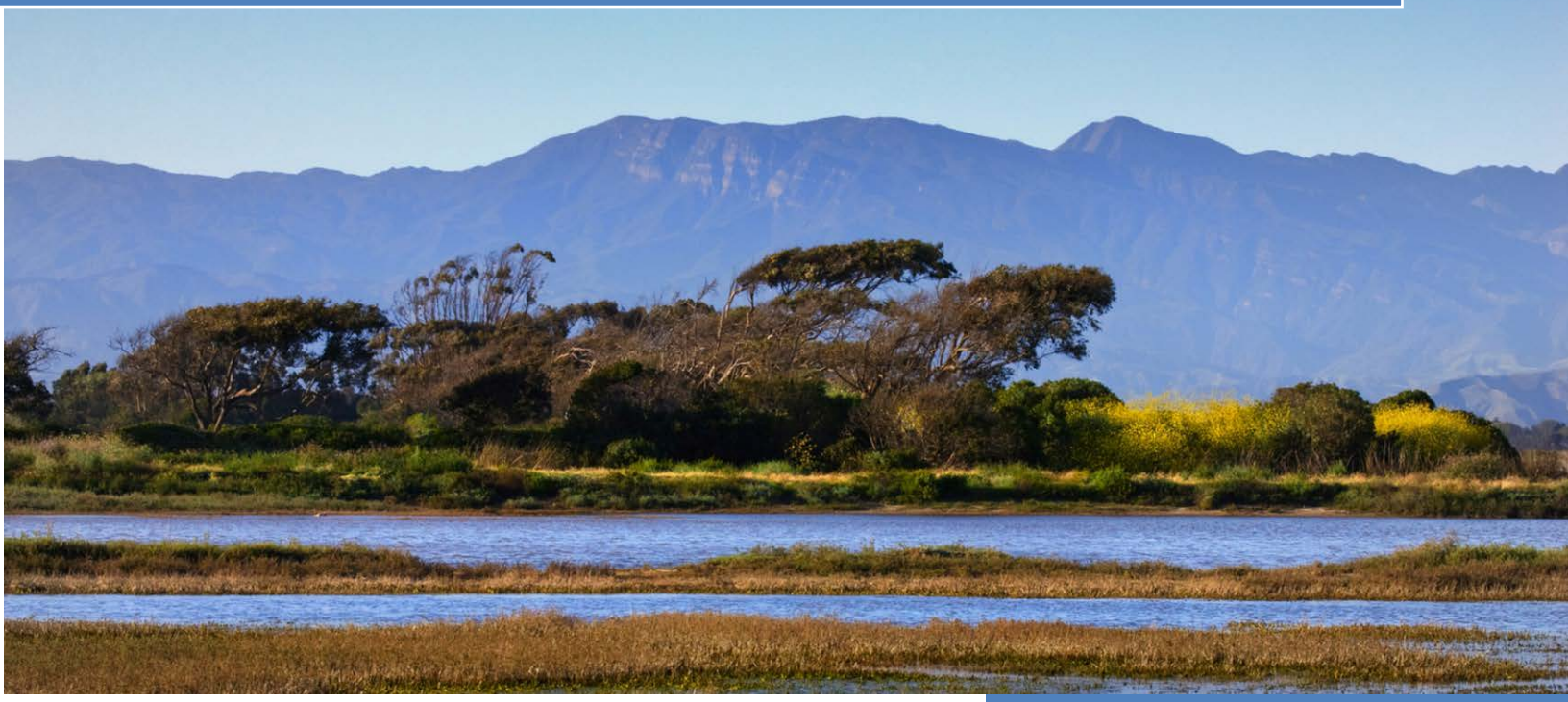
Ventura Countywide Stormwater Quality Management Program

# 2010-2011 Permit Year

# Ventura Countywide Stormwater Quality Management Program Annual Report



Camarillo
County of Ventura
Fillmore
Moorpark
Ojai
Oxnard
Port Hueneme
Santa Paula
Simi Valley
Thousand Oaks
Ventura
Ventura County Watershed Protection District

**December 15, 2011**

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| Attachment B | Post Construction BMP Inspection Checklist |
| Attachment C | Construction Inspection Checklist |
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| Attachment E | Illicit Discharge Field Screening Protocol |
| Attachment F | Water Quality Monitoring Report |

# Executive Summary

This Annual Report discusses the Permittees' Permit compliance activities for the period of July 1, 2010 to June 30, 2011. It is intended to include a description of all activities conducted during the reporting period to show compliance and the efforts made to improve water quality in Ventura County by the Permittees. The purpose of this report is to comply with NPDES Permit No. CAS004002/Order No. 10-108 (Permit), which requires an Annual Storm Water Report submitted by December 15th of each year.

Cooperation and assistance of the Ventura Countywide Permittees, who contributed the information and data regarding their various programs, was instrumental in the preparation of this report. The Permittees cooperate through the Program to ensure information and workloads are shared, economy of scales achieved and a better Countywide Stormwater Quality Management Program is created. The Permittees through implementation of various comprehensive program elements have strived for compliance with all requirements of the Permit.

The organization of the Report reflects the organization of the Permit containing a section on each element:

2. Program Management,

3. Public Information and Participation,

4. Industrial/Commercial Facilities Programs,

5. Planning and Land Development Programs,

6. Development Construction Programs,

7. Public Agency Activities,

8. Illicit Discharges and Illegal Connections Elimination,

9. Stormwater Quality Monitoring.

Continued in this Annual Report are the Performance Standards for specific Permit requirements identified in each section along with the Permittees' status on achieving that standard. Permit compliance cannot be directly inferred solely by these Performance Standards as the complete effort of the Permittees cannot be reflected through discrete metrics. Rather, the information is more suitable for use by for the Permittees to gage their efforts and identify areas of needed improvement. This reporting period covers the second year of the Permit term and the effective date of several Performance Standards identified were not during this period and are marked as "in progress" if not yet completed by the Permittee.

The Program has adopted a method for assessing program effectiveness based on the approach developed by the California Stormwater Quality Association (CASQA). Each of the six Program Elements contains various Control Measures. Each Control Measure consists of a series of Performance Measures. Performance Standards are identified to document the progress of implementation and to measure the effectiveness of implemented BMPs. As the Permittees implement the new Permit future reports will address the need for Program changes.

Current Program Effectiveness Measurements show the Program is effective in the first two outcome levels of documenting efforts and raising awareness. As implementation of the Program continues, improvements in the ability to measure the other outcome levels of changing behavior and reducing pollutant loads can be accurately measured. Ultimately, the goal is a trend of improvement in water quality that can be identified through the Program's monitoring program.

Notable accomplishments made by the Permittees and the Program over this reporting period include:

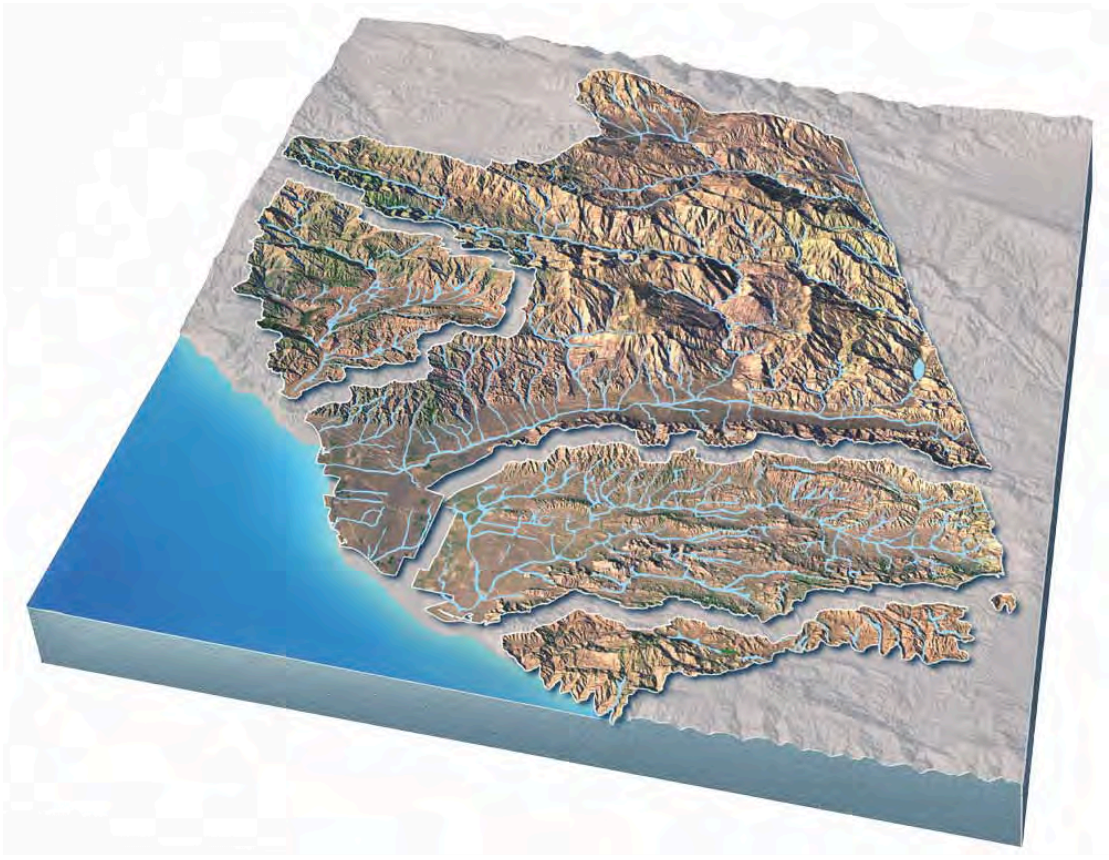
- New Electronic Annual Report format developed in conjunction with Regional Board staff with over 50 Performance Standard identified and included;
- Submittal of a revised Technical Guidance Manual for new and significant re-development including a significant stakeholder process;
- Updated BMP fact sheets for Building and Grounds Maintenance, Pool and Spa Maintenance, Commercial Pesticide Application, Mobile Cleaning Services, Mobile Auto Detailing and Charity Car Wash Events, and Building Repair and Remodeling.
- Adoption of a five year Implementation Agreement by all Permittees ensuring continued cooperation countywide;
- Monitoring of seven new major outfall locations for a total of 14 monitoring locations;
- Participation in the Statewide Coastal Cleanup Day Event at over 24 different beaches and inland waterways;
- Continued program improvement through implementation of the recommendations of a detailed program efficiency audit of the Principal Permittee;
- Regional TMDL participation;
- Stormwater Monitoring Coalition of Southern California and Southern California Coastal Water Research Project (SCCWRP) participation;
- Cooperation and commitment to SCCWRP to aid in a hydromodification effects study;
- CASQA participation;
- Integrated Regional Water Management Plan (IRWMP) Participation

In summary, the Permittees continue aggressively moving forward with the implementation of the new Permit. Each program element has a subcommittee working to develop needed forms, protocols and procedures to ensure future permit compliance. The programs, methods and this report are continually being refined to improve effectiveness, apply lessons learned, identify and address additional sources of stormwater pollutants, and therefore water quality. Future program activities will include implementing the Technical Guidance Manual for Land Development, initiating an offsite compliance program for developments that prove technical infeasibilities and incorporating hydromodification. More immediate improvements to water quality may be made through the upcoming illicit connection screening and storm drain mapping programs, and the increased the relevance of the monitoring data generated for each Permittee from the monitoring program.

# 1 Introduction

The Watershed Protection District (Principal Permittee), the County of Ventura and the incorporated cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, Ventura, Santa Paula, Simi Valley, and Thousand Oaks, (each a Permittee and collectively known as Permittees) operate municipal storm drain systems and discharge stormwater and urban runoff pursuant to the countywide NPDES permit (Board Order No. 10-0108 or Permit). This Permit, administrated by the Los Angeles Regional Water Quality Control Board (RWQCB), requires an Annual Storm Water Report and Assessment (Annual Report) submitted by December 15th of each year.

The first stormwater permit for Ventura County was adopted in 1994 and included all ten cities, the County and the Watershed Protection District. On July 27, 2000 a second permit was adopted that included logical and incremental increases in the requirements. That five-year permit was on administrative extension until May 7, 2009, when Board Order 09-0057 was adopted. After the May 7, 2009 adoption of the permit the Regional Board rescinded the permit to hold a new adoption hearing. On July 8, 2010 Order No. R4 2010-0108 was adopted with minor changes. The 2010 Permit had a new set of implementation deadlines associated with it and replaced the order adopted in 2009 in its entirety. Since the 2010 Permit was adopted early in the reporting period for this report all references to the Permit and program element effective dates in this report refer to that order.



***Ventura County Watersheds***

## 1.1 PURPOSE AND ORGANIZATION OF REPORT

The primary purpose of this report is to document the Permittees' continued efforts to improve water quality and comply with the Permit. Since the Permit did not require a Stormwater Management Plan this report will also serve as way to represent and define the Permit's requirements and the effort required to meet them. Finally, program effectiveness assessment of the implementation of the permit requirements will be examined and potential areas for improvement identified.

The organization of the report reflects the organization of the Permit. Each section contains a description and the purpose of the permit requirements, the Permittee's program activities in that area and detailed descriptions of the efforts put forth in the 2010-2011 permit year. The sections are as follows

- **Program Management - Section 2.0** – Roles and responsibilities of the Permittees and committees, and a program budget report.

- **Public Information and Public Participation Program – Section 3.0** The efforts and effectiveness of pollution prevention education and outreach programs.

- **Industrial Commercial Business Program - Section 4.0 –** The activities directed at effectively prohibiting non-stormwater discharges from businesses and industrial sites in order to reduce stormwater pollution to the maximum extent practicable.

- **Planning and Land Development Program - Section 5.0 –** The efforts to minimize the impact of new development and significant redevelopment on stormwater quality through using Low Impact Development site design and water quality treatment BMPs.

- **Development Construction Program - Section 6.0 –** Activities before and during construction through stormwater pollution prevention plans and inspections to ensure the protection of stormwater quality to the maximum extent practicable.

- **Public agencies Activities Program - Section 7.0 –** Both the efforts to remove pollutants from MS4s and eliminate the adverse effects that municipal activities may have on water quality

- **Illicit Discharge and Illegal Connections Ellimination Program - Section 8.0 –** Status of the tools, control measures and responses established to eliminate non-permit authorized discharges and connections to the storm drain system.

- **Water Quality Monitoring Program - Section 9.0 –** A summary and analysis of the monitoring results from the Permit year. Includes a report describing efforts that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of Water Quality Objectives.

### 1.1.1 Major Program Accomplishments

Notable accomplishments that occurred during the reporting period include:

- New Electronic Annual Report format developed in conjunction with Regional Board staff with over 50 Performance Measures identified and included;

- Submittal of a revised Technical Guidance Manual for new and significant re-development including a significant stakeholder process;

- BMP fact sheets were updated or created for several target audiences during this reporting period including: Building and Grounds Maintenance, Pool and Spa Maintenance, Commercial Pesticide Application, Mobile Cleaning Services, Mobile Auto Detailing and Charity Car Wash Events, and Building Repair and Remodeling.

- Adoption of a five year Implementation Agreement by all Permittees ensuring continued cooperation countywide;

- Monitoring of seven new major outfall locations for a total of 14 monitoring locations;

- Participation in the Statewide Coastal Cleanup Day Event at over 24 different beaches and inland waterways;

- Continued program improvement through implementation of the results of a detailed program efficiency audit of the Principal Permittee;

- Regional TMDL participation;

- Southern California Coastal Water Research Project (SCCWRP) participation;

- Cooperation and commitment to SCCWRP to aid in a hydromodification effects study;

- Cooperation and commitment to the Stormwater Monitoring Coalition of Southern California to a Low Impact Development Guidance and Training Project for Southern California;

- CASQA participation;

- Calleguas Creek Watershed Management Plan participation;

- Ventura River Watershed Council participation;

- Integrated Regional Water Management Plan (IRWMP) Participation.

## 1.2 PROGRAM EFFECTIVENESS ASSESSMENT

The 2010-2011 Annual Report documents the Program's comprehensive stormwater quality efforts that addresses a wide range of activities. Various Departments in each Permittee's agency cooperate in implementing the different elements or activities of the Program under their control. All of these efforts are examined for program effectiveness.

Each of the six Program Elements contains various Control Measures. Each Control Measure consists of a series of Performance Measures. Performance Measures are identified to document the progress of implementation and to measure the effectiveness of implemented BMPs.

The Program has adopted a method for assessing program effectiveness based on an approach developed by the California Stormwater Quality Association (CASQA). The effectiveness assessment is more comprehensive than assessments under past permits and addresses the major stormwater program areas and activities. As illustrated below, there are six outcome levels for the effectiveness

assessment. The outcome levels represent ways in which the effectiveness of the program can be determined, even if it is intermediate[1].

Outcome levels help to categorize and describe the desired results of the Program Elements and related Control Measures. Pursuant to the 2007 CASQA guidance, outcomes for stormwater programs have been categorized into six levels, as shown in Figure 1-1. As illustrated in the Figure below, there are six outcome levels for the effectiveness assessment. The outcome levels help to categorize and describe the desired results or goals of the program.

| Outcome Level | Description |
|---|---|
| 6 | Protecting Receiving Water Quality |
| 5 | Improving Runoff Quality |
| 4 | Reducing Loads from Sources |
| 3 | Changing Behavior |
| 2 | Raising Awareness |
| 1 | Documenting Activities |

***Figure 1-1 Effectiveness Assessment Outcome Levels***

Within each individual program section (starting with Chapter 3), the effectiveness assessment identifies the outcome level(s) achieved, as well as any program modifications that have been identified because of the assessment.

Some important points to remember about these effectiveness assessments include:

- The ability of a stormwater program to assess an outcome level tends to become progressively more difficult as you assess higher outcome levels (levels 4-6). This is because the higher outcome levels assess the impact that the Permittees have on water quality, which requires a much more robust dataset over an extended period of time.

- Outcome levels 1-3 (and sometimes 4) are typically assessed using program management data, whereas outcome levels 4-6 are assessed using physical and/or water quality monitoring data.

- Each program element may be assessed at one or more outcome levels based on the data and information available.

Through the annual reports the effectiveness assessment will be expanded and modified as necessary in order to report out on key items.

[1] California Stormwater Quality Association, *Municipal Program Effectiveness Assessment Guidance*, May 2007.

# 2 Program Management

## 2.1 PROGRAM IMPLEMENTATION

### 2.1.1 Mission Statement

To improve the focus and guide the actions of the program a mission statement was adopted by the Management Committee. Its purpose is to identify the overall goal, provide a sense of direction, and guide decision-making. It provides the framework or context within which the Program's strategies are guided. The Program's mission statement is below:

> *The Ventura Countywide Stormwater Quality Management Program, established in 1992 between the ten Cities, the County and District, works cooperatively on a regional basis to ensure compliance with the countywide Stormwater Permit through the development and implementation of an integrated, effective and fiscally responsible stormwater quality management program with the objective of protecting, maintaining and improving water quality in Ventura County for the common benefit of its residents and the environment.*

### 2.1.2 Program Implementation

In 1992 the concept of a single countywide NPDES MS4 Stormwater Permit (Permit) was implemented in Ventura County. This began with the initial Report of Waste Discharge and the authorization to use the Watershed Protection District's Benefit Assessment to finance the activities and program efforts. Subsequently, on June 30, 1992, the District (as the Permit's Principal Permittee) entered into four separate District-zone-based implementation agreements with the ten Ventura County cities and the unincorporated areas of the county (the Permittees). Collectively, these four agreements are known as the Implementation Agreement for the Ventura Countywide Stormwater Quality Management Program. The Implementation Agreement identified the responsibilities of the Permittees and set forth the methodology for using the District's Benefit Assessment financing to fund the NPDES Stormwater Programs.

With the adoption of the second NPDES Permit, the Principal Permittee Program activities, responsibilities, and associated costs increased significantly. The District could no longer solely shoulder these fiscal obligations without assistance from the Permittees. In response, the Permittees' Public Works Directors created a committee to research the historical documentation from the District's Benefit Assessment Reports and draft a new implementation agreement.

In FY 2007-2008, the first amendment to the agreement was approved to address this needed cost-sharing by amending the original agreement. In FY 2008–2009 and 2009-2010, the second and third amendments to the original agreement were approved to continue this needed cost-sharing.

The additional program costs for the Principal Permittee and Permittees associated with the 2010 NPDES Permit prompted further effort among the Public Works Directors to equitably share the increased costs. The result of that effort was a new NPDES Implementation Agreement to substitute the original agreement and amendments.

The Agreement defines the fiscal responsibilities (expenditures and contributions) of all collective parties with respect to the current Permit. It formalizes the Permittees' commitment to cooperate and to mutually fund an integrated Program for protecting and improving water quality in Ventura County.

## 2.2 PERMITTEE RESPONSIBILITIES

The responsibilities of the Principal Permittee and Permittees are defined within the Permit and the Implementation Agreement. These roles and responsibilities are outlined below.

### 2.2.1 Principal Permittee

The role of the Principal Permittee is similar to the other Permittees with the addition of certain overall programmatic and facilitation responsibilities. These responsibilities are not to ensure the compliance of the Permittees, as the Principal Permittee has no regulatory authority over the Permittees. The responsibilities outlined in the Permit include the following:

- Coordinate and facilitate activities necessary to comply with the requirements of the Permit
- Act as liaison between the Permittees and the Regional Water Board on permitting issues
- Provide for countywide consistency and program coordination
- Provide technical and administrative support for subcommittees organized to implement this Order and its requirements
- Convene the Committee Meetings constituted pursuant to Permit, upon designation of representatives
- Implement a Public Information and Participation Program (PIPP)
- Implement the monitoring program required in Attachment F of the Permit
- Participate in the County Environmental Crimes Task Force
- Provide resources for the collection, processing and submittal to the Regional Water Board of monitoring and annual reports, and summaries of other reports required under this Order. Establish uniform data submittal format and develop an Electronic Reporting Program
- Participate in water quality meetings for watershed management and planning
- Participate in the Southern California Storm Water Monitoring Coalition (SMC) Southern California Regional Bioassessment Monitoring Program
- Compile and make available on the internet a list of the general public reporting contacts
- Develop a strategy to educate ethnic communities through culturally effective methods
- Submit a plan to provide outreach in lieu of the school curriculum
- Convene all Management Committee meetings.

In addition to responsibilities identified in the Permit the Principal Permittee also performs the following for the benefit of the Program

- Prepare communications, regulatory reports and submissions to the Regional Board
- Provide Regional Representation for the Program and communicate information to the Permittees
- Arrange for public access and review of Program plans and documents
- Secure services of consultants as necessary
- Implement activities of common interest to the Program

- Develop/prepare/generate all materials and data common to all Permittees

- Update Permittees on RWQCB and US Environmental Protection Agency (USEPA) regulations.

### 2.2.2 Permittees

Each Permittee is responsible for implementing the NPDES Stormwater Program and Permit compliance within their jurisdiction. The main responsibility of each Permittee can be identified as follows:

- Comply with the requirements of the Permit and any modifications thereto through implementation within its jurisdiction of the various stormwater management programs outlined in the Permit

- Coordinate among its internal departments and agencies, as necessary, to facilitate the implementation of the requirements of this Order applicable to such Permittees in an efficient and cost-effective manner

- Participate in intra-agency coordination (e.g., Planning Department, Fire Department, Building and Safety, Code Enforcement, Public Health, Parks and Recreation, and others) necessary to effectively implement the provisions of the Permit

- Prepare and submit all reports or requests of information to the Principal Permittee in a timely fashion.

- Review, provide comments and approve Program budgets, plans, strategies, management programs and monitoring programs developed by the Principal Permittee or any subcommittee;

- Establish and maintain adequate legal authority

- Apply appropriate enforcement actions as necessary within its jurisdictions to ensure compliance with applicable ordinances

- Respond to/or arrange for response to emergency situations, such as accidental spills, leaks, illicit discharges/illegal connections, etc., to prevent or reduce the discharge of pollutants to the storm drain systems and waters of the U.S. within its jurisdiction

- Conduct inspections of and perform maintenance on municipal infrastructure within its jurisdiction

- Conduct and coordinate any surveys and source identification studies necessary to identify pollutant sources and drainage areas, and

- Participate in the Management Committee.

## 2.3 MANAGEMENT ACTIVITIES

### 2.3.1 Management Committee

The NPDES Management Committee is the principal forum for directing the Program's development and implementation. This Committee is attended by senior staff from all Permittee agencies and meets monthly to assure Program continuity. Committee members have been authorized by their Director of Public Works as Management Committee Voting Representatives with the authority to approve Principal Permittee's budget and/or modifications. If no Representative is authorized, then the Directors of Public Works are responsible for voicing their opinion at meetings when these items are on the agenda. In addition to budgeting and program direction, this committee also periodically evaluates the need to create ad hoc committees or

workgroups to develop tools and accomplish the objectives of the NPDES Stormwater Program. Although it is no longer mandated that Permittees attend the meetings participation in the Management Committee as necessary is a specific requirement of the Permit.

| ***Participate in intra-agency coordination including Committee and Subcommittee Meetings to facilitate the implementation of the Permit*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | ☑ | | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |
| *Watershed Protection* | ☑ | | |

***Performance Standard 2-1***

### *Subcommittees*

The Subcommittees provide a forum for discussion of particular program elements and are attended by the staff with the appropriate expertise from each Permittee. These meetings allow for a more uniform approach and regional consistency to program management countywide. This helps provide a level playing field for businesses and residents countywide. More importantly it allows the Permittees to learn from each other and have access to tools that have already been developed. This is very beneficial for the smaller agencies which do not have at their disposal the resources available to the true Phase 1 cities (population over 100,000.

The subcommittees were created at the beginning of the program and have continued to meet and evolve over the years. Subcommittee activities over this Permit Year have been devoted to identifying new Permit requirements and developing programs for compliance. Each subcommittee focuses on specific permit requirements and implementation programs. These generally follow the program sections of the permit, but the subcommittees do incorporate the whole permit in their analysis and integrated program development. The subcommittees and their principal program responsibilities are listed below. This list does not include any ad hoc, special project or working groups that may have been formed by the Management Committee or from a logical outgrowth of the subcommittees. One such working group is the Capital Improvement Projects (CIP) Working Group set up to assist Permittees own capital improvement program engineers and staff to understand and implement the new post-construction requirements as well as the new General Construction Permit requirements in our public projects.

### Residential/Public Outreach Subcommittee

Helps guide and approve the Principal Permittee's countywide outreach program and regional message consistency for the stormwater public education program efforts. Using information on pollutants identified through the monitoring program and 303(d) lists, this committee selects specific Pollutants of Concern to target each year and decides on the best methods of outreach and public education to influence a change in behavior.

**Business and Illicit Discharge Control Subcommittee**

Oversees the development of the model industrial/commercial and illicit discharge/illegal connections programs. Countywide consistency is created by developing inspection forms and sharing techniques and methods of identifying and educating businesses and industries targeted for inspections. Outreach materials focused on specific industries and businesses is also developed for countywide use by all Permittees. Illicit discharge identification and responses are included at every meeting and discussed. Enforcement experiences are shared to further the education of inspectors countywide.

**Planning and Land Development Subcommittee**

Planners and development engineers work together to provide regional tools for design, review and conditioning of new development and redevelopment projects, and to promote regional consistency in their application. Guidance and training are developed for the development community for the implementation of stormwater management control measures countywide. The guidelines developed are intended to improve water quality and mitigate potential water quality impacts from new development and significant redevelopment.

**Construction Subcommittee**

Regional consistency for inspections and enforcement are provided by developing model inspection checklists and identifying solutions to common problems. Information on the State General Construction Permit issues, training requirements and opportunities are shared and disseminated to the construction community.

**Public Infrastructure**

Assists municipalities in the protection of their storm drain infrastructure from pollutants through best management practices and the development of model municipal activities programs, corporate yard inspections, and integrated pesticide management programs. Also works to identify solutions to infrastructure mapping and other permit requirements.

The Permit requires Permittee participation in the subcommittees as necessary; the Permittees have been very involved in subcommittees this permit year including stepping up to the chair position on four of the five subcommittees. The value of the subcommittees to improve staff knowledge and abilities, achieve economies of scale, and provide regional program consistency is understood by the Permittees. It is recognized that increased effort in the subcommittees will be rewarded by improvement in staff, resources and the overall program.

### 2.3.2 Other Regional Committees/Work Groups

Many of the Permittees additionally participate in various watershed management advisory groups. These groups include: the Ventura County Integrated Resources Water Management Plan (IRWMP), Ventura River Watershed Planning Committee, Santa Clara River Watershed Committee, Wetlands Recovery Project, Calleguas Creek Watershed Management Committee, Matilija Dam Ecosystem Restoration Study, Channel Islands Beach Park Action Plan for Improving Water Quality, Malibu Creek Watershed Management Committee and Technical Advisory Committee, Steelhead Restoration and Recovery Plan, Beach Erosion Authority for Clean Oceans and Nourishment (BEACON), Southern California Coastal Water Research Project (SCCWRP), Stormwater Monitoring Coalition of Southern California (SMC), and the Ormond Beach Task Force. These watershed and regional groups focus their activities and discussions on specific concerns such as water quality, habitat restoration and flood control, as well as short, medium and long-term solutions to improve water quality.

### 2.3.3 Management Framework – Program Implementation

Program development occurs through the Permittee, Countywide Program, and watershed management frameworks. At a jurisdictional level the Permittees have formally identified which departments and staff have responsibility for implementation of each program element within their jurisdictions. It may be necessary for the responsibility to be formally documented through Memorandums of Understanding or other tools. Smaller agencies tend not to require such formal agreements between departments, and in some cases there may be only a few people who are involved in the implementation of all aspects of the stormwater program.

### 2.3.4 Legal Authority

Although adequate legal authority existed for most potential pollutant discharges at the inception of the stormwater program in 1994, the Permittees determined that a Model Stormwater Quality Ordinance should be developed to provide a more uniform countywide approach and to provide a legal underpinning to the entire Ventura Countywide NPDES Stormwater Program.

| ***Ensure that its Stormwater Quality and LID Ordinances authorize enforcement of all requirements of the Permit? (by July 8, 2012)*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *In Progress* |
| *Camarillo* | | | ☑ |
| *Ventura County* | | | ☑ |
| *Fillmore* | | | ☑ |
| *Moorpark* | | | ☑ |
| *Ojai* | ☑ | | |
| *Oxnard* | | | ☑ |
| *Port Hueneme* | | | ☑ |
| *Ventura* | | | ☑ |
| *Santa Paula* | ☑ | | |
| *Simi Valley* | | | ☑ |
| *Thousand Oaks* | | ☑ | |
| *Watershed Protection* | | | ☑ |

***Performance Standard 2-2***

Subsequently, all of the Permittees adopted largely similar versions of the initial Model Stormwater Quality Ordinance. With the adoption of the Order No. 10-0108 the municipal ordinances must be updated by July 8, 2012. The Permittees, led by the City of Moorpark, have already begun the process of drafting a model ordinance which can serve as the basis for each Permittee to adopt and authorize them to enforce all requirements of the Permit.

| *Document the costs to implement the stormwater program for Permit Year 2010/2011* | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | ☑ | | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |
| *Watershed Protection* | ☑ | | |

***Performance Standard 2-3***

Enforcement of the current ordinance and the detection, investigation and elimination of discharges undertaken by the Permittees during 2009/10 are described further in Section 8 Illicit connections and Illicit Discharge Elimination. In addition to prohibiting un-permitted discharges, the Stormwater Quality Ordinance in conjunction with the conditions of land development provides for requiring BMPs on new development and significant redevelopment. Stormwater quality ordinances have been adopted in each Permittees' jurisdictions as indicated in Table 2-1 Ordinance Adoption Dates. As stated above, the requirement to update these ordinances to be able to enforce the new permit is required by July 8, 2012.

| **Ordinance Adoption Dates** | | |
|---|---|---|
| **Co-permittee** | **Adopted Date** | **Amendment Date** |
| Camarillo | 3/11/1998 | in progress |
| County of Ventura | 10/2/2001 | in progress |
| Fillmore | 12/8/1998 | 7/8/2012 |
| Moorpark | 12/3/1997 | 2008 |
| Ojai | 2/9/1999 | |
| Oxnard | 3/24/1998 | 3/24/2009 |
| Port Hueneme | 4/1/1998 | 2/1/2001 |
| San Buenaventura | 1/11/1999 | 7/8/2012 |
| Santa Paula | 11/16/1998 | 2010 |
| Simi Valley | 7/23/2001 | |
| Thousand Oaks | 10/14/1999 | |

***Table 2-1 Ordinance Adoption Dates***

### 2.3.5 Watershed Protection District Stormwater Program Representation

To stay informed of new science and regulations and gain economies of scale through regional efforts the Principal Permittee represents the Permittees by participating in the following organizations and associations:

#### California Association for Stormwater Agencies (CASQA)

The California Association of Stormwater Quality Agencies originally formed as an advisory body to the State Water Resources Control Board (SWRCB) on stormwater quality program issues is now a 501 (c)(3) non-profit organization. CASQA membership is composed of a diverse range of stormwater quality management organizations and individuals, including cities, counties, special districts, industries, and consulting firms throughout the state. A large part of its mission is to assist stormwater quality programs in California to learn collectively from the individual experiences of its members, learn from the mistakes and

provide awareness of regional and state issues. Since its inception in 1989, CASQA has evolved into the leading organization in California dealing with stormwater quality issues.

### Southern California Coastal Water Research Project (SCCWRP)

The Southern California Coastal Water Research Project (SCCWRP) is a joint powers agency formed by fourteen agencies through a unique partnership between municipalities that discharge treated wastewater to the ocean, stormwater agencies, and regulators that oversee dischargers. Members work together to develop a solid scientific foundation for coastal environment management in southern California. SCCWRP's mission is to gather the necessary scientific information so that member agencies can effectively and cost-efficiently protect the Southern California coastal and marine environment. In addition, SCCWRP's mission is to ensure that the data it collects and synthesizes effectively reaches decision-makers, scientists and the public.

### Stormwater Monitoring Coalition of Southern California (SMC)

The SMC participants are the Ventura County Watershed Protection District, the County of Orange, the County of San Diego, the Los Angeles County Flood Control District, the San Bernardino County Flood Control District, the Riverside County Flood Control and Water Conservation District, the City of Long Beach, the City of Los Angeles, the Regional Water Quality Control Boards of Los Angeles Region, Santa Ana Region, and San Diego Region, the Southern California Coastal Water Research Project (SCCWRP), and the California Department of Transportation. They have decided to work together in a cooperative effort to develop scientific and technical tools needed in southern California to improve stormwater program implementation, assessment, and monitoring.

### California Coalition for Clean Water (CCCW)

The California Coalition for Clean Water (CCCW) is an alliance of local governments and public agencies, labor, agriculture, business, housing and development interests working together towards the development and implementation of water quality standards that protect water quality while balancing economic and social needs of local communities and the state. CCCW's mission is to assist the California Regional Water Quality Control Boards and SWRCB to adopt and implement sound water quality standards that reflect the intent and spirit of state and federal clean water laws.

### National and Global Organizations

As Principal Permittee, the Watershed Protection District (District) participated jointly with SCCWRP and various other federal and international organizations such as the Society of Environmental Toxicology and Chemistry (SETAC). SETAC is a nonprofit, worldwide professional society comprised of individuals and institutions engaged in the study, analysis, and solution of environmental problems. SETAC's mission is to support the development of principles and practices for protection, enhancement and management of sustainable environmental quality and ecosystem integrity.

SETAC promotes the advancement and application of scientific research related to contaminants and other stressors in the environment, education in the environmental sciences, and the use of science in environmental policy and decision-making.

### Southern California Agencies

Beginning in 2003, the District began participating in the Storm Water Advisory Team (SWAT) meetings. SWAT was created by stormwater-regulated agencies who believed that coordination amongst the regulated community would be beneficial to not only providing a unified voice to the Regional Board but would also encourage regional consistency in pollution prevention efforts. Meetings have not been held recently, but as the need arises the group is able to address issues such as TMDL development, pending permit regulations, and regional monitoring strategies and other opportunities.

## 2.4 FISCAL ANALYSIS

The Permittees have committed significant resources to permit compliance, reducing stormwater pollution and improving the water quality in Ventura County. This Section presents a summary of the costs anticipated for the coming permit year by the Permittees in developing, implementing and maintaining programs in order to comply with permit requirements. Also included is information on the different funding sources used by the Permittees to ensure that resources are available for permit compliance. Since each permittee shares in the cost of the Principal program the total cost shown for each Permittee is the sum of those *shared* costs and their *individual* costs. However, in the grand total of all costs, including the Principal Permittee, these costs are not included to avoid the error counting them twice.

### 2.4.1 Program Costs for Permit year 2010/11

With the new permit, costs of the Principal Program have increased significantly. The majority of this was due to the large increase in monitoring, but also the first year of the permit required new materials for businesses and land development communities. Cost for the Permittees implementation also increased significantly but have tapered off from the first year. In 2010/11 the projected cost of the activities undertaken by the Permittees implementing the stormwater program within their jurisdictions were estimated to be $31,910,727. This is a large increase over the budgets under the previous permit due to new programs, monitoring equipment and studies required. For FY 2011-2012 the estimated costs for all permittees' expenses are still challenging at approximately $19.5 million.

| ***Document the costs to implement the stormwater program for Permit Year 2010/2011*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | ☑ | | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |
| *Watershed Protection* | ☑ | | |

***Performance Standard 2-4***

| ***Estimate the costs to implement the stormwater program for Permit Year 2011/2012.*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | ☑ | | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |
| *Watershed Protection* | ☑ | | |

***Performance Standard 2-5***

| Program Element | Camarillo | County of Ventura | Fillmore | Moorpark | Ojai | Oxnard | Port Hueneme | Ventura | Santa Paula | Simi Valley | Thousand Oaks | VCWPD | Principal Permittee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| II. Program Management | $ 278,307 | $ 197,142 | $ 22,179 | $ 63,794 | $ 12,000 | $ 132,095 | $ 25,000 | $ 225,000 | $ - | $ 197,881 | $ 120,000 | | $ 562,680 |
| III. Public Outreach | $ 10,543 | $ 99,286 | $ 29,495 | $ 3,200 | $ 4,000 | $ 17,294 | $ 5,000 | $ 50,000 | $ - | $ 52,814 | $ 66,000 | $ - | $ 187,301 |
| IV. Industrial/ Commercial | $ 63,872 | $ 158,571 | $ 9,570 | $ 20,500 | $ 4,000 | $ 185,998 | $ 5,000 | $ 100,000 | $ - | $ 118,497 | $ 47,000 | $ - | $ 21,495 |
| V. Planning and Land Development | $ 77,003 | $ 188,571 | $ 53,893 | $ 75,000 | $ 5,000 | $ 91,404 | $ 10,000 | $ 375,000 | $ - | $ 28,218 | $ 58,000 | $ - | $ 308,467 |
| VI. Construction | $ 75,824 | $ 127,571 | $ 15,662 | $ 75,000 | $ 5,000 | $ 180,894 | $ 10,000 | $ 50,000 | $ - | $ 182,844 | $ 40,000 | | $ 3,140 |
| VII. Public Agency Activities | - | | | | | | | | | | | | $ 1,570 |
| Operations and Maintenance | $ 216,960 | Included in O&M Budget | $123,779 | $ 17,000 | $ 12,000 | $ 467,809 | $ 108,000 | $ 320,000 | $ 20,000 | $ 334,774 | $ 138,000 | $ 1,500,000 | |
| Municipal Street Sweeping | $ 255,000 | Included in O&M Budget | $75,175 | $ 116,200 | $ 48,000 | $ 525,000 | $ 79,750 | $ 40,000 | $ 8,600 | $ 434,744 | Private | | |
| Fleet and Public Agency Facilities (Corporate Yards) | $ 5,507 | Included in Fleet and Public Agency Facility Budget | $101,791 | $ 16,800 | $ 5,500 | $ 33,581 | $ 5,000 | $ 7,000 | $ 20,000 | $ 12,634 | $ 84,000 | | |
| Landscape and Recreational Facilities | $ 11,830 | Included in Landscape and Recreational Facility Budget | $0 | $ 32,900 | $ 3,500 | $ 8,179 | $ 354,700 | $ 40,000 | $ - | $ 79,848 | Non-City Districts | | |
| Capital Costs | $ 50,000 | Included in Capital Project Budget | $0 | $ - | $ 12,000 | $ 390,000 | $ 80,000 | $ 50,000 | $ 15,000 | $ 38,777 | $ 1,075,000 | | |
| VIII. Illicit Discharges/ Connections | $ 48,023 | $ 79,286 | $29,495 | $ 15,000 | | $ 85,058 | $ 5,000 | $ 222,000 | $ 2,000 | $ 297,954 | $ 46,000 | | $ 18,966 |
| Monitoring Program | - | $ - | $15,000 | | $ 2,000 | $ 29,144 | $ - | $ - | $ - | $ 6,081 | None In-house/Ref | $ - | $ 1,110,176 |
| Principal Permittee Program | $ 120,000 | $ 267,000 | | $ 50,000 | $ 10,000 | $ 148,812 | $ 13,000 | $ 185,000 | $ 8,500 | $ 234,600 | $ - | $ 1,000,000 | |
| TMDLs | $ 129,000 | $ 1,062,142 | | $ 34,000 | $ 12,500 | $ 74,028 | $ 10,000 | $ 45,000 | $ - | $ 151,600 | $ 255,000 | | |
| Other | $ - | | | | | $ - | $ 10,000 | $10,000 | $ 455 | $ 516,748 | $ 180,000 | $ 210,000 | $ 50,000 |
| Total | $1,341,869 | $2,179,568 | $476,039 | $519,394 | $135,500 | $2,369,296 | $720,450 | $1,719,000 | $74,555 | $2,688,014 | $2,109,000 | $2,710,000 | $2,263,795 |

***Table 2-2 Agency Annual Budget Update for Stormwater Management Program - Fiscal Year 2011-2012***

### 2.4.2 Fiscal Resources

Each Permittee prepares a stormwater budget annually and allocates resources to be applied to the stormwater program. An effective stormwater program must be integrated within the entire management structure of a permittee, that means it transcends divisions and departments, therefore stormwater programs are not always uniquely identified in budgets, but more opportunities integrated into the ongoing programs. Table 2-2 presents the projected stormwater budget for each Permittee for Fiscal Year 2010/11 and Figure 2-2 shows how the countywide budget is divided among the various programs. As expected, there is some variability between the stormwater program budgets reported by the Permittees, even if normalized by population or geographic size. This variability is due in part to the accounting practices utilized by each Permittee and the allocation of activity costs amongst programs implemented by each Permittee. Variability is most significant when capital improvements are undertaken, these are usually very large and costly projects that may be TMDL driven or assisted by grant funding. These projects do not represent ongoing program costs, but rather investments in infrastructure to help reduce stormwater pollution into the future.

