completion
Municipal Facilities and Operations	536 County employees with Operation responsibilities out of 540 targeted took the Stormwater Operations Implementers training.	
Environmental Health		
25	25	100%
General Services		
188	188	100%
Parks and Recreation		
111	110	99%
Public Works		
216	213	99%
Project Planning	189 County employees with Project Planning responsibilities took the Stormwater Planning Implementers training this fiscal year.	
General Services		
19	19	100%
Parks and Recreation		
5	5	100%
Planning and Land Use		
93	93	100%
Public Works		
72	72	100%

Construction/SWPPP	91 County employees with Construction and SWPPP responsibilities out of 91 targeted took the Stormwater Construction Implementers training this fiscal year.	
Parks and Recreation		
19	20	100%
General Services		
23	23	100%
Public Works		
48	48	100%
Combined Total		
820	**816**	**99.5%**

Outcome Level 2

Table 4.14.4 – Municipal Training Element: Knowledge and Awareness - Quiz Results (Level 2 Outcomes)

FY 2011-12 Targets (T) ◎	Implementation Result (R_I) ☑	Assessment Result (R_A) ▦	Next Fiscal Year Targets ◎
Beginning in FY 2008-09, quizzes were incorporated before and after training as a means of evaluating whether changes in knowledge are being retained over time. The County's initial focus was on evaluating staff's knowledge of general concepts and principles (e.g., What is an Environmentally Sensitive Area?). The foremost objective of County training programs is to ensure that staff understands and implements their specific stormwater-related job responsibilities. In FY 2011-12 surveying was continued to verify that a sufficient knowledge base has been established and to provide feedback on specific training needs.			
Awareness Training Quizzes			
T = demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels (68% pass rate)	R_I = post-presentation pass rate of 84%	R_A = post-presentation increases in knowledge successfully achieved (increased by 16%)	Demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels
Implementers Training Quizzes (Operations)			
T = demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels (76% pass rate)	R_I = post-presentation pass rate of 87%	R_A = post-presentation increases in knowledge successfully achieved (increased by 11%)	Demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels
Implementers Training Quizzes (Project Planning)			
T = demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels (73% pass rate)	R_I = post-presentation pass rate of 90%	R_A = post-presentation increases in knowledge successfully achieved (increased by 17%)	Demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels
Implementers Training Quizzes (Construction/SWPPP)			
T = demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels (78% pass rate)	R_I = post-presentation pass rate of 84%	R_A = post-presentation increases in knowledge successfully achieved (increased by 6%)	Demonstrate a post-presentation increase in employees' knowledge over pre-presentation levels

Table 4.14.5 – Departmental Stormwater Training Summary[8]

	Awareness		Implementers						Supplemental	
Dept	**Target**	**Taken**	**Operations-Target**	**Operations - Taken**	**Planning - Target**	**Planning - Taken**	**Construction - Target**	**Construction - Taken**	**Classroom-Taken**	**YouTube Videos**
APCD	62	62								1,185
AWM	127	127								
DEH	170	170	25	25						
DPR	19	19	111	110	5	5	20	20	12	
DGS	23	23	188	188	19	19	23	23		
Sheriff	1,340	781								
DPLU					93	93				
DPW	118	118			72	72	48	48	30	
Airports			18	18						
Roads			157	155						
Solid Waste			11	11						
Wastewater			30	29						
TOTALS	**1,859**	**1,300**	**540**	**536**	**189**	**189**	**91**	**91**	**42**	**1,185**

[8] The supplemental training was additional training and not targeted to any employees.

4.15 Program Review and Modification

In accordance with Permit Section I.1.b, the County has reviewed the results of its JURMP effectiveness assessment and other relevant information to identify modifications needed to maximize JURMP effectiveness and achieve compliance with Permit Section A. **Table 4.15.1** identifies planned modifications and improvements to the Municipal JURMP Component and an estimated schedule for their completion.

Table 4.15.1 – Planned Modifications to the Municipal Component

Target Date	JURMP Section(s)	Planned Modification(s)
A. JURMP Modifications		
TBD	TBD	No substantial JURMP modifications were identified.
B. Ancillary Program Documentation		
06-30-13	N/A	AWM identified programmatic personnel modifications in the JURMP document, these changes will be reflected in the development of the new JURMP accompanying the issuance of the new MS4 permit.