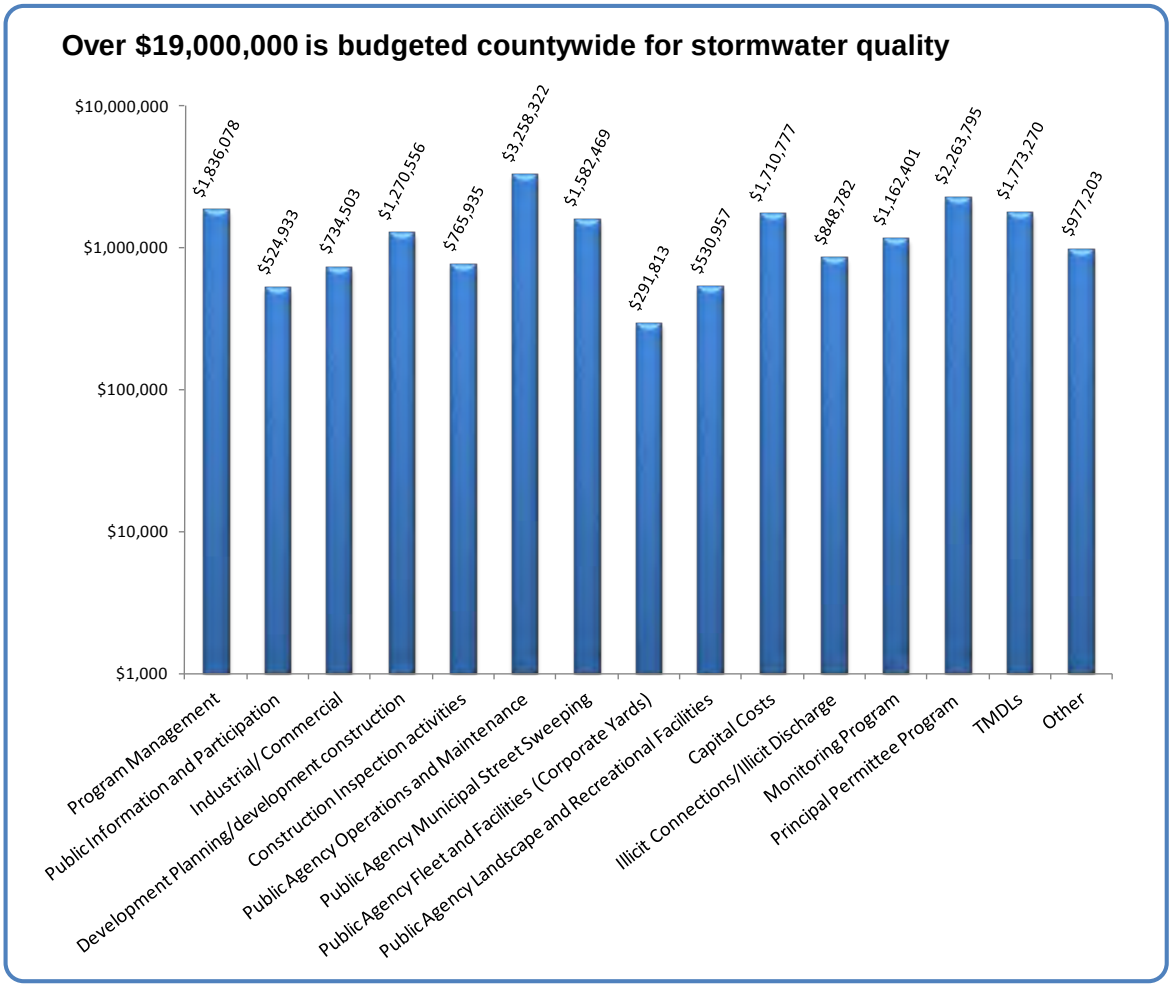



***Figure 2-1 Countywide Budget FY 2011-2012***

The Permittees vary significantly in their jurisdictional area and population which can explain some differences in resources dedicated to various program areas. Another example of differences is that some Permittees have privatized streets sweeping and the annual costs are being born by the solid waste rate payers. Yet, a review of the annual budgets produces some nominal findings. As expected, total stormwater budgets trend upwards as population and service area increases. However, increased population doesn't always directly translate into increased revenue available for the program. Seeking new revenue sources to provide the needed resources to comply with the legal requirements of the Permit is an ongoing effort of the permittees.

| Ventura County Statistics | | |
|---|---|---|
| **Co-permittee** | **Population** | **Area (Sq. Mi.)** |
| Camarillo | 95,201 | 20.0 |
| County of Ventura | 92,063 | 23.6 |
| Fillmore | 15,000 | 3.2 |
| Moorpark | 34,712 | 12.4 |
| Ojai | 8,156 | 4.4 |
| Oxnard | 200,004 | 26.9 |
| Port Hueneme | 22,887 | 4.5 |
| Ventura | 106,744 | 32.7 |
| Santa Paula | 30,000 | 4.6 |
| Simi Valley | 126,366 | 42.0 |
| Thousand Oaks | 128,000 | 55.0 |

***Table 2-3 Permittee Population and Area***

### 2.4.3 Funding Sources

Funding sources to implement the stormwater program, including the programs that have been in place long before the permit requirements but are now relied upon to ensure permittees meet permit objectives, are both general and specific funds, taxes, maintenance and user fees and grants. Other efforts in the county to monitor, cleanup or otherwise improve stormwater quality by volunteer groups like Ventura Coastkeeper who's efforts can be considered to help implement some stormwater program elements are not included, however, permittee efforts to support volunteer groups in their endeavors are.

The funding sources used by the Permittees include: Watershed Protection District Benefit Assessment Program, General Fund, Utility Tax, Separate Tax, Gas Tax, Special District Fund, others (Developer Fees, Business Inspection Fees, Sanitation Fee, Fleet Maintenance, Community Services District, Water Fund, Grants and Used Oil Recycling Grants).

All Permittees except the City of Moorpark gave authorization to use the Watershed Protection District's Benefit Assessment to finance the activities and requirements. This was done through watershed based Implementation Agreements for the Ventura Countywide Stormwater Quality Management Program. The Implementation Agreements identified the responsibilities of the parties to the Permit and set forth the methodology for using the District's Benefit Assessment financing to fund the NPDES Stormwater Program in their respective jurisdictions.

The Agreements have been amended over the years and with the new permit a new effort to secure a long term agreement was initiated. The result was a five year Implementation Agreement with all Permittees to replace the original agreement. The Agreement defines the fiscal responsibilities (expenditures and contributions) of all collective parties with respect to the current Permit. It formalizes the Permittees' commitment to cooperate and to mutually fund an integrated Program of protecting and improving water

quality in Ventura County. The five year time frame was designed to mirror the term of the permit. As new permits are written and adopted for Ventura County these agreements will be reviewed, revised and renewed as appropriate.

# 3 Public Information and Public Participation

## 3.1 OVERVIEW

The purpose of the Public Outreach Program Element is to increase knowledge and change behavior by informing the public regarding the impacts of urban stormwater runoff and introduce steps the public can take to reduce pollutants from everyday activities. In addition to improving water quality, helping the public understand the problems associated with urban stormwater runoff can help build support for the stormwater program.

The Public Outreach Program Element is designed to implement and evaluate a comprehensive short- and long-term public education campaign that will inform the community about how our actions may adversely impact urban stormwater discharges and, subsequently, the local water bodies.

Public Education is an essential part of a municipal stormwater program because changing public behavior can create a real reduction in pollutants. When a community has a clear understanding of where the pollution comes from, how it can affect them and what they can do to stop it, they will be more likely to support the program, change their own practices and help educate others.

The Permittees are building upon the many successes of the current program. Early in the program, the Permittees identified key elements crucial to establishing a successful outreach campaign. These elements include:

- Watershed Awareness
- Identification of general and specific goals of the program
- Identification of target audiences and key messages for those audiences
- Development of program strategies and plan overview
- Pollution prevention program using a unified "brand name"
- Development of a watershed based outreach program
- Identification of opportunities to reach out to regulatory agencies
- Development of a model public education/public participation strategy for localization at the Permittee level
- Development and implementation of a school-aged children education outreach program
- Development and implementation of food facilities outreach program materials
- Development and implementation of automotive facilities outreach program materials
- Development and implementation of industrial facilities outreach program materials
- Public Awareness Surveys to measure success and determine needs

## 3.2 CONTROL MEASURES

The Permittees have developed several Control Measures and accompanying performance standards to ensure that the Public Outreach Program requirements found in the Permit are met and provide information for optimizing the Program.

The Public Outreach Program Control Measures are organized to be parallel to the organization of the Permit and consist of the following:

| PO | Control Measure |
|---|---|
| PO1 | Public Reporting |
| PO2 | Public Outreach Implementation |
| PO3 | Youth Outreach and Education |
| PO4 | Business Outreach |
| PO5 | Effectiveness Assessment |

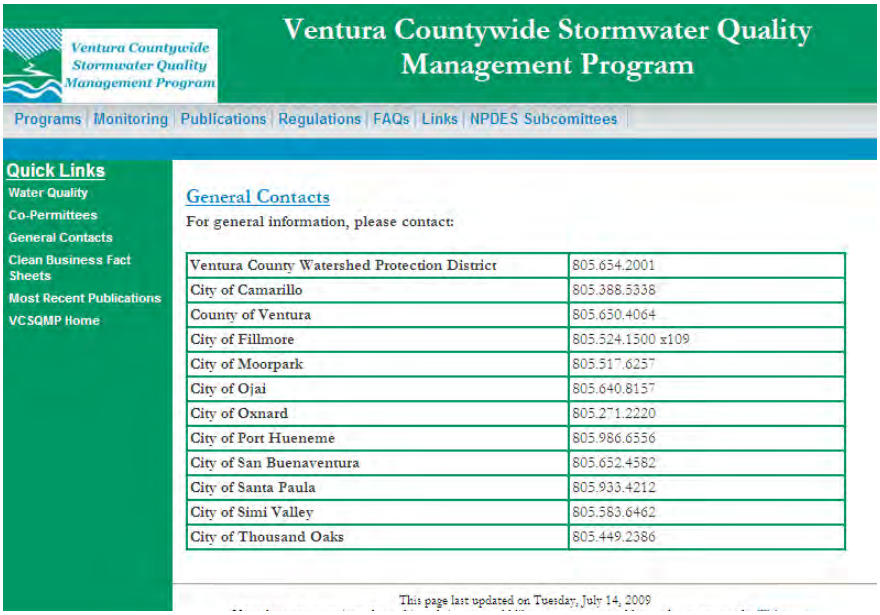
***Table 3-1 Control Measures for the Public Outreach Program Element***

## 3.3 PO1 – PUBLIC REPORTING

The purpose of this Control Measure is to identify staff to serve as contact persons and to operate and advertise public hotline numbers to facilitate public reporting of observed water pollution problems. This Control Measure also ensures that through the hotlines, complaint information is forwarded to the appropriate contacts for follow-up and/or investigation.

### 3.3.1 Identify Staff to Serve as Contact Persons for Public Reporting

Permittees have identified staff to serve as the contact person for public reporting, in many cases more than one staff member will serve in this capacity to ensure that someone is always available to respond. Designated staff members are provided with relevant stormwater quality information, including program activities and preventative stormwater pollution control information.




***Screen shot of Program website***

| Identify staff who will serve as the contact person(s) for public reporting of water pollution problems | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 3-1***

### 3.3.2 Maintain Public Reporting Hotline Numbers

The Permittees have two types of phone numbers for the public: one for general stormwater information and one for reporting water pollution problems. The latter number is used by the public to report illicit discharges or illegal dumping into the storm drain system, faded or missing catch basin markers, and other observed water pollution problems. In some cases this number is also used to report clogged catch basin inlets, but there may be another number for that as well. Staff is also available to provide general stormwater information.

| Public reporting information has been listed in the government white pages of the local phone book (Due *by July 8, 2011* ) | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | ☑ | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 3-2***

Once a water pollution complaint is received, staff responds within 24 hours to the reported illicit discharges and within 21 days to illicit connections. For illicit discharges and illegal connections and additional summary information regarding use of the hotlines for reporting illicit discharges or illegal connections staff follow see the process outlined in Section 8 Illicit Connections and Illicit Discharges Elimination). During the Permit term, the Permittees will consider a web-based reporting form for reporting illegal discharges and illicit connections (see Control Measure ID1), however the timely

response needed to stop illicit discharges necessitate the public report to a live person as quickly as possible, so it is considered more appropriate for a website to refer to a phone number.

### 3.3.3 Promote/Publicize Public Reporting Hotline Numbers/Contact Information

Contact information for reporting water pollution complaints for all Permittees is updated as necessary and published in the government pages of the local phone book and other appropriate locations. In addition, this contact information is available at several Permittee web sites.

| Promote and publicize contact information for public reporting in public information media, such as the government pages of the telephone book and web sites | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 3-3***

***Children in Simi Valley learning about watersheds and stormwater pollution.***

| Program or Co-Permittee | Web site URL |
|---|---|
| Ventura Countywide Stormwater Quality Management Program | http://www.vcstormwater.org/contacts.html |
| Community for a Clean Watershed | http://cleanwatershed.org/MAIN%20PAGES/Contacts.htm |
| Ventura County Watershed Protection District and County of Ventura | http://portal.countyofventura.org/portal/page/portal/ |
| City of Camarillo | www.ci.camarillo.ca.us |
| City of Fillmore | www.fillmoreca.gov |
| City of Moorpark | www.ci.moorpark.ca.us |
| City of Ojai | www.ci.ojai.ca.us |
| City of Oxnard | www.Publicworks.cityofoxnard.org |
| City of Port Hueneme | www.ci.port-hueneme.ca.us |
| City of Ventura | www.cityofventura.net |
| City of Santa Paula | http://www.vcstormwater.org/contacts.html |
| City of Simi Valley | www.simivalley.org/environmentalcompliance |
| City of Thousand Oaks | http://www.toaks.org/faqs/categoryqna.asp?id=7#275 |

***Table 3-2 Web Sites Listing Contact Information for Public Reporting***

## 3.4 PO2 – PUBLIC OUTREACH IMPLEMENTATION

The Public Outreach Implementation Control Measure provides that outreach be conducted with the residential community and general public to inform these audiences of the impacts of urban stormwater runoff and introduce steps they can take to reduce pollutants in stormwater runoff. Such outreach communicates to the Permittees' residents and visitors the importance of stormwater quality protection and pollution prevention as it relates to the protection of the local water bodies.

The performance standards comprising this Control Measure include the following:

- Work with Watershed Groups to Develop Effective Public Education Methods
- Educate Ethnic Communities
- Make Five (5) Million Stormwater Quality Impressions per Year
- Storm Drain Inlet Markers and Signage Discouraging Illegal Dumping
- Educational Materials
- Conduct Mixed Media Campaigns
- Maintain and Update the Countywide Stormwater Web Site
- Community Events
- Pollutant-Specific Outreach

### 3.3.4 Work with Existing Local Watershed Groups

There are four watersheds in urbanized Ventura County: Malibu Creek, Calleguas Creek, Santa Clara River and the Ventura River. Each of these watersheds has a watershed organization developed to work together to identify problems and reach consensus on solutions. The Program is involved with these groups and is accomplishing this permit requirement through that effort.

| **Work with existing local watershed groups or organize watershed Citizen Advisory Groups/Committees to develop effective methods to educate the public about stormwater pollution? (by July 8, 2011)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-4***

### 3.3.5 Educate Ethnic Communities

The Permit requires the Principal Permittee to develop and implement a strategy to educate ethnic communities through culturally effective methods. The Program has previously performed focus groups on Ventura County residents who speak Spanish at home. The information gained through this effort helped the Program understand what needs to be communicated to Spanish speakers and where that communication will be most effective.

To reach the significant Hispanic community in Ventura County, many elements of each campaign throughout the year were created in Spanish. This included the BMP poster as well as transit shelter and radio ads, each of which ran in Spanish media. Using a media mix of Spanish newspaper, radio and transit shelters, Spanish language advertising accounted for 18% of the annual media impressions: 1,052,033. (This figure does not include the BMP fact sheets and other handouts.)


***Spanish language litter and pesticide bus shelter posters***

| Develop and implement a strategy to educate ethnic communities through culturally effective methods? (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-5***

| Conduct stormwater pollution prevention public service announcements | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-6***

### 3.3.6 Make Five (5) Million Stormwater Quality Impressions per Year

During the Permit year the Program conducted a comprehensive stormwater pollution prevention advertising campaign. Media plans were negotiated with the goal to maximize target reach and frequency on a limited and fractionized budget. This was particularly true this year when the budget needed to stretch to cover several audiences. To amplify total market penetration, the adult and youth campaigns were scheduled either concurrently (fall) or in quick succession (spring), to take advantage of any overlap in the audiences. Attention was paid to geographical distribution throughout Ventura County as well as adequate coverage in the Latino market. The Program contracted with a full service marketing firm located in Ventura County, theAgency, who was able to consistently obtain low rates and significant bonus elements, including bonus radio commercials, and outdoor billboards.

The media chosen for the Community for a Clean Watershed program are objectives-based, balancing the goals of reaching the diverse target audiences within the region at an adequate level of repetition within a limited budget. Tactically, adult and youth efforts are scheduled to overlap in order to amplify the total share of voice within the market. As in past years, attention was paid to geographical distribution throughout Ventura County as well as adequate coverage in the Latino market.

In addition to the more traditional media of cable television, radio and outdoor transit shelters, cinema ads and posters in local malls were utilized in this year's plan. Due to its proliferation and ability to reach youth in particular, the social medium Facebook was also added to the Watershed's Fiscal Year 2011 outreach efforts, both as a Page and utilizing Facebook ads targeted within Ventura County. theAgency was able to consistently obtain low rates and significant bonus elements, including bonus radio commercials and outdoor billboards.

For the three campaigns in the 2010 – 2011 year, the Community for a Clean Watershed marketing effort plan achieved a total of 6,592,955 gross impressions, as follows:

| Timing | Campaign | Gross Impressions (Persons 6+) | Youth Impressions (included in total) | Spanish Impressions (included in total) |
|---|---|---|---|---|
| Fall 2010 | Coastal Cleanup | 1,330,002 | | 70,000 |
| Fall 2010 | Trash Education | 2,946,009 | 525,984 | 697,633 |
| Spring 2011 | Trash Education | 1,492,470 | 378,925 | 284,400 |
| **Total Media Plan** | | **5,768,481** | **904,909** | **1,052,033** |
| Website | | 4,100 | | |
| Press Releases/Bylines (11) | Various | 820,374 | | |
| **Total Impressions** | | **6,592,955** | | |

***Table 3-3 Community for a Clean Watershed Gross Impressions***

Collaboratively, the Permittees continued to execute a variety of outreach activities. The 2010-11 year's efforts included the following key initiatives, which were created and implemented through theAgency.

Of particular note was the effort targeted to students in Kindergarten through 12th grade. This component, which was directed in part by the information revealed in last year's web survey findings, effectively reaches this important target audience. Through cost-efficient use of local media, this audience will have the opportunity to see/hear the Watershed message multiple times, thus having the potential to create long-term awareness and impact.

| **Make a minimum of 5 million impressions per year to the general public related to stormwater quality, with a minimum of 2.5 million impressions via newspaper, local TV access, local radio and/ or internet access.** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-7***


***Frames from "We Can Do This" TV Spot***

## Fall 2010 and Spring 2011:

In order to drive home the message that anything on the ground anywhere in the Ventura County Watershed can end up at the ocean through unfiltered storm drains – and have that message be interesting and informative to both adults and youth – a YouTube-like video execution was employed in "We Can Do This." The 30-second commercial emulates an atmosphere of activism, one that is becoming increasingly prevalent with both youth and adults in this green-conscious world. The spot, which looks very much like it was videotaped by the young spokesperson, takes place on the beach, where he points to various trash. As he points to the trash, titles in a casual font claim its original starting point, which in many cases is miles from its ending spot on the beach. Seen on cable, YouTube, and Facebook, "You Can Do This" is an impactful piece of public outreach which encourages participation in picking up trash in order to protect the watershed.

**The "We Can Do This" campaign both informs people about stormwater pollution and encourages them to do something – pick up litter.**

A corresponding 60-second radio commercial refers to, describes and expands on the television spot while the online banner and outdoor transit shelter remind residents to "Pick it up before it makes the trip."


***Frame from Online Banner***

## Permittee Efforts

On top of what the Program provides for public outreach countywide, the individual Permittee implement their own outreach efforts focusing on local issues and more personal interactions with their residents. Countywide these efforts beyond the Program's efforts lead by the Principal Permittee made over an additional 2.4 million impressions. Below are some examples of these efforts:

## Camarillo

1. Published the following articles in the City of Camarillo Cityscene Newsletter (25,100 contacts for each article):

    a. "Not a Pretty Sight: Cigarette Butt Litter"- July/Aug 2010

    b. "2010 Coastal Cleanup Day- September 25, 9 a.m. to 12 noon" – July/Aug 2010

    c. "Help Stop Pollutants in Their Track!"- Sep/Oct 2010

    d. "Thank You 2010 Coastal Cleanup Day Volunteers"- Nov/Dec 2010

    e. "There's Nothing Cute About Pet Waste"- Jan/Feb 2011

    f. "Sustain Our Waterways, Maintain Your Vehicle"- Mar/Apr 2011

    g. "Extra Care Needed When Cleaning Your Home's Exterior"- May/Jun 2011

2. Utility bill insert sent out to city customers regarding 2010 Coastal Cleanup Day and information on Stormwater Pollution Prevention- 20,000 Contacts; July 2010.

3. Coastal Cleanup Day Article in Camarillo Acorn; Interview with Anita Kuhlman- 25,100 Contacts; September 2010.

4. "I Think I Can" PSA aired on the City of Camarillo TV station and reached approximately 20,000 contacts.

5. City booth at Earth Day event at the Camarillo Community Center; distributed Stormwater Pollution Prevention information, Coastal Cleanup Day 2011 information and Watershed Protection Tips for: Gardeners, Pet Owners and Car Owners to approximately 100 contacts- April 2011.

6. Distributed "Watershed Protection Tips for Business Owners" brochure and "Coastal Cleanup Day 2011- Save the Date" flyer at Experience Camarillo Event approx. 50 contacts- June 2011.

7. Sponsored 2 sites for volunteer cleanup during Coastal Cleanup day (285 contacts)

## Moorpark

1. The City of Moorpark participates in Coastal Cleanup Day. The event was on September 25, 2010 during FY 2010/11. Seventy-two volunteers covered approximately six miles of the Arroyo Simi, collecting 335 pounds of trash. Many volunteers who had participated in previous years noted that there appeared to be less trash around than in the past.

2. Public information on stormwater protection is also provided during Moorpark Country Days. Country Days was held on October 2 during FY 2010/11. An estimated 4,000 people attended the event.

3. The City offers free hazardous waste collection events to residents of Moorpark. In FY 2010/11, 316 households used the service.

4. Mass mailing includes the City's quarterly newsletter that went to approximately 13,200 households.

5. In FY 10/11, the City did NPDES messages in three quarters. NPDES messages were also mailed in three solid waste bill inserts to 8,008 households each time.

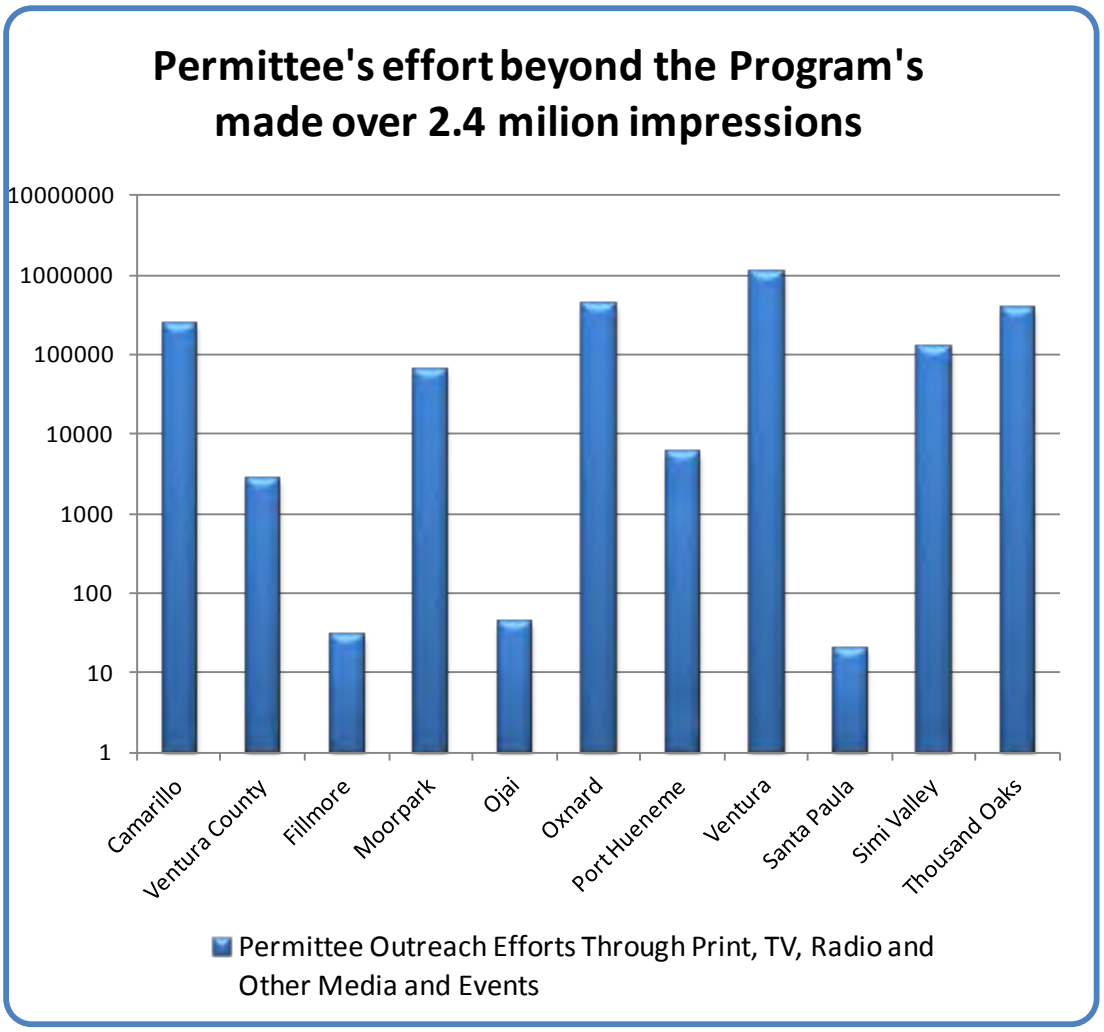



***Figure 3-1 Impressions made through Permittee efforts***

## Ojai

1. Eagle Scout project posting "don't dump" signs on accessible water courses.

2. Ojai Day - October 2010 - booth literature distribution.

3. Contact local school officials to distribute brochures.

4. September 25, 2010 - creek clean up day - trash pickup in local creeks in Ojai valley.

## Oxnard

1. The City of Oxnard has established the OxnardNews.org website to publicize community events such as Earth Day and Coastal Cleanup day. Community members can access the website to view calendars of upcoming events, view press releases, or even watch videos of past events. Coastal Cleanup Day is an event that consistently receives huge community support. City of Oxnard Outreach Specialists will post a press release containing information about the event at least one month in advance to assist community volunteers with pre-registration and planning. This past September, members of the Oxnard community participated in Coastal Clean Up Day at the Ormond Beach Wetlands and Silverstrand Beach. The City of Oxnard Education and Outreach Specialists estimate that about 3,285 contacts were made at America Recycles Day, Earth Day, and the Compost Workshop.

2. Ventura Coast Keeper (VCK) is a Non Governmental Organization whose mission is to protect, preserve, and restore the ecological integrity and water quality of Ventura County's inland waterbodies, coastal waters, and watersheds. VCK has established a website to educate the community and provide a vehicle for organizing volunteers for activities such as storm water monitoring and trash cleanups. VCK has organized and conducted several cleanup events in the Oxnard J Street Drain and Ormond Beach Wetlands.

## Port Hueneme

1. The City has a few citizens that perform trash clean-up along our green belt and also has a group that performs beach cleanup separate from the Coastal Cleanup activities.

## Simi Valley

1. Throughout the year the City participated in several events to help promote pollution prevention and improve stormwater awareness within the community.

    a. During the reporting period six Household Hazardous Waste events were held where 89,869 pounds of hazardous waste was collected from the residents of Simi Valley. Stormwater informational brochures were handed out to each of the 828 participants in the events.

    b. Two Electronic Waste Collection events were held. Both events were held at the Simi Town Center Mall, the first on January 8, and the second on April 15, 2011. Informational residential BMP brochures were also handed out at these events.

    c. The City took part in the Earth Day events held on April 15, 2011 at the Simi Valley Town Center and the City Street Fair held in May. Stormwater demonstrations were given using an Enviroscape to approximately 250 adults and children at Earth Day and the Moorpark College Green Fair.

    d. The City had a staffed booth and informational brochures were handed out at the Street Fair. Our Environmental Compliance Inspectors took the time to educate residents and businesses during the 172 compliance responses.

    e. Staff issued 158 Pool Discharge Encroachment permits, handing out our Swimming Pool Maintenance BMP brochures with each encroachment permit. The Swimming Pool

Maintenance brochures was also given out with Building and Safety permits for new pools.

## Thousand Oaks

1. Community Cleanup Day—The City of Thousand Oaks sponsored a collection event of waste materials on June 4, 2011. At the event, about 2,016 residents brought 122.06 tons of trash, 43.17 tons of green waste, and 20.52 tons pounds of e-waste for free disposal.

2. Coastal Cleanup Day—On September 25, 2010 about 318 volunteers worked together to clean about 7 miles of channel and creek in and around Borchard Park; a channel in Thousand Oaks Community Park; and a reach of the Arroyo Conejo Creek in Thousand Oaks. The volunteers are from the general public, a Girl Scout group, and a group recruited from Amgen Company. The combined effort removed 958 pounds of litter and debris and about 472 pounds of recyclable materials.

3. Freeway Ramp and Interchange Collection Program (also called Adopt-A-Highway)—From July 1, 2010 to June 30, 2011, about 13,500 pounds of trash and debris were removed from 13 freeway on-ramps and exits and one freeway interchange in the City of Thousand Oaks.

4. City of Thousand Oaks Household Hazardous Collection Program—Eleven collection events were held once a month during the 2010-2011 fiscal year. On average, 434 residents brought in an about 45,000 pounds of waste materials including household chemicals such as fertilizers, cleaning chemicals, paints, insecticides, electronics, used motor oil, and unused pharmaceuticals to each collection event.

5. The City of Thousand Oaks sponsored an Arbor Earth Day on April 30, 2010. Representatives from the City's Resource Division provided information to attendees about watershed and solid waste issues. Informational brochures on these topics were available to all. More than 5,000 people attended this event.

6. An outreach event was held at Teledyne Corporation on 4/21/11. Informational displays and question and answer format educated participants about stormwater and solid waste topics. About 20 people attended.

7. On 4/22/11, information was provided to Los Robles Hospital personnel about maintaining stormwater quality and reducing solid waste as part of Earth Day. About 15 people attended the event.

8. Utility Bill Inserts—Promotional/informational inserts were prepared and distributed for Community Clean-up Day and Arbor Earth Day with a run of 38,000 each. Household Hazardous waste brochures and Water Conservation brochures were similarly distributed via US mail in amounts of 85,500 and 66,500, respectively.

9. Thousand Oaks stormwater personnel made presentations centering on water quality issues from urban runoff at the following public schools: Earths Magnet School (11/17/10), Thousand Oaks High School (1/7/11), and Aspen Elementary School (4/13/11). About 100 children attended each event.

10. Public Works Week—May 17$^{th}$ and 18$^{th}$ 2010—About 20 Conejo Valley schools brought more than 900 children and about 240 adults to see examples of the activities and equipment that are

used to by the City of Thousand Oaks to maintain its infrastructure. To inform participants about protecting stormwater quality, a table-sized watershed model was sprinkled with pretend pollutants as an application of fertilizer and pesticide to a yard. Children participated by simulating rain with spray bottles and saw these suggestive pollutants contaminate the creeks and lake by runoff flow.

## Ventura

1. The City of Ventura's volunteer based programs have a mission to preserve Ventura's natural resources. They include the following events:

    a. Community Park Clean-ups; covering 7 different parks and 268 volunteers.

    b. Earthday clean up at Surfer's Knoll; 369 volunteers.

    c. Community Neighborhood Clean-ups; covering 4 neighborhoods and 54 volunteers. River bottom clean-ups; Ventura River, 606 students from Cal Lutheran removed 11.5 tons of trash in August 2010;

    d. Santa Clara River clean-up; 25 volunteers removed 21.5 tons of trash in March 2011. Ventura Yacht Club beach and water clean-ups;

    e. 3 different events and 50 volunteers. Seaward Beach clean-up;

    f. 11 volunteers. Trashathon; held at 10 sites and 263 volunteers. Coastal Clean-up Day; 5 sites and 824 volunteers. These events continue our efforts as a community to educate the public about stormwater pollution prevention.

2. In addition, we participate in other community outreach events:

    a. Farmer's Market, Home and Garden Shows, Eco-Fest, 4th of July festival and street fair.

    b. The City hosted workshops on Ocean Friendly Gardens that educate residents about proper watering and fertilizing applications to eliminate runoff into our watershed.

    c. Our outreach and education in the Ventura Unified School District offers free presentations which include a section on stormwater and the effects of runoff on our watersheds. Over 118 separate presentations were given to 2966 students in grades 1-6.

    d. A pilot project was introduced this year to students participating in ASES and PEAK after school programs. These students were given an opportunity to learn about and then experience the watershed. The 3 part series included learning about the watershed, being taken to the Ventura River at Foster Park, where they conducted water quality monitoring, and finally kayaking in the Ventura Harbor. This effort was the first time some of the students were introduced to the concept of the watershed, runoff and stormwater pollution. All of our programs educated residents to better understand the importance of pollution prevention and how our actions impact our environment and our watersheds.

**Ventura County**

1. Approximately 2,700 "Watershed Protection Tips for Pet Owners" brochures were sent to Channel Islands Harbor residents in the Monthly Harbor mailer in April 2011.

2. About 12 "Watershed Protection Tips for Horse Owners" brochures provided to the Lake Sherwood Community Association for distribution to their members who own horses.

### 3.3.7 Storm Drain Inlet Markers and Signage Discouraging Illegal Dumping

The Permit requires each Permittee to label all storm drain inlets that they own with a legible "no dumping" message and to maintain them. The Permit also requires signs with prohibitive language (i.e., discouraging illegal dumping) to be posted and maintained at designated public access points to creeks, other relevant waterbodies, and channels.

**Label Storm Drain Inlets with "No Dumping" Message**

As of 2010-2011, the Permittees had completed labeling or marking the curb inlets to their entire storm drain system. Permittees maintain their inlet signs by reapplying stencils/markers as they wear out (see Control Measure PA5) and applying stencils/markers to new inlets as they are installed. Markers at curb inlets have varying useful lives due to the materials from which they are constructed (e.g., paint, thermoplastic), their position (e.g., on top of curb, on face of curb), and wear factors (e.g., traffic, street sweeping, sunlight). As a result, the Permittees have different programs to maintain curb inlet markers within their respective jurisdictions. Some Permittees replace a portion of their markers each year, whereas others re-mark all inlets every few years. Regardless of the specific inlet marker practice, all Permittees understand the importance of storm drain inlet markers to the education component of their program and are committed to installation and maintenance of the markers.

| Label storm drain inlets with a "no dumping" or equivalent message | | | |
|---|---|---|---|
| | Yes | No | N/A |
| **Camarillo** | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 3-8***

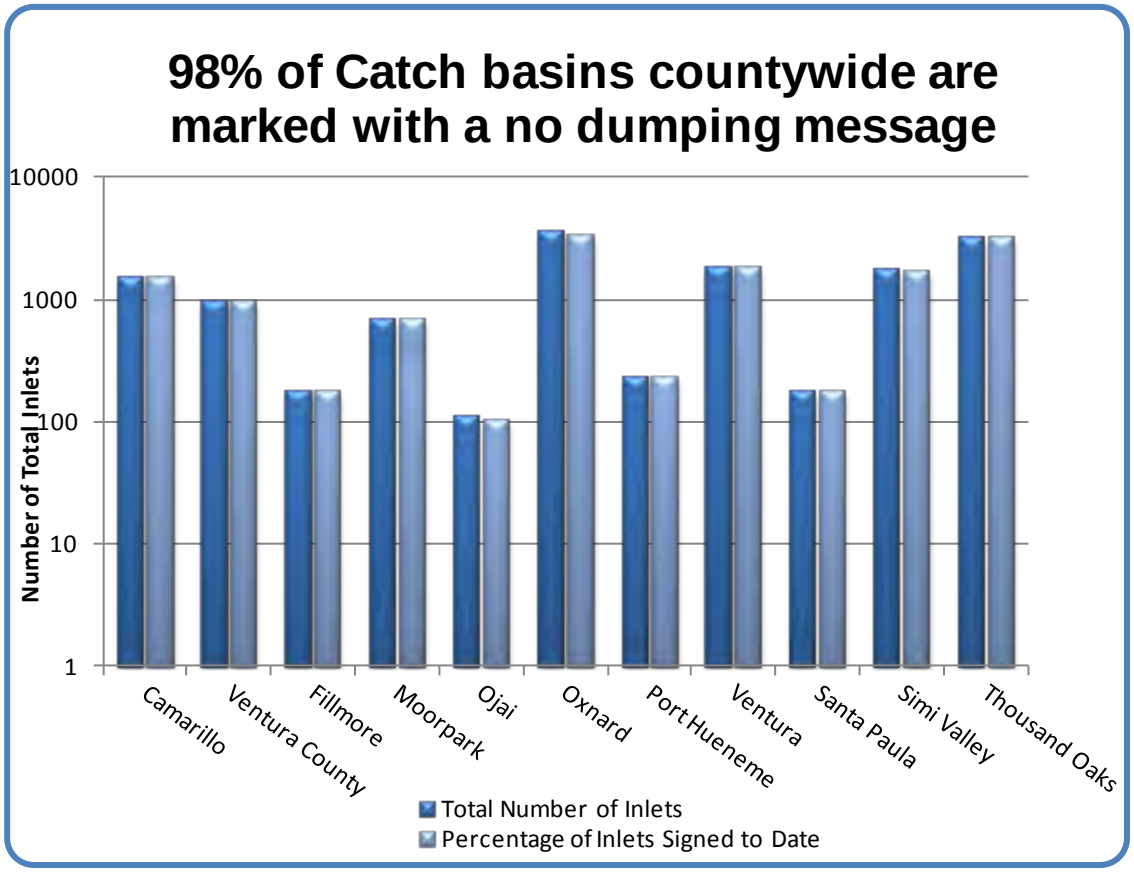



***Figure 3-2 Catch Basin Labeling***

## Post Signs with Language Discouraging Illegal Dumping

The Permittees are required to designate appropriate access points to the creeks and channels within their jurisdiction for the placement of signs with prohibitive language to discourage illegal dumping. Each Permittee is responsible for designating the appropriate access points to creeks and channels within their jurisdiction, which requires field verification and mapping. This performance standard also requires, in some cases, the cooperation between a Permittee and special districts outside a Permittee's jurisdiction.


***Public access sign***

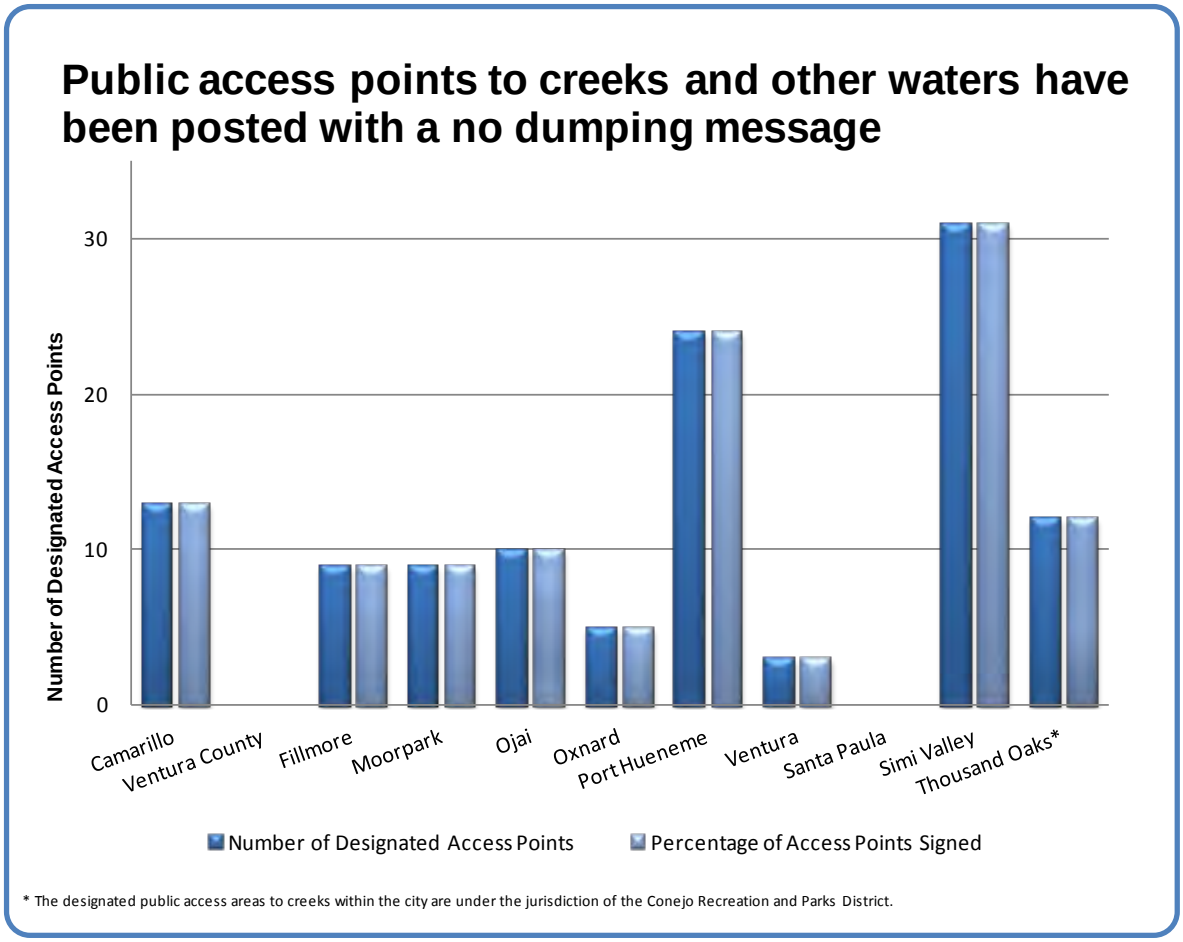



***Figure 3-3 Public Access Point Signage***

### 3.3.8 Educational Materials

The Permittees are required to distribute stormwater pollution prevention educational materials covering specific types of pollutants to specific businesses. The businesses to be targeted with these pollutant-specific educational materials include automotive parts stores; home improvement centers, lumber yards, and hardware stores; and pet shops and feed stores. In addition, the Permit requires the Permittees to continue the existing outreach program to residents on the proper disposal of litter, green waste, pet waste, proper vehicle maintenance, lawn care and water conservation practices.


## Retail Partnership Brochures: Gardeners, Pet Owners, Car Owners (Due July 8, 2011)

Three Watershed Protection Tip pamphlets aimed at residents were created to encourage best practices in their homes. These brochures were distributed to targeted retailers called out in the permit stores to reach the population that is likely involved in the activities. Each colorful pamphlet defines the Watershed, explains the storm drain system, how polluted water is damaging and gives both overall and topic-specific tips for how to keep the Watershed clean. For example:

- Gardeners: talks about plant selection, irrigation, fertilizer and pesticide practices, integrated pest management and yard maintenance
- Pet Owners: safe methods for handling and disposing pet waste, both for cats and dogs
- Car Owners: do-it-yourself clean vehicle practices for fluids, tires, batteries and car-washing


***Retail Partnership Brochures***

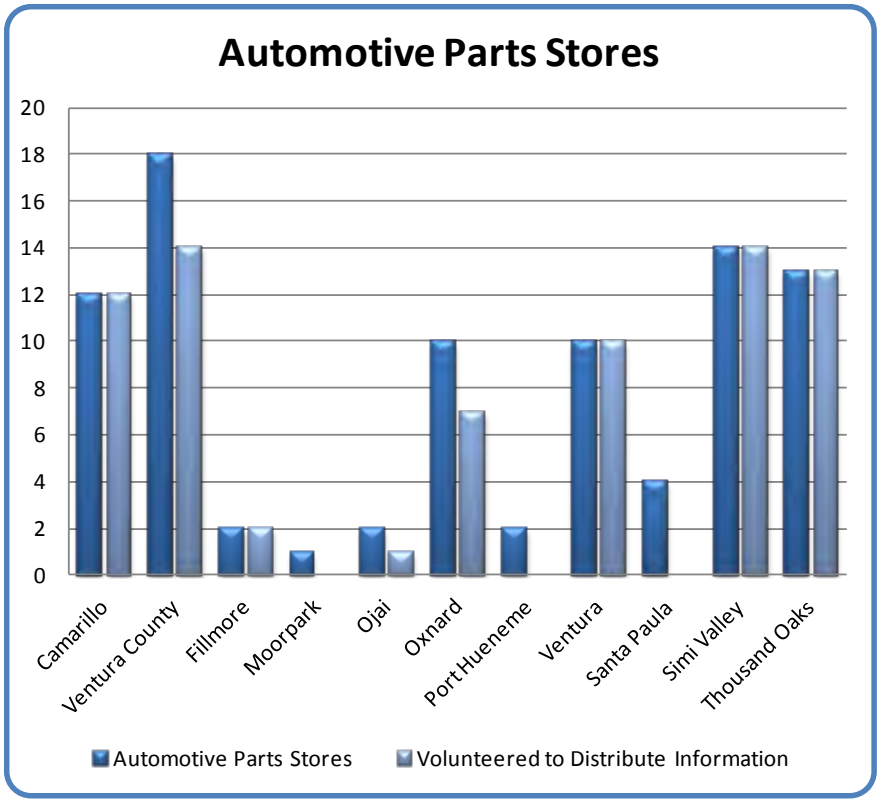



***Figure 3-4 Summary of Retail Partnership – Auto Parts Store***

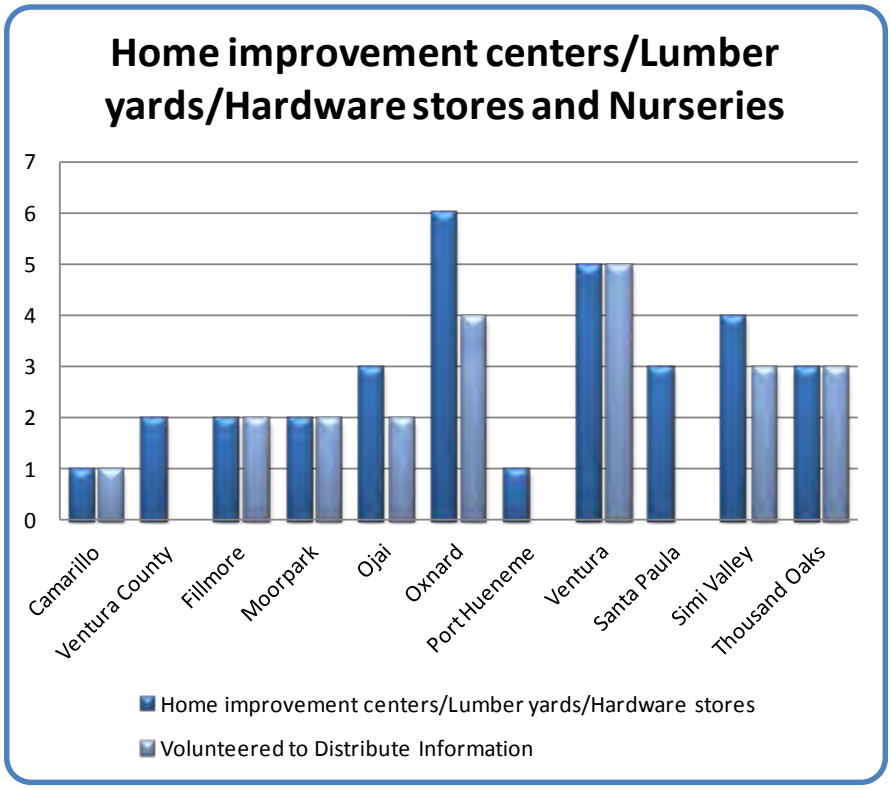



***Figure 3-5 Summary of Retail Partnership – Home Improvement and Nurseries***

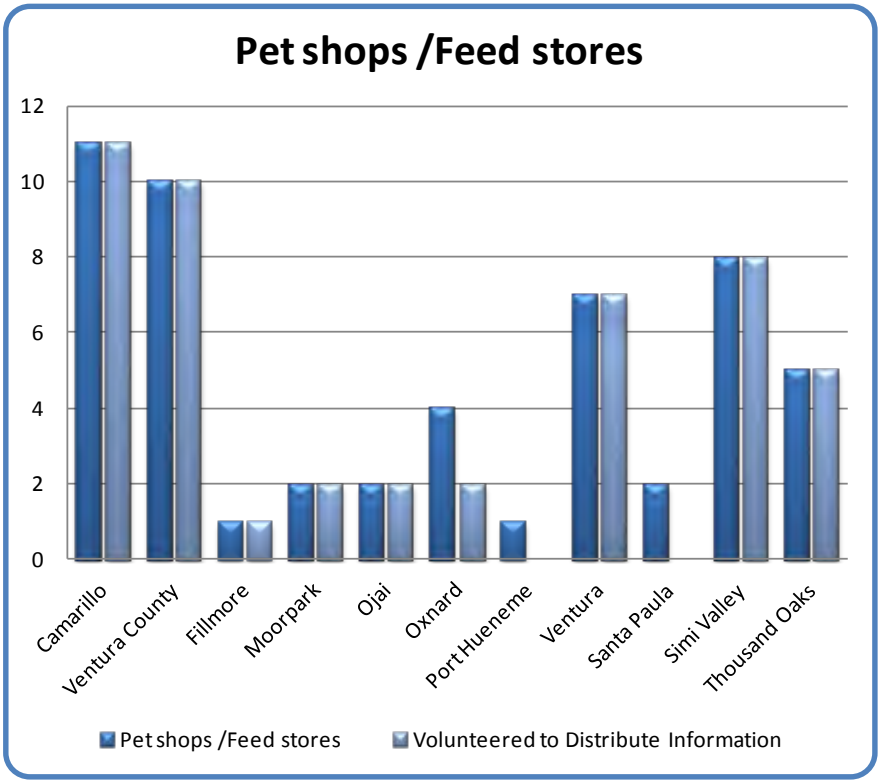



***Figure 3-6 Summary of Retail Partnership –Pet Shops***

### 3.3.9 Conduct Mixed Media Campaigns

**Conduct Stormwater Pollution Prevention Advertising Campaign and Stormwater Pollution Prevention Public Service Announcements**

The Permittees work collectively to conduct a mixed media campaign that consists of radio and public access cable channel public service announcements (PSAs), movie theater slides, print ads (including newspaper), signage (including on outdoor bulletins and at transit shelters), and website banners. The mixed media campaign is the primary mechanism that is implemented in order to achieve the 2.5 million impressions that are required to be achieved via newspaper, local TV access, local radio and/ or internet access.

| **Conduct a stormwater pollution prevention advertising campaign** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-9***

| Conduct stormwater pollution prevention public service announcements | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-10***

The Community for a Clean Watershed program was established in 2005 by the Ventura Countywide Stormwater Quality Management Program. Through the development of educational public outreach media campaigns, brochures and the Clean Watershed Web site, the Community for a Clean Watershed program has successfully raised awareness among Ventura County residents on the issues impacting the health of Ventura County's watersheds. Designed with the help of focus groups, the name was chosen to instill a sense of community and ownership. Through the development of educational public outreach campaigns, brochures and the Clean Watershed website, the Community for a Clean Watershed program has successfully raised awareness among Ventura County residents on the issues impacting the health of Ventura County's watersheds. The objectives of the Community for a Clean Watershed program are:

- Create and build awareness
- Educate residents
- Change negative behavior
- Develop a consistent message throughout all cities and areas in Ventura County
- Attempt a year-round effort to increase top-of-mind awareness of the watershed

Since 2005, the Countywide Program has utilized the marketing services of theAgency. A full-service advertising and public relations agency located in Ventura County, theAgency continues to develop materials and implement Community for a Clean Watershed campaigns and related research.

A summary of the mixed media campaigns that were conducted for the general public is provided in this report under section 3.4.3 (Make Five (5) Million Stormwater Quality Impressions per Year).

### 3.3.10 Maintain and Update the Countywide Stormwater Website

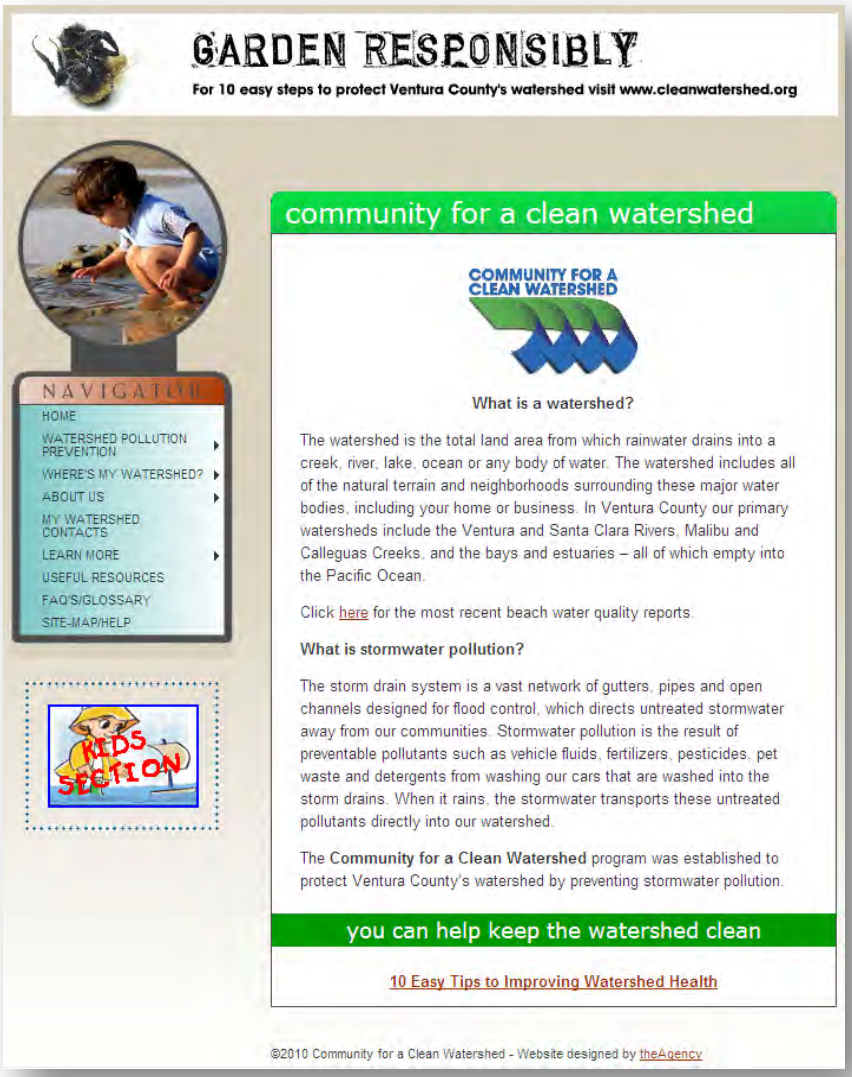
The Permit requires the Permittees to maintain the Countywide stormwater website (www.vcstormwater.org) This is the website specified by the Permit, but the Permittees also use cleanwatershed.org primarily for outreach, as described earlier under "activity-specific outreach to residents". The Community for a Clean Watershed Web site (cleanwatershed.org) is the primary mechanism used by the Permittees to reinforce the various public outreach messages as well as make available a network of resources to help the web viewer make informed decisions. The website is updated on a regular basis to add relevant campaign materials as well as educational materials.

In addition, the website is required to include pollutant-specific educational material addressing (at a minimum) information on the proper disposal, storage, and use of the following:

- Vehicle waste fluids
- Household waste materials
- Construction waste materials
- Pesticides and fertilizers (including IPM)
- Green waste (including lawn clippings and leaves)
- Animal wastes

### Community for a Clean Watershed Website

The cleanwatershed.org website continues to reinforce the various public outreach messages as well as make available a network of resources to help the web viewer make informed decisions. The website is updated regularly to add relevant campaign materials as well as educational materials. Unique visitors to the website were up 15% over last year with 2,895 people coming to the site over 4,100 visits and viewing an average of 1.9 pages.




***Community for a Clean Watershed website***

| Maintain the stormwater Web site (www.vcstormwater.org) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-11***

The Countywide Stormwater Web Site (***www.vcstormwater.org***) is periodically updated to include pollutant-specific educational materials for businesses and do-it-yourself homeowners. Facts sheets have been developed over the life of the program and include educational materials on the proper disposal, storage, and use of the following pollutants:

- Vehicle waste fluids
- Household waste materials
- Construction waste materials
- Pesticides and fertilizers (including IPM)
- Green waste (including lawn clippings and leaves)
- Animal wastes

**Coastal Cleanup Day had 3,129 volunteers covering a distance of 60 miles at 22 sites countywide and collected 11,608 pounds of trash, and 2,204 pounds of recyclables.**

### 3.3.11 Community Events

The Permit requires the Permittees to individually and collectively organize community-oriented educational activities and events and to participate in countywide events focusing on stormwater quality. The main countywide event for the stormwater program is Coastal Cleanup Day.

The 26th annual California Coastal Cleanup Day was held this year on September 25th, 2010. More than 80,300 volunteers turned out across California to help pick up trash and prevent it from spreading in our coastal and inland waterways. Statewide, the volunteers picked up more than 1.1 million pounds of trash. Internationally, when combined with The Ocean Conservancy's International Coastal Cleanup Day which is held on the same day, the event becomes one of the largest volunteer events of the year. Families, students, service groups and neighbors all work together to show their support for our shared natural resources while helping reduce and prevent the impacts of marine debris.

The Ventura County Coalition for Coastal and Inland Waterways (VCCIW) coordinates the event in Ventura County. Representatives of the stormwater Permittees serve on the VCCCIW and have been actively involved in organizing Ventura County's Coastal Cleanup Day efforts since 1996. The VCCCIW conducts advertising campaigns, finds sponsors, coordinates materials receipt and pickup, and works with site captains to organize site access permission and trash hauling. The California Coastal Commission oversees the California Coastal Cleanup Day and provides some advertising materials and assistance as needed.

At Ventura County's 2010 Coastal Cleanup Day, 3,129 volunteers at 22 sites countywide collected 11,608 pounds of trash and 2,204 pounds of recyclables, and covered a distance of 60 miles. Not only does the event remove a significant amount of trash, but each item that is picked up is tallied by category, providing a wealth of information about the types of items that are being found. This information is useful for shaping future public outreach campaigns.

This year, the "bring your own bucket, bottle, and gloves (BYOBBG)" pre-campaign began. The BYOBBG campaign aims to make Coastal Cleanup Day a zero waste event by having participants bring their own reusable waste buckets, gloves and water bottles, thereby reducing the volume of trash generated at the event. The main "bring your own" campaign is set for 2011, but the response of participants in 2010 was promising, given the limited amount of promotion the campaign was given. The success of the 2010 campaign should continue in 2011, as volunteers pick up more trash and become

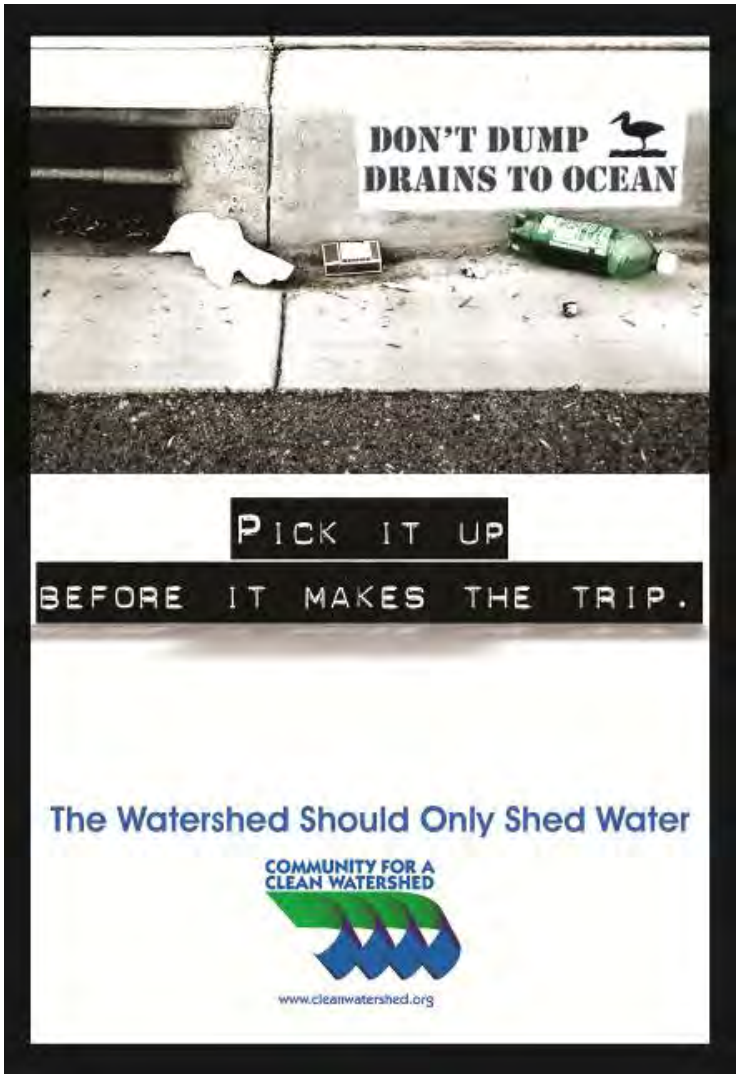
more aware of the trash they are generating, its proper disposal, and the effect it has on stormwater quality.

| Collectively organize events targeted to residents and population subgroups | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-12***

### 3.3.12 Pollutant-Specific Outreach

The Permit requires the Permittees to coordinate to develop outreach programs that focus on the following specific pollutants of concern: metals, urban pesticides, bacteria, and nutrients. For effectiveness in delivering these messages they were incorporated into the other outreach programs requirements of a multimedia campaign and retail partnerships with auto shops, pet stores and home improvement stores/nurseries.



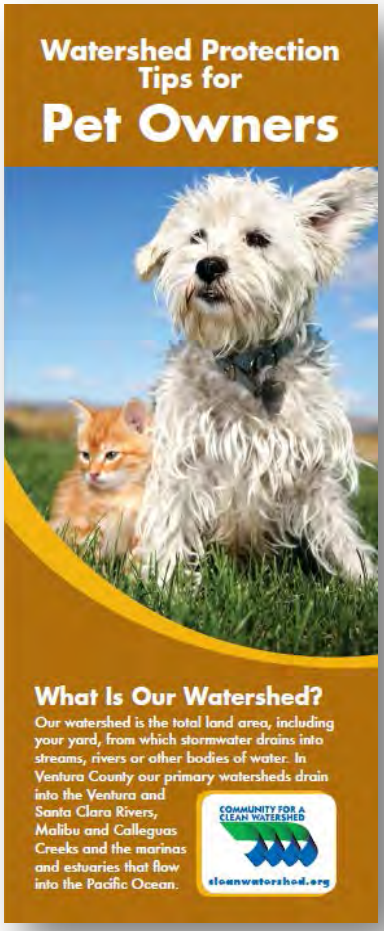

To focus on nutrients good gardening techniques were identified as a more understandable surrogate for the public as communicating that "nutrients" are a bad thing would create an additional hurdle to the ultimate goal of changing behavior. This information along with pesticide BMPs were distributed at retail nurseries throughout the county. Bacteria from pet waste have been an ongoing target of the program and new material was created during the permit year and given to pet stores to distribute. As stated in the permit the metals pollutant-specific outreach is addressed through the industrial-commercial inspection program.

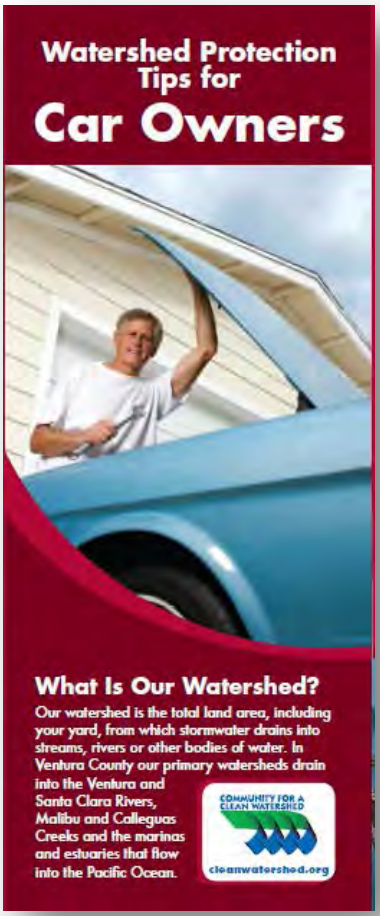
| Develop and implement a behavioral change assessment strategy based on current sociological data and studies to determine whether the Public Outreach Program is demonstrably effective in changing the behavior of the public | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☑ | ☐ | ☐ |

***Performance Standard 3-13***

| Implement outreach programs focusing on pollutants of concern | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Metals | ☑ | ☐ | ☐ |
| Urban Pesticides | ☑ | | |
| Bacteria | ☑ | | |
| Nutrients | ☑ | | |

***Performance Standard 3-14***





***Various BMP Brochures***

## 3.5 PO3 – YOUTH OUTREACH AND EDUCATION

This Control Measure ensures that the Permittees either provide school districts within the County with outreach materials (including, but not limited to videos, live presentations, and other information), provide funds to the Environmental Education Account to educate school-age children about stormwater pollution, or submit a Youth Outreach Plan.

Educational outreach to children is an important way to affect a change in behavior. Outreach to children not only changes behavior of the next generation, but children also act as watchdogs over their parent's behavior. Because of this the Program and the individual Permittees have been conducting public outreach with a youth component for many years. Their experience with the local schools in Ventura County and developing programs targeting school-aged children have provided valuable input in the selection of the youth outreach option and the development of a Youth Outreach Plan (Plan) submitted to the Regional Board in July of 2009.

The document summarizes the Program's experience in developing and presenting outreach material to school-aged children, and demonstrates how that experience led to the rationale behind the selection of the Permit required Youth Outreach Plan option. The Plan is described in detail and includes the ground work of identifying what Ventura County youth know about stormwater pollution, where they get their information, and which watershed pollution concepts need additional development. This information was then used to prepare the creative objectives for a media campaign aimed at changing behavior to improve the quality of stormwater runoff. The target audience includes Ventura County youth from kindergarten through high school. The media outlets, broadcast frequency and number of impressions expected are outlined in the media campaign. Finally, the Plan includes methods of measuring program effectiveness and providing feedback for continual improvement of the Youth Outreach Plan to give the next generation the understanding needed to improve the stormwater runoff quality in Ventura County.

Community for a Clean Watershed's efforts against youth continued to build on last year's outreach when a specific plan was created to reach 50% of all Ventura County school children (K-12) once every two years to comply with the NPDES Permit #CAS004002. With less than 150,000 school aged children enrolled in Ventura County schools, this translates to reaching approximately 75,000 in that target every two years. While that goal was met and exceeded in FY10 with over 700,000 media impressions made on kids 6-11 and teens, the Community for a Clean Watershed continues to speak to this important audience with a targeted media plan and a creative strategy that appeals to youth. Television, radio, and mall posters garnered 904,090 impressions – thus reaching this audience with significant repetition. In addition, the Facebook page has a sizeable percentage of young fans (58%), allowing for a consistent message to be delivered to youth.

### Facebook Page Launch and Development

With several tabs, each rich with content, the Community for a Clean Watershed Facebook page is attractive, inviting and informative. In less than one year, the page has already garnered 438 fans (as of June 30, 2011). Since many of these fans are Kids 12-18, the Facebook page allows the Community for a Clean Watershed to keep Ventura County youth engaged and works in conjunction with other youth outreach.


The first time a potential fan comes to the page, they are directed to a tab that correlates with the most recent public outreach campaign. In addition to the Wall, tabs include:

- Sick of the Junk: Originally, this tab included the transit shelter ad for "Pick it Up," tying into the campaign and validating that the person had clicked through to the correct Facebook page, from which they could "Like" it. Recently, the tab was updated with statistics for items (junk) left in the watershed and why each item is a pollutant of concern.
- Learn More – Information and links for local partners and related organizations, such as The Watersheds Coalition, The Santa Clara River Parkway and the Calleguas Creek Watershed Management Plan.
- Videos – Public Outreach commercials from all campaigns, including trash, pesticide, green waste, etc.
- Events – Earth Day events and more

An attempt is made to keep the conversation lively and engaging, including information about local events for Earth Day and/or Coastal Clean-up Day, photos of local beaches, and a fun question from time to time about watershed pollutants or other interesting local facts. This has resulted in 22,842 post views to date.

## 3.4 PO4 – BUSINESS OUTREACH

The Permit requires the Permittees to develop and implement both a corporate outreach and a small business assistance program to educate and inform corporate franchise operators, local facility managers, and small businesses about stormwater regulations and BMPs to reduce the discharge of pollutants in stormwater.

### 3.4.1 Corporate Outreach

**Develop Corporate Outreach Program (due by July 8, 2012)**

The Permittees must work with other regional or statewide agencies and associations such as the California Storm Water Quality Association (CASQA) to develop a Corporate Outreach program to educate and inform the following corporate franchise operators and/or local facility managers (at a minimum) about stormwater regulations and BMPs.

- Four (4) Retail Gasoline Outlet (RGO) Franchisers
- Four (4) Retail Automotive Parts Franchisers
- Two (2) Home Improvement Center Franchisers
- Six (6) Restaurant Franchisers

Educational materials for RGOs, and restaurants have been developed by the Permittees and are distributed to local facility mangers during inspections. Automotive part stores are included in the retail partnership program to help educate the public shopping at their locations; the next step is to educate the corporate franchise operators and/or local facility managers. Under the nursery inspection program some Permittees are including home improvement centers due to the size of their gardening sections. As more is understood about the threats to stormwater from these locations and the need for information new materials will be developed to educate them about stormwater regulations and BMPs.

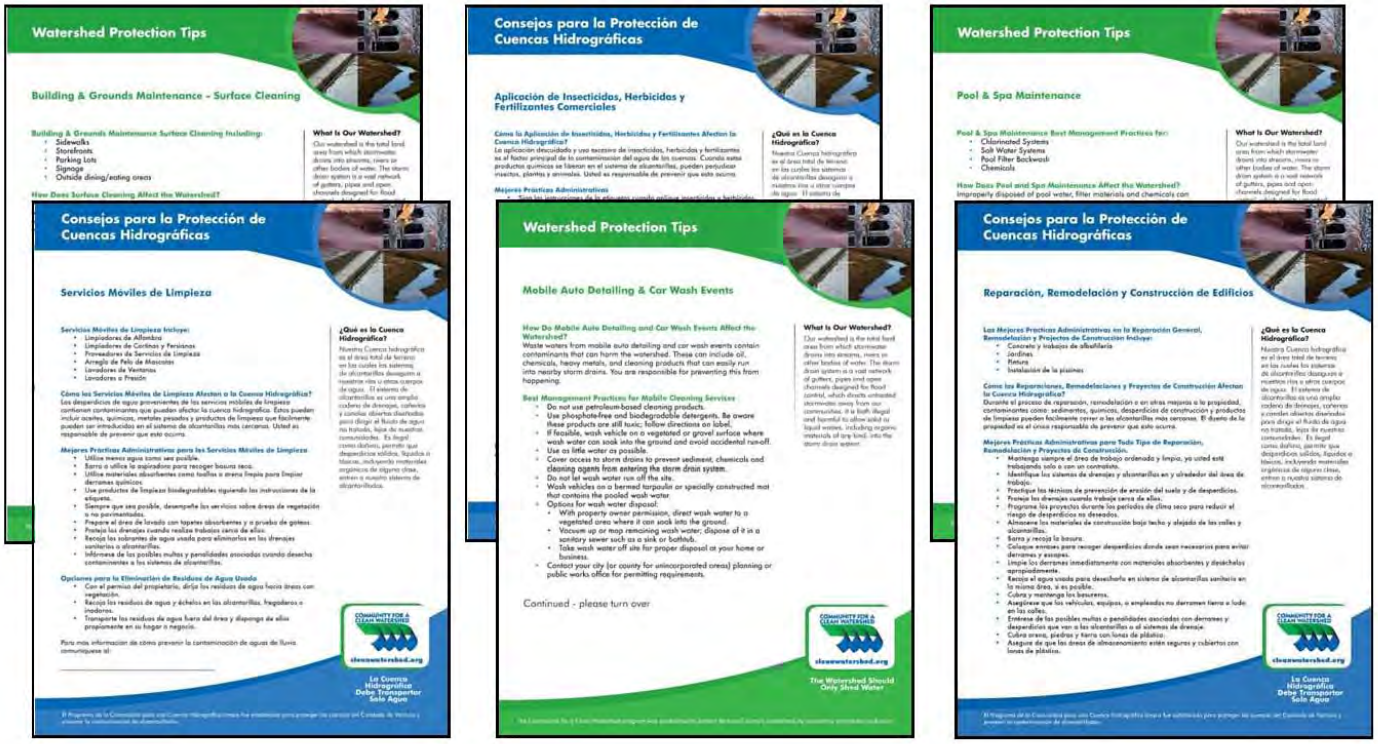
| **Work with other regional or statewide agencies and associations such as the California Storm Water Quality Association (CASQA) to develop a Corporate Outreach program to educate and inform the following corporate franchise operators and/or local facility managers (at a minimum) about stormwater regulations and BMPs? (by July 8, 2012)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormwater Quality Program | ☐ | ☐ | ☑ |

***Performance Standard 3-15***

### 3.4.2 Business Assistance Program

#### Best Management Practices Fact Sheets

Targeting types of businesses that have significant potential to contribute to stormwater pollution, Watershed Protection Tips one-sheets were created to outline best management practices for six categories of activities. Each BMP fact sheet is available on the Community for a Clean Watershed website, where they can be read or printed for distribution. 10,800 were printed for distribution through Permittees.




***Best Management Practices Fact Sheets***

#### Provide Consultation Regarding Business Responsibilities

On-site, telephone or e-mail consultation is required to help business reduce the discharge of pollutants. The Permittees provide on-site consultation regarding the responsibilities of businesses to reduce the discharge of pollutants, during inspections this is covered in Section IV Industrial Commercial Programs. These trained and knowledgeable inspectors are also available to respond to questions via phone or email.

#### Distribute Educational Materials to Specific Businesses

As mentioned above the Industrial Commercial Program is responsible for the distribution of information to businesses. This occurs mostly at inspections, but may also be done when obvious problems are reported. An opportunity to disseminate this information to new business before they are in operation is through the business license program. All businesses need a business license to operate legally in a jurisdiction. It is as that time that the permittees are able to distribute information regarding stormwater

regulations and appropriate BMPs for their operations. The Program has developed many specific fact sheets over the years for this purpose. The fact sheets may be distributed with the business license or the proprietor may be directed to the website for the information. Some of the Permittees efforts are described below.

### Moorpark

1. The City of Moorpark participates in the Countywide Public Information Sub-committee which works on residential and industrial education. The City also provides information on stormwater best management practices when performing inspections of all businesses identified as critical sources for pollutants. These include food, automotive, industrial, laundry, and nursery/feedlot facilities.

### Ojai

1. Building department counter has stormwater brochures available for contractors.

2. Plan review includes information regarding SWPPP.

### Oxnard

1. The City of Oxnard has an active Business Assistance Program. Technical Services Program-Stormwater (TSP-SW) staff distribute educational materials and BMP guidelines during routine inspections of commercial facilities and restaurants. In addition, staff also provides verbal direction and guidance regarding storm water compliance during these inspections.

### Port Hueneme

1. Businesses are targeted through BL program and through other avenues such as business inquiry, and public observation. Materials used are those received through the Countywide Program.

### Simi Valley

1. The City of Simi Valley has set up a phone hotline and designated e-mail address to address the stormwater pollution questions and concerns of businesses in the City.

2. During inspections our inspectors review stormwater BMPs as well as issues dealing with pretreatment and water conservation. We pay special attention to the stormwater needs of our Industrial base, auto facilities, restaurants, and home improvement stores.

3. On a monthly basis a report is created showing all the new business licenses issued by the City, our inspectors will then visit the business to determine what classification it should be, discuss BMPs, and offer technical assistance and guidance. As time warrants our inspectors perform sweeps in their assigned areas to identify new businesses.

4. Inspectors respond to resident complaints/concerns on a regular basis and make field observations for mobile businesses.

**Thousand Oaks**

1. Businesses in Thousand Oaks expected to have the potential to contaminate stormwater such as restaurants, auto repair and related services, and gas/service stations are inspected at least once per 2-year cycle. At an inspection of such facilities, methods of preventing contamination of stormwater are discussed with the owner/operator. Additionally, pollution-prevention literature such as posters, BMP fact sheets, and pamphlets were left for reference. Mobile car cleaners and Carpet Cleaning operators are required to obtain an Administrative Action Permit to conduct operations. Requirements of these permits include the prohibition of stormwater contamination.

**Ventura**

1. Local businesses are introduced to the assistance program throughout community outreach program, that includes an insert in commercial trash bills and the City website. A request for assistance will trigger a site visit and a waste assessment with a stormwater education component. Outdoor areas, including trash enclosures, landscape management, building maintenance and remodeling, outdoor material storage and illicit discharges are the focus of discussion.

2. The City provides a Clean and Healthy Beaches window sticker for businesses included in our commercial/industrial inspection program. The sticker serves as a reminder to the business as well as their customers, that keeping our watershed clean and healthy is an important aspect of doing business in the City of Ventura.

**Ventura County**

1. Countywide outreach to Nurseries and Nursery Centers with information on Best Management Practices (BMPs) for stormwater pollution prevention via County of Ventura Ag Commissioner's office.

2. Approximately 40 Nursery BMP brochures provided to the Farm Bureau of Ventura County for distribution to members.

## 3.7 PO5 – EFFECTIVENESS ASSESSMENT

### 3.4.3 Behavioral Change Assessment Strategy

The Permit requires the Permittees to develop and implement a behavioral change assessment strategy based on current sociological data and studies to determine whether the Public Outreach Program is demonstrably effective in changing the behavior of the public.

The Ventura County Watershed Permittees are committed to tracking performance of their outreach efforts. To that end, periodic research surveys are conducted to measure awareness, perceptions and the actions taken by Ventura County residents to protect the local Watershed. The research also gives insight about whether outreach messaging is effective along with providing some insight into local media preferences. The following summarizes the 2011 Youth Research Survey, which is the fourth survey since outreach started five years ago.

| Develop and implement a behavioral change assessment strategy based on current sociological data and studies to determine whether the Public Outreach Program is demonstrably effective in changing the behavior of the public | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Sotrmwater Quality Program | ☑ | | |

***Performance Standard 3-16***

In order to establish a baseline of our K-12 target audience's understanding of the watershed and issued surrounding stormwater pollution a web survey was conducted in the spring of the 2009 program year. A follow-up web survey was conducted in the fall of 2010. Implemented by Applied Research West and using the same online methods as the baseline survey for data collection, a total of 330 participants between the ages of 5 and 18 with 30 participants from each city and unincorporated areas in Ventura County, were surveyed with attention paid to matching the ethnic composition of the area.

**Key findings from follow-up survey include:**

**Awareness of Watershed and Stormwater**

Awareness of the terms watershed and stormwater pollution moved above 50%, significantly higher since 2009. (+18%, +9% respectively)

Understanding of defined "watershed characteristics" increased 7%

**Youth Outreach Recognition**

Recognition of the Community for a Clean Watershed logo increased 9%

79% of participants recalled seeing or hearing one or more of the TV, radio, banners and outdoor sign placements.

30% of participants remember hearing or seeing something regarding watershed protection, in general, in the past year.

**Conservation Behavior and Beliefs**

The tendency to ask a friend to pick up litter or pick it up oneself (changed behavior!) increased by 10% in each category.

There was a significant increase in the number of organic and inorganic materials viewed as creating "pollution" when disposed of on the ground. (Broadened understanding of what trash can include!) (7 elements & 65% increase compared to 2 in 2009)

Water, clean beaches, and wild animals continued to be considered extremely important. However, "Clean Beaches" jumped in priority by 23% when compared to the importance of maintaining "Pretty Green Lawns". (A positive shift in priorities!)

The research results indicate a clear connection between key outreach messages and increases in understanding and shifts in behavior/attitude. This supports continued use of new and traditional media to educate youth on watershed protection.

**Summary of Effectiveness**

In its sixth year of developing educational public outreach campaigns, brochures, posters, the Clean Watershed website and now a Facebook page, the Community for a Clean Watershed program continues to successfully raise awareness among Ventura County residents on the issues impacting the health of Ventura County's watersheds. This year, several elements were added, achieving the following:

- Build on last year's initial youth campaign, generating almost a million impressions to reach the 141,646 students in Ventura County.
- Produce a trash campaign, including television, radio, online banner and transit shelter creative elements, taking advantage of the momentum of the green initiative and awareness to encourage residents that "We can do this" and to "Pick it up" before it makes the trip.
- Create BMP fact sheet for six types of businesses.
- Launch and promote a local Community for a Clean Watershed Facebook page.
- Continue to develop relationships with local media for additional media at no charge.
- Measure progress of the relatively new youth campaign for increased understanding of overall and specific campaign messaging as well as changes in watershed protection practices.


***The Watershed Should Only Shed Water***

***The Community for a Clean Watershed logo and catch phrase***

### 3.4.4 Conduct Annual Effectiveness Assessment

Effectiveness assessment is a fundamental component required for the development and implementation of a successful storm water program. In order to determine the effectiveness of the Public Outreach Program Element, a comprehensive assessment of the program data is conducted as part of the Annual Report. The results of this assessment are used to identify modifications that need to be made to the program. Each year the effectiveness assessment is reviewed and revised as necessary.

By conducting these assessments and modifying the Program Element as necessary, the Permittees ensure that the iterative process is used as an effective management tool. Due to the types of data collected for the Public Outreach Program, current and future assessments will primarily focus on Outcome Levels 1, 2, and 3.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?
- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly increased the awareness of its target audience?
- Outcome Level 3 (L3) answers the question: Can the Permittees demonstrate that the control measure/performance standard changed a target audience's behavior, resulting in the implementation of recommended BMPs?

The following is an assessment regarding the effectiveness of the Public Outreach Program.

### PO1 – Public Reporting

The Permittees have identified staff to serve as contact persons for public reporting. (**L1**)

The Permittees maintain two types of public reporting hotlines, one for general stormwater information and the other for reporting water pollution problems. (**L1**)

The Permittees are promoting and publicizing the public reporting hotlines and contact information. The information is available on Permittee web sites and is published in the government pages of the local phone book and other appropriate locations. **(L1)**

The Permittees are raising awareness about the public reporting hotline numbers. **(L2)**

### PO2 – Public Outreach Implementation

The Permittees have developed and are implementing the public outreach program that provides key stormwater messages. **(L1)**

- Education of Ethnic Communities – The Permittees have developed and implemented a strategy to educate ethnic communities through culturally effective methods. The Permittees educated ethnic communities by reaching out to the Hispanic community in Ventura County via Spanish language advertising in the media. In 2010-2011, Spanish language advertising accounted for approximately 1.05 million (18%) of the total stormwater quality impressions.
- Storm Drain Inlet Markers and Signage – The Permittees have labeled or marked 100% of the storm drain inlets for the entire storm drain system and maintain the stencils/markers through the Public Agency Activities Program. In addition, 90% of all public access points to creeks and channels have signage with language that discourages illegal dumping, this includes access points that are outside of Permittee jurisdiction.
- Educational Materials – The Permittees have developed and are providing a variety of stormwater pollution prevention outreach materials, including those for specific pollutants and activities. Some materials are also provided in Spanish. The materials include pamphlets, brochures, and BMP posters and are provided via a number of mechanisms, including at community events, at specific businesses, utility billing inserts, and the Countywide stormwater Web site (http://cleanwatershed.org/). In 2010-2011, the Permittees distributed pollutant-specific outreach materials to the following business types: automotive parts stores; home improvement centers, lumber yards, and hardware stores; and pet shops and feed stores. In addition, the Permittees distributed activity-specific stormwater pollution prevention educational materials to residents regarding the following activities: proper disposal of litter, green waste, and pet waste; proper vehicle maintenance; lawn care; and water conservation practices.
- Mixed Media Campaigns – The Countywide program has continued to work with a local public relations agency, theAgency, to develop and implement Community for a Clean Watershed campaigns. The Permittees have provided the public with various stormwater-related articles or

messages via radio and public access cable channel PSAs, movie theater slides, print ads (including newspaper), signage on outdoor bulletins and at transit shelters, and Web site banners. During 2010-2011, the Permittees conducted a total of three campaigns (Green Waste and Youth, Transit Shelter Overrun, and Pesticide and Youth) for an estimated 6.59 million total impressions through mixed media campaigns.

- Countywide Stormwater Web Site – The Permittees continue to maintain and utilize both Web sites (http://cleanwatershed.org/ and http://vcstormwater.org/) to provide regularly updated outreach to the public.
- Community Events – The Permittees outreached to the general public by sponsoring, organizing, and/or exhibiting at multiple community events and providing information to event attendees. These events included Coastal Cleanup Day; a total of 3,129 volunteers collected trash at 22 sites countywide.
- Pollutant-Specific Outreach – The Permittees are implementing a pollutant-specific outreach program regarding metals, urban pesticides, bacteria, and nutrients in coordination with multi-media campaigns and retail partnerships with auto shops, pet stores, and home improvement stores and nurseries. Pollutant-specific outreach materials have been distributed via these retail partnerships.

As a result of the above efforts, in 2010-2011, an estimated total of 9 million impressions were made, well exceeding the goal of five million stormwater quality impressions per year.

### PO3 – Youth Outreach and Education

The Permittees developed and submitted a Youth Outreach Plan in July 2009 that outlines how the Permittees will address youth outreach via a media campaign. During 2010-2011, the Permittees continued implementing this campaign, making over 700,000 impressions to youth in Ventura County. The Permittees continued to conduct outreach to youth by distributing outreach materials specifically targeting school-age children, as well as providing information, games, and activities on the Kids' Section of the Countywide Web site. In addition, although not required by the Permit, at least two individual Permittees made presentations to students at schools or Permittee facilities. **(L1)**

### PO4 – Business Outreach

The Permittees provided on-site consultation to businesses during inspections regarding their responsibility to reduce discharge of pollutants. Inspectors are also available for consultation via telephone and e-mail. **(L1)**

The Permittees distributed educational materials to specific businesses during inspections, when business licenses are obtained, and when problematic businesses are reported. In addition, information is made available on the Countywide Web site, and businesses are referred to the Web site as appropriate. **(L1)**

### PO5 – Effectiveness Assessment

**Summary of Effectiveness**

In its sixth year of developing educational public outreach campaigns, brochures, posters, the Clean Watershed website and now a Facebook page, the Community for a Clean Watershed program continues to successfully raise awareness among Ventura County residents on the issues impacting the health of Ventura County's watersheds. This year, several elements were added, achieving the following:

- Build on last year's initial youth campaign, generating almost a million impressions to reach the 141,646 students in Ventura County.

- Produce a trash campaign, including television, radio, online banner and transit shelter creative elements, taking advantage of the momentum of the green initiative and awareness to encourage residents that "We can do this" and to "Pick it up" before it makes the trip.

- Create BMP fact sheet for six types of businesses.

- Launch and promote a local Community for a Clean Watershed Facebook page.

- Continue to develop relationships with local media for additional media at no charge.

- Measure progress of the relatively new youth campaign for increased understanding of overall and specific campaign messaging as well as changes in watershed protection practices.

**Youth Panel Research Survey**

The Ventura County Watershed Permittees are committed to tracking performance of their outreach efforts. To that end, periodic research surveys are conducted to measure awareness, perceptions and actions taken by Ventura County residents to protect the local Watershed. The research also gives insight about whether outreach messaging is effective along with providing some insight into local media preferences.

In order to establish a baseline of our K-12 target audience's understanding of the watershed and issued surrounding stormwater pollution a web survey was conducted in the spring of the 2009 program year. A follow-up web survey was conducted in the fall of 2010. Implemented by Applied Research West and using the same online methods as the baseline survey for data collection, a total of 330 participants between the ages of 5 and 18 with 30 participants from each city and unincorporated areas in Ventura County, were surveyed with attention paid to matching the ethnic composition of the area.

The research results indicate a clear connection between key outreach messages and increases in understanding and shifts in behavior/attitude. This supports continued use of new and traditional media to educate youth on watershed protection.

The results outlined above show that the Public Outreach program efforts have increased awareness among Ventura County residents regarding some key issues impacting the health of Ventura County's watersheds.

### 3.4.5 Public Outreach Program Element Modifications

On an annual basis, the Permittees plan to evaluate the results of the Annual Report, as well as the experience that staff has had in implementing the program, to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable. Any key modifications made to the Public Outreach Program Element during the next fiscal year will be reported in the following Annual Report.

# 4 Industrial/Commercial Facilities Programs

## 4.1 OVERVIEW

The purpose of the Industrial/Commercial Facilities Program Element is to effectively prohibit unauthorized non-stormwater discharges and reduce pollutants in stormwater runoff from industrial and commercial facilities to the maximum extent practicable (MEP).

The daily activities of many businesses create a potential for pollutants to enter a storm drain system through both intentional and unintentional actions. The Permittees have developed programs to address this source of pollutants through inspections of targeted businesses and by providing educational outreach and enforcement if needed. These efforts include information on the potential for illicit discharges and illegal connections from businesses, aid in the selection and use of proper BMPs, and result in formal enforcement action and fines if environmental rules are ignored.

The program for industrial and commercial facilities is accomplished by tracking, inspecting, providing outreach, and ensuring compliance at industrial and commercial facilities identified as critical sources of pollutants in stormwater. Industrial and commercial facilities are managed under a single Program Element due to the similarities among these types of facilities and the effort involved to implement the program. Additionally, industrial and commercial land uses within Permittee jurisdictions are commonly located in close proximity to one another, often in the same sub-watershed.

The Permittees use the Business Outreach and Illicit Discharge/Illegal Connection Subcommittee meeting to coordinate and implement a comprehensive program to control pollutants in stormwater discharges to municipal systems from targeted commercial facilities. The Subcommittee is comprised of representatives of the Permittee cities and other municipal staff from various departments (e.g. Environmental Health, Environmental Services and Wastewater Services). The subcommittee allows the Permittees to learn from each other's experience and develop and share resources. Each Permittee has implemented an Industrial/Commercial Business Program using the control measures identified below.

## 4.2 CONTROL MEASURES

Several Control Measures and accompanying performance standards have been developed by the Permittees to ensure that the Industrial/Commercial Facilities Program requirements found in the Permit are met and provide information for optimizing the Program.

The Industrial/Commercial Facilities Program Control Measures are organized to be parallel to the organization of the Permit and consist of the following:

| IC | Control Measure |
|---|---|
| IC1 | Facility Inventory |
| IC2 | Inspection |
| IC3 | Industrial/Commercial BMP Implementation |
| IC4 | Enforcement |
| IC5 | Training |
| IC6 | Effectiveness Assessment |

***Table 4-1 Control Measures for the Industrial/Commercial Facilities Program Element***

## 4.3 IC1 – FACILITY INVENTORY

The Facility Inventory Control Measure addresses the need to develop and maintain a complete and comprehensive database of industrial and commercial facilities that are determined to be critical sources of stormwater pollution. Information for the database is primarily derived from new business licenses and sanitary sewer connection permits. Facility inspections performed by the Permittees also continues to provide the details needed for the database. Some Permittees perform surveys of the industrial zoned areas in their jurisdiction to help maintain their industrial facility inventory. This survey is usual associated with industrial waste pretreatment inspections required for agencies operating a wastewater collection system. The inventory provides the basis for all Permittee actions under this Program Element and serves as a repository for information related to inspection, outreach, compliance, progressive enforcement and program effectiveness assessment.

### 4.3.1 Maintain and Annually Update the Industrial and Commercial Facility Inventory

As required by the Permit the Permittees maintain an inventory of industrial and commercial facilities within their jurisdictions, including those covered under the state Industrial General Permit. This inventory identifies the type of business, the watershed it is located in and inspections and enforcement action history.

The Permittees supplement their inventory by utilizing data from County Environmental Health to obtain current facility numbers prior to planned inspections. The Regional Water Board's website also provides useful information for all Industrial General Permit holders and is used extensively for that program. These data were first compiled during the 2009-2010 reporting period and will be updated on an ongoing basis as the next round of inspections discovers new facilities as well as companies that are no longer in operation. Some businesses, such as restaurants, have a high turnover with new ones opening each year and many also closing their doors permanently. Because of the continued turnover of businesses the Industrial and Commercial inventory can never be assumed to be 100% accurate, it is a snap shot and will be continually improved as information becomes available. The current development of inventory for 2010-2011 is summarized in the following Tables.

| ***Did the Co-permittees maintain and update the Industrial and Commercial Facility Inventory*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-1***

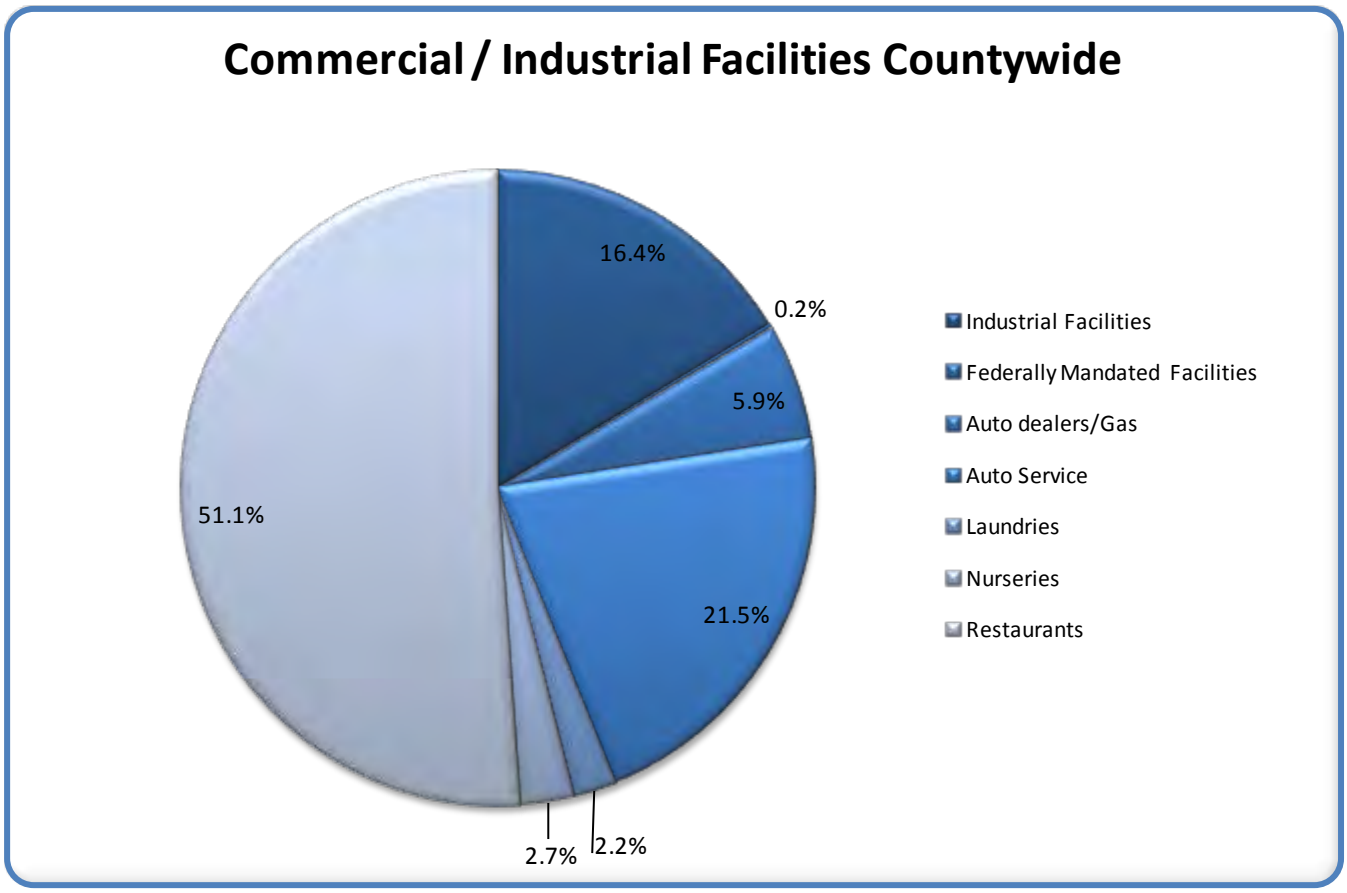



*Figure 4-1 Commercial/Industrial Facilities Inventory*

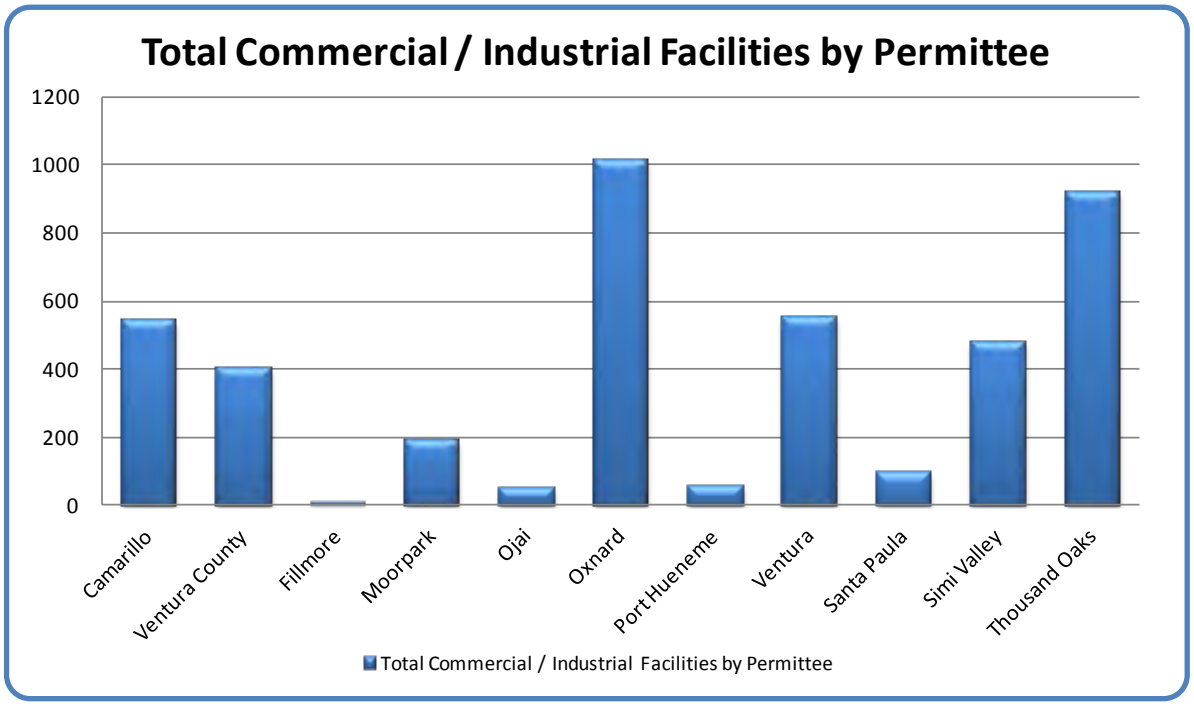



*Figure 4-2 Commercial/Industrial Facilities by Permittee*

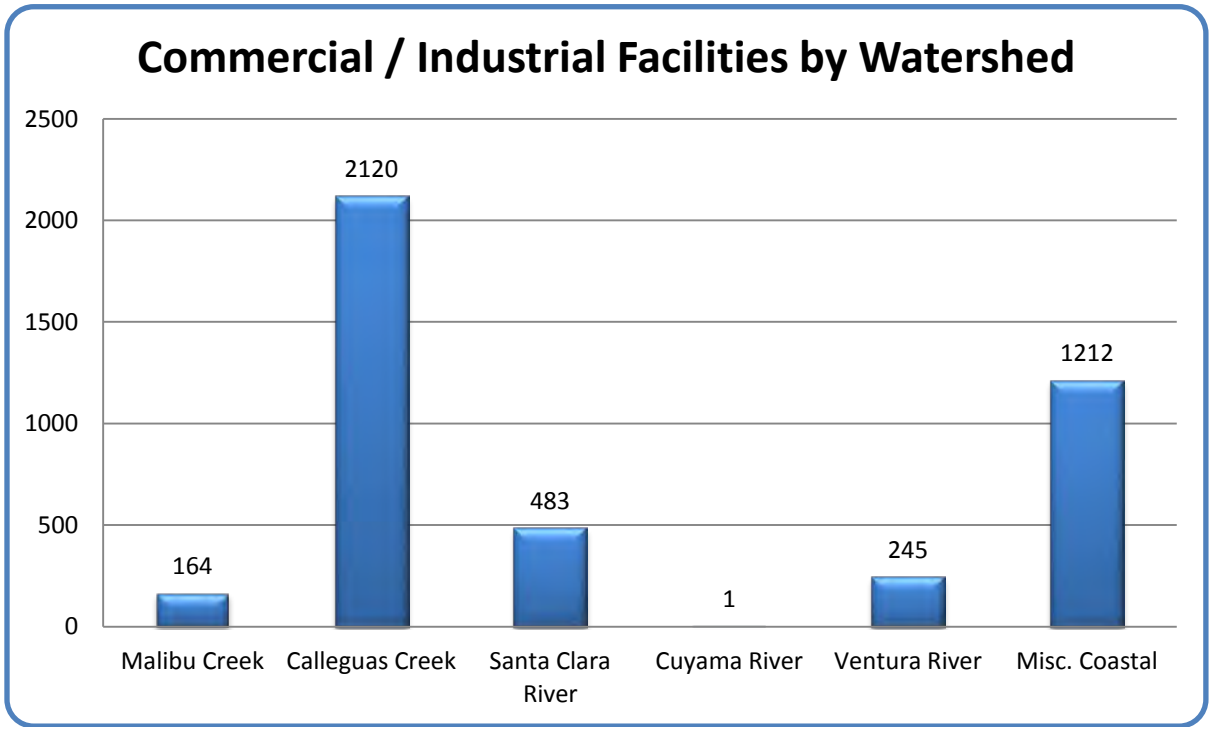



***Figure 4-3 Commercial Industrial Facilities by Watershed***

## 4.4 INSPECT INDUSTRIAL AND COMMERCIAL FACILITIES TWICE DURING PERMIT TERM

To satisfy the requirement of inspecting these facilities twice during the Permit term the Permittees began their inspection of industrial and commercial facilities in the 2009-2010 Permit year. With respect to industrial facilities, if the initial inspection reveals that there is no risk of exposure of industrial activities to stormwater at a facility, then that facility may be categorized as *No Exposure Status.* A second inspection is required at a rate that provides annual re-inspection of a minimum of 20% of all such facilities determined to have non-exposure.

After the 2010-2011 Mandatory Compliance inspection a new table will be added that tracks the number of inspections conducted at facilities determined not to have exposure of industrial activities to stormwater.

All initial industrial and commercial facility inspections must be completed no later than July 8, 2012. A minimum interval of six months between the first and second compliance inspection is required at all industrial and commercial facilities. It is possible that a site will be visited sooner than six months if requested by the Regional Board staff to assist with their investigations.

All Permittees are in compliance with this requirement since the industrial and commercial inspections are not required to be completed during the reporting period of this report. That is not to say that the Permittees have not initiated an inspection program. The inspection program begins with the inventory described above, followed by inspections and any needed enforcement. The program will be ongoing with continual updates to the inventory and facilities being re-inspected at least twice during the permit term.

The status of the industrial commercial inspection program through the end of the reporting period is represented in the following tables. When reviewing these tables it is important to keep in mind that they represent a program in progress and that the permit requirement for the first inspection is July 8, 2012. The Annual Report for the next reporting year will represent a more complete picture of inspection compliance as the Permittees will have had time to perform the required inspections.

***Industrial inspection***

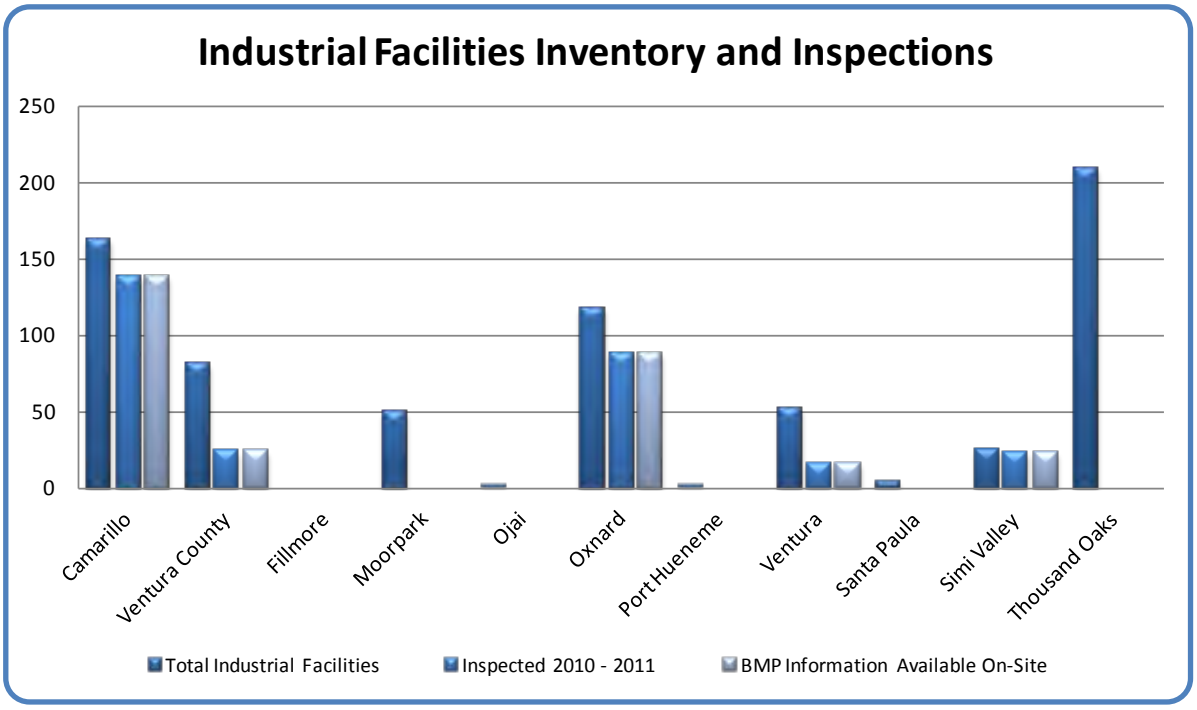



***Figure 4-4 Industrial Facilities Inventory and Inspections***

Industrial Facilities includes U.S. EPA Phase I, II Facilities required to obtain coverage under the Industrial Activities Stormwater General Permit (IAGSP). These facilities are identified by either the Standard Industrial Classifications (SIC) or the North American Industry Classification System (NAICS). Facility ownership (federal, state, municipal, private) are not factors in this definition and so the inventory includes facilities such as the Naval Base Ventura County at Point Mugu.

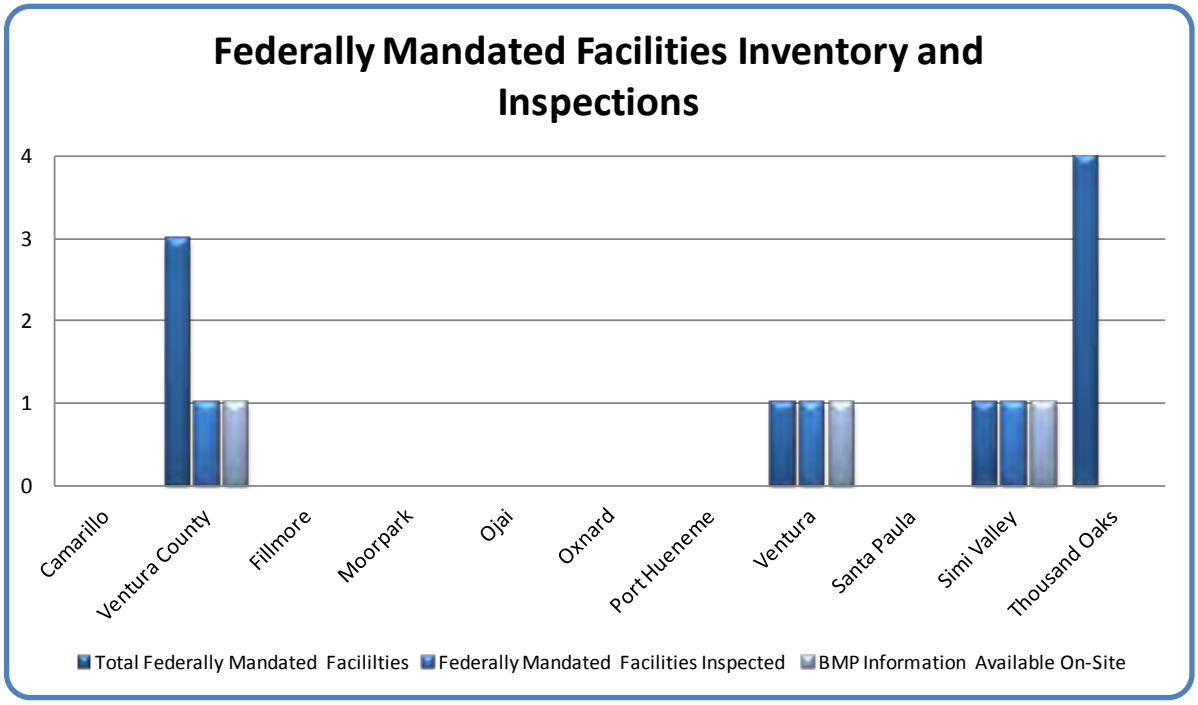



***Figure 4-5 Federally Mandated Facilities Inventory and Inspections***

Other Federally-mandated Facilities [as specified in 40 CFR 122.26(d)(2)(iv)(C)] are also required to obtain coverage under the IAGSP. Again, facility ownership (federal, state, municipal, private) and profit motive (business or not-for-profit) of the facility are not factors in this definition. Included in this category are:

- Municipal landfills
- Hazardous waste treatment, disposal, and recovery facilities
- Facilities subject to SARA Title III (also known as the Emergency Planning and Community Right-to-Know Act (EPCRA))

COUNTY OF VENTURA UNINCORPORATED AREA
STORMWATER MANAGEMENT PROGRAM

Stormwater Inspection Checklist
INDUSTRIAL AND FEDERALLY MANDATED FACILITIES

INSPECTION TYPE:

- ☐ INITIAL INSPECTION (due 07/01/2012)
- ☐ 1st Follow-up after INITIAL INSPECTION
- ☐ 2nd Follow-up after INITIAL INSPECTION
- ☐ 2nd Inspection of Facilities with Exposure (6 months after INITIAL INSPECTION and not later than 07/01/2015)
- ☐ 1st Follow-up after 2nd Inspection of Facilities with Exposure
- ☐ 2nd Follow-up after 2nd Inspection of Facilities with Exposure
- ☐ 2nd Inspection of NON-EXPOSURE FACILITIES (minimum 20% annually)
- ☐ Complaint Response

INSPECTOR NAME: _____ INSPECTION DATE & TIME: _____
FACILTY NAME: _____
FACILTY ADDRESS: _____
FACILTY CONTACT NAME: _____ PHONE: _____
**FACILTY CONTACT SIGNATURE (acknowledging receipt):** _____
FACILITY'S SIC/NAICS CODE: _____
FACILITY CATEGORY: _____
THIS FACILITY IS COVERED UNDER

- ☐ Industrial Activities Stormwater General Permit (IASGP) WDID #: _____
  Is SWPPP available on the site? ☐ YES ☐ NO
- ☐ Other Permit; Specify _____
- ☐ No Exposure Certification: "Notice of Non-applicability" file date: _____
  RWQCB Approval Letter received on: _____
- ☐ None

FACILITY IS LOCATED IN ONE OF THE FOLLOWING WATERSHEDS:

☐ Calleguas Creek ☐ Malibu Creek ☐ Santa Clara River
☐ Ventura River ☐ Cuyama River ☐ Misc. Coastal

| A. Brief Description of Facility Operations: | | Yes | No | N/A |
|---|---|---|---|---|
| Does this facility discharge to MS4s that directly discharge to ESAs or 303(d) listed waterbodies? If YES, make a note if BMPs are sufficient or recommend additional BMPs | | | | |
| List principal products used and status of exposure to stormwater: | | | | |
| Describe activities that have potential to pollute stormwater: | | | | |
| **BMP#** | **B. Stormwater Management Criteria** | **Yes** | **No** | **N/A** |
| SC-10 | **Unauthorized Non-stormwater discharges**<br>Are controls being implemented to eliminate non-stormwater discharges? | | | |

Page 1 of 2

***Industrial facilities inspection form***

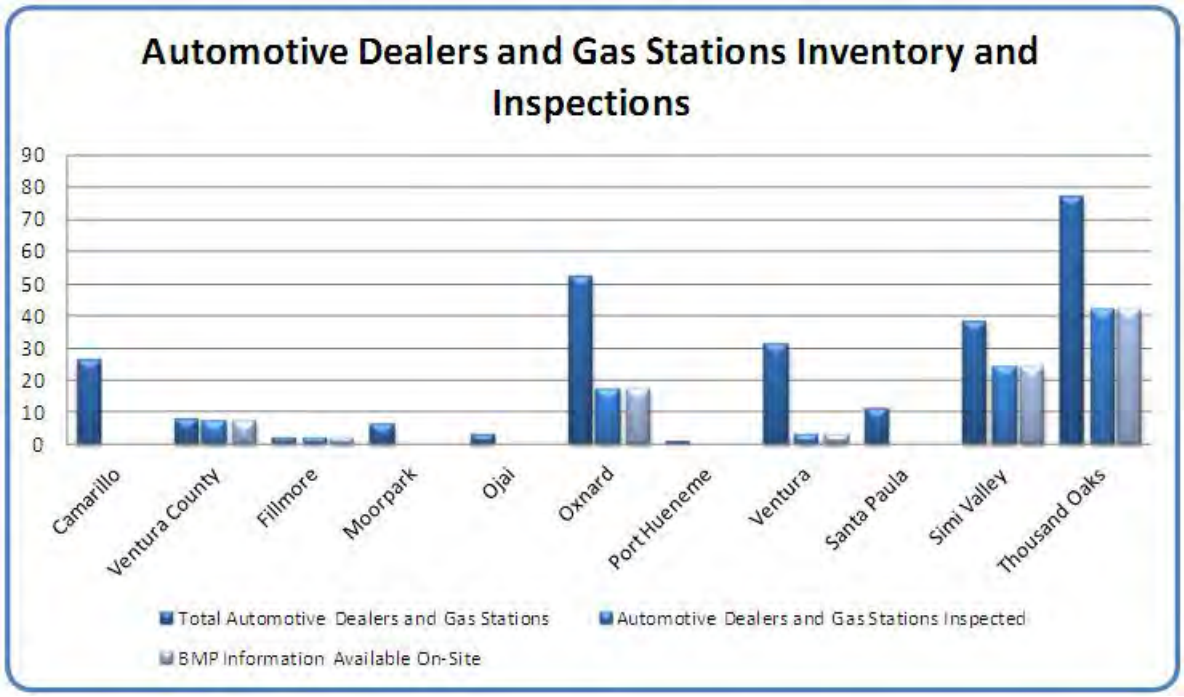



***Figure 4-6 Automotive Dealers and Gas Stations Inventory and Inspections***

Inspections are conducted at all automotive and gas station facilities even if these facilities do not have outdoor activities or outside storage that are exposed to stormwater. In addition the Permittees have identified other facilities where engine oil is present and represents a potential threat to stormwater pollution, e.g., boat dealers, RV dealers, motorcycle dealers, etc. Facilities that are only inspected if they have outdoor activities or outside storage that are exposed to stormwater are auto parts stores and tire dealers.

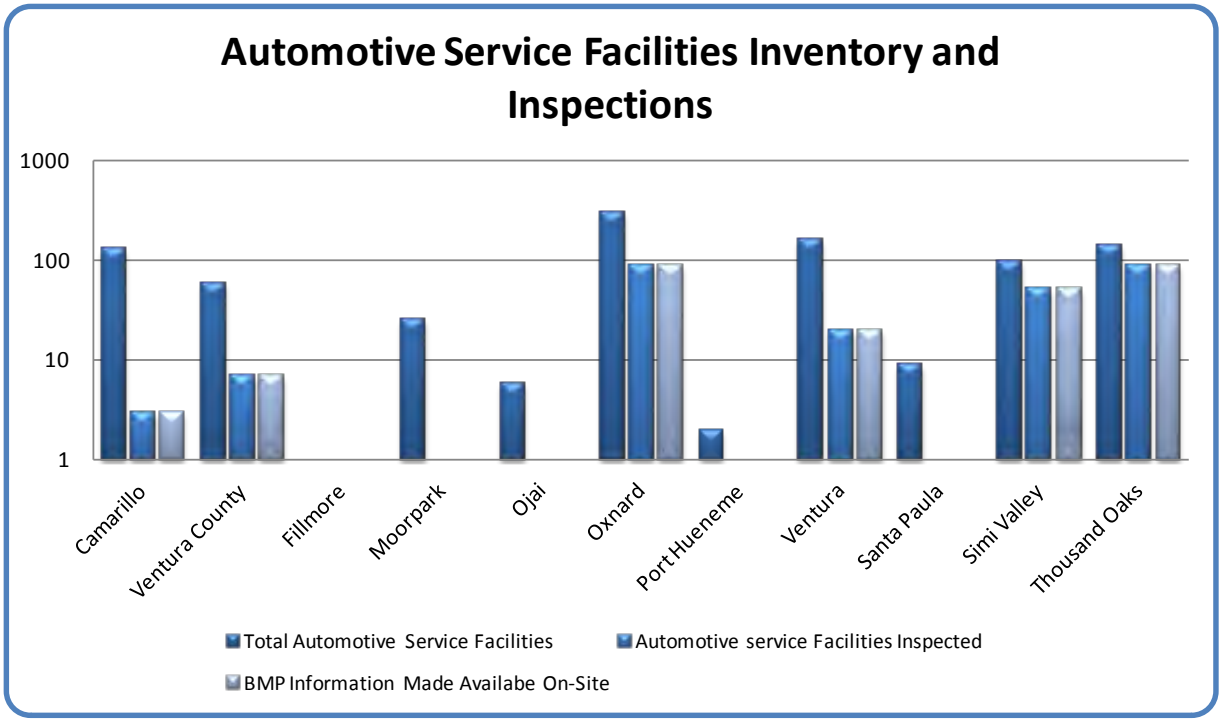



***Figure 4-7 Automotive Service Facilities Inventory and Inspections***

All automotive service facilities are included in the inventory for inspection, this category also includes motorcycle and boat repair if there is a potential for stormwater pollution.

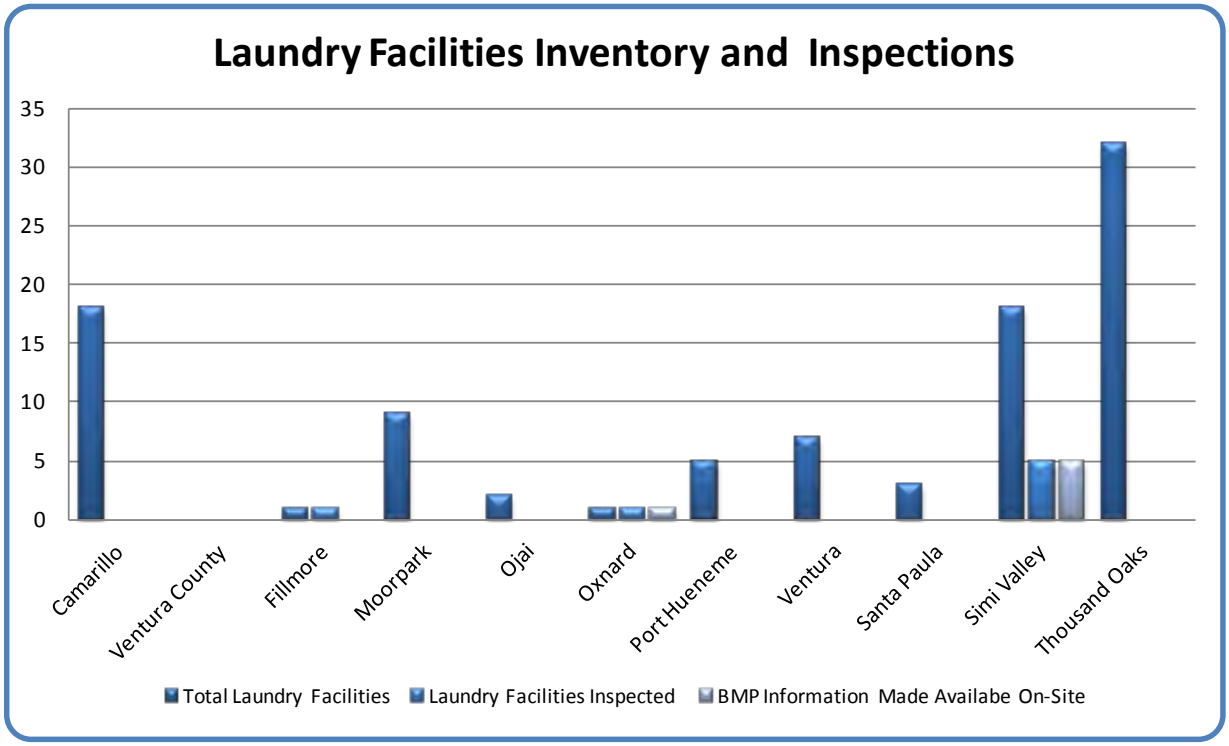



***Figure 4-8 Laundry Facilities Inventory and Inspections***

Permittees made an effort to identify all laundry facilities in their jurisdiction that may possibly have an exposure to stormwater and therefore may represent a threat to stormwater quality, some Permittees went as far as to include dry cleaners and laundromats. All commercial laundries in a jurisdiction were identified and screened for potential exposure. If there was no exposure potential then an inspection was deemed unnecessary.

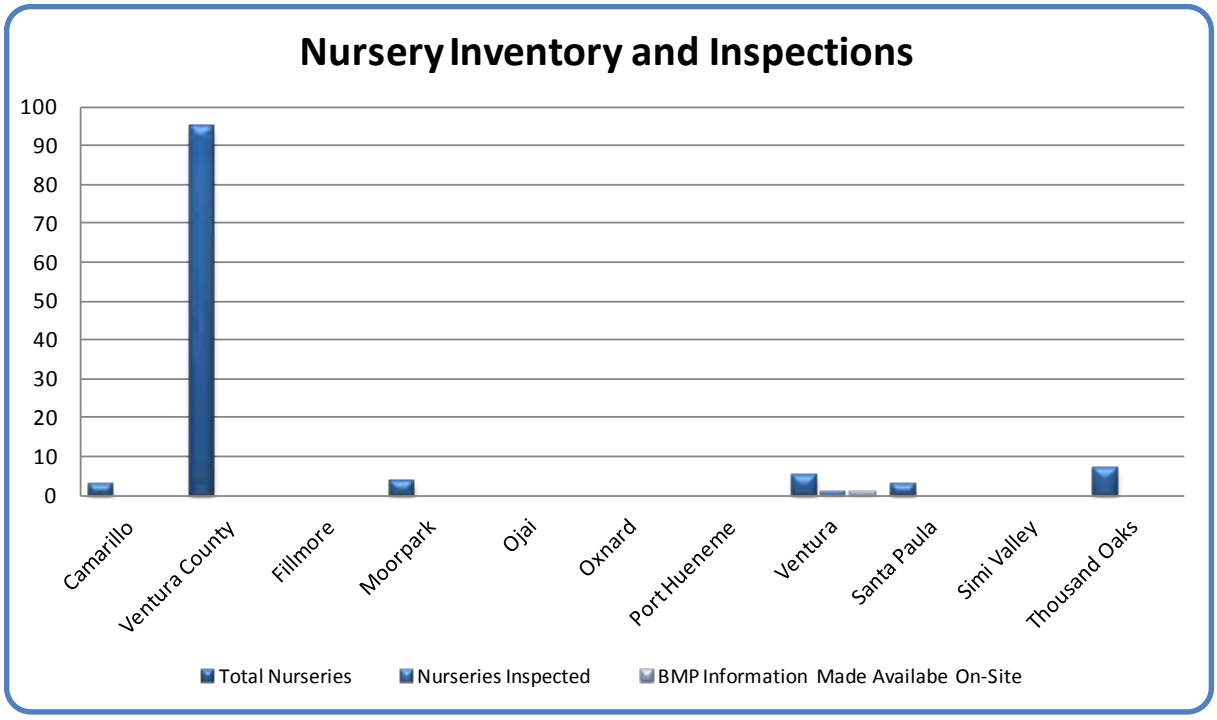



***Figure 4-9 Nursery Facilities Inventory and Inspections***

The Permit includes requirements for the Permittees to confirm that nursery operators that are exposed to stormwater implement pollutant reduction and control measures with the objective of reducing pollutants in storm water runoff discharges. "Nurseries" comprises establishments primarily engaged in the merchant wholesale distribution of flowers, florists' supplies, and/ or nursery stock (except plant seeds and plant bulbs). The industry in NAICS Code 444220 comprises establishments primarily engaged in retailing nursery and garden products, such as trees, shrubs, plants, seeds, bulbs, floriculture products and sod, which are predominantly grown elsewhere. These establishments may sell a limited amount of a product they grow themselves.

This is interpreted by the Permittees to not include stores that may have some plants or a small nursery section although it is not their primary business. Florist that specialize in cut flowers are also not included because their business and inventory is kept indoors. However, most Permittees have extended this to include the large home improvement centers due to the size of their nursery section.

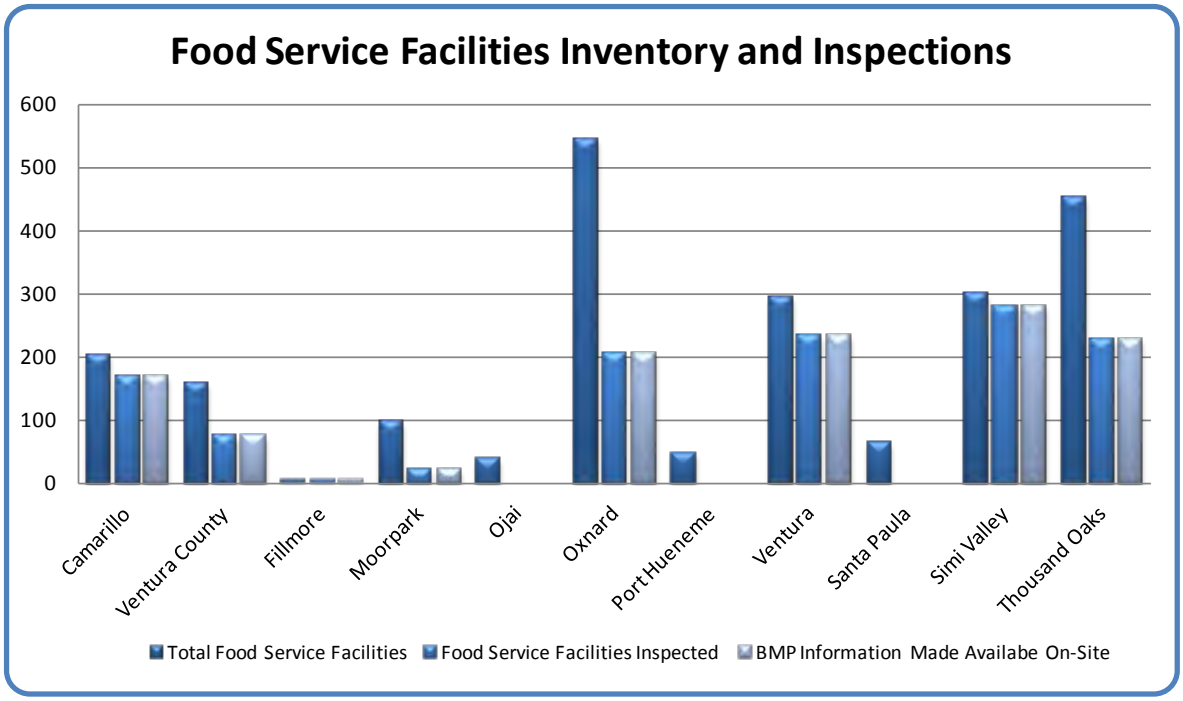
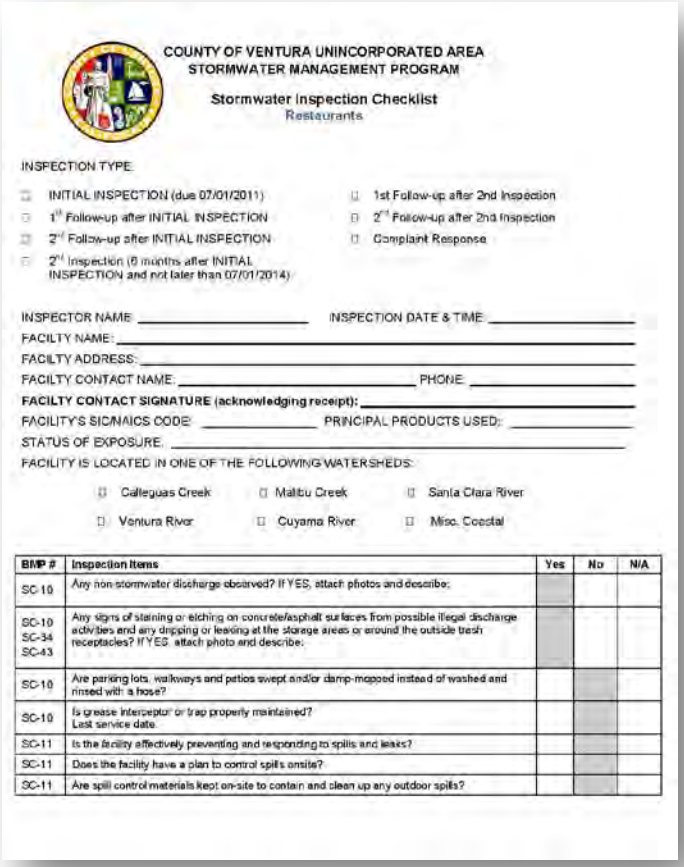



***Figure 4-10 Food Service Facilities Inventory and Inspections***



COUNTY OF VENTURA UNINCORPORATED AREA
STORMWATER MANAGEMENT PROGRAM

Stormwater Inspection Checklist
Restaurants

INSPECTION TYPE:

- ☐ INITIAL INSPECTION (due 07/01/2011)
- ☐ 1st Follow-up after INITIAL INSPECTION
- ☐ 2nd Follow-up after INITIAL INSPECTION
- ☐ 2nd Inspection (6 months after INITIAL INSPECTION and not later than 07/01/2014)
- ☐ 1st Follow-up after 2nd Inspection
- ☐ 2nd Follow-up after 2nd Inspection
- ☐ Complaint Response

INSPECTOR NAME: _____ INSPECTION DATE & TIME: _____
FACILITY NAME: _____
FACILITY ADDRESS: _____
FACILITY CONTACT NAME: _____ PHONE: _____
**FACILITY CONTACT SIGNATURE (acknowledging receipt):** _____
FACILITY'S SIC/NAICS CODE: _____ PRINCIPAL PRODUCTS USED: _____
STATUS OF EXPOSURE: _____
FACILITY IS LOCATED IN ONE OF THE FOLLOWING WATERSHEDS:

- ☐ Calleguas Creek
- ☐ Malibu Creek
- ☐ Santa Clara River
- ☐ Ventura River
- ☐ Cuyama River
- ☐ Misc. Coastal

| BMP # | Inspection Items | Yes | No | N/A |
|---|---|---|---|---|
| SC-10 | Any non-stormwater discharge observed? If YES, attach photos and describe: | | | |
| SC-10<br>SC-34<br>SC-43 | Any signs of staining or etching on concrete/asphalt surfaces from possible illegal discharge activities and any dripping or leaking at the storage areas or around the outside trash receptacles? If YES, attach photo and describe: | | | |
| SC-10 | Are parking lots, walkways and patios swept and/or damp-mopped instead of washed and rinsed with a hose? | | | |
| SC-10 | Is grease interceptor or trap properly maintained?<br>Last service date: | | | |
| SC-11 | Is the facility effectively preventing and responding to spills and leaks? | | | |
| SC-11 | Does the facility have a plan to control spills onsite? | | | |
| SC-11 | Are spill control materials kept on-site to contain and clean up any outdoor spills? | | | |

***Restaurant inspection form***

For the purposes of inventory and inspection restaurant means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC Code 5812). This will include supermarkets if they have a deli selling food which is prepared on site, but will not include grocery stores, bakeries and candy stores not engaged in food preparation.

## 4.5 IC2 – INSPECTION

The Inspection Control Measure establishes the inspection requirements associated with on-site visits. The inspections ensure that the facility operator is effectively implementing source control BMPs, is in compliance with municipal ordinances, has pertinent educational materials, and is not producing unauthorized non-stormwater discharges. Inspection of facilities covered under the IASGP also ensures that the operator has a current Waste Discharge Identification (WDID) number, a SWPPP is available on site, and the operator is effectively implementing BMPs. Stopping unauthorized discharges is the primary purpose of the inspections, however it is also just as important to educate businesses on proper disposal of wastes and other BMPs to prevent future discharges to the storm drain system. To accomplish this educational information is made available to businesses that do not immediately have it available for their staff.

### 4.5.1 Inspections

The Permittees' municipal ordinances currently allow authorized officers to enter any property or building to perform inspections. On refusal to allow inspection by the owner, tenant, occupant, agent or other responsible party, the Permittees may seek an Administrative Search Warrant. All the Permittees are reviewing their ordinances and deciding if there is a need to strengthen their ability to perform inspection as well as the enforcement tools at their disposal to bring an uncooperative business into compliance with all applicable stormwater ordinances.

The vast majority of site visits performed were unannounced providing the inspectors with an honest look at daily activities of the facility. During these site visits, Permittee inspection staff would meet with the business owner/manager to review the objectives of the inspection. After performing a walk-through of the facility, inspection results were discussed with the business owner/manager. In the event a Permittee determined a facility's stormwater BMPs were insufficient, the Permittee provided their recommendations to the facility owner/manager. Source control BMPs were recommended as a first step in BMP implementation before requiring the facility to implement costly structural BMPs. In all cases, inspection staff informed facilities' owners/managers that BMP implementation does not guarantee compliance nor relieve them from additional regulations, and that it is their responsibility to ensure that pollutants do not escape the facility.

| ***Begin initial inspections of commercial and industrial facilities? (inspections to be completed by July 8, 2012)*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | | ☑ | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-2***

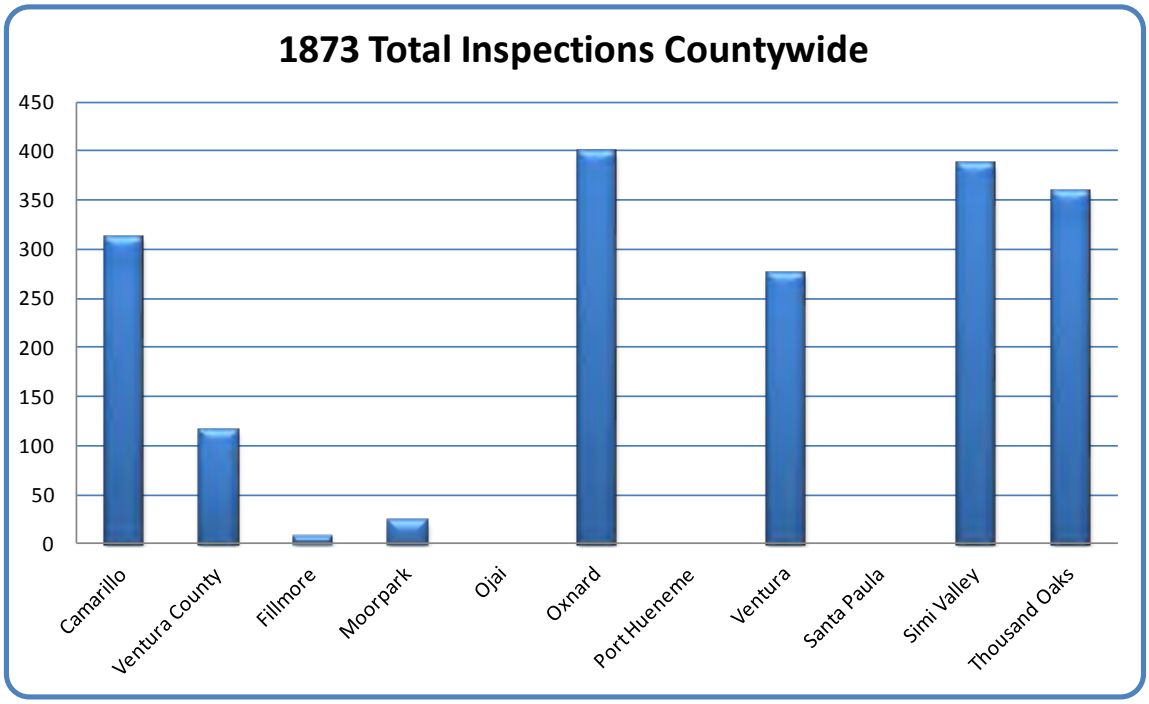



***Figure 4-11 Total Inspections Countywide***

## Review/Revise the Industrial Inspection and Commercial Business-Specific Checklists as Needed

In order to ensure that the inspectors conduct thorough and consistent inspections, industrial and commercial checklists have been developed for different targeted businesses. Permittee industrial inspectors receive proper training to adequately assess facilities and offer assistance in suggesting remedies. County and municipal ordinances with support from City Attorney's and County Counsel offices also provide the proper legal backing for inspections and any necessary enforcement. Checklists are periodically updated as necessary to ensure that they provide an adequate and sufficiently comprehensive basis upon which to conduct inspections. Currently, the Program has inspection checklists for general industry, restaurants, automobile related businesses, nurseries, and laundries. Examples of the checklists are included as Attachment A

| *Review/revise the industrial inspection checklist to be consistent with the permit* | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| | ☑ | | |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-3***

| *Review/revise the commercial business-specific checklist to be consistent with the permit* | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-4***

## Conduct Follow-up Inspections as Necessary

Whenever evidence of an illicit discharge was found, the Permittee determined that an operator has failed to adequately implement all necessary BMPs as required by the Permit, or otherwise are deemed out of compliance, the Permittees engage in progressive enforcement action. If the facility can be brought into compliance while the inspector is still on-site a follow-up inspection is not deemed necessary. All other facilities that failed to implement all necessary BMPs were advised there would be follow-up visits. The Permit requires that re-inspection occurs within four weeks of the initial inspection. Follow-up visits may be scheduled, especially if the facility operator is difficult to get a hold of, but for the majority of businesses the follow-up inspections are also unannounced surprise inspections. If continued stormwater violations were found progressive enforcement actions were initiated and another visit was scheduled if necessary. Enforcement actions may include any of the following: Warning Notice, Notice of Violation(s), Administrative Civil Liability actions and monetary fines. These actions are described in detail and reported in Section 8 - Programs for Illicit Discharges.

The number of required Initial Follow-Up Inspections and Secondary Follow-Up Inspections can be seen by Permittee in Figure 4-12 Follow-up and Secondary Inspections.

| *Conduct follow-up inspections as necessary* | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | | | ☑ |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | | | ☑ |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-5***

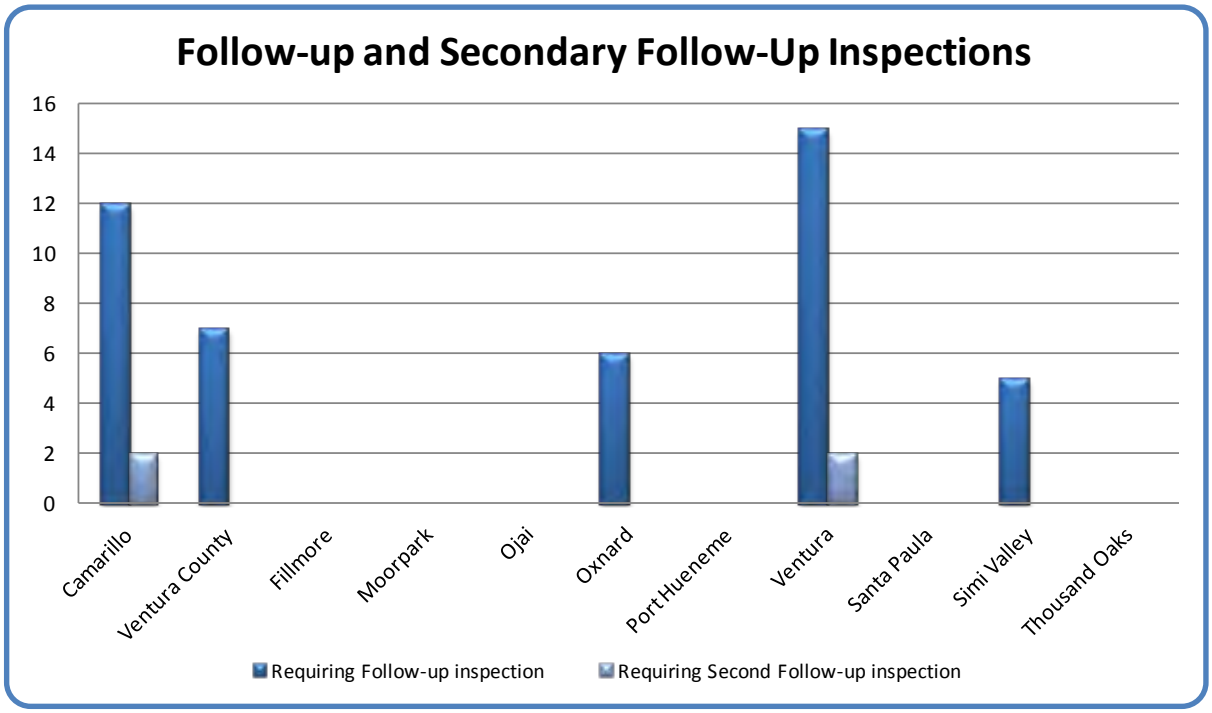



***Figure 4-12 Follow-up and Secondary Inspections***

## 4.6 IC3 – INDUSTRIAL/COMMERCIAL BMP IMPLEMENTATION

The Industrial/Commercial BMP Implementation Control Measure requires industrial and commercial businesses to reduce pollutants in stormwater discharges and effectively prohibits unauthorized non-stormwater discharges to the storm drain system. Although the Permittees may provide guidance to facility operators on appropriate Source and Treatment Control BMP selection and application, the selection of specific BMPs to be implemented is the responsibility of the discharger. The Permittees develop business specific guidance (fact sheets) that is updated as necessary to reflect new requirements and/or knowledge.

### 4.6.1 BMP Fact Sheets and Selection

In order to assist the industrial and commercial facilities in selecting and implementing the appropriate types of BMPs, the Permittees developed BMP Fact Sheets for industrial and commercial businesses. The BMP Fact Sheets are distributed during the inspections and made available on the Ventura Countywide Stormwater Quality Management Program's website at the following address:

http://www.vcstormwater.org/programs_business.html#business_factsheets

BMP fact sheets were updated and new ones created for several target audiences during this reporting period including:

- Building and Grounds Maintenance
- Pool and Spa Maintenance
- Commercial Pesticide Application
- Mobile Cleaning Services
- Mobile Auto Detailing and Charity Car Wash Events, and
- Building Repair and Remodeling.

These have been added to the library of fact sheets the Program has already developed for automotive service facilities, RGOs, and nurseries.

Watershed Protection Tips

Commercial Pesticide, Herbicide & Fertilizer Application

How Do Pest, Weed and Landscape Management Chemicals Affect the Watershed?

Careless application and overuse of any pesticide, herbicide or fertilizer is a key contributor to stormwater pollution. When released into the storm drain system, these chemicals can harm unintended insects, plants and animals. You are responsible for preventing this from happening.

Best Management Practices

- Apply pesticides and herbicides according to the label.
- Choose the least toxic sprays based on the characteristics of the target site and type of pest or weed.
- Consider the use of environmentally friendly chemical alternatives such as insecticidal soaps, horticultural oils and biological controls.
- Become familiar with Integrated Pest Management (IPM) options to reduce the need for chemical applications through combining biological, cultural, and physical tools.
- Avoid using copper-based tree sprays and copper sulfate root killing products.
- Spot treat instead of treating the entire area.
- Apply post-emergence herbicide when weeds are at their most vulnerable growth stage.
- To control weeds, use mulch, drip irrigation and hand pulling when possible.
- Apply chemical fertilizer only as needed, when plants can best use it, and when the potential for it being carried away by runoff is low.
- Calibrate equipment and replace worn nozzle tips and faulty gauges, before mixing and loading pesticides.
- Store pesticides in a covered area in their original containers or in the applicator; use secondary containment if possible.
- Maintain a buffer zone around wells and surface water to avoid contamination.
- Avoid applications within 24 hours of a predicted storm forecast or after an irrigation event where water is still leaching or running.
- Apply chemicals only in the morning and on wind-free days to avoid spray drift.
- Know that no landscape will ever be completely pest-free or weed-free.

For more information on preventing stormwater pollution call:

What Is Our Watershed?

Our watershed is the total land area from which stormwater drains into streams, rivers or other bodies of water. The storm drain system is a vast network of gutters, pipes and open channels designed for flood control, which directs untreated stormwater away from our communities. It is both illegal and harmful to allow solid or liquid wastes, including organic materials of any kind, into the storm drain system.

COMMUNITY FOR A CLEAN WATERSHED

cleanwatershed.org

The Watershed Should Only Shed Water

The Community for a Clean Watershed program was established to protect Ventura County's watersheds by preventing stormwater pollution.

Fact Sheet for Pesticide Applicators

### 4.6.2 Distribute BMP Fact Sheets during Inspections

The Permittees distribute BMP Fact Sheets to facility owners/operators as a part of the inspection process.

| ***Ensure information on BMPs was available on site*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | | | ☑ |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-6***

## 4.7 IC4 – ENFORCEMENT

The Enforcement Control Measure outlines the progressive levels of enforcement applied to industrial and commercial facilities that are out of compliance with County and municipal ordinances and establishes the protocol for referring apparent violations of facilities subject to the Industrial Activities Storm Water General Permit to the Regional Water Board. The Enforcement Control Measure has been developed to address specific legal authority issues related to industrial and commercial facility discharges and should be implemented in coordination with the Permittees' efforts to maintain adequate legal authority for the Stormwater Program in general.

### 4.7.1 Implement the Progressive Enforcement and Referral Policy

The Permittees have a progressive enforcement and referral policy so that the enforcement actions match the severity of a violation and include distinct, progressive steps initiated to bring a facility into compliance. Options are available for progressive corrective actions for repeat offenders. Inspections are performed to assess compliance with municipal stormwater ordinances and any noncompliance is managed through the enforcement policy. Noncompliance may include failure to implement adequate source control or structural BMPs, or other violations of County and municipal ordinances.

The Permittees' facility inventory contains an "inspection findings" data field for comments pertaining to the specific facility. If there is an unsatisfactory inspection, then a comment is made in this data field and the facility is marked for re-inspection within four weeks of the date of initial unsatisfactory inspection. Past experience with facilities has shown that facility operators are cooperative and willing to bring facilities into compliance.

| *Implement a progressive enforcement policy* | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-1***

### 4.7.2 Implementation of Industrial Referral Policy

As a means to enhance interagency coordination, the Permittees may refer industrial business violations of County and/or municipal stormwater ordinances and California Water Code §13260 to the Regional Water Board, provided that Permittees have made a good faith effort of progressive enforcement under applicable stormwater ordinances. Referral to the Regional Water Board is required so that they can enforce their permit on non-compliant industries. Every effort is taken at the local level to achieve compliance before referring a facility, including using the threat of calling in the Regional Board and their ability to levy hefty fines. It is possible that the Regional Board would be notified immediately if very egregious problems were discovered at a site covered by the Industrial Activities Stormwater General Permit (IASGP). At a minimum the permit requires Permittees provide a good faith effort to bring a facility into compliance and that must be documented with:

- Two follow-up inspections
- Two warning letters or notices of violation

For those facilities in violation of municipal ordinances and subject to the IASGP, the Permittees may escalate referral of such violations to the Regional Water Board after one inspection and one written notice (copied to the Regional Water Board) to the operator regarding the violation. This is up to the discretion of the Permittee, and is only likely to be used in cases where there is a severe discharge causing or contributing to a water quality exceedance.

Such referrals are filed electronically with the Regional Water Board once an inspection that led to a notice of violation or the discovery of a non-filer. In making such referrals, Permittees are required to include at a minimum the following information in their referral:

1. Name of facility
2. Operator of facility
3. Owner of facility

**The Permittees were able to bring all IAGSP facilities into compliance and none were referred to the Regional Board for further enforcement.**

4. WDID number (if applicable)

5. Industrial activity being conducted at the facility that is subject to the IASGP

6. Records of communication with the facility operator regarding the violation which shall include at least an inspection report

7. The written notice of the violation copied to the Regional Water Board

### 4.7.3 Investigation of Complaints Transmitted by Regional Water Board

On occasion Regional Board staff will receive information on an industry within a Permittee's jurisdiction that needs to be investigated in a timely manner. The Permittees implement procedures for responding to complaints forwarded by the Regional Water Board to ensure initiation[2] of inspections within one business day. Complaint-initiated inspections include, at a minimum, a limited inspection of the facility to confirm the complaint to determine if the facility is effectively complying with municipal stormwater urban runoff ordinances and, if necessary, an initiation of corrective action.

The Permittees have (and will continue to) work closely with the Regional Water Board when a facility is identified as requiring a compliance inspection.

| Facility Category | Nature of Complaint | Confirmation of Complaint | Permittee Assistance and/or Corrective Action |
|---|---|---|---|
| *Industrial* | | | |
| Pacific Rock, Inc WDID 456 S 017071 | Request for additional assistance in inspections during rain events to determine if site runoffs leaves site or drains to artificial lake as designed | Not a Complaint | Field inspection on 12/20/2010 |
| *Other Federally-Mandated Facilities* | | | |
| None | | | |

***Table 4-2 Summary of Complaints Transmitted by Regional Water Board for Investigation by Permittees***

### 4.7.4 Task Force Participation

The Permittees will participate in an interagency workgroup, such as the Environmental Task Force or the Storm Water Task Force, as a means to communicate information and concerns regarding stormwater enforcement actions undertaken by the Permittees. Participation in such a workgroup should facilitate communication of special cases of stormwater violations and address a coordinated approach to enforcement action.

[2] Permittees may comply by taking initial steps (such as logging, prioritizing, and tasking) to "initiate" the investigation within one business day. However, the Regional Water Board expects that the initial investigation, including a site visit, would occur within four business days.

The Ventura County Stormwater Program and Permittees, including different divisions such as CUPA or County Environmental Health participate on the Ventura County Environmental Crimes Task Force**.** This task force is lead by the District Attorney's office and includes representatives from different environmental agencies including the Ventura Air Pollution Control District, California EPA, and Federal EPA. The purpose is to work together share and sensitive information on enforcement activities to increase the chances of eliminating the problem.

## 4.8 IC5 – TRAINING

The Training Control Measure is important for the implementation of the Industrial/Commercial Program Element. An effective training program is one of the best pollution prevention BMPs that can be implemented because it provides for consistency in inspections and enforcement, gives the inspector the ability to respond to a variety of situations and questions, and ultimately encourages the inspectors to prompt behavioral changes that are fundamentally necessary to protect water quality.

Each Permittee identified inspection staff and other personnel for training based on the type of stormwater quality management and pollution issues that they might encounter during the performance of their regular inspections or daily activities. Targeted staff may include those who perform inspection activities as part of the HAZMAT, and wastewater pretreatment programs as well as staff who may respond to questions from the public or industrial/commercial businesses, such as those working with business licenses.

Staff was trained in a manner that provided adequate knowledge for effective business inspections, enforcement, and answering questions from the public or industrial/commercial operators. Training included a variety of forums, ranging from informal "tailgate" meetings, to formal classroom training, and self-guided training methods. When appropriate, staff training included information about the prevention, detection and investigation of illicit discharges and illegal connections (ID/IC). See **Section 8** for more information regarding ID/IC training.

| ***Conduct training for key staff involved in the Business Inspection program*** | | | |
|---|---|---|---|
| | *Yes* | *No* | *N/A* |
| *Camarillo* | ☑ | | |
| *Ventura County* | ☑ | | |
| *Fillmore* | ☑ | | |
| *Moorpark* | ☑ | | |
| *Ojai* | ☑ | | |
| *Oxnard* | ☑ | | |
| *Port Hueneme* | ☑ | | |
| *Ventura* | ☑ | | |
| *Santa Paula* | | ☑ | |
| *Simi Valley* | ☑ | | |
| *Thousand Oaks* | ☑ | | |

***Performance Standard 4-7***

During this reporting period, the Permittees trained 35 inspection staff in stormwater pollution prevention. Figure 4-13 Figure 4-13 IC/ID Training depicts the number of staff trained in the program area for each Permittee. Some agencies contract out their inspections to trained consultants for their inspections and therefore did not target any of their employees.

| Target Audience | Format | Subject Material | Comments |
|---|---|---|---|
| • Industrial/Commercial inspectors<br>• County Health restaurant inspectors | • Classroom<br>• Field Demos | • Overview of stormwater management program<br>• Stormwater ordinance and enforcement policy<br>• BMPs for facilities<br>• Facility inventory tracking | • Training seminars or workshops related to the program may be made available by other organizations |

***Table 4-3 Training Areas of Focus for the Industrial/Commercial Program Element***

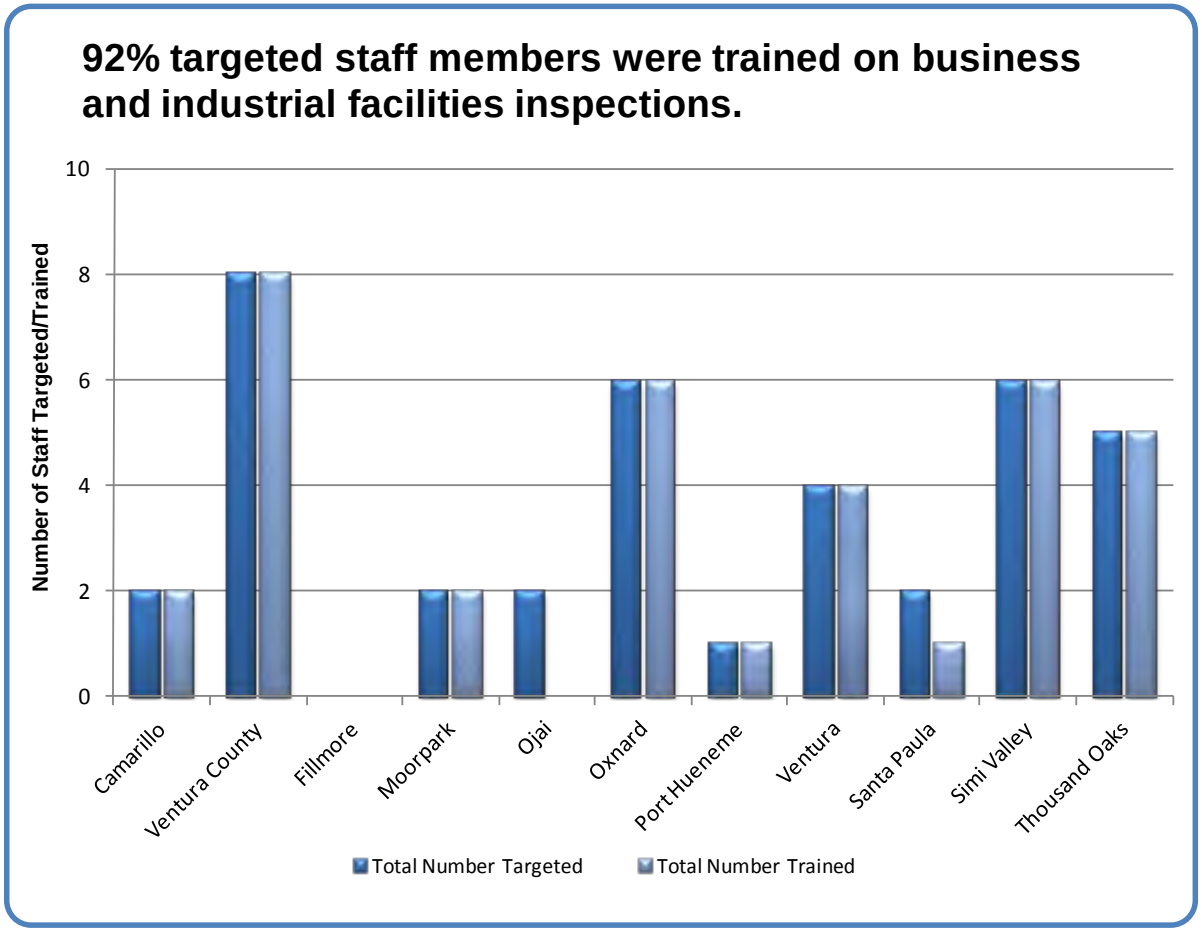



***Figure 4-13 IC/ID Training***

## 4.9 IC6 – EFFECTIVENESS ASSESSMENT

Effectiveness assessment is a fundamental component required for the development and implementation of a successful stormwater program. In order to determine the effectiveness of the Industrial/Commercial Facility Program Element, a comprehensive assessment of the program data is conducted as part of the Annual Report. The results of this assessment are used to identify modifications that need to be made to the Program Element. Each year the effectiveness assessment is reviewed and revised as necessary.

By conducting these assessments and modifying the Program Element as necessary, the Permittees ensure that the iterative process is used as an effective management tool. Due to the types of data collected for the Industrial/Commercial Facility Program, current and future assessments will primarily focus on Outcome Levels 1 and 2.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?
- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly increased the awareness of its target audience?

The following is an assessment regarding the effectiveness of the Industrial/ Commercial Program.

### 4.9.1 Facility Inventory Maintain and Annual Update Inventory

All Permittees maintain an inventory of industrial and commercial facilities. Permittees have begun to inspect facilities with the goal of completing all initial inspections by July 8, 2012 and inspecting facilities twice during the permit term. Initially inspections focused on industrial facilities, auto dealers, auto service shops, laundry facilities, nurseries and restaurants. (L1)

### 4.9.2 Inspection

As indicated in the previous performance standard, initial inspections are not yet due (July 8, 2012). Some Permittees have initiated progress and over the 2009-10 reporting periods and continued them over the 2012-2011 period, more than 1800 inspections were conducted Countywide. (L1) Permittees conduct follow-up inspections as needed and 45 follow-up inspections were conducted. (L1)

The majority of Permittees have review and revised their inspection checklists, as necessary to be consistent with the permit. (L1)

### 4.9.3 Industrial/Commercial BMP Implementation

#### BMP Fact Sheets and Selection

Industrial and commercial BMP Fact Sheets were developed and are available at the Ventura Countywide Stormwater Quality Management Program website. (L1)

#### Distribute BMP Fact Sheets

Permittees that have initial an inspections program distribute fact sheets as part of the inspection process. (L1)

### 4.9.4 Enforcement

#### Implement Progress Enforcement and Referral Policy

The Permittees have a progressive enforcement and referral policy so that the enforcement actions match the severity of a violation and include distinct, progressive steps initiated to bring a facility into compliance. (L1)

#### Implementation of Industrial Referral Policy

All Permittees may refer industrial business violations to the Regional Water Board provided that Permittees have made a good faith effort of progressive enforcement. (L1)

#### Investigation of Complaints Transmitted by Regional Water Board

The Permittees implement procedures for responding to complaints forwarded by the Regional Water Board to ensure initiation of inspections within one business day. (L1)

#### Task Force Participation

The Permittees will participate in an interagency workgroup, such as the Environmental Task Force or the Storm Water Task Force, as a means to communicate information and concerns regarding stormwater enforcement actions undertaken by the Permittees. (L1)

### 4.9.5 Training

During this reporting period, the Permittees trained 35 staff in business inspections and enforcement. Permittees effectively trained 92% of targeted staff. (L1)

## 4.9 INDUSTRIAL/COMMERCIAL PROGRAM ELEMENT MODIFICATIONS

On an ongoing basis, the Permittees evaluate the experience that staff has had in implementing the program and the results of the Annual Report to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable.

Many key modifications have been made to the Industrial/Commercial Program Element with the adoption of the new permit. Key modifications that have been made are tracking facilities by watershed, the expanded list of businesses and industries that are tracked and clearly defining how to identify those businesses and industries.

# 5 Planning and Land Development

## 5.1 OVERVIEW

The addition of impervious areas in the development of homes, industrial and commercial businesses, parking lots, and streets and roads increases the amount of stormwater runoff, as well as the potential for pollution. The Planning and Land Development Program Element ensures that the impacts on stormwater quality from new development and redevelopment are limited through implementation of general site design measures, site-specific source control measures, low impact development strategies, and treatment control measures. The general strategy for development is to avoid, minimize, and mitigate (in that order) the potential adverse impacts to stormwater. The potential for long-term stormwater impacts from development is also reduced by requiring ongoing operation and maintenance of post-construction treatment controls.

The Permittees have developed and implemented a Program for Planning and Land Development to address stormwater quality in the planning and design of development and redevelopment projects. The term "development project" as used in this Program encompasses those projects subject to a planning and permitting review/process by a Permittee. A development project includes any construction, rehabilitation, redevelopment or reconstruction of any public and private residential project, industrial, commercial, retail and other non-residential projects, including qualifying public agency projects.

To help meet the goals and objectives of the Program, the Permittees attend Planning and Land Development Subcommittee meetings to coordinate and implement a comprehensive and consistent program to mitigate impacts on water quality from development projects to the maximum extent practicable (MEP). However, the Permittees may modify their programs to address particular issues, concerns or constraints unique to a particular watershed such as local geology or known water quality impairments.

## 5.2 CONTROL MEASURES

The Permittees have developed several Control Measures and accompanying performance standards to ensure that the planning and land development program requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit requirements.

The Planning and Land Development Program Control Measures consists of the following:

| LD | Control Measure |
|---|---|
| LD1 | State Statute Conformity |
| LD2 | New Development/ Redevelopment Performance Criteria |
| LD3 | Plan Review and Approval Process |
| LD4 | Maintenance Agreement and Transfer |
| LD5 | Tracking, Inspection and Enforcement |
| LD6 | Training |
| LD7 | Effectiveness Assessment |

***Table 5-1 Control Measures for the Planning and Land Development Program Element***

This section of the annual report provides information on the specific tasks that have been initiated and/or completed during the reporting period pursuant to the Planning and Land Development Program performance standards and implementation schedules.

## 5.3 LD1 – STATE STATUTE CONFORMITY

Traditional methods of land development can lead to increase stormwater discharge volumes and flow velocities. These alterations to the natural hydrologic regime may reduce infiltration to groundwater, and increase erosion and flooding and decreased habitat integrity. Water quality and watershed protection principles and policies such as minimization of impervious areas, pollutant source controls, preservation of natural areas, and peak runoff controls can help to minimize the impacts of urban development on the local hydrology and aquatic environment. Integration of stormwater quality and watershed principles into the Permittees' general conditions will serve as the basis for directing future planning and development in order to minimize these adverse effects. In addition, the California Environmental Quality Act (CEQA) process provides for consideration of water quality impacts and appropriate mitigation measures.

### 5.3.1 Review/Revise CEQA Review Documents

The California Environmental Quality Act (CEQA) sets forth requirements for the processing and environmental review of many projects. The Permittees use the CEQA processing and review as an excellent opportunity to address stormwater quality issues related to proposed projects early in the planning stages. The National Environmental Quality Act (NEPA) comes into play less often than CEQA, but may be included on projects involving federal funding. Like CEQA, NEPA processing and review provides opportunities to address stormwater quality issues related to proposed projects early in the planning stages.

The CEQA review process is necessary for determining what impacts a proposed development project could have on the environment. The Permittees' current CEQA review process includes procedures for considering potential stormwater quality impacts and providing for appropriate mitigation. Permittees will review and revise the CEQA review documents as needed for consistency with the new Permit.

Each Permittee has reviewed their internal planning procedures for preparing and reviewing CEQA (and NEPA when applicable) documents and has linked stormwater quality mitigation conditions to legal discretionary project approvals. When appropriate, the Permittees consider stormwater quality issues when processing environmental checklists, initial studies and environmental impact reports. The Permit requires that stormwater controls are incorporated into the Permittees CEQA process by July 8, 2011, outside the reporting period, progress reported to date gives every indication that the Permittees will be successful in meeting that obligation.

| CEQA process include the procedures necessary to consider potential stormwater quality impacts (Due *by July 8, 2011* ) | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-1***

### 5.3.2 Revise the General Plan

The Permittees' General Plans provide the foundation and the framework for land use planning and development. Therefore, the General Plan is a useful tool to promote the policies for protection of stormwater quality. The Permittees are to include watershed and stormwater management considerations in the appropriate elements of their General Plans whenever these elements are significantly rewritten.

Table 5-2 indicates the scheduled date of a significant rewrite to the Permittees' General Plan elements if known. Note that some Permittees have already modified their General Plan to include stormwater requirements under the previous permit and thus it is stated stormwater issues are incorporated. The Permit additionally requires that when General Plan elements are being updated drafts are provided to the Regional Board for their review. These permit requirements do not have an absolute due date other than as General Plan elements are updated.

| Land Use | General Plan includes Stormwater Requirements (Y/N) | Scheduled Date for Significant Rewrite of General Plan | Date Submitted to Regional Board |
|---|---|---|---|
| Camarillo | Yes | | |
| County of Ventura | Yes | Completed June 2011 | Sep-10 |
| Fillmore | Yes | 1/1/2020 | |
| Moorpark | No | 7/1/2012 | |
| Ojai | Yes | | |
| Oxnard | In Progress | 2011 | 12-Mar-09 |
| Port Hueneme | No | 1/1/2015 | To Be Determined |
| Ventura | Yes | | |
| Santa Paula | Yes | 1/1/2015 | 12/31/1998 |
| Simi Valley | Yes | August-11 | |
| Thousand Oaks | No | N/A | N/A |
| **Housing** | | | |
| Camarillo | No | 7/1/2014 | |
| County of Ventura | Yes | Completed June 2011 | Sep-10 |
| Fillmore | Yes | 1/1/2013 | |
| Moorpark | No | 7/1/2011 | |
| Ojai | Yes | | |
| Oxnard | In Progress | 2011 | 12-Mar-09 |
| Port Hueneme | No | 1/1/2015 | To Be Determined |
| Ventura | Yes | | |
| Santa Paula | Yes | 1/1/2015 | 12/31/1998 |
| Simi Valley | No | August-11 | |
| Thousand Oaks | No | 2013 | N/A |
| **Conservation** | | | |
| Camarillo | No | | |
| County of Ventura | Yes | Updated June 2011 | Sep-10 |
| Fillmore | Yes | | |
| Moorpark | No | 1/1/2014 | |
| Ojai | Yes | | |
| Oxnard | In Progress | 2011 | 12-Mar-09 |
| Port Hueneme | Yes | 1/1/2015 | |
| Ventura | Yes | | |
| Santa Paula | Yes | 1/1/2015 | 12/31/1998 |
| Simi Valley | Yes | August-11 | |
| Thousand Oaks | No | 2012 | N/A |
| **Open space** | | | |
| Camarillo | No | | |
| County of Ventura | Yes | Updated June 2011 | Sep-10 |
| Fillmore | Yes | | |
| Moorpark | No | 1/1/2014 | |
| Ojai | Yes | | |
| Oxnard | In Progress | 2011 | 12-Mar-09 |
| Port Hueneme | Yes | 1/1/2015 | |
| Ventura | Yes | | |
| Santa Paula | Yes | 1/1/2015 | 12/31/1998 |
| Simi Valley | Yes | August-11 | |
| Thousand Oaks | No | 2012 | N/A |

***Table 5-2 Scheduled Dates for Permittees' General Plan Rewrite***

## 5.4 LD2 – NEW DEVELOPMENT PERFORMANCE CRITERIA

Post-construction BMPs, including site design, source control, low impact development techniques, and stormwater quality treatment, are necessary for development and re-development projects in order to mitigate potential water quality impacts. In addition, priority projects identified within the Permit require specific mitigation measures. In order to assist developers in meeting these requirements, the Permittees developed a Technical Guidance Manual for Stormwater Quality Control Measures for new development and redevelopment in 2002 (TGM 2002). This Manual was updated to conform with the new Permit requirements in 2011 (2011 TGM) although these requirements did not become effective during the reporting period.

### 5.4.1 Update to the 2002 Ventura County Technical Guidance Manual for Stormwater Quality Control Measures (TGM)

In May 2010 the Permittees updated the 2002 Manual for the selection, design, and maintenance of BMPs for new development and redevelopment projects as identified in Order 2009-0057. This Manual was never approved by the Regional Board Executive Officer due to the permit being remanded and subsequently re-heard by the Board. As an outcome of that hearing new language was adopted into the Permit and a new date set for the revisions to Manual. The Manual was rewritten to address the five-percent effective impervious area requirement, retention and biotreatment, alternative compliance for technical infeasibility, interim hydromodification requirements for projects disturbing land area less than fifty acres, water quality criteria, and maintenance agreements (see also Control Measure LD4 for more information). The 2011 TGM was submitted to the Regional Board on June 16, 2011.

***Low Impact Development BMP***

### 5.4.2 Require Compliance with Performance Criteria

New development and redevelopment projects, as outlined in Permit Provision 4.E.II., are subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate stormwater pollution. New performance criteria outlined within the Permit include reducing the percentage of effective impervious area to five-percent or less of the total project area, hydromodification control criteria, and water quality mitigation criteria. These Permit condition become effective 90 days after the Manual is approved by the Regional Board Executive Officer. The TGM was approved on July 13, 2011 and becomes effective on October 11, 2011, both these dates are outside the reporting period of this report. Until these new criteria are effective the Permittees are to comply with the previous performance criteria under the Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) and the 2002 TGM.

## Project Review and Conditioning

Even after the TGM becomes effective there will still be many projects that have been deemed complete and will be designed under the 2002 manual. Under both manuals the Permittees' approach to stormwater comes early in the project development process when the options for pollution control are greatest, and the cost to incorporate these controls into new development or redevelopment projects is the least. In planning and reviewing a development project, the Permittees consider three key questions with respect to stormwater quality control: 1. what kind of water quality controls are needed?; 2. where should controls be implemented?; 3. what level of control is appropriate? During the planning and review process, the Permittees identify potential stormwater quality problems, communicate design objectives, and evaluate the plan for the most appropriate alternatives and design.

### Stormwater Quality Urban Impact Mitigation Plan (SQUIMP)

For projects deemed complete before the Land Development section of the Permit becomes effective the Permitees require the implementation of the Stormwater Quality Urban Impact Mitigation Plan (SQUIMP) for new development projects that fall into one or more of the following categories:

- Single-family hillside residences;
- 100,000 square foot commercial development;
- Automotive repair shops;
- Retail gasoline outlets;
- Restaurants;
- Home subdivisions with 10 or more housing units;
- Locations within, or directly adjacent to or discharging to an identified Environmentally Sensitive Area (ESA); and
- Parking lots of 5,000 square feet or more with 25 or more parking spaces and potentially exposed to stormwater runoff.

In addition, redevelopment projects of one of the SQUIMP categories that result in the creation, addition or replacement of 5,000 square feet or more of impervious surfaces, that is not a part of routine maintenance, are subject to SQUIMP requirements. If a redevelopment project creates or adds 50% or more impervious surface area to the existing impervious surfaces, then stormwater runoff from the entire area (existing and redeveloped) must be conditioned for stormwater quality mitigation. Otherwise, only the affected area of the redevelopment project requires mitigation.

The SQUIMP lists the minimum required BMPs that must be implemented for new development and redevelopment projects subject to the SQUIMP. The minimum requirements include the following BMPs:

- Control peak stormwater runoff discharge rates
- Conserve natural areas
- Minimize stormwater pollutants of concern
- Protect slopes and channels
- Provide storm drain stenciling and signage
- Properly design outdoor material storage areas
- Properly design trash storage areas
- Provide proof of ongoing BMP maintenance

- Meet design standards for structural or treatment control BMPs
- Comply with specific provisions applicable to individual priority project categories, which include the following: 100,000 square foot commercial development; restaurants; retail gasoline outlets; automotive repair shops; and parking lots.

| **Require compliance with performance criteria under SQUIMP (*Due by July 8, 2011*)** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-1***

### 5.4.3 BMP Selection and Design Criteria

The Permittees consider site-specific conditions of development projects and pollutants of concern on the watershed when determining which BMPs are most appropriate for a site. Prior to approving BMPs, the staff conditioning the project evaluates post-construction activities and potential sources of stormwater pollutants. The project proponent is required to consider BMPs that would address the potential pollutants reasonably expected to be present at the site once occupied. BMPs to protect stormwater during the construction phase may also be a part of this conditioning process, although are addressed through the grading permit process through the Construction Program

***Low Impact Development BMP***

In order to achieve appropriate stormwater quality controls, the Permittees use the following common criteria in screening and selecting, or rejecting BMPs during the planning stage with a priority given to non-proprietary designed BMPs:

- Project characteristics;
- Site factors (e.g., slope, high water table, soils, etc.);
- Pollutant removal capability;
- Short term and long term costs;
- Responsibility for maintenance;
- Contributing watershed area; and
- Environmental impact and enhancement.

The BMP selection criteria listed above is applied by the Permittees in accordance with the overall objective of the Planning and Land Development Program, i.e. to reduce pollutants in discharges to the MEP. In some site-specific situations there will be BMPs clearly be more appropriate and effective than others, the BMP selection process reflects this variability.

The number of projects required to comply with the performance criteria during the permit year is outlined in Figure 5-1. This includes projects required by the Permit to implement stormwater treatment controls, but beyond that projects, that due to their nature or potential to discharge pollutants of concern, were also required to implement stormwater management controls of either source control or water quality treatment.

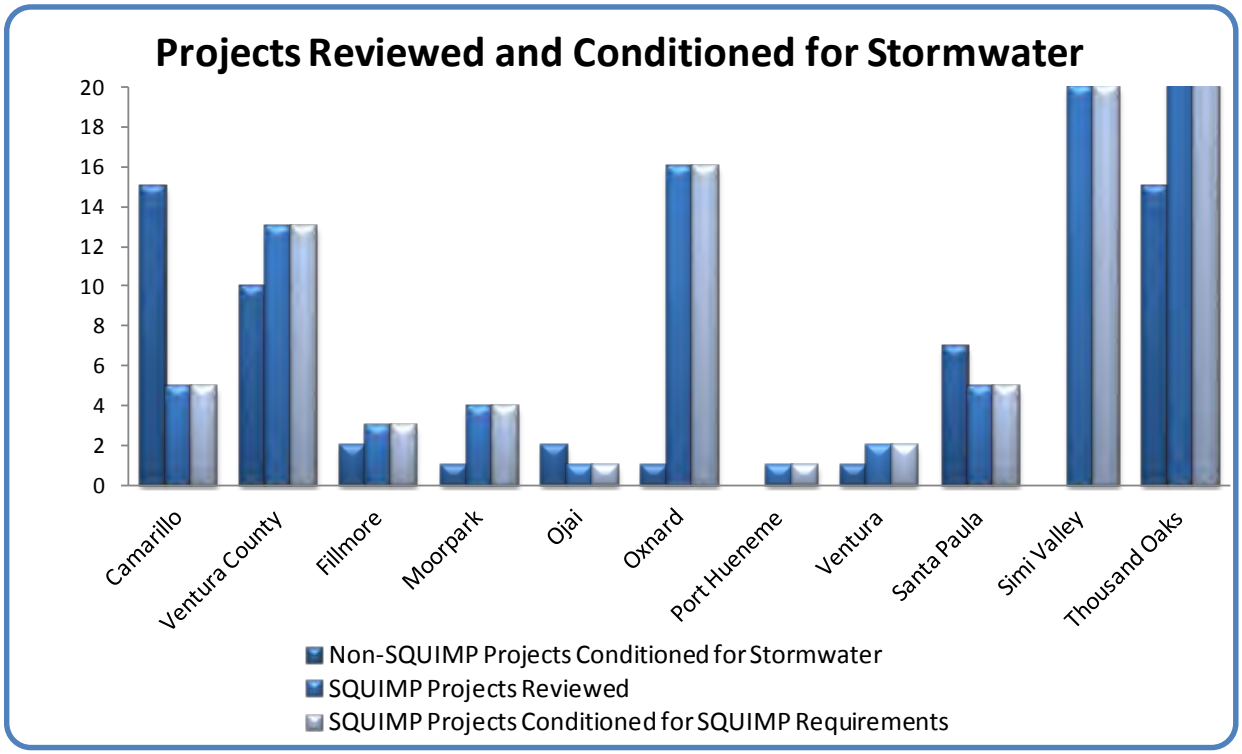



***Figure 5-1 Projects Reviewed and Conditioned***

### 5.4.1 Potential of Offsite Mitigation Projects

The new requirements of the Permit become effective October 11, 2011, 90 days after the Manual was approved by the Executive Officer, and allow an alternative to compliance with the land development criteria of onsite retention and biotreatment for projects with technical infeasibilties through the use of offsite mitigation. New developments and significant re-developments that have identified technical infeasibilities and therefore, cannot comply with the retention and biofiltration requirements onsite have the option of utilizing alternative mitigation offsite.

The identification of potential offsite mitigation projects was not required in 2010-2011. The Permittees are in the process of developing an offsite mitigation framework and identifying potential locations. Infill and redevelopment projects that demonstrate technical infeasibility may be eligible for offsite mitigation. As required by the Permit, Permittees will provide a list of offsite opportunities and track and summarize offsite mitigation projects.

The Permittees have embarked on a two pronged project to research and analyze potential management and funding structures for creating a new offsite stormwater alternative mitigation program as identified in the Permit. The project will focus on general funding mechanisms, accounting, and the program management structure needed to implement and sustain a long term stormwater retention and/or biofiltration program. The second prong of the project focuses on potential locations for the offsite using an integrated water resources approach.

An offsite stormwater mitigation program could be cooperative and multi-beneficial if an integrated water resource management approach is taken that also addresses flood protection, surface water impairments, sea water intrusion, groundwater recharge, and potential water reuse through water banking. The potential for integrated water resource management programs with third party partners (e.g. local water agencies) are also to be identified and analyzed for regional benefits, potential initial investments and hurdles to implementation. Integrating this program with other water needs of Ventura County may present opportunities for third party involvement to help fund, manage and develop local water resources.

### 5.4.2 Require Hydromodification Criteria

Permittees currently require the interim hydromodification criteria as specified in Permit provision 4.E.III.3(a)(3). Interim criteria will be required until the Southern California Water Monitoring Coalition (SMC) completes the Hydromodification Control Study (HCS).

The purpose of Hydromodification Control Measures is to minimize impacts to natural creeks due to changes in postdevelopment stormwater runoff discharge rates, velocities, and durations by maintaining within a certain tolerance to the project's pre-project stormwater runoff flow rates and durations.

Hydromodification Control Measures may include onsite, subregional, or regional Hydromodification Control Measures; Retention BMPs; or stream restoration measures. Preference will likely be given to onsite Retention BMPs and Hydromodification Control Measures, however in-stream restoration measures may be determined to be the best use of resources and may more effectively and quickly address the beneficial uses of natural drainage systems.

The Southern California Storm Water Monitoring Coalition (SMC) is developing a regional methodology to eliminate or mitigate the adverse impacts of hydromodification as a result of urbanization, including hydromodification assessment and management tools. The Program will develop and implement watershed specific Hydromodification Control Plans (HCPs) after the completion of the SMC study (Permit requires HCP is submitted 180 days after the completion of the SMC study). Until the completion of the HCPs, the Interim Hydromodification Control Criteria, described below, apply to applicable, non-exempt new development and redevelopment projects.

| **Participate in the Stormwater Monitoring Committee's Hydromodification Control Study** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Ventura Countywide Stormater Quality Program | ☑ | | |

***Performance Standard 5-2***

| **Develop and implement watershed specific HCPs? (180 days after the completion of the SMC HCS)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Ventura Countywide Stormater Quality Program | | | ☑ |

***Performance Standard 5-3***

### 5.4.3 Interim Hydromodification Control Criteria

Projects deemed complete after the effective date which disturb less than 50 acres shall comply with the stormwater management standards contained in the 2011 TGM.

Projects disturbing 50 acres or greater must develop and implement a Hydromodification Analysis Study (HAS) that demonstrates that post development conditions are expected to approximate the pre-project erosive effect of sediment transporting flows in receiving waters. The HAS must lead to the incorporation of project design features intended to approximate, to the extent feasible, an Erosion Potential value of 1, or any alternative value that can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and damage stream habitat in natural drainage systems.

## 5.5 PLAN REVIEW AND APPROVAL PROCESS

Stormwater quality controls should be considered throughout the development plan review and approval process. Comprehensive review by the Permittees of development plans must be provided in order to ensure that stormwater controls minimize stormwater quality impacts.

### 5.5.1 Conduct BMP Review

Permittees conducted a detailed review of site designs and the proposed BMPs. Review included matching BMPs to the polluntants of concern, sizing calculations, pollutant removal performance and municipal approval. Project designs are not approved unless all conditions have been met.

| Conducted a detailed review of proposed BMPs. Review included sizing calculations and pollutant removal performance | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-4***

### 5.5.2 Establish Authority among Municipal Departments with Project Review Jurisdiction

Permittees have an established structure for communication and delineated authority between municipal departments that have jurisdiction over project review, plan approval, and project construction. Each Permittee has approached this in the manner that will be most effective within their organization. Interdepartmental communication and coordination does not represent a complicated hurdle for the smaller agencies, however, larger agencies such as the County of Ventura have formally drafted Memorandums of Understanding to establish the structure and define responsibilities.

**388 rain barrels were sold this year through the Program's co-operative effort with the County's Integrated Waste Management Division, over 1000 sold since Permit adoption.**

| Established authority among municipal departments with project review jurisdictioncontrol BMPs. (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-5***

## 5.6 LD4 – TRACKING, INSPECTION AND ENFORCEMENT

Permittees have implemented a tracking systems and an inspection and enforcement program for new development and redevelopment post-construction stormwater BMPs.

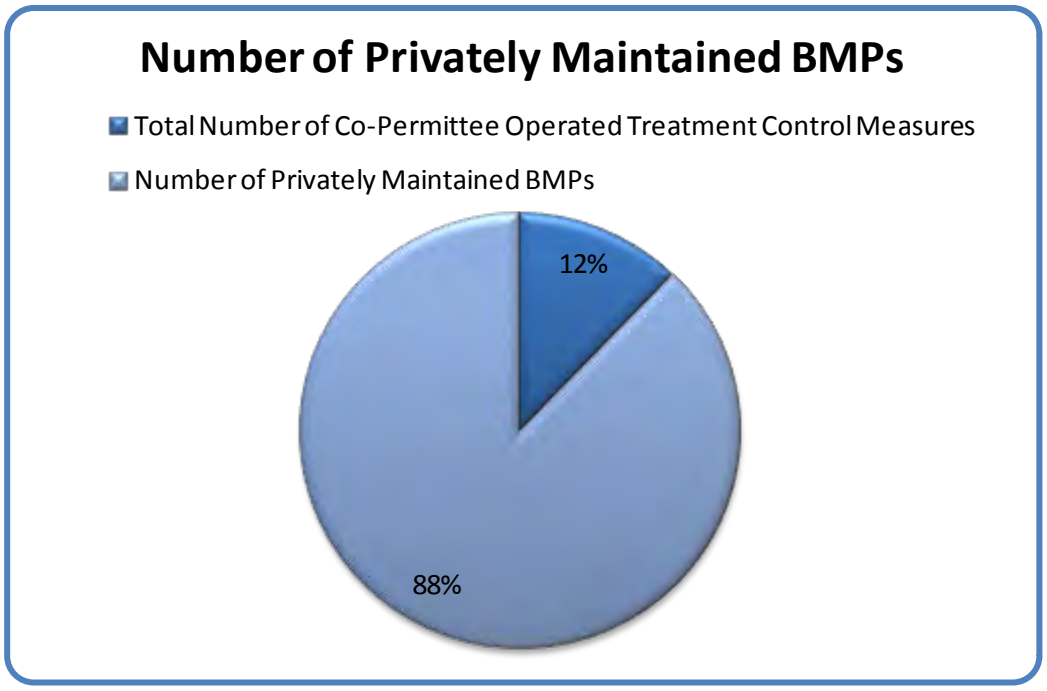



***Figure 5-2 Privately Maintained BMPs***

### 5.6.1 Develop/Implement a Tracking System for Post-Construction Treatment Control BMPs

Permittees have been conditioning development projects for stormwater controls since the last permit and understand that maintenance of these BMPs is instrumental to their performance of improving water quality. Developing and implementing a system for tracking projects that have been conditioned for post-construction treatment control BMPs is necessary to ensure that BMPs are properly maintained and working. This Permit requires this tracking system by July 8, 2011.

| Develop and implement a system for tracking projects that have been conditioned for post-construction treatment control BMPs? (by July 8, 2012) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | ☑ | |
| Oxnard | ☑ | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | ☑ |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-6***

Each Permittees' electronic system should contain the following information:

1. Municipal Project ID
2. State WDID No.(IAGSP)
3. Project Acreage
4. BMP Type and Description
5. BMP Location (coordinates)
6. Date of Acceptance
7. Date of Maintenance Agreement
8. Maintenance Records
9. Inspection Date and Summary
10. Corrective Action
11. Date Certificate of Occupancy Issued
12. Replacement or Repair Date

### 5.6.2 Conduct Inspections of Completed Projects

Beginning July 8, 2011 the Permittees are required to conduct inspections of completed projects subject to the Planning and Land Development Program requirements to ensure proper installation of all approved control measures have been implemented and are being maintained. Identifying and tracking these projects will follow the permitting process. The Certificate of Occupancy is withheld until a project can

show that BMPs have been installed as designed on approved plans. See Attachment B for an example inspection checklist from the City of Camarillo.

| Conduct inspections of completed projects subject to the Planning and Land Development Program requirements to ensure proper installation of BMPs (effective 90 days after aproval of Manual) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-7***

### 5.6.3 Conduct Inspections of Permittee Owned BMPs

The Permittees are responsible for the inspection and maintenance of BMPs they own and operate. Sometimes Permittees will accept this responsibility from a development as a way to ensure that proper maintenance is performed. Not all Permittees own and operate BMPs, and some have had very few capital projects and have not yet installed or accepted ownership of permanent BMPs. These inspections are required once every two years, and the first not until July 8, 2012.

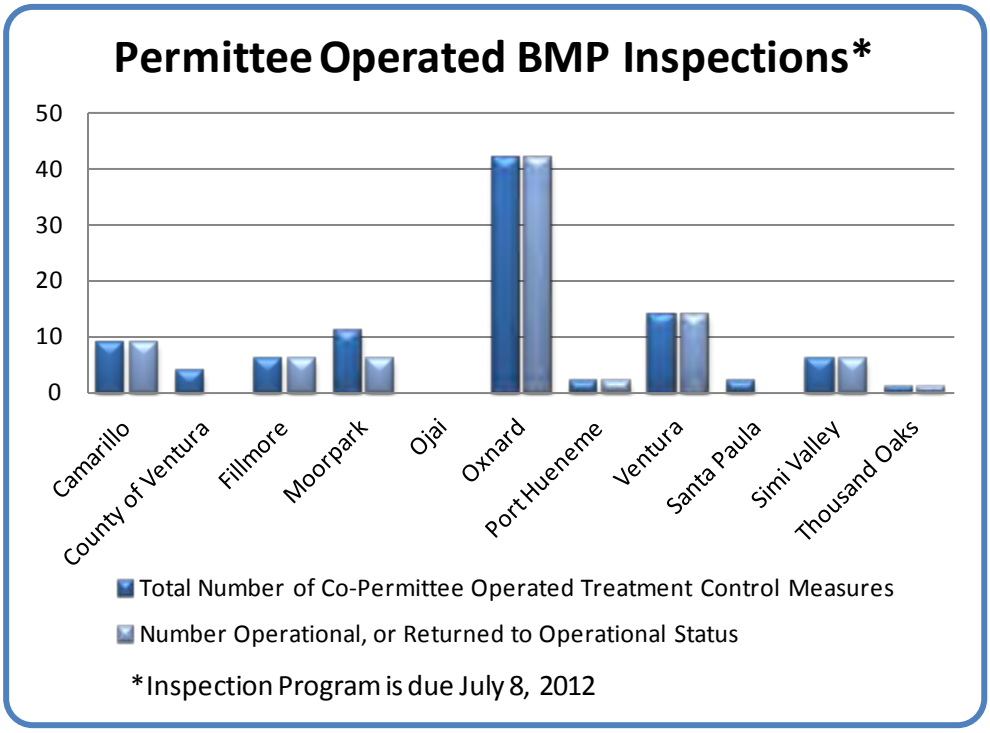



***Figure 5-3 Permittee Operated BMPs***

| Inspect post-construction BMPs operated by the Permittees at least once every 2 years (Due July 8, 2011) | | | | |
|---|---|---|---|---|
| | Yes | No | N/A | In Progress |
| Camarillo | ☑ | | | |
| Ventura County | | | | ☑ |
| Fillmore | ☑ | | | |
| Moorpark | ☑ | | | |
| Ojai | | ☑ | | |
| Oxnard | ☑ | | | |
| Port Hueneme | | | ☑ | |
| Ventura | ☑ | | | |
| Santa Paula | | ☑ | | |
| Simi Valley | | | ☑ | |
| Thousand Oaks | | | ☑ | |

***Performance Standard 5-8***

## 5.7 Take Enforcement Action

Inspections and requiring annual reports are only the first step towards ensuring BMPs are operational. Enforcement actions based on the results of the inspection may be needed in order to bring the facility into compliance. The Permit requires inspections of Permittee owned BMPs and enforcement is not

necessary in that scenario, and since the permit requirement for annual reports has not yet become effective very little enforcement has been implemented. To ease future compliance the Permittees are using this time for educational outreach to the owner/operators of BMPs.

A performance standard on enforcement may be developed in future reports, however, enforcement would only be needed when there is a non-compliance. Low enforcement numbers (high level of compliance) may represent an effective program just as well as high enforcement numbers would represent a determined effort to return BMPs to compliance.

## 5.8 LD5 – MAINTENANCE AGREEMENT AND TRANSFER

Maintenance agreement and transfers ensure that post-construction BMPs will remain effective upon project completion and continued occupancy. As a condition of approval for all priority development projects, Permittees require the owner/developer/successor-in-interest of stormwater BMPs to provide proof of control measure maintenance in the form of a Stormwater Treatment Device Operation and Maintenance Agreement and a Maintenance Plan.

### 5.8.1 Require Stormwater Treatment Device Operation and Maintenance Agreement

Permittees integrated the development/submittal of a stormwater maintenance agreement as a condition within the project approval process for projects subject to the Permit's Planning and Land Development Program requirements. To enforce the requirements of post-construction BMPs, a Maintenance Agreement is required to be executed between the Permittee and the owner/developer/successor-in-interest for any private facilities who remain the responsible party in operating and maintaining the post-construction Treatment Control Measures.

The 2002 TGM addresses the development and submittal of Maintenance Agreements when a developer is responsible for ongoing maintenance of onsite treatment BMPs.

| **Require an operation and maintenance plan for applicable stormwater BMPs** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-9***

### 5.7.1 Require Annual Reports for Post-Construction BMPs

By July of 2011 the Permittees are required to require the submittal of Annual Reports for BMPs maintained by parties other than the Permittees. The annual reports are to provide information to the Permittees showing that the BMPs have been properly maintained. In many cases a copy of an invoice from a service provider showing the date maintenance performed will suffice for an annual report.

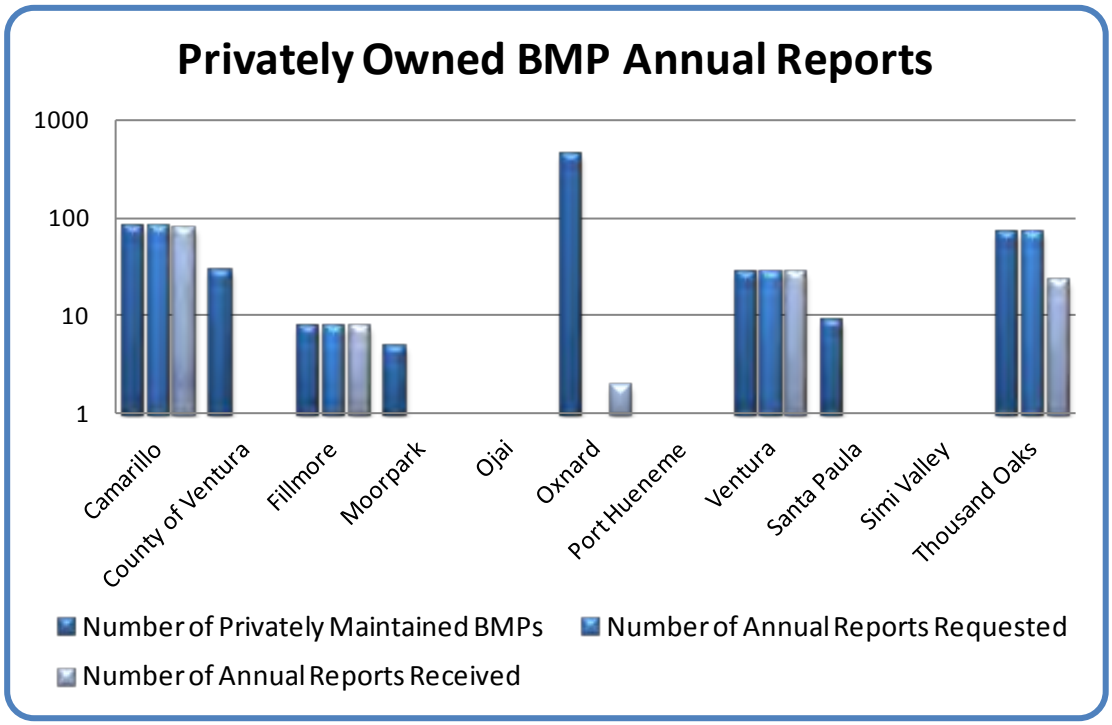



***Figure 5-4 BMP Annual Reports***

| **Require annual reports for private post-construction BMPs to demonstrate proper maintenance and operations (by July 8, 2011)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | | | ☑ |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |

***Performance Standard 5-10***

## 5.9 LD6 – TRAINING

Training is important to the successful implementation of the Planning and Land Development Program Element. An effective training program is one of the best pollution prevention BMPs that can be implemented because this subject is complicated and requires many interpretations and judgment calls.

To facilitate the implementation of the new Technical Guidance Manual a special training session was held in June of 2011. This training was open to private sector developers as well as the planners and plan check engineers who will be interpreting and implementing the new standards. It was important to have everybody in the same room receiving the same training to minimize confusion and conflict at the counter when actual projects will be coming in for approval. This six-hour training was attended by well over one hundred people.

### 5.9.1 Conduct Training

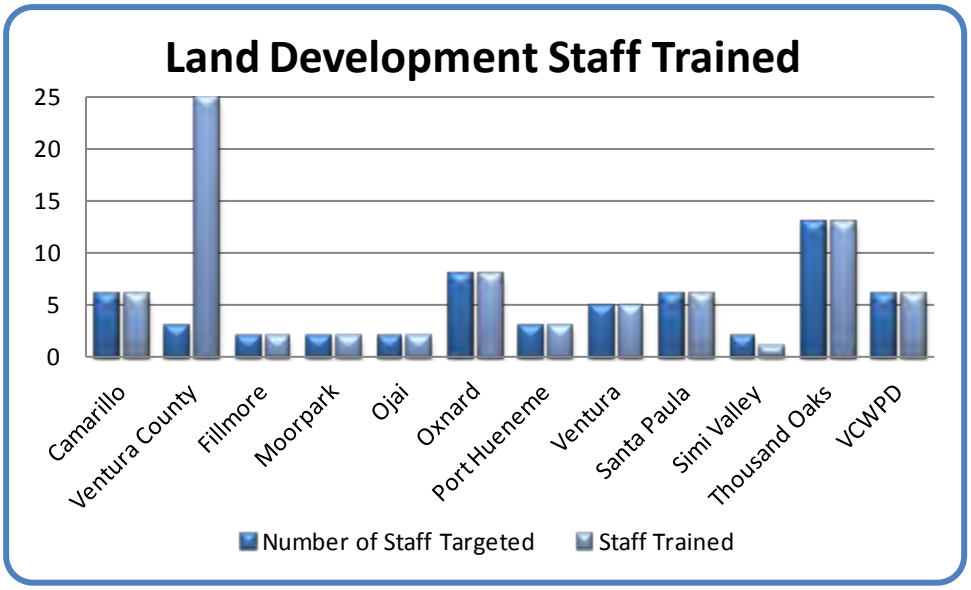



***Figure 5-5 Land Development Training***

| Target Audience | Format | Subject Material |
|---|---|---|
| • Plan Checkers<br>• Engineers<br>• Building and Construction Inspectors<br>• Builders<br>• Design Professionals<br>• Regulators<br>• Resource Agencies<br>• Other Stakeholders | • Classroom | • Overview of 2011 TGM<br>• Integration of LID at various project scales<br>• Guidance on relationship between LID strategies, source control BMPs, and hydromodification control requirements<br>• Highlight LID pilot projects and demonstration projects |

***Table 5-3 Training Areas of Focus for the Planning and Land Development Program Element***

## 5.10 LD7 – EFFECTIVENESS ASSESSMENT

Effectiveness assessment is a fundamental component for developing and implementing successful stormwater programs. In order to determine the effectiveness of the Planning and Land Development Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are used to identify modifications that need to be made to the program. Each year the effectiveness assessment is reviewed and revised as needed.

By conducting these assessments and modifying the program as needed, the Permittees ensure that the iterative process is used as an effective management tool. Due to the types of data collected for the Planning and Land Development Program, current and future assessments will primarily focus on Outcome Levels 1, 2 & 3.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?
- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard increased awareness of a target audience?
- Outcome Level 3 (L3) answers the question: Can the Permittees demonstrate that the control measure/performance standard changed a target audience's behavior, resulting in the implementation of recommended BMPs?

The following is an assessment regarding the effectiveness of the Planning and Land Development Program.

### 5.10.1 State Statute Conformity

#### Review/Revise CEQA Review Documents

The CEQA process and review process is an effective mechanism for addressing stormwater quality issues early in the planning stages. Where applicable, all Permittees have reviewed their internal planning procedures for preparing and reviewing CEQA documents. All Permittees are committed to formally integrating stormwater quality issues into the CEQA review process by July 8, 2011 **(L1)**.

#### Revise the General Plan

The majority of Permittees have either already incorporated or are in the process of incorporating stormwater requirements into their General Plans **(L1)**. This control measure is dependent on the scheduled updates/amendments to General Plans which varies greatly by municipality. Once updated, Permittees will submit draft elements to the Regional Board for review. Effectiveness of this control measure will continue to be evaluated as progress is made.

### 5.10.2 New Development Performance Criteria

#### Update the 2002 Ventura County TGM

The 2002 Ventura County TGM was updated and submitted to the Regional Board on June 16, 2011 **(L1)**. The updated TGM (2011 TGM) includes:

- Interim hydromodification criteria (addressed in Section 2);
- Expected BMP pollutant removal performance (addressed in Section 3 and Appendix D);
- Improved correlation of BMPs with stormwater POCs (addressed in Section 3 and Appendix D);

- BMP maintenance and cost considerations (addressed in Section 7, Appendices H &I);
- Integration of integrated water resources planning and management goals (Sections 1 and 4).

#### Require Compliance with Performance Criteria

Permittees continued to require compliance with 2002 TGM for all SQUIMP new development and redevelopment project categories **(L1)**. As indicated in Figure 5-1, Permittees required 97 projects to implement source control and/or water quality treatment (note these numbers apply to both SQUIMP and non-SQUIMP project categories). The 2011 TGM became effective October 11, 2011, 90 days after its approval by the Regional Board Executive Officer. With the 2011 TGM in effect, priority new development and redevelopment project will be required to comply with the 5% EIA Requirement and other new development provisions contained within Order No. R4-2010-0108.

#### Documentation of Offsite Mitigation Projects

The Permittees are in the process of developing an offsite mitigation framework and creating a list of potential locations. Offsite mitigation is not an option for developers until the 2011 TGM is effective.

#### Require Hydromodification Criteria

The Permittees currently require SQUIMP project categories to comply with the interim hydromodification criteria **(L1)**. The Ventura Countywide Stormwater Quality Program continues to participate in the SMC's hydromodification control study **(L1)**. Permittees will implement watershed-specific HCP's once the hydromodification control study is complete.

Further assessment of these control measures will be conducted once the 2011 TGM is effective.

### 5.10.3 Plan Review and Approval Process

#### Conduct BMP Review

Proposed post-construction BMPs were reviewed by each of the Permittees. BMP review included calculation sizing and pollutant removal performance. Permitees have effectively conducted BMP review for several years now and current review mechanisms are considered adequate **(L1)**.

#### Establish Authority among Municipal Departments

Each Permittee has successfully established the authority for review of stormwater quality measures. The mechanism varies by Permittee and for the larger Permittees may consist of a formal MOU **(L1)**.

### 5.10.4 Tracking, Inspection and Enforcement

#### Develop/Implement Tracking Mechanism

Permittees have been conditioning development projects for stormwater controls since the last permit and understand that maintenance of these BMPs is instrumental to their performance of improving water quality. Developing and implementing a system for tracking projects that have been conditioned for post-construction treatment control BMPs is necessary to ensure that BMPs are properly maintained and working. (L1)

#### Conduct Inspections of Completed Projects

Although this performance measure was not due until July 8, 2011 (just outside of reporting period) all 11 Permittees had already begun to conduct inspections of completed projects with the remaining Permittees in the process of developing their inspections programs **(L1)**.

#### Conduct Inspections of Permittee Owned BMPs

Five of the Permittees are already inspecting the BMPs they own and operate, while four others have not built or adopted BMPs. This inspection program must be implemented by July 8, 2012.

#### Take Enforcement Action

Four of the Permitees have needed to take enforcement action to ensure proper BMP maintenance, five others reported that enforcement actions were not necessary to achieve compliance. This performance measure is reliant on the implementation of an inspection program which was not required to be fully implemented during this reporting period.

### 5.10.5 Maintenance Agreement and Transfer

#### Require Stormwater Treatment Device Access and Maintenance Agreement

Permittees have required since 2002 and will continue to require a maintenance agreement to ensure proper maintenance and permission to enter property and access BMPs **(L1)**.

#### Require Annual Reports for Post-Construction BMPs

All Permittees reported that they have required annual reports or are in progress of generating the reporting procedures with the intention of having it operational by the July 2012 due date.

### 5.10.6 Training

#### Conduct Training

During this reporting period, Permittees trained 79 staff (see Figure 5-5). Training primarily focused on updates to the 2011 TGM **(L1)**.

## 5.11 PLANNING AND LAND DEVELOPMENT PROGRAM MODIFICATIONS

On an annual basis, the Permittees plan to evaluate the results of the Annual Report, as well as the experience that staff has had in implementing the program, to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable. Any key modifications made to the Land Development Program Element during the next fiscal year will be reported in the following Annual Report, such as the implementation of the new requirements that became effective during the 2011-2012 Permit year.

# 6 Development Construction

## 6.1 OVERVIEW

During construction projects, a number of activities may generate or mobilize pollutants. The purpose of the Development Construction Program Element is to coordinate programs and resources to effectively reduce pollutants in runoff from construction sites during all construction phases.

Reducing pollutants from construction activities has been a focus of the Permittees' compliance program since the stormwater program's inception. The Permittees regulate private construction activities, and also have responsibility for the construction and renovation of municipal facilities and infrastructure (these projects are reported in Chapter V Public Agency Activities). Major components of the Permittee's Construction Program include:

- Review of local SWPPPs for compliance with local codes, ordinances, and permits
- Inspect all construction sites for the implementation of stormwater quality controls a minimum of once during the wet season. Follow-up inspections takes place within two weeks for inspected sites that have not adequately implemented their Local SWPPP;
- Require proof of filing a Notice of Intent (NOI) for coverage under the State General Construction Permit prior to issuing a grading permit for all projects requiring coverage.

Additionally, the Construction Program provides construction site owners, developers, contractors and other responsible parties information on the requirements and guidelines for pollution prevention/BMP methods. To ensure construction sites are implementing the SWPPPs properly, each jurisdiction conducts inspections during the rainy season to verify the appropriateness and implementation of BMPs, taking enforcement action as necessary. Inspectors are also visiting the sites in the dry season and use that opportunity to reduce the potential for illicit discharges. Training and outreach is done regularly to improve the quality and consistency of program implementation throughout Ventura County.

The Permittees attend the Construction Subcommittee meetings to coordinate and implement a comprehensive program to mitigate impacts on water quality from construction sites to the maximum extent practicable (MEP). In order to facilitate effective inspections and to document compliance with this requirement the Construction Subcommittee developed a model Stormwater Quality Checklist for Permittee use, which can be found in Attachment C. The checklist and the meetings create countywide consistency in the programs, however, the Permittees usually modify their programs to address particular issues, concerns or constraints that are unique to a particular watershed or to an individual municipality. The Subcommittee is attended by representatives of the Permittees cities and other municipal staff from various departments including Engineering Services, Planning and Land Development and Inspection Services.

## 6.2 CONTROL MEASURES

The Permittees have developed several Control Measures and accompanying performance standards to provide information for optimizing the program and ensure that the construction-related requirements in the Permit are met. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance with the Permit.

The Development Construction Program Control Measures consist of the following:

| DC | Control Measure |
|---|---|
| DC1 | Plan Review and Approval Process |
| DC2 | Inventory |
| DC3 | Inspections and BMP Implementation |
| DC4 | Enforcement |
| DC5 | Training |
| DC6 | Effectiveness Assessment |

***Table 6-1 Control Measures for the Development Construction Program Element***

## 6.3 DC1 – PLAN REVIEW AND APPROVAL PROCESS

The Plan Review and Approval Process control measure provides the Permittees with the mechanism to review and approve construction plans that address sediment and erosion controls. Effective planning of construction site activities leads to minimizing erosion and preventing pollutants from entering the storm drain system. The Permittees require all projects that disturb less than one acre of land to address pollutants and activities during the construction phase of the project by implementing the erosion control, sediment control, non-stormwater management and waste management BMPs identified in the NPDES Permit. For larger projects greater than one acre and greater than five acres the list of required BMPs gets progressively larger, more complex and more protective. Prior to issuing a grading permit, the Permittees review construction and grading drawings to ensure that necessary erosion and sediment control BMPs and source and treatment control BMPs are identified and properly designed to control runoff pollution to the maximum extent practicable. In the case of construction that encroaches in the Watershed Protection District's right-of-way, those projects are inspected but are invariably part of larger project and the lead agency for that project will be the jurisdiction permitting the design and building of that larger project.

### 6.3.1 Review Grading and Construction Permit Applications for SWPPP Requirements

Prior to approving a grading permit, the Permittees require a Storm Water Pollution Prevention Plan (SWPPP) be submitted for projects greater than one acre. Additionally, as is mandatory for all construction related activity disturbing one or more acres, Permittees require proof of filing an NOI for projects subject to the General Construction Permit. The SWPPP remains in effect until the construction site is stabilized and all construction activity is completed. The SWPPP includes identification of potential pollutant sources and the design, placement and maintenance of BMPs to effectively prevent the entry of pollutants from the construction site to the storm drain system. In addition, the Permittees require construction projects to include the following requirements:

- Erosion from slopes and channels will be eliminated by implementing BMPs, including but not limited to, inspecting graded areas during rain events, planting and maintaining vegetation on slopes and covering erosion susceptible slopes
- Sediments generated on the project site shall be retained using structural drainage controls
- No construction-related materials, wastes, spills or residues shall be discharged from the project site to streets, drainage facilities or adjacent properties by wind or runoff

- Non-stormwater runoff from equipment and vehicle washing and any other activity shall be contained at the project site

The Permittees have also incorporated SWPPP provisions in their own construction projects resulting in soil disturbance of one acre or more, located in hillside areas, or directly discharging to an ESA. The Permittees include provisions delineating contractor responsibilities for SWPPP preparation, implementation and for performance of the work and ancillary activities in accordance with the SWPPP approved by the Permittee for the project. In some jurisdictions, Local SWPPPs were required and submitted for nearly all projects including those not exceeding Permit thresholds. This conservative approach underlines the importance the Permittees place on ensuring implementation of stormwater controls at construction sites.

This figure reflects the number of grading permits issued during this reporting period and does not necessarily reflect the number of active construction projects. This is due to the fact that some larger projects may take longer than a year to complete. Conversely, not all projects that received grading permits granted during the permit year actually began grading and construction. Because of these facts the number of active projects requiring inspection does not always match the number of grading permits granted.

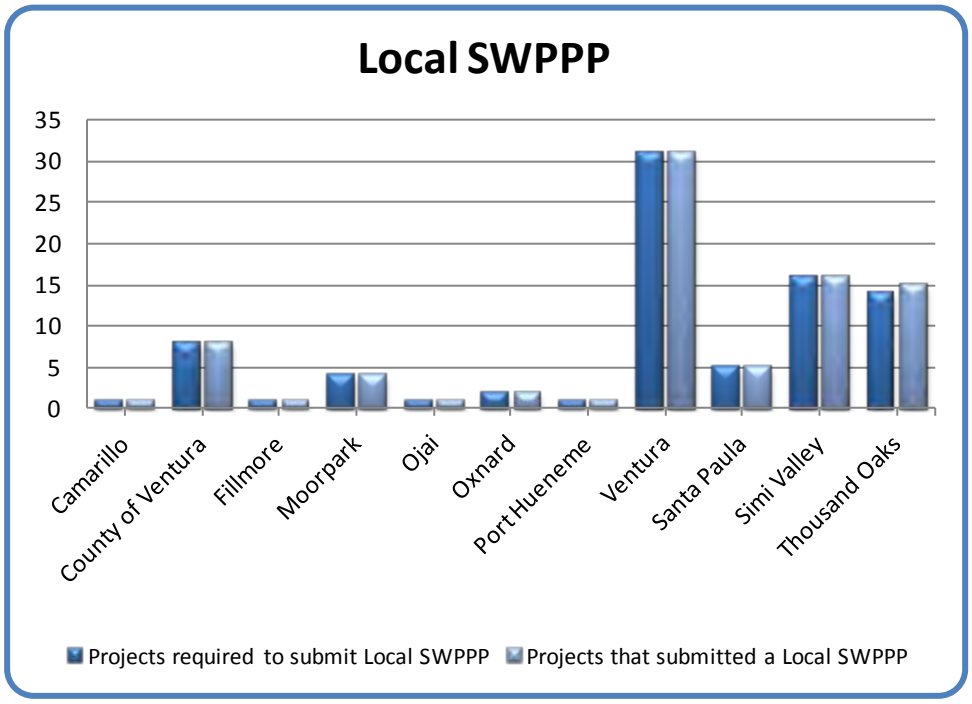



***Figure 6-1 Local SWPPPs***

The Permittees have consistently required projects to submit SWPPPs. A project may be operating under a grading permit granted the previous year, or the grading permits may have been granted after the wet season so there was no opportunity for a wet season inspection, so the number of permits and projects inspected rarely match.

The Permittees require all construction projects subject to the General Stormwater Permit for Construction Activities to submit proof of filing a Notice of Intent (NOI) prior to issuing a grading permit. Proof of filing a NOI can include a copy of the completed NOI form and a copy of the check sent

to the State Water Resources Control Board (SWRCB), or a copy of the letter from the SWRCB with the Waste Discharge Identification Number (WDID) for the project.

In addition, the Permittees will file NOIs with the SWRCB and pay the appropriate fees when Permittee construction projects require coverage under the General Construction Permit. The NOIs and appropriate fees are sent to the State prior to the commencement of any construction activity covered by the General Construction Permit. A copy of the NOI is kept with the project files and in the SWPPP for the project.

**Permittees inspect more construction sites than were required to submit a SWPPP, and inspect them more frequently for stormwater compliance than the permit requires.**

Projects subject to the requirements of the General Construction Permit currently include those involving clearing, grading, or excavation resulting in soil disturbances of at least one acre. Permittee emergency work and routine maintenance projects do not require preparation of a SWPPP. That does not imply that stormwater controls are not implemented during these activities. Routine maintenance and emergency projects are performed in accordance with the Permit's requirements for Public Agency Activities.

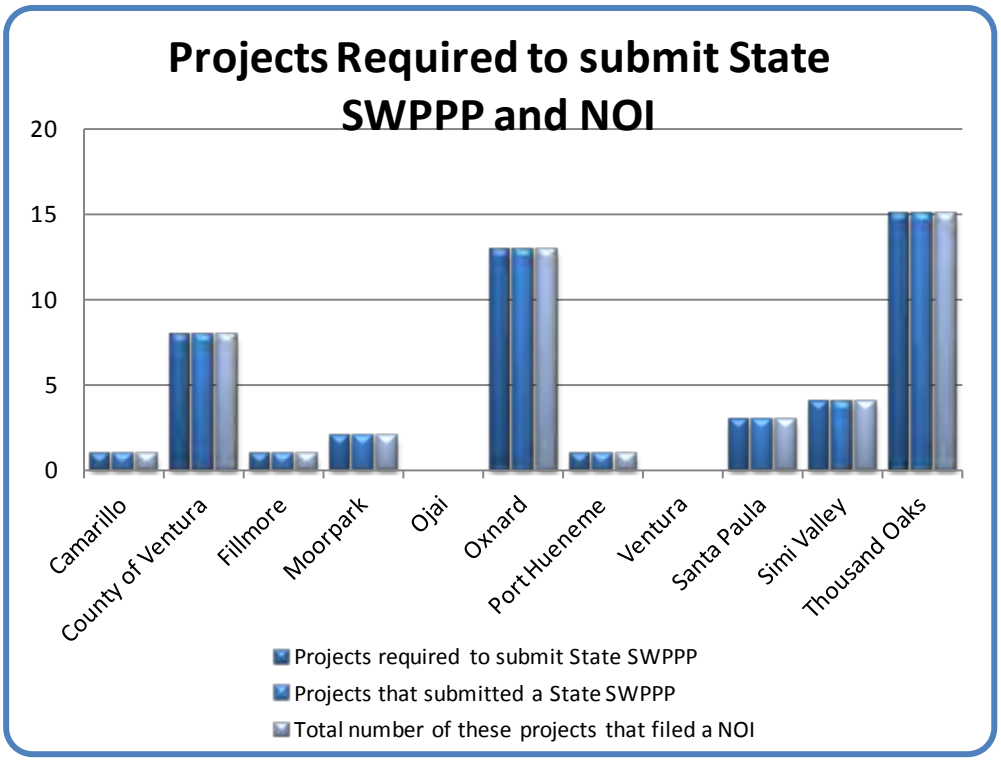



***Figure 6-2 State SWPPPS and NOIs***

## 6.4 DC2 –INVENTORY

The Construction Projects Inventory Control Measure involves tracking construction sites from the planning stage to completion. This is essential for ensuring that stormwater pollutants are reduced to the MEP. Maintaining a database to track all stages of the construction process is the foundation of construction-related source identification and helps to ensure that pollution prevention and source control are emphasized during all phases of the construction project. The permitting process is also an

opportunity to provide stormwater education and outreach to the construction community and to emphasize the penalties that can be incurred with non compliance.

The Permittees have programs in place to track all grading, encroachment, demolition, and building permits as required by the NPDES Permit. For the purposes of ensuring the appropriate BMPs are being implemented when soil disturbing activities are taking place the Permittees focus on the grading permit process to identify projects and the level of BMPs required. This has been determined as the most effective way to track projects with a potential to impact water quality as many encroachment, building and other permits that are not associated with grading activities do not present the same level of risk to stormwater quality.

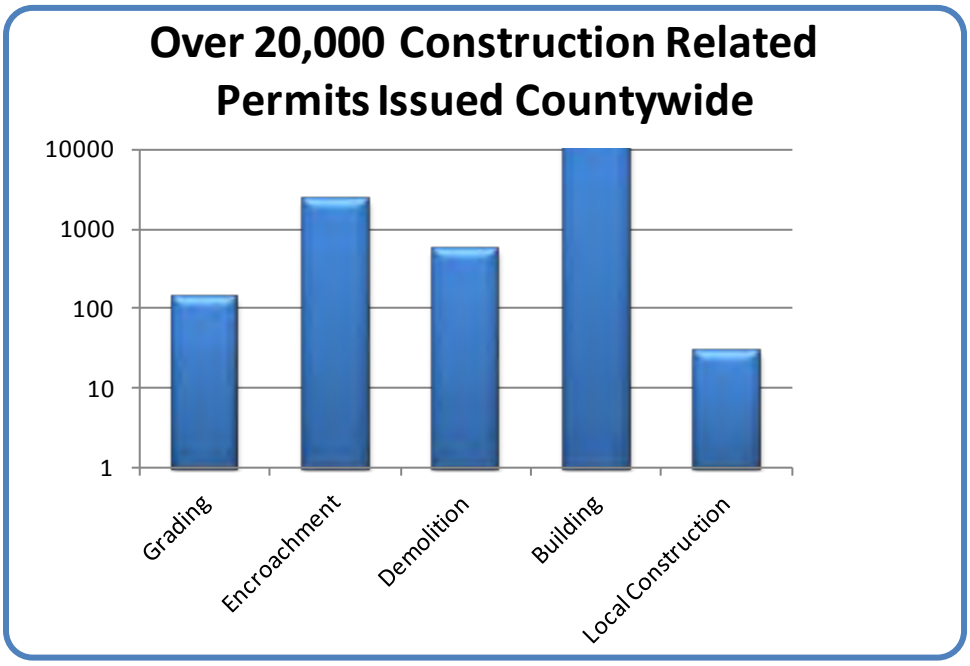



***Figure 6-3 Construction Permits Issued***

| Maintain an electronic system to track grading permits, encroachment permits, and any other municipal authorization to move soil | | | |
|---|---|---|---|
| | Yes | In Progress | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | ☑ | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 6-1***

| Required proof of Change of Information form (COI) and a copy of the modified SWPPP(s) at any time a transfer of ownership takes place | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | ☑ | | |
| Ventura | | | ☑ |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | | | ☑ |

***Performance Standard 6-2***

## 6.5 DC3 – INSPECTIONS AND BMP IMPLEMENTATION

The Inspection and BMP Implementation Control Measure is critical to the ultimate success of the Development Construction Program Element. An effective construction site inspection program requires having adequate legal authority to enforce Permittee requirements, tracking active construction sites to identify repeat violators, and conducting inspections to ensure the sources are identified and that BMPs are being implemented and maintained. The inspection program also provides the basis for notifying the Regional Water Board when inspectors identify non-compliant sites including non-filers or repeat violators.

### 6.5.1 Inspect Construction Sites

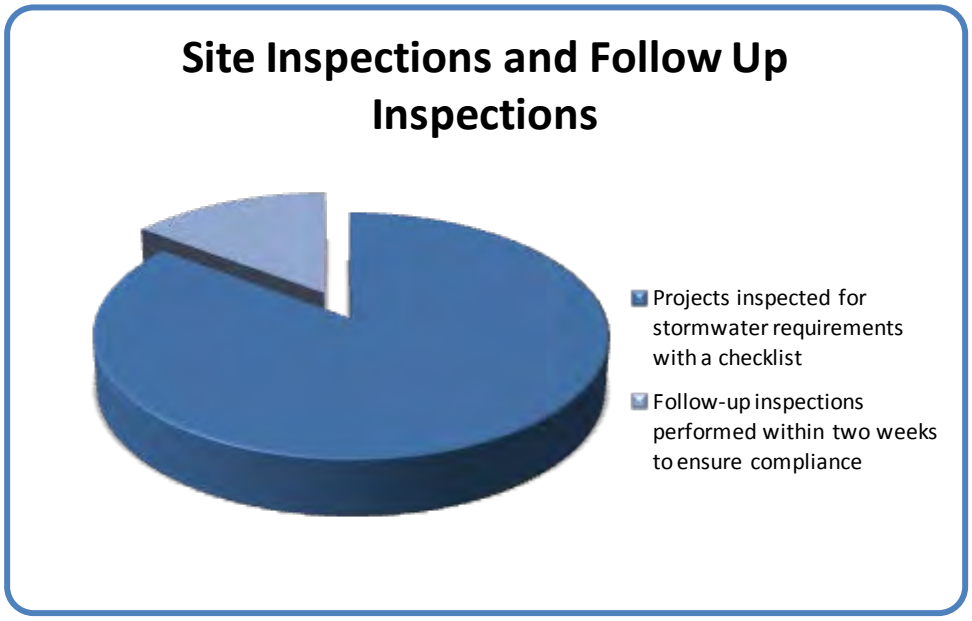



*Figure 6-4 Site Inspections and Follow Up*

The Permittees inspect all active construction sites for the implementation of stormwater quality controls a minimum of once during the wet season, and all construction sites with SWPPPs a minimum of once during the wet season to determine if the SWPPP is adequately implemented. During these site inspections, a checklist is completed to document inspection results. If it is determined the SWPPP is not adequately implemented, or when there is evidence of a reasonable potential for sediment, construction materials, wastes, or non-stormwater runoff to be discharged from the project site, the Permittees will inform the responsible party of what needs to be corrected and conduct a follow-up inspection within two weeks, but most often it is much sooner. The follow-up inspections are not always scheduled and often the response needed to correct the situation does not require two weeks to implement.

***Storm drain protection during construction***

| Construction sites less than 1 acre were inspected to ensure that the minimum set of BMPs was implemented | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 6-3***

| Construction sites greater than 1 acre and less than 5 acres inspected to ensure that the minimum set of BMPs was implemented | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 6-4***

| Construction site greater than 5 acres inspected to ensure that the minimum set of BMPs was implemented | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 6-5***

The Permittees inspect each project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing roadbed surfaces to ensure that the minimum set of BMPs were implemented. This is routinely done at the same time inspections are performed to ensure all work is being performed according to the design and the standards required of public works projects.

| Projects that include roadbed or street paving, repaving, patching, digouts, or resurfacing roadbed surfaces inspected to ensure that the minimum set of BMPs was | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 6-6***

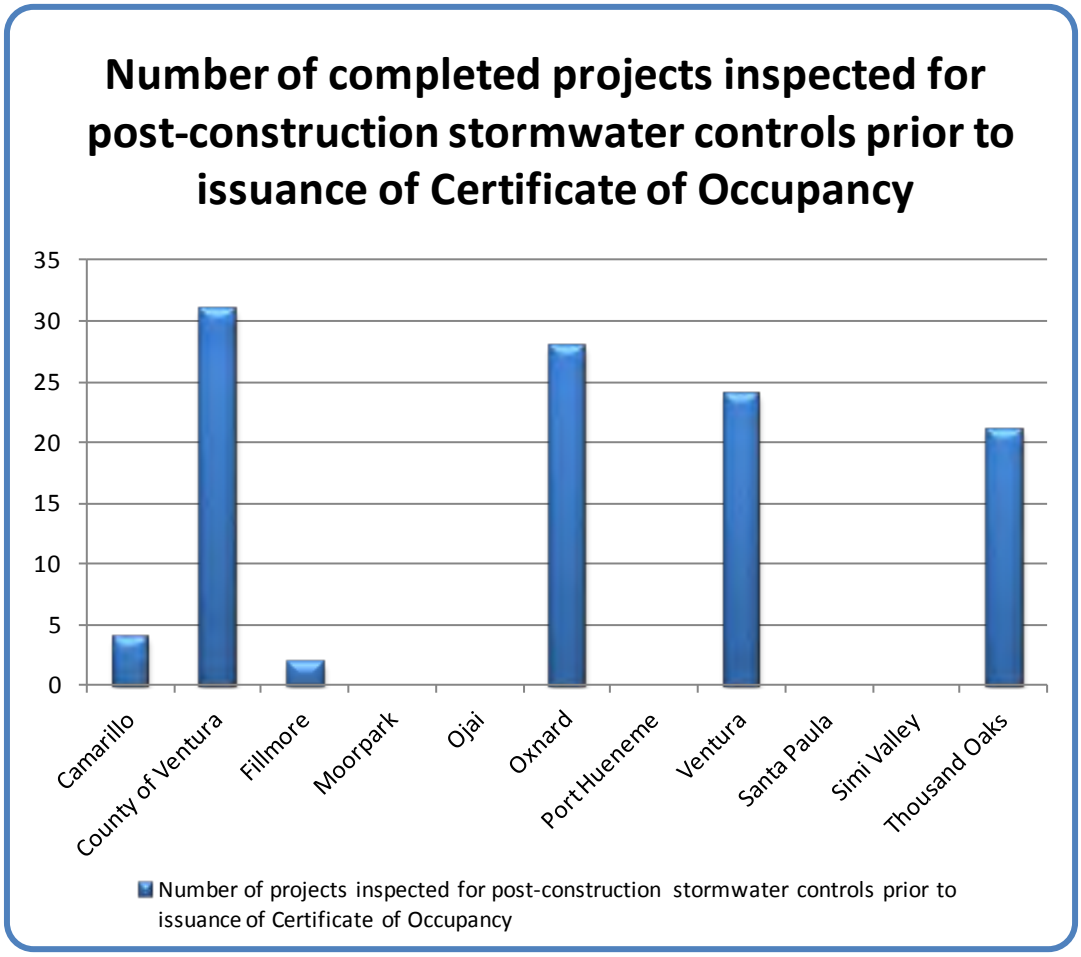



***Figure 6-5 Summary of Active Construction Sites and Inspections***

### 6.5.2 Implementation of Enhanced Practices at "High Risk" Sites

Construction sites located on hillsides, adjacent to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to ESAs are termed "High risk" sites. The Permittees ensure implementation of enhanced practices such as increased BMP inspection and maintenance requirements at "high risk" sites to ensure that they do not create a threat to water quality.

The Permit requires that high risk sites be inspected by the project proponent's Qualified SWPPP Developer or Qualified SWPPP Practitioner or personnel or consultants who are Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site. This requirement could only be met by CPESC during the reporting period because the tests and certification for Qualified SWPPP Developer or Qualified SWPPP Practitioners had not yet been issued. Many of the permittees did not have any designated high risk construction sites but did have the program in place to identify and implement the added requirements.

| Ensure implementation of enhanced practices such as increased BMP inspection and maintenance requirements at "high risk" sites | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | | ☑ |
| Simi Valley | ☑ | | |
| Thousand Oaks | | ☑ | |
| Watershed Protection | ☑ | | |

***Performance Standard 6-7***

| Require that high risk sites be inspected by the project proponent's Qualified SWPPP Developer or Qualified SWPPP Practitioner at high risk sites | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | | | ☑ |
| Santa Paula | | | ☑ |
| Simi Valley | ☑ | | |
| Thousand Oaks | | ☑ | |
| Watershed Protection | ☑ | | |

***Performance Standard 6-8***

Construction sites are dynamic and changing environments and must be routinely inspected by the project proponent to ensure that the appropriate BMPs are in place and maintained. Permittees require that the project proponent of High Risk sites retain records of the inspection and a determination and rationale of the BMPs selected to control runoff during the wet season.

### 6.5.3 Inspect for Post-Construction Controls

The Permittees inspected the constructed site design, source control and treatment control BMPs conditioned during the development process to verify that they have been constructed in compliance with all specifications, plans, permits, ordinances, and the MS4 permit prior to approving and/ or signing off for occupancy and issuing the Certificate of Occupancy for all construction projects subject to post-construction controls. Permanent BMPs may be installed at any point during the construction process and therefore may be exposed to runoff conditions much worse than their intended design. The Permit also

requires inspections to ensure that the BMPs are in good operating condition and are not in the need of maintenance. These inspections are routinely performed at the same time to be cost efficient and to use the leverage the Certificate of Occupancy provides the Permittee. This requirement is also in the Permit in Section V – Planning and Land Development.

As stated previously, the number of projects reaching the final stages of construction and requesting a Certificate of Occupancy will not directly match the number of active construction sites or grading permits issued due to the elapsed time from permitting to project initiation, completion and occupancy.

| **Inspected constructed site design, source control and treatment control BMPs to verify constructed in compliance with all specifications prior to approving issuing the Certificate of Occupancy** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |

***Performance Standard 6-9***

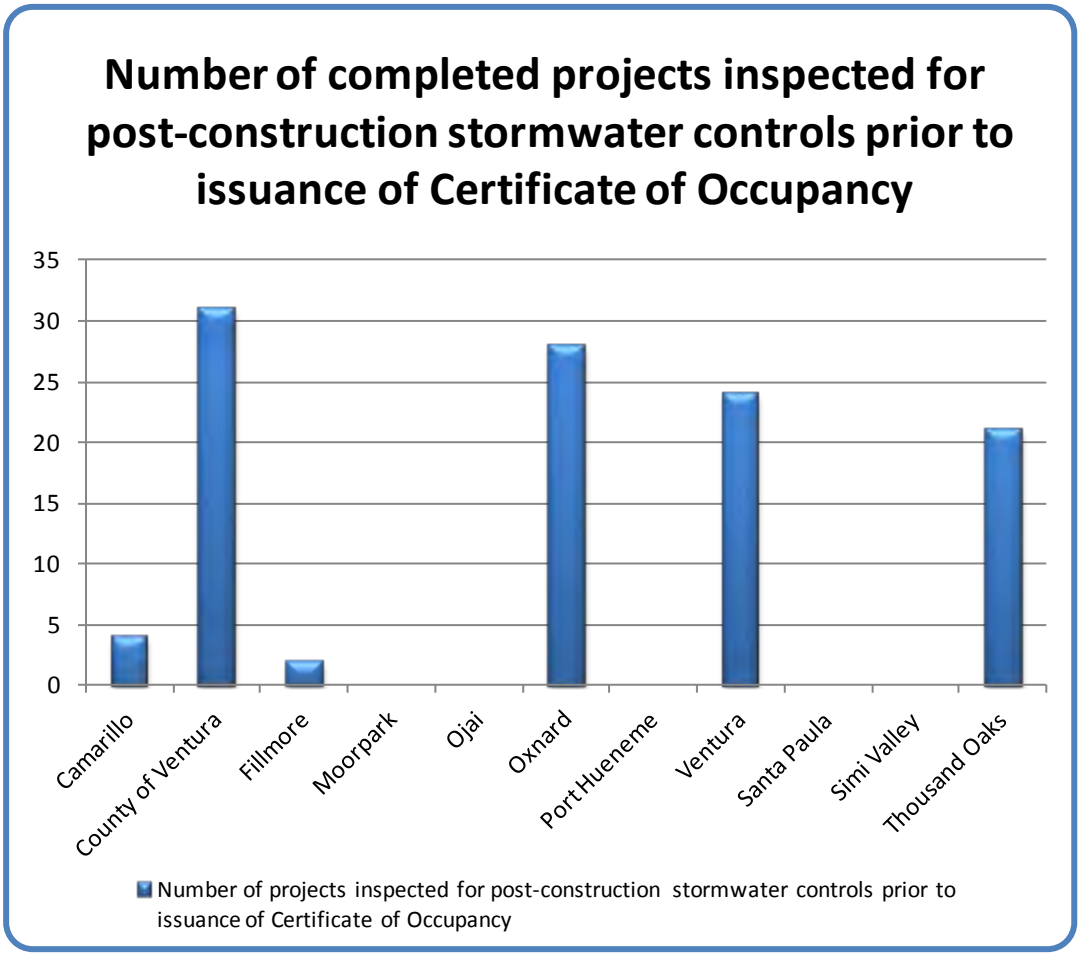


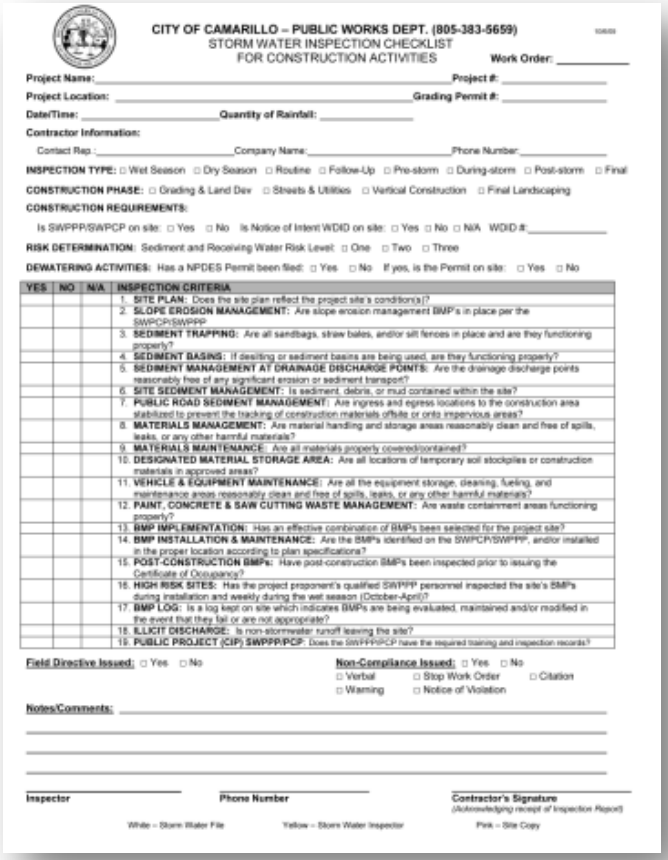

***Figure 6-6 Inspections Prior to Certificate of Occupancy***

## 6.6 DC4 – ENFORCEMENT

The Enforcement Control Measure outlines the progressive levels of enforcement applied to construction sites that are out of compliance with local ordinances and establishes the protocol for referring apparent violations of construction sites subject to the General Construction Permit to the Regional Water Board. The progressive enforcement and referral policy, as well as the accompanying legal authority, is an important tool for providing a fair and equitable approach to bringing contractors and developers into compliance with the Permittees' municipal code requirements. Enforcement actions range from issuance of verbal warnings to stop work orders. Legal action may also be taken, although is rarely necessary as in almost all cases stopping work at a site will focus the developers attention to the BMPs . For repeat offenders, or contractors that have not filed appropriate applications, the referral policy includes notification to the Regional Water Board.

### 6.6.1 Enforcement Action to Achieve Compliance

When a construction site fails to comply with the SWPPP, minimum BMPS or other stormwater requirements, a Permittee implements the appropriate notification and enforcement procedures. There are five general levels of notification and enforcement for most stormwater related problems for construction projects. These are: Verbal Notification, Job Memorandum, Notice of Violation, Administrative Compliance Order, Stop Work Order. Sites that are permitted under the construction activities general permit (CASGP) are also referred to the RWQCB if they fail to achieve compliance and a good faith effort has been made by the Permitee to achieve compliance. At a minimum that is two follow-up inspections within three months, and at least two warning letters or NOVs. The decision to use any level of enforcement is based upon the severity of the violation(s). Severe violation may result in all construction activities being stopped at the job site and not allowed to proceed until compliance is achieved. The Regional Board may be notified of severe violations at sites under the CASGP if the situation warrants immediate attention, if such a case occurs the Permittees will work with Board staff in identification of owners and operators, assist with joint inspections, and other efforts to reduce pollutants from entering an MS4.



**CITY OF CAMARILLO – PUBLIC WORKS DEPT. (805-383-5659)**
STORM WATER INSPECTION CHECKLIST
FOR CONSTRUCTION ACTIVITIES
**Work Order:** _____

**Project Name:** _____ **Project #:** _____
**Project Location:** _____ **Grading Permit #:** _____
**Date/Time:** _____ **Quantity of Rainfall:** _____
**Contractor Information:**
Contact Rep.: _____ Company Name: _____ Phone Number: _____
**INSPECTION TYPE:** □ Wet Season □ Dry Season □ Routine □ Follow-Up □ Pre-storm □ During-storm □ Post-storm □ Final
**CONSTRUCTION PHASE:** □ Grading & Land Dev □ Streets & Utilities □ Vertical Construction □ Final Landscaping
**CONSTRUCTION REQUIREMENTS:**
Is SWPPP/SWPCP on site: □ Yes □ No Is Notice of Intent WDID on site: □ Yes □ No □ N/A WDID #: _____
**RISK DETERMINATION:** Sediment and Receiving Water Risk Level: □ One □ Two □ Three
**DEWATERING ACTIVITIES:** Has a NPDES Permit been filed: □ Yes □ No If yes, is the Permit on site: □ Yes □ No

| YES | NO | N/A | INSPECTION CRITERIA |
|---|---|---|---|
| | | | 1. **SITE PLAN:** Does the site plan reflect the project site's condition(s)? |
| | | | 2. **SLOPE EROSION MANAGEMENT:** Are slope erosion management BMP's in place per the SWPCP/SWPPP |
| | | | 3. **SEDIMENT TRAPPING:** Are all sandbags, straw bales, and/or silt fences in place and are they functioning properly? |
| | | | 4. **SEDIMENT BASINS:** If desilting or sediment basins are being used, are they functioning properly? |
| | | | 5. **SEDIMENT MANAGEMENT AT DRAINAGE DISCHARGE POINTS:** Are the drainage discharge points reasonably free of any significant erosion or sediment transport? |
| | | | 6. **SITE SEDIMENT MANAGEMENT:** Is sediment, debris, or mud contained within the site? |
| | | | 7. **PUBLIC ROAD SEDIMENT MANAGEMENT:** Are ingress and egress locations to the construction area stabilized to prevent the tracking of construction materials offsite or onto impervious areas? |
| | | | 8. **MATERIALS MANAGEMENT:** Are material handling and storage areas reasonably clean and free of spills, leaks, or any other harmful materials? |
| | | | 9. **MATERIALS MAINTENANCE:** Are all materials properly covered/contained? |
| | | | 10. **DESIGNATED MATERIAL STORAGE AREA:** Are all locations of temporary soil stockpiles or construction materials in approved areas? |
| | | | 11. **VEHICLE & EQUIPMENT MAINTENANCE:** Are all the equipment storage, cleaning, fueling, and maintenance areas reasonably clean and free of spills, leaks, or any other harmful materials? |
| | | | 12. **PAINT, CONCRETE & SAW CUTTING WASTE MANAGEMENT:** Are waste containment areas functioning properly? |
| | | | 13. **BMP IMPLEMENTATION:** Has an effective combination of BMPs been selected for the project site? |
| | | | 14. **BMP INSTALLATION & MAINTENANCE:** Are the BMPs identified on the SWPCP/SWPPP, and/or installed in the proper location according to plan specifications? |
| | | | 15. **POST-CONSTRUCTION BMPs:** Have post-construction BMPs been inspected prior to issuing the Certificate of Occupancy? |
| | | | 16. **HIGH RISK SITES:** Has the project proponent's qualified SWPPP personnel inspected the site's BMPs during installation and weekly during the wet season (October-April)? |
| | | | 17. **BMP LOG:** Is a log kept on site which indicates BMPs are being evaluated, maintained and/or modified in the event that they fail or are not appropriate? |
| | | | 18. **ILLICIT DISCHARGE:** Is non-stormwater runoff leaving the site? |
| | | | 19. **PUBLIC PROJECT (CIP) SWPPP/PCP:** Does the SWPPP/PCP have the required training and inspection records? |

**Field Directive Issued:** □ Yes □ No
**Non-Compliance Issued:** □ Yes □ No
□ Verbal □ Stop Work Order □ Citation
□ Warning □ Notice of Violation
**Notes/Comments:** _____

**Inspector** **Phone Number** **Contractor's Signature** (Acknowledging receipt of Inspection Report)

White – Storm Water File Yellow – Storm Water Inspector Pink – Site Copy

***Construction Inspection Form***

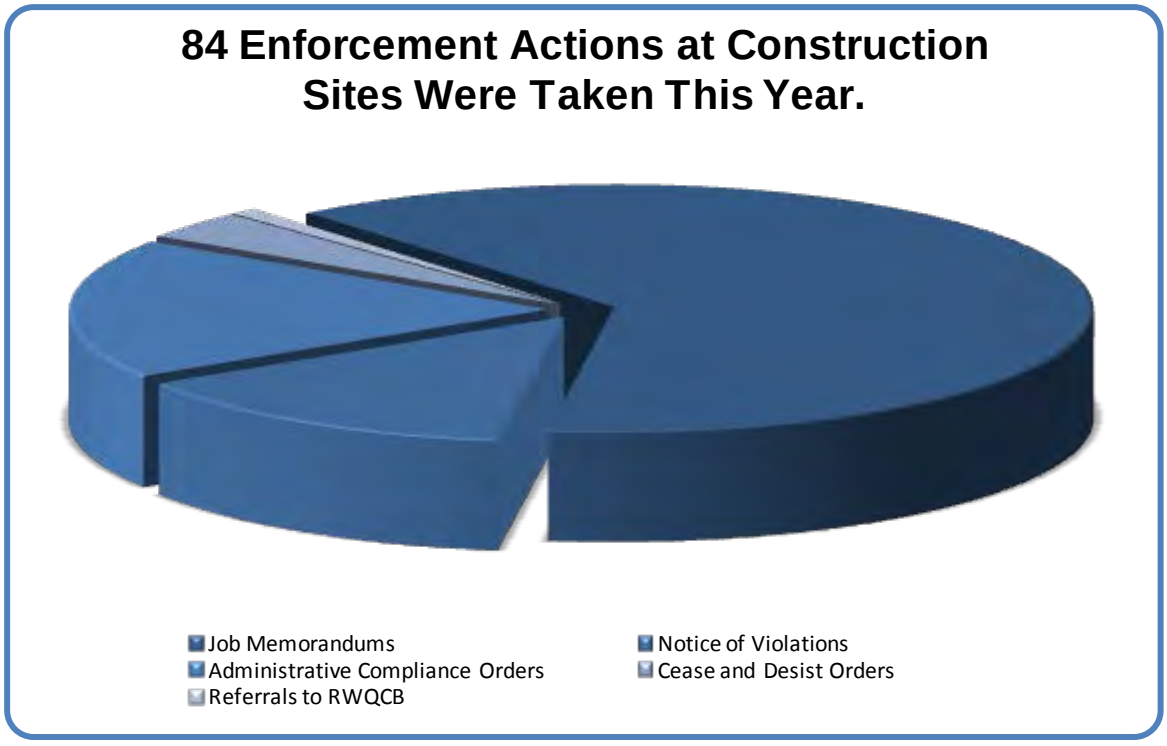



***Figure 6-7 Enforcement at Construction Sites***

### 6.6.2 Implement Progressive Enforcement and Referral Policy

During the reporting year one construction site failed to return to compliance and was referred to the Regional Water Board for enforcement actions under the CAGSP. Referral to the Regional Water Board is summarized in Table 6-2 Summary of Referrals

.

| WDID Number | Reason for Referral |
|---|---|
| 456C351832 | NPDES General Construction Permit violations |

***Table 6-2 Summary of Referrals***

| Type of Enforcement Action | Number |
|---|---|
| Referrals to RWQCB | 1 |
| Cease and Desist Orders | 4 |
| Administrative Compliance Orders | 2 |
| Notice of Violations | 15 |
| Job Memorandums | 69 |

***Table 6-3 Number and Types of Enforcement Actions***

### 6.6.3 Refer Non-filers Under the CASGP or the Small LUP General Permit

Countywide all construction activities that were required to file for coverage under the CASGP or the Small Linear Underground Project Permit did so. This is because the Permittees have developed the appropriate programs and procedures to ensure that local permits are not granted until the project proponent can provide adequate proof of state permit coverage.

### 6.6.4 Investigation of Complaints Regarding Facilities - Transmitted by the Regional Water Board Staff

The Permittees are required to initiate an initial investigation of complaints transmitted by the Regional Water Board Staff (other than non-storm water discharges) on the construction site(s) within its jurisdiction. During the reporting period the Regional Board did not transmit any complaints for Permittee investigation; any reports received would be summarized in Table 6-4 Summary of Complaints Transmitted by the Regional Water Board below.

| Permit # | Initial Investigation conducted within 1 business day? (Y/N) | Inspection of the Facility and its Perimeter? (Y/N) |
|---|---|---|
| None | ** | ** |

***Table 6-4 Summary of Complaints Transmitted by the Regional Water Board***

### 6.6.5 Support of Regional Water Board Enforcement Actions

If the Regional Water Board is aware of non-compliance at a construction site they may request assistance from the Permittees to support their formal enforcement actions. Fortunately during the reporting period the Permittees were able to use their local authority to keep all construction sites in compliance and assistance to the Regional Water Board enforcement actions was not needed. Table 6-5 describes what kind of assistance the Permittees could provide and will be used in future reports to summarize any enforcement action assistance.

| Permit # | Assisted in Identification of Current Owners/ Operators of Properties/Sites? (Y/N) | Provided Staff for Joint Inspections with Regional Water Board Inspectors? (Y/N) | Appeared to Testify as Witnesses in Regional Water Board Enforcement Hearings? (Y/N) | Provided Copies of Inspection Reports and Other Progressive Enforcement Documentation? (Y/N) |
|---|---|---|---|---|
| ** | ** | ** | ** | ** |

***Table 6-5 Summary of Complaints Transmitted by the Regional Water Board***

## 6.7 DC5 – TRAINING

Training is important for the implementation of the Development Construction Program Element. An effective training program is one of the best pollution prevention BMPs that can be implemented because it prompts behavioral changes that are fundamentally necessary to protect water quality. The Permittees target employees involved with construction engineering and inspection for training regarding the requirements of the Program for Construction Sites. Training methods varied amongst the Permittees and ranged from informal meetings, formal classroom training, seminars to self-guided training. The

Permittees also trained staff on the prevention, detection and investigation of illicit discharges and illegal connections (ID/IC) associated with construction activities. See Chapter 8 for more information regarding ID/IC training.

During this reporting period, the Permittees trained over 100 key staff, including contractors whose interactions, jobs, and activities affect development construction in stormwater management, construction inspections, SWPCPs, SWPPPs, illicit discharge response, and non-stormwater discharges. Figure 6-8 depicts the number of staff trained in the program areas for each Permittee.

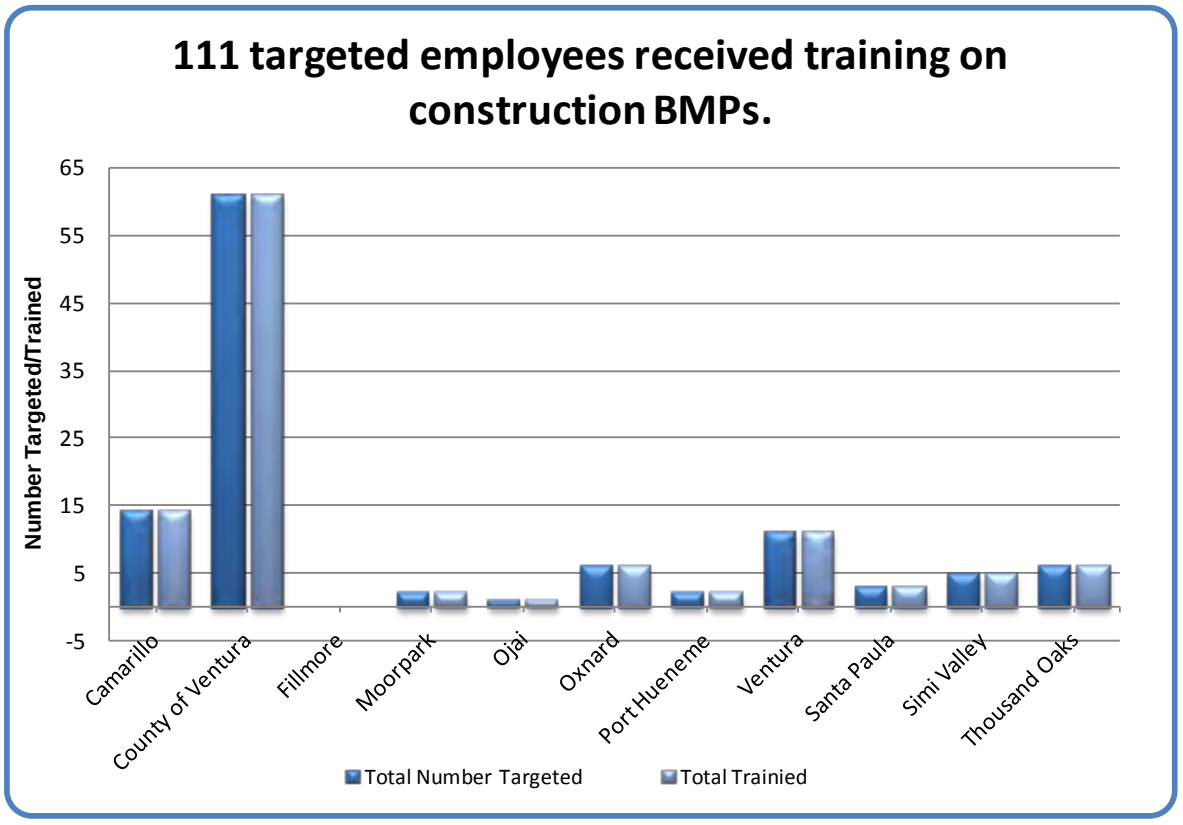



***Figure 6-8 Construction Inspection Training***

## 6.8 DC6 – EFFECTIVENESS ASSESSMENT

Effectiveness assessment is a fundamental component for developing and implementing successful stormwater programs. In order to determine the effectiveness of the Development Construction Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are used to identify modifications that need to be made to the program. Each year the effectiveness assessment is reviewed and revised as needed.

By conducting these assessments and modifying the program as needed, the Permittees ensure that the iterative process is used as an effective management tool. Due to the types of data collected for the Development Construction Program, current assessments will primarily focus on Outcome Levels 1, 2 & 3.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?

- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly increased the awareness of its target audience?
- Outcome Level 3 (L3) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly modified the behavior of a target audience?

The following is an assessment regarding the effectiveness of the Development Construction Program.

### 6.8.1 Plan Review and Approval Process

#### Review Grading and Construction Permit Applications for SWPPP Requirements

Prior to approving a grading permit, the Permittees require a SWPPP be submitted for projects greater than one acre. (L1) All projects required to submit a State SWPPP, submitted a State SWPPP and filed a NOI. (L1) Proof of filing a NOI included a copy of the completed NOI form and a copy of the check sent to the SWRCB, or a copy of the letter the SWRCB with the WDID for the project. (L1)

In some jurisdictions, Local SWPPPs were required and submitted for nearly all projects including those not exceeding Permit thresholds. (L1)

The Permittees required proof of state permit coverage so that all construction activities that were required to file for coverage under the CASGP or Small Linear Underground Project Permit did so.

### 6.8.2 Inventory

The majority of the Permittees maintained an electronic system to track grading permits, encroachment permits, and any other municipal authorization to move soil. (L1) They required a copy of the SWPPP at any time a transfer of ownership took place. Ownership transfer did not happen in each jurisdiction, so some Permittees did not have the opportunity to require a revised SWPPP. (L1)

#### Inspection and BMP Implementation

As shown in Figure 6-5, the majority of Permittees inspected all active construction sites for stormwater quality requirements during routine inspections a minimum of once during the wet season,. (L1) For inspected sites that had not adequately implemented their SWPPPs, the Permittees conducted a follow-up inspection within two weeks. Most often, the follow-up inspection occurred much sooner. (L1) In addition, the majority of Permittees inspected each project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing roadbed surfaces to ensure that the minimum set of BMPs were implemented. This was routinely done at the same time inspections are performed to ensure all work is being performed according to the design and standards required of public works projects. (L1)

The Permittees required a CPESC to inspect the construction sites at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site if the site was:

- Within or adjacent to an ESA
- On a hillside
- Discharging into a sedimentation/siltation impaired water body listed on the CWA 303(d) list

Many of the permittees did not have any of these types of high risk construction sites but did have the program in place to implement the added requirements.

Prior to approving and/or signing off for occupancy and issuing the Certificate of Occupancy for all construction projects subject to post-construction controls, the majority of Permittees inspected the constructed site design, source control and treatment control BMPs conditioned during the development process to verify that they have been constructed in compliance with all specifications, plans, permits, ordinances, and the MS4 permit, as shown in Figure 6-6. (L1)

## 6.9 ENFORCEMENT

### Enforcement Action to Achieve Compliance

When a construction site fails to comply with the SWPPP, minimum BMPS or other stormwater requirements, a Permittee implements the appropriate notification and enforcement procedures. (L1) Sites that are permitted under the construction activities general permit (CASGP) are also referred to the RWQCB if they fail to achieve compliance in two weeks and a good faith effort has been made by the Permittee to achieve compliance. (L1)

Figure 6-7 shows each enforcement level and the relative number of enforcement actions taken. The Permittees did not make any referral of violation of the new development and redevelopment post construction requirements and municipal stormwater ordinances to the Regional Water Board because there were no violations. (L1) One site was referred to the Regional Water Board so they could take appropriate enforcement actions under the CAGSP.

### Training

During this reporting period, the Permittees trained 111 key staff, including contractors whose interactions, jobs, and activities affect development construction in stormwater management, construction inspections, SWPCPs, SWPPPs, illicit discharge response, and non-stormwater discharges. (L1) 100% of targeted staff members received training on construction BMPs, as shown in Figure 6-8.

## 6.9 DEVELOPMENT CONSTRUCTION PROGRAM MODIFICATIONS

On an annual basis the Permittees plan to evaluate the results of the Annual Report, as well as the experience that staff has had in implementing the program, to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable. Any key modifications made to the Development Construction Program Element during the next fiscal year will be reported in the following Annual Report.

# 7 Public Agency Activities

## 7.1 OVERVIEW

The Permittees own and operate public facilities, and build and maintain much of the infrastructure of the urban and suburban environment throughout their jurisdictions. Some programs under Public Agency Activites help remove pollutants before they reach receiving waters, and others focus on source control ensuring all the activities performed do not contribute to stormwater pollution to the maximum extent practicable. Therefore public agencies have a dual role in removing pollutants before they are transported by the storm drain system and preventing pollution from being generated in the operation and maintenance of these facilities.

Permit requirements include both maintenance of infrastructure to remove pollutants and implementing control measures to prevent the generation or transport of pollutants. Maintenance activities include street sweeping and drainage facility inspection and cleaning. As part of their normal operations the Permittees conduct a number of activities (e.g., catch basin cleaning, street repairs, street sweeping via a contract) that have the potential to generate or mobilize pollutants. Control Measures in the Public Agency Activities Program Element are designed to ensure that these operations and maintenance activities are performed using processes and procedures to minimize the pollutants generated and the potential for pollutants to enter the storm drain system.

## 7.2 CONTROL MEASURES

The Permittees have developed several Control Measures and accompanying performance standards to ensure that the public agency activities permit requirements are effectively developed and implemented. For each Control Measure there are accompanying performance standards which, once accomplished, constitute compliance.

The Public Agency Activities Control Measures are organized to be parallel to the organization of the Permit and consist of the following:

| PA | Control Measure |
|---|---|
| PA1 | Public Construction Activities Management |
| PA2 | Vehicle Maintenance/Material Storage Facilities/Corporation Yards Management/Municipal Operations |
| PA3 | Vehicle and Equipment Wash Areas |
| PA4 | Landscape, Park, and Recreational Facilities Management |
| PA5 | Storm Drain Operation and Management |
| PA6 | Street And Roads Maintenance |
| PA7 | Emergency Procedures |
| PA8 | Training |
| PA9 | Effectiveness Assessment |

***Table 7-1 Control Measures for the Public Agency Activities Program Element***

## 7.3 PA1 – PUBLIC CONSTRUCTION ACTIVITIES MANAGEMENT

The Public Construction Activities Control Measure provides protocols to be followed in the design and construction phases of capital projects undertaken by the Permittees. In essence, the Permittees will follow the Planning and Land Development and Construction Programs requirements for all Permittee-owned or operated public construction projects. Those requirements include complying with the Development Planning Program requirements in at public construction projects and all the Development Construction Program requirements at Permittee owned or operated construction sites including requiring the development of SWPCP for projects that disturb less than 1 Acre.

| **Comply with all the Development Planning Program requirements at public construction projects** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-1***

| **Comply with all the Development Construction Program requirements at Permittee owned construction sites** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-2***

Grading or building permits are not routinely granted for public construction projects within an agency's jurisdiction and so identifying and defining small construction projects is less straight forward. To ensure that extremely small projects such as installing a stop sign or providing wheelchair access to a sidewalk meet permit requirements permittees have adopted standard practices to serve as the SWPCP. The practices include the BMPs identified in the permit for construction projects under one acre.

| Require the development of a Storm Water Pollution Control Plan for public projects | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-3***

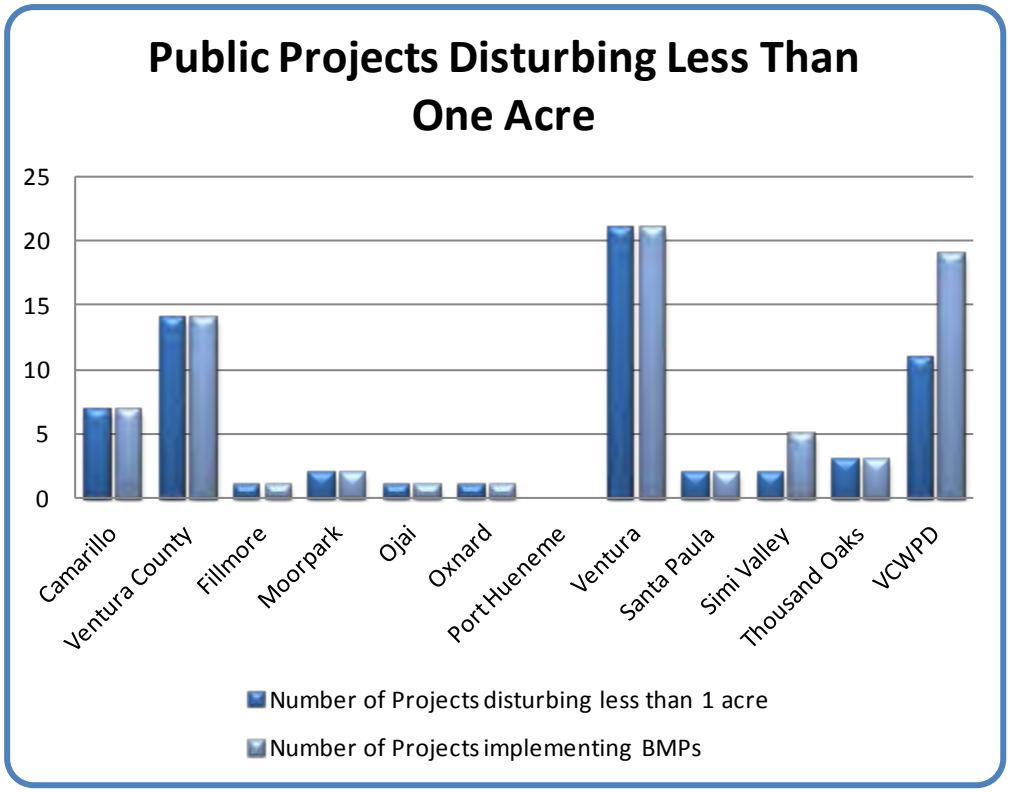



***Figure 7-1 Public Projects Disturbing Less Than One Acre***

Larger projects have requirements in the construction bid documents to require the contractor to draft and implement an approved SWPCP with the size appropriate BMPs. All public constructions projects are required to be in compliance the State's requirements under the Construction Activities General Stormwater Permit (CAGSP). Figure 7-2 indentifies how many projects the Permittees had that fell under those requirements.

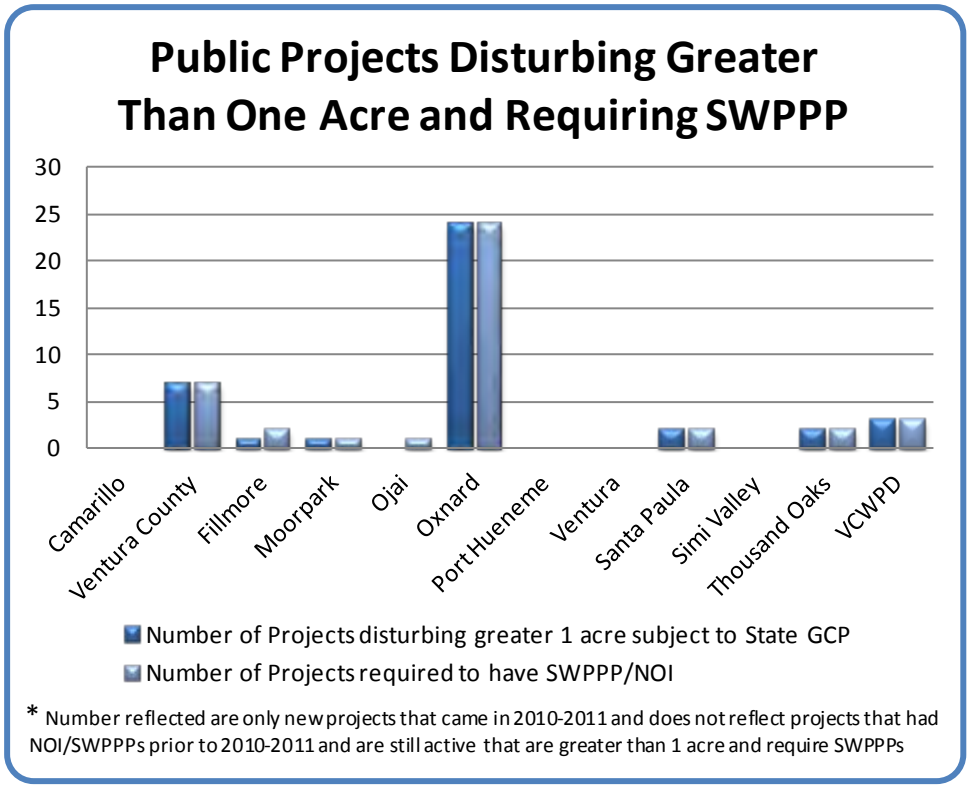



***Figure 7-2 Public Projects Disturbing Greater Than One Acre***

## 7.4 PA2 – VEHICLE MAINTENANCE/MATERIAL STORAGE FACILITIES/CORPORATION YARDS MANAGEMENT/MUNICIPAL OPERATIONS

The Vehicle Maintenance/Material Storage Facilities/Corporation Yards Management/Municipal Operations Control Measure addresses pollutants entering the storm drain system from Permittee-owned/leased facilities (e.g., vehicle equipment maintenance facilities, material storage facilities, collectively referred to as corporation yards). There are other non-operation oriented facilities that are owned or leased by the Permittees where these permit conditions are not relevant, such as libraries, parks and office buildings. However, these facilities are still required to comply with all other

**Material storage covers in Camarillo also support solar panels**

applicable permit requirements such as pesticide use. Camarillo recently installed covers over the material bunkers at the Corporation yard. In addition, solar panels were installed on top of the covers which will provide power to several buildings at the corporation yard.

The Permittees require corporation yards to support operation and maintenance activities within their jurisdiction. Corporation yards are operated and maintained by the Permittees for the following activities or facilities:

- Vehicle and equipment
- Storage and parking
- Maintenance
- Fueling
- Washing and cleaning
- Sign painting activities
- Bulk material storage areas

***Thousand Oaks' car wash facility that drains to wastewater treatment plant***

| Permittee Corporate Yards | Name | Address | All vehicle wash areas self-contained | Prohibit untreated SW runoff from hazardous material storage areas | Prohibit untreated SW runoff from fueling and vehicle maintenance areas |
|---|---|---|---|---|---|
| Camarillo | Camarillo Corporation Yard | 283 South Glenn Drive | Yes | Yes | Yes |
| County of Ventura | El Rio Corporate Yard | 682 El Rio Drive | Yes | Yes | Yes |
| | Moorpark Yard | 7150 Walnut Cyn Rd. | Yes | Yes | Yes |
| Fillmore | Fillmore Public Works Yard | 711 Sespe Avenue | Yes | Yes | Yes |
| Moorpark | Moorpark Public Services Facility | 627 Fitch Avenue, Moorpark CA 93021 | N/A | N/A | N/A |
| Ojai | City of Ojai Corporate Yard | 408 Signal Street | N/A* | N/A | Yes |
| Oxnard | Oxnard Corporation Yard | 1060 Pacific Avenue | Yes | Yes | Yes |
| | Regional Recycling Center | 111 S. Del Norte Blvd | Yes | Yes | Yes |
| | Oxnard POTW | 6001 S. Perkins Rd., Oxnard, CA | | | |
| | Oxnard Water Treatment Yard | 251 S. Hayes Avenue | Yes | Yes | Yes |
| Port Hueneme | Municipal Service Center | 700B E. Port Hueneme Rd. | Yes | Yes | Yes |
| | Service Yard Annex | 746 Industrial Avenue | Yes | Yes | Yes |
| Ventura | SanJon Corporate Yard | 336 SanJon Road | Yes | Yes | Yes |
| Santa Paula | Corporation Street Yard | 903 Coporation Street | Yes | Yes | Yes |
| | Palm Avenue Yard | 180 South Palm Avenue | Yes | Yes | Yes |
| Simi Valley | Simi Valley Police Department | 490 West Los Angeles Ave | | | |
| | Simi Public Service Center | 3901 Alamo St, Simi Valley CA | Yes | Yes | Yes |
| Thousand Oaks | Municipal Service Center | 1993 Rancho Conejo Blvd. | Yes | Yes | Yes |
| VCWPD | WPD Moorpark CY | 6767 Spring Rd, Moorpark, CA 93021 | N/A | Yes | N/A |
| | WPD Saticoy CY | 11251-BV River Bank, Ventura, CA 93004 | N/A | Yes | N/A |

***Table 7-2 Summary of Permittee-Owned and Leased Facilities***

### 7.4.1 Implement Required BMPs for each Facility

The Permittees have written SWPCPs for corporation yards to ensure implementation of appropriate BMPs, including those identified in Table 10 of the Permit. The SWPCPs were required under the previous permit and serve to help implement the current permit requirements. The SWPCPs call for annual inspections to be performed and documented by trained staff. Any insufficiencies identified during inspections are quickly corrected by facility staff.

| Require Permittee facilities and corporation yards to ensure implementation of appropriate BMPs | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-4***

## 7.5 PA3 – VEHICLE AND EQUIPMENT WASH AREAS

The Vehicle and Equipment Wash Areas Control Measure addresses pollutants entering the storm drain system from Permittee-owned/leased vehicle and equipment wash areas. The Permit provides several options to eliminate wash water discharges from vehicles and equipment washing facilities by implementing one of the following:

- Self-contain, and haul-off for disposal;
- Equip with a clarifier;
- Equip with an alternative pre-treatment device; or
- Plumb to the sanitary sewer

The Permittees have been successful in implementing applicable BMPs to eliminate wash water discharges from vehicles and equipment washing. As municipal facilities are constructed, redeveloped, or replaced all vehicle wash areas will be plumbed to the sanitary sewer or be self contained and all wastewater disposed of legally.

| Address discharges of wash waters from vehicles and equipment washing facilities by implementing one of the following (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-5***

## 7.6 PA4 – LANDSCAPE, PARK, AND RECREATIONAL FACILITIES MANAGEMENT

The Landscape, Park, and Recreational Facilities Management Control Measure ensure that the discharges of pollutants from the Permittees' use and storage of fertilizers and pesticides are reduced. Among other things, the control measures use BMPs that promote the use of integrated pest management (IPM) and retention and planting of native plant species requiring less water and chemical augmentation to remain healthy.

### 7.6.1 Implement IPM Program

A model integrated pest management (IPM) program was drafted through the Public Agencies Activities Subcommittee and used as a template by the Permittees to develop their own plans. This standardized protocol was posted on Program's website November 2009 and is included as Attachment D. The due date in the Permit for implementation of IPM plans was October 8, 2010.

The purpose of this standardized protocol is to define an application protocol for the routine and non-routine application of pesticides, fertilizers, and herbicides (including pre-emergents). This protocol provides a comprehensive policy to comply with the Ventura County Permit.

The intent is to focus on preventing pesticides, fertilizers, and herbicides from entering the storm drain system and discharging to receiving waters. This protocol is applicable to 1) the outdoor use of pesticides, herbicides, and fertilizers; 2) the use of pesticides and fertilizers where the materials may come into contact with precipitation; 3) the use of pesticides, herbicides, and fertilizers where these materials may come into contact with runoff (natural or induces); and 4) the use of pesticides, herbicides, or fertilizers anywhere where they may be directly or indirectly discharged to a storm drainage system.

The protocol is applicable to any Permittee staff and contracted services that apply pesticides, fertilizers, or herbicides. Such staff commonly include, park, public works, purchasing, building/grounds maintenance, hazardous materials, and pesticide application staff. It is not applicable to the indoor use of pesticides, herbicides or fertilizers, but is applicable to the consequential outdoor handling, mixing, transport, or disposal of materials related to indoor use. This protocol also does not apply when another NPDES permit and/or abatement orders are in effect at the selected site. Furthermore, this protocol is not

intended to replace federal or state requirements or provide complete directions for applying, handling, transporting, mixing, or storing pesticides, fertilizers, or herbicides.

An effective IPM program should include the following elements:

- Pesticides are used only if monitoring indicates they are needed according to established guidelines.
- Treatment is made with the goal of removing only the target organism.
- Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment.
- Its use of pesticides, including Organophosphates and Pyrethroids do not threaten water quality.
- Partner with other agencies and organizations to encourage the use of IPM.
- Adopt and verifiably implement policies, procedures, and/or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) in the Permittees' overall operations and on municipal property.
- Policies, procedures, and ordinances shall include commitments and timelines to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:
    - Quantify pesticide use by its staff and hired contractors.
    - Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.
    - Demonstrate reductions in pesticide use.

The prevention of pesticides from harming non-target organisms is the primary goal of the Permittees IPM program. The Permit also asks for the demonstration of a reduction in pesticide use, however that is not as simple as comparing one year's use to another. Many factors go into the decision to use pesticides and year to year variables can have a significant impact on that decision. For example, an above average wet year will require more weed abatement than a dry year, or the need to address an insect infestation before it spreads across a city will require an intensified use of pesticides in that area. Since year to year reductions cannot be accurately measured due to variable needs, the reduction in use of pesticides by the Permittees will be compared to the pesticides that would have been used under a non-IPM program.

| Implement an integrated pest management (IPM) program consistent with Permit | | | |
|---|---|---|---|
| | Yes | No | Draft |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | ☑ | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-6***

### 7.6.2 Maintain and Expand Internal Inventory on Pesticide Use

Permittees require all staff applying pesticides to be either certified by the California Department of Food and Agriculture, or under the direct on-site supervision of a certified pesticide applicator, as defined in the standardized protocol. Permittees have also restricted the purchase and use of pesticides and herbicides to certified staff.

| Prepare and annual update an inventory of pesticides used by all internal departments and hired contractors (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | ☑ |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-7***

Permittees that contract out for pesticide applications have included contract provisions requiring the contract applicator meet all requirements of this program. Contract language includes compliance with the standardized protocol, the prohibitions and requirements for certification, and supervision of pesticide applicators.

| Establish standard protocols for routine and non-routine application of pesticide consistent with the permit requirements (by January 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-8***

## 7.7 PA5 – STORM DRAIN OPERATION AND MANAGEMENT

The Storm Drain Operation and Management Control Measure provides for the long-term performance and integrity of the Permittees' storm drain system. The Permittees must prioritize catch basins for cleaning based on the required level of maintenance, and all catch basins are marked with a storm drain message, whether stenciled or permanently imprinted. This Control Measure also includes a requirement for special event to prevent debris accumulation in catch basins and storm drains.

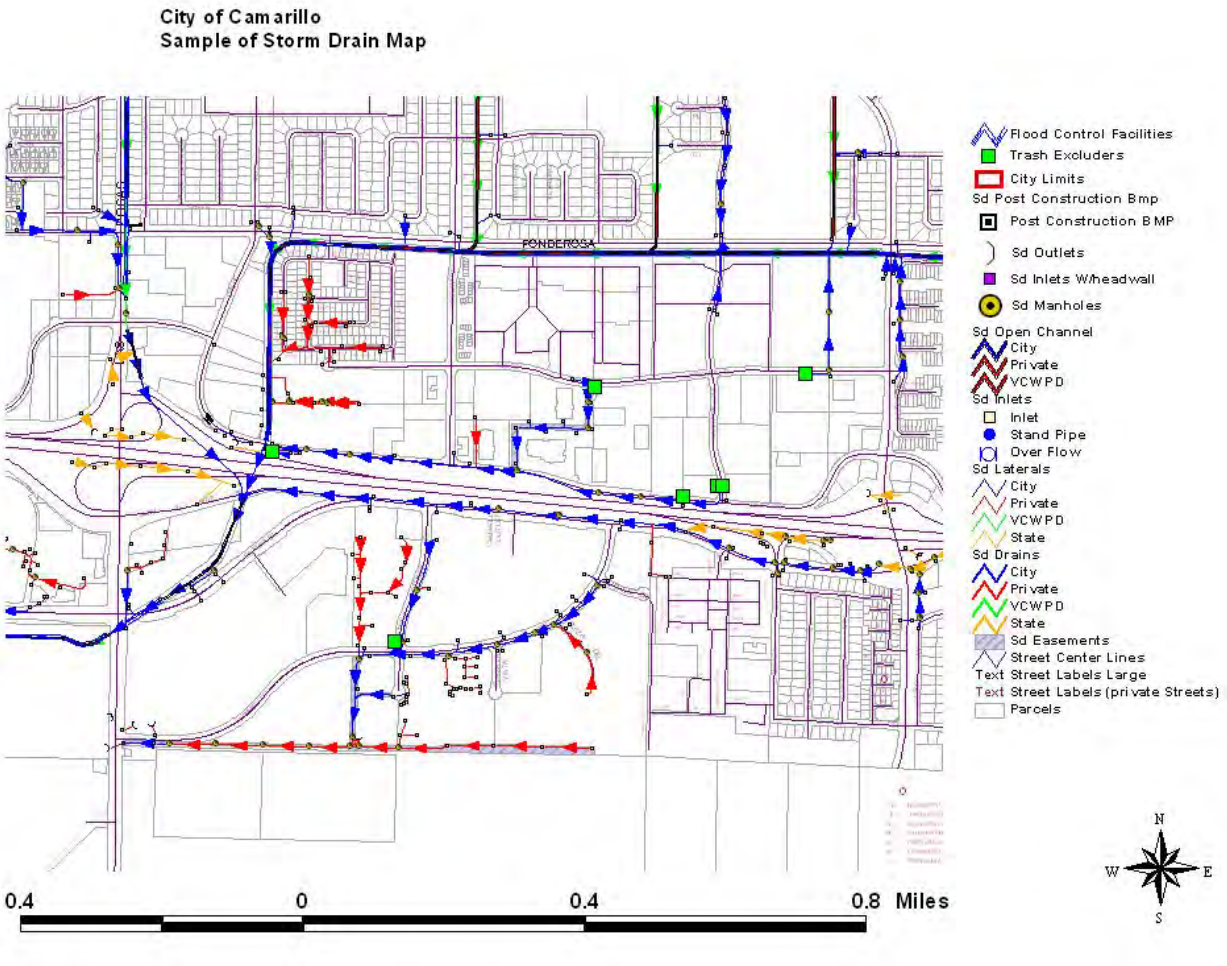
### 7.7.1 Implement Storm Drain System Mapping

The Permit requires that the Permittees map at a scale and in a format specified by the Principal Permittee showing the location and length of underground pipes 18 inches and greater in diameter, and channels within their permitted area. A schedule is provided to allow time to develop the needed information. The first due date is October 6, 2010. Since Ventura Counties cities are all separated by open space and the MS4 from one city does not discharge to another, the need to integrate the maps into a countywide storm drain map is not as imperative as the need for a Permittee to be able to know what is upstream from any point in their MS4, and where that water will discharge. Given that the priority for the mapping is internal to the agency operating the system, the Permittees were given the autonomy to decide what form of mapping will work best for their needs. All maps will be incorporated into the Principal Permittee's Watershed Protection District, GIS system as best as possible. This incorporation will allow for other formats to be available and viewed when needed.

| Prepare a map or list of catch basins, with GPS coordinates, designations, and rationale for designations (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | in progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | N/A |

***Performance Standard 7-9***

## 7.7.2 Implement Catch Basin Maintenance Program



Each Permittee developed the criteria and method of a catch basin mapping and prioritization system for their agency. This is due to the different types of databases, mapping systems, infrastructure, and methods used by the Permittees for inspection and cleaning. The Permit does not specify the criteria for designating catch basin priorities, nor require a uniform system of mapping catch basins. The Permittees have begun to implement catch basin cleaning schedules based upon the prioritization designations as required by the Permit, however, the requirement of a list or map of catch basins with their GPS coordinates and their prioritization designation is due July 8 2011, outside the reporting period of this report. Figure 7-3 through Figure 7-6 shows the Permittees' considerable efforts to date on prioritization, inspection and maintenance.

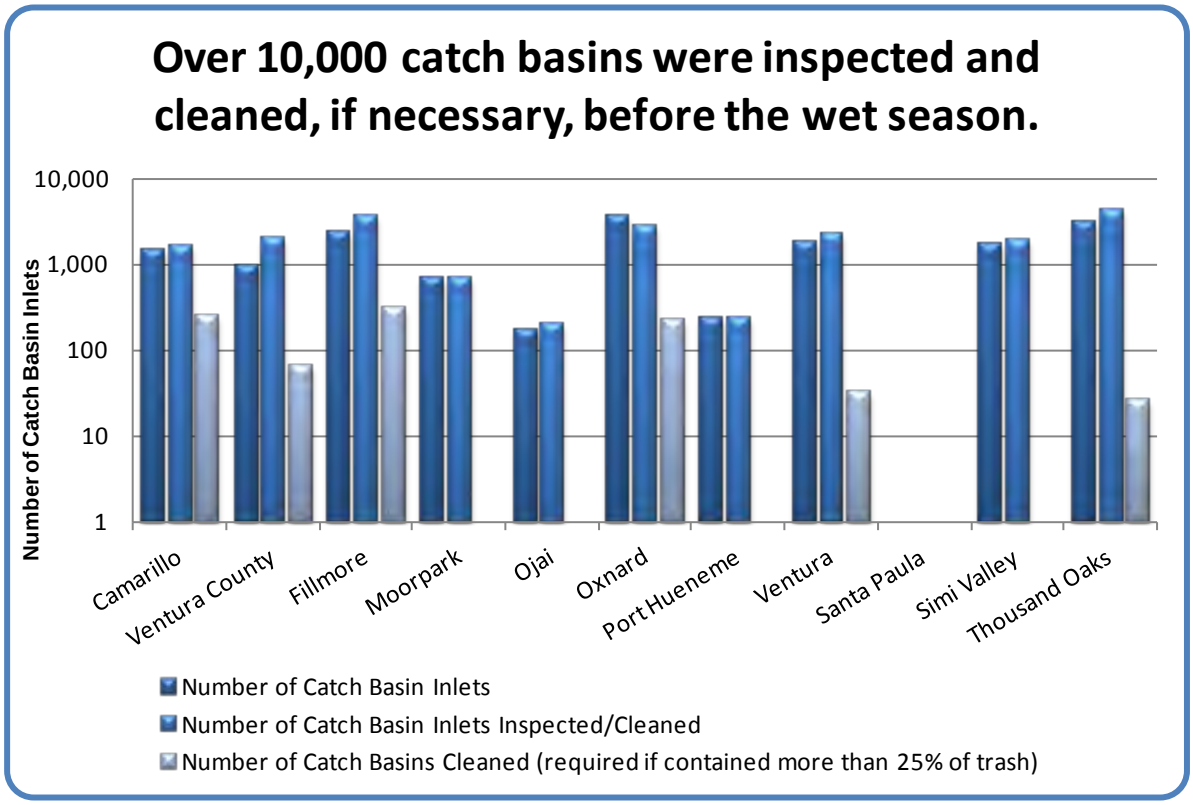



***Figure 7-3 Catch Basin Inspections and Cleaning***

Permittees routinely inspect catch basins and other drainage facilities that are a part of their system. These inspections are scheduled and completed in accordance with the requirements of the catch basin prioritization (due July 2011). The prioritization requires:

- Priority A inspected 3 times a wet season and once during the dry season;
- Priority B inspected once during the wet season and once during the dry season;
- Priority C inspected a minimum of once per year.

**Over 200 tons of debris was removed from catch basins countywide through the storm drain maintenance program.**

Inspections include the visual observation of each catch basin, and open channels to determine if the facility has accumulated

trash, sediment or debris requiring removal. All debris removed from the system is disposed of properly and therefore represents pollutants that would have likely been washed downstream to a receiving water. For catch basins, "as-needed cleaning" occurs whenever trash, sediment or debris accumulation is found to be at least 25% of capacity. Watershed Protection District cleans and maintains their flood control facilities, but does not operate any catch basins that receive runoff directly from streets or roads.

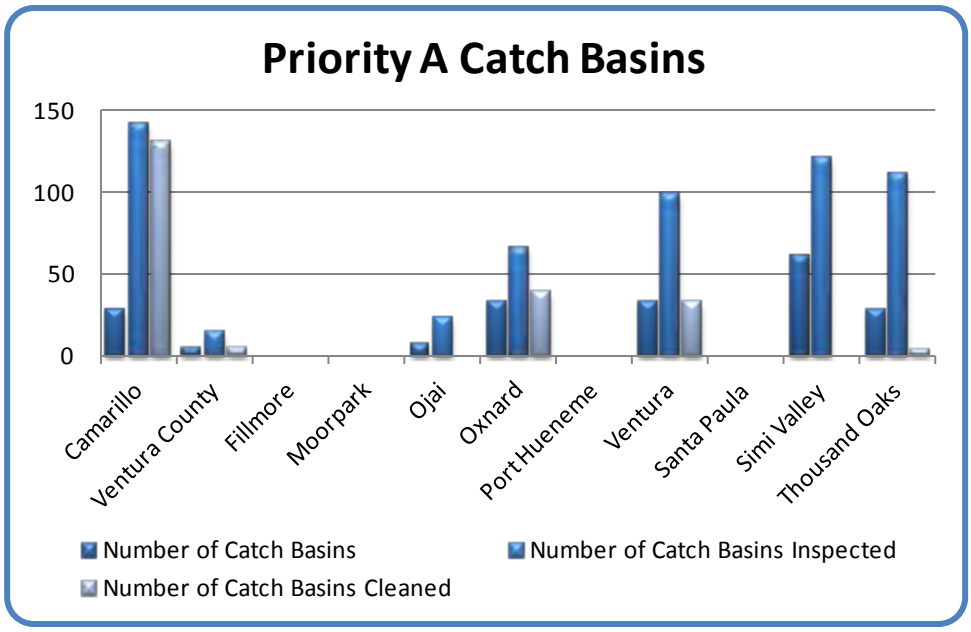



***Figure 7-4 Priority A Catch Basins***

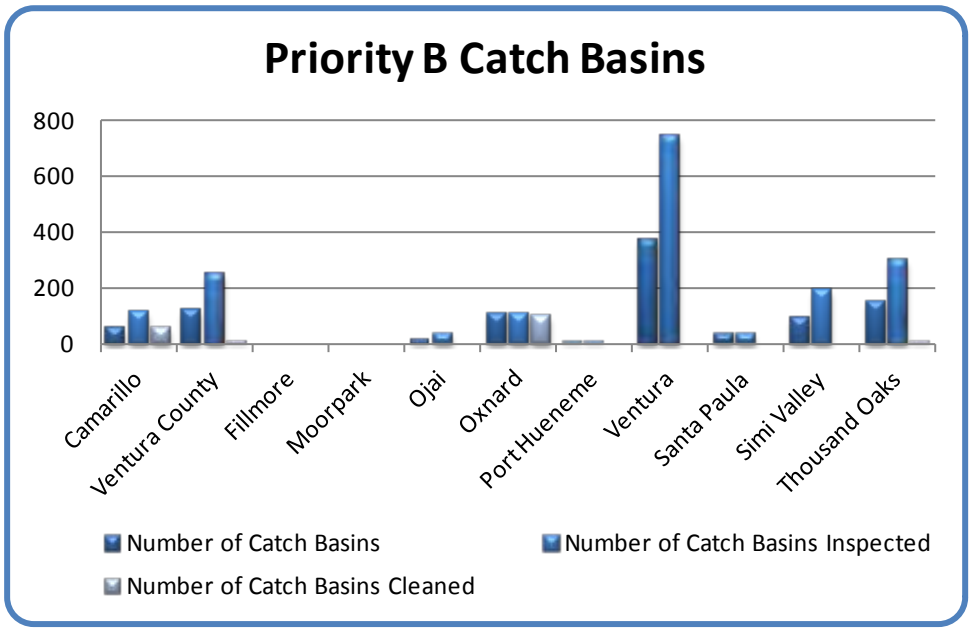



***Figure 7-5 Priority B Catch Basins***

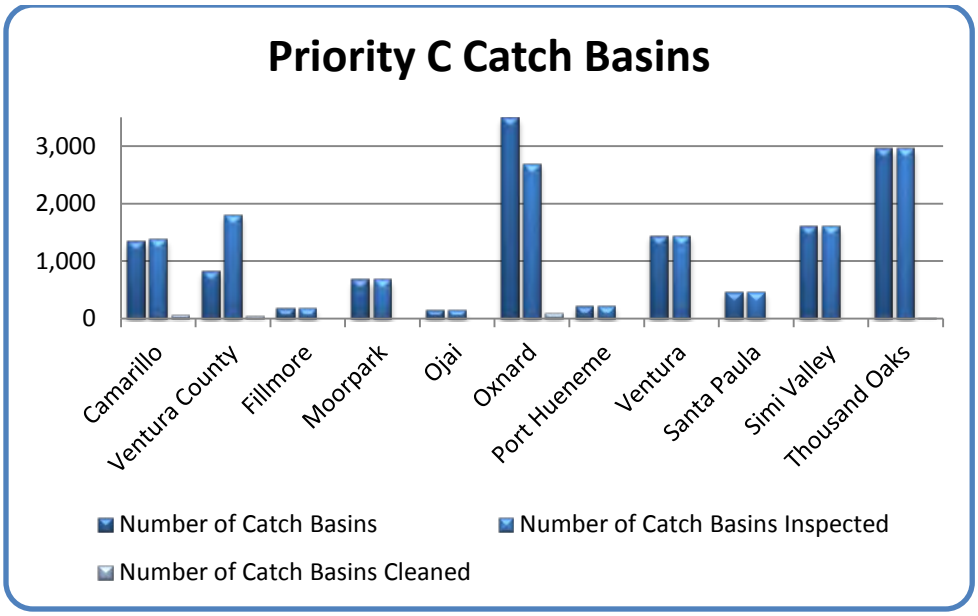



***Figure 7-6 Priority C Catch Basins***

| **Inspect the legibility of the catch basin label by all inlets before the beginning of the wet season** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 7-10***

### 7.7.3 Install Trash Receptacles

Permittees have begun identifying the city bus stop areas which are typically located in commercial areas and near schools as areas to install trash receptacles. Some have completed this task, but it is not required until July 8, 2011. Other areas identified for trash receptacles include Permittee-maintained trail entrances and parks. Additionally, commercial areas are typically required to install trash receptacles at store fronts to aid in proper disposal. Trash programs usually involve solid waste divisions and brings their expertise in performing trash audits to determine the need for additional trash receptacles.

| Have trash receptacles, or equivalent trash capturing devices in areas subject to high trash generation within its jurisdiction? (by July 8, 2011) | | | |
|---|---|---|---|
| | Yes | No | in progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-11***

| Trash receptacles cleaned out and maintained as necessary to prevent trash overflow | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-12***

### 7.7.4 Install Additional Trash Management Devices and Programs

Permittees have begun the implementation of this performance standard which is due July 8, 2012. Some agencies already had trash capturing devices installed in known problem areas before the permit was adopted. The City of Ventura has installed 64 trash excluding devices covering many "Priority A" drains throughout the City and the downtown area where large public events occur. To continue this effort they have budgeted $50,000 per year for the next 5 years on trash excluding devices. The City of Simi Valley has a pilot study in progress on different areas and types of excluders. The beach city of Port Hueneme has screened inlets to prevent trash from entering and also has full trash removal devices constructed at priority storm drain outfalls.

Other increased trash management programs initiated by Permittees include increased inspection and maintenance frequency to four times annually in high trash generation areas, with attention given to solid waste collection receptacles that have been placed in priority areas.

Camarillo - In Priority A areas landscape maintenance contractors pick up trash during weekly services. Camarillo has identified the city's bus stop areas which are typically located in commercial areas and near schools as areas to install trash receptacles at. Camarillo has installed 26 full capture trash devices throughout the city in all the high-priority A catch basins. These devices are serviced four times a year; however, the percentage of trash removed from each of these catch basins on an average has been between 0 to 10 percent, the remaining of the material removed is landscape debris.

County of Ventura - General Services Agency (GSA) - Housekeeping & Grounds Department. conducts inspections of high trash areas each morning Monday through Friday. Trash and litter are removed and disposed of properly. All GSA-Parks' facilities are equipped with trash receptacles and covered 3 yard trash bins for public use. Trash containers are checked and emptied as needed on a daily basis or more often as required in accordance with use patterns.

Moorpark – Annual inspections of the City's catch basins determine whether or not any Priority A catch basins exist. A Priority A catch basin is defined as any catch basin that is found with 25% or more of trash. Majority of commercial business areas are required to have trash containers installed at the entrances/exits of the buildings. Bus shelters also include a 32-gallon trash container, which is emptied at least weekly.

Oxnard - The City of Oxnard utilizes the services of Oxnard City Corps to inspect and maintain the high priority catch basins. In September 2010, City Corps started using a small street sweeper/vaccuum modified with a hose attachment to remove debris from the catch basins. The City of Oxnard owns and maintains two Fresh Creek trash removal devices located downstream of the high priority areas in the Wooley Road and Oxnard West Drains. The City of Oxnard has made request to the County Watershed Protection District to install trash booms down stream of the high priority catch basins that flow into the J Street and Oxnard Industrial Drain.

Port Hueneme - Street sweeping goes beyond permit requirements. Solid Waste performs regular audits during their day to day services. City is part od a joint effort with City of Oxnard that monitors and collects trash form the Oxnard West Drain. City provides cleaning service and also supplys nets for Fresh Creek device in the West Drain.

***Hard working trash excluder***

Simi Valley - Working with the Streets Division, Environmental Compliance staff has identified high trash areas throughout the City. We are in the process of purchasing trash excluders and trash/recycling bins to be installed in these areas.

Thousand Oaks - The Kevin Street

area near the Los Robles Medical Center is monitored for excess vegetation in the public right-of-way stemming from the presence of high groundwater and presents an unusual high volume of trash and debris as a result. There is a need for nearly daily removal of accumulative trash in the vicinity of Hague Road at Newbury Road (a drainage and land-mass low-point) and near the Oaks Mall along Hillcrest Drive.

Ventura - The City of Ventura utilizes data collected during the cleaning of catch basins to determine the location of high trash generating areas. Those catch basins were given "Priority A" status and were targeted for the installation of trash excluders. The City's franchise trash/recycler is contracted to empty receptacles 1-5 times per week. Depending on the location and the trash generated, the contractor monitors and removes trash before it accumulates and overflows. In addition, bus shelters that have trash receptacles located nearby, are monitored and trash removed daily.

| **Provide additional trash management practices in areas defined as Priority A? (by July 8, 2012)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | | | ☑ |
| Ventura County | | | ☑ |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |

***Performance Standard 7-13***

### 7.7.5 Trash Management at Public Events

Events in the public right of way, or wherever it is foreseeable that substantial quantities of trash and litter may be generated, require the following measures:

- Proper management of trash and litter generated
- Arrangement for temporary screens to be placed on catch basins
- Arrangement that trash is removed after the event

The Permittees appreciate having the ability to select the option that will work best in their jurisdiction and have employed several methods to ensure trash does not get into a storm drain after a public event. Most cities use the power of the Special Use Permit or Temporary Use Permit. With this they can and do require a trash and recycling management plan and/or a substantial deposit before receiving an event permit. Funds can be withheld if trash has not been properly managed and costs recovered and even fines levied if is staff needed to clean up afterwards. A few agencies take on this responsibility and have sweepers employed to clean streets of any trash immediately after a large event, or services the affected drains with a vacuum truck after the event has concluded.

Camarillo - inspects after each Special Use Permit event held in public right-of-way and if trash is present, removes the debris. If a large quantity is left, the city withholds funds from the Special Use Permittee's deposit to cover expenses related to removal of the trash.

County of Ventura - GSA requires each event permittee to clean up trash during and after the permitted event. GSA - Grounds Dpt personnel police the area after the permitted event to remove any residue or missed trash or litter. Harbor Dpt requires additional trash management and recycling; large events are required to be fenced and the area must be cleaned before the fence is removed. All GSA-Park's facilities are equipped with trash containers that are checked and serviced at minimum on a daily basis. All parks are cleaned every day with trash collection implemented by parks staff as needed.

Moorpark – Standard conditions for Temporary Use Permits (which include public events) include requirements for protection of the storm drain system from litter and other material. Proper trash management is required for the event and the nearby catch basins must be screened during the event.

Oxnard - Technical Services Program-Stormwater staff worked in conjunction with the Planning Division to revise the Temporary Use Permit Application. A "Drainage and Trash Management" requirement has been added as a condition for obtaining a TUP. Any applicant seeking a TUP for a public event where substantial quantities of trash may be generated must meet the above referenced conditions.

Port Hueneme - City staff vacuums out catch basins immediately after the events and also has event host place BMPs such as fiber rolls in front of inlets during the course of the event.

Simi Valley – Has created a trash management plan for public events which requires the event's responsible party to obtain a permit. This permit gives specific requirements for trash management at the event.

Ventura - It was determined that most large public events in the City of Ventura are concentrated in our Downtown District. We have installed (26) trash excluders in each of the catch basins within this area. They are scheduled to be cleaned on the same schedule as all other "Priority A" catch basins. In addition, sweepers are employed to clean streets of any trash immediately after an event (parades, street fairs). Also, the Downtown Organization employs personnel to clean up litter and trash, as part of their daily routine.

| **Require appropriate litter control measures for public events** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 7-14***

### 7.7.6 Implement Storm Drain Maintenance Program

Permittees also routinely inspect and clean their drainage facilities during the year on an as-needed basis. "Routine cleaning" for these facilities, means the removal of accumulations of trash, sediment and debris likely be washed downstream with the next runoff event or cause a loss of hydraulic capacity and result in potential flooding.

Permittees have completed labeling or marking the curb inlets to their entire storm drain system. This requirement is part of the Public Participation and Public Information section, but the inspection and relabeling is required under Public Agencies. During the reporting period, some Permittees maintained their inlet signs by reapplying stencils/markers as they wore out and applying stencils/markers to new inlets as they were installed.

Signs at curb inlets have varying useful lives due to the materials from which they are constructed (e.g., paint, thermoplastic), their position (e.g., on top of curb, on face of curb), and wear factors (e.g., traffic, street sweeping, sunlight). As a result, the Permittees have different programs to maintain curb inlet signage within their respective jurisdictions. Some Permittees replace a portion of their signs each year whereas others re-sign all inlets every few years. In the cases where a Permittee has a separate program for catch basin label maintenance from their catch basin debris maintenance program the catch basin debris maintenance inspection does not inspect for the label. Catch basin label data reported in public outreach program.

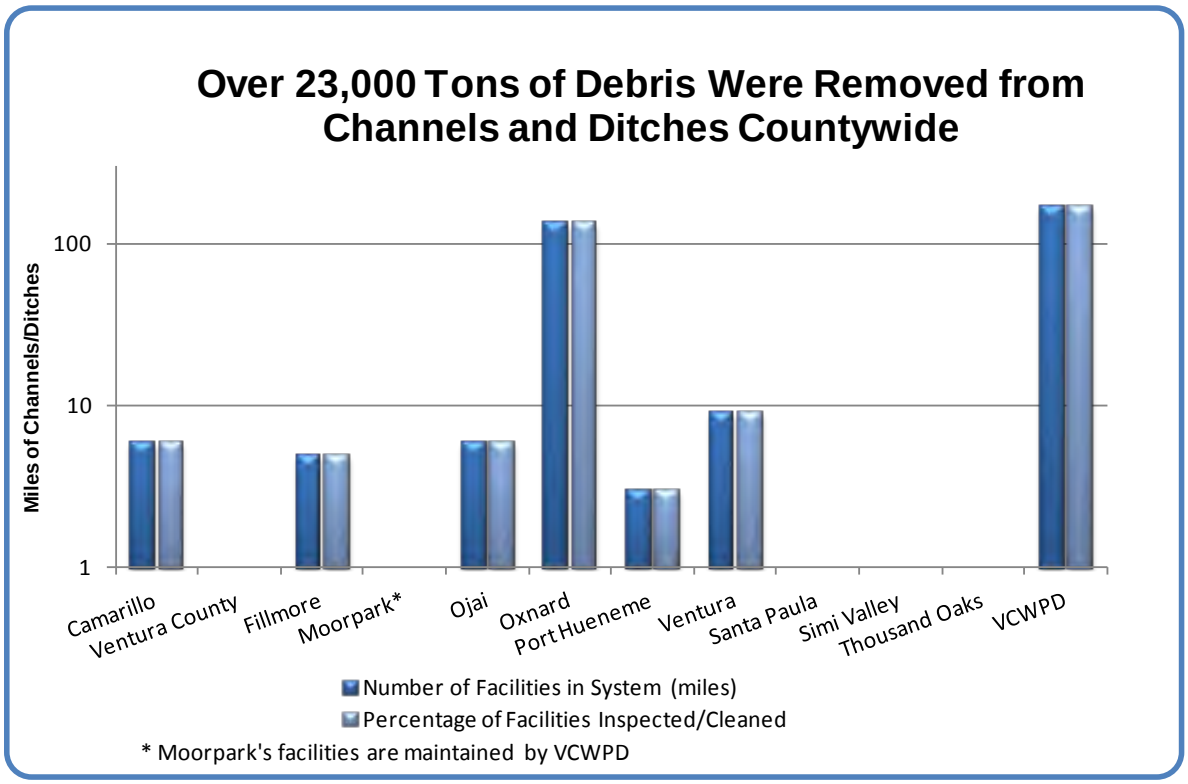



***Figure 7-7 Tons Removed from Channels and Ditches***

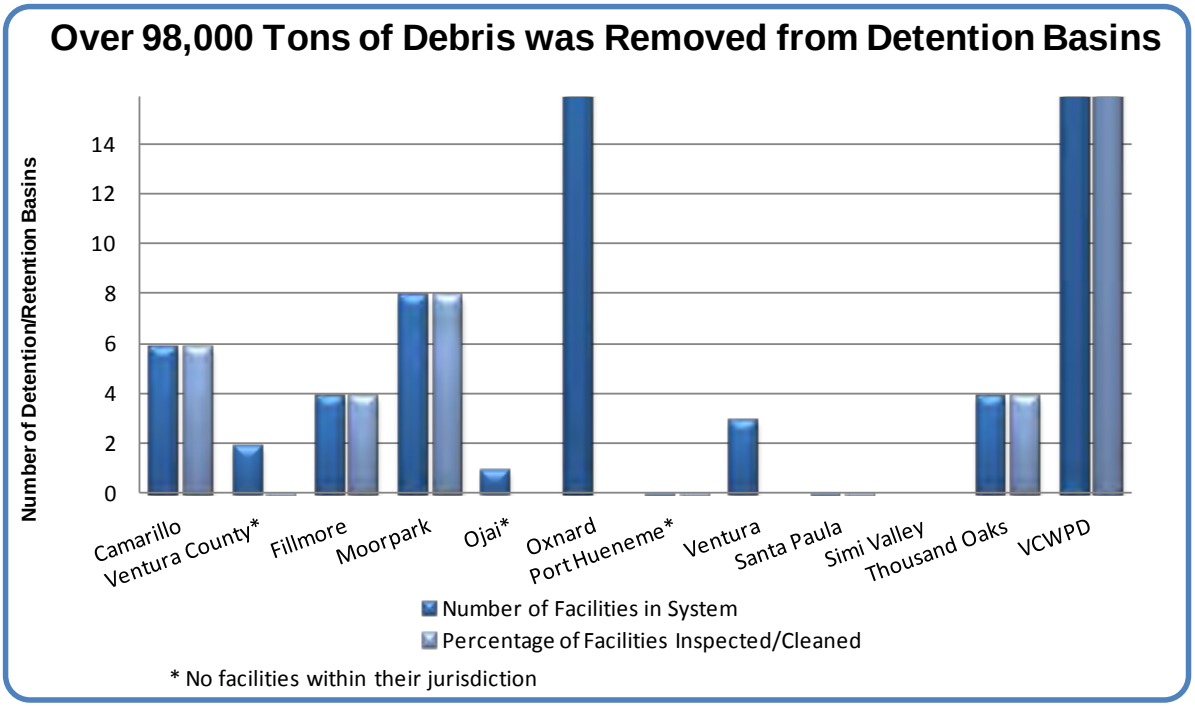



***Figure 7-8 Tons Removed from Detention Basins***

When performing cleaning activities, Permittees implement appropriate BMPs to prevent sediments and debris from being washed downstream. By removing this amount of material from the catch basin inlets, open channels and detention basins the Permittees make real contribution in preventing the passage of these materials in downstream receiving waters. During the reporting period, the Permittees tallied the collection of over 98,000 tons of solid debris from drainage facility maintenance activities.

### 7.7.7 Implement Spill Response Plan

The Permittees implement, within their respective jurisdiction, a response plan for spills generated from their operations that have the potential to enter the MS4 system. Response plans include:

- Investigation of all complaints received within 24 hours of the incident report;
- Response within 2 hours to spills for containment upon notification, except where such overflows occur on private property, in which case the response should be within 2 hours of gaining legal access to the property; and
- Notification to appropriate public health agencies and the Office of Emergency Services (OES)

Unfortunately, even with good training and well maintained equipment there are occasions where a spill or release will happen and need to be cleaned up. Cleanup can be as simple as dispatching a crew to pick up fallen debris, or a street sweeper or vacuum truck to clean an area or catch basin and storm drain after a known spill. It could also become a major multi-agency operation if hazardous materials are involved.

### 7.7.8 Inspect and Maintain Permittee-Owned Treatment Control BMPs

Permittees that own or are authorized to maintain treatment control BMPs have programs to implement an inspection and maintenance program for those treatment control BMPs, including post-construction treatment control BMPs. Private BMPs required for new development are managed in different ways. Some Permittees do not want to be responsible for the cleaning and maintenance of these BMPs and limit their role to inspection and enforcement to ensure effectiveness. Others will take on that responsibility on a case by case basis, and there are occasions where a Permittee have installed their own treatment BMPs to improve water quality.

When Permittees are performing maintenance of structural BMPs they implement their own BMPs to ensure that residual water produced by a treatment control BMP (not internal to the BMP performance) is:

- Hauled away and legally disposed of; or
- Applied to the land without runoff; or
- Discharged to the sanitary sewer system (with permits or authorization); or
- Treated or filtered to remove bacteria, sediments, nutrients, and meet all limitations

## 7.8 PA6 – STREET AND ROADS MAINTENANCE

The Street and Roads Maintenance Control Measure ensures that the streets and roads both cleaned to reduce pollutants and maintained in ways that prevent the release of pollutants..

### 7.8.1 Implement Street Sweeping Program

Permittees have identified curbed streets within their jurisdiction and have implemented a sweeping program for these streets. In many cases the frequency of street sweeping is beyond the permit requirement of only commercial areas and areas subject to high trash generation twice a month.

| **Perform street sweeping of curbed streets in commercial areas and areas subject to high trash generation at least two times a month** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 7-15***

To increase the efficiency of the street sweeping, Permittees have made an effort to encourage voluntary relocation of street-parked vehicles on scheduled sweeping days. This has been achieved by placing temporary "no stopping" and "no parking" signs, posting permanent street sweeping signs and/or distributing street sweeping schedules to residents and businesses. Many of the Permittees have coordinated street sweeping to follow the routine trash collection days in order to remove any litter left in the streets by the trash removal service.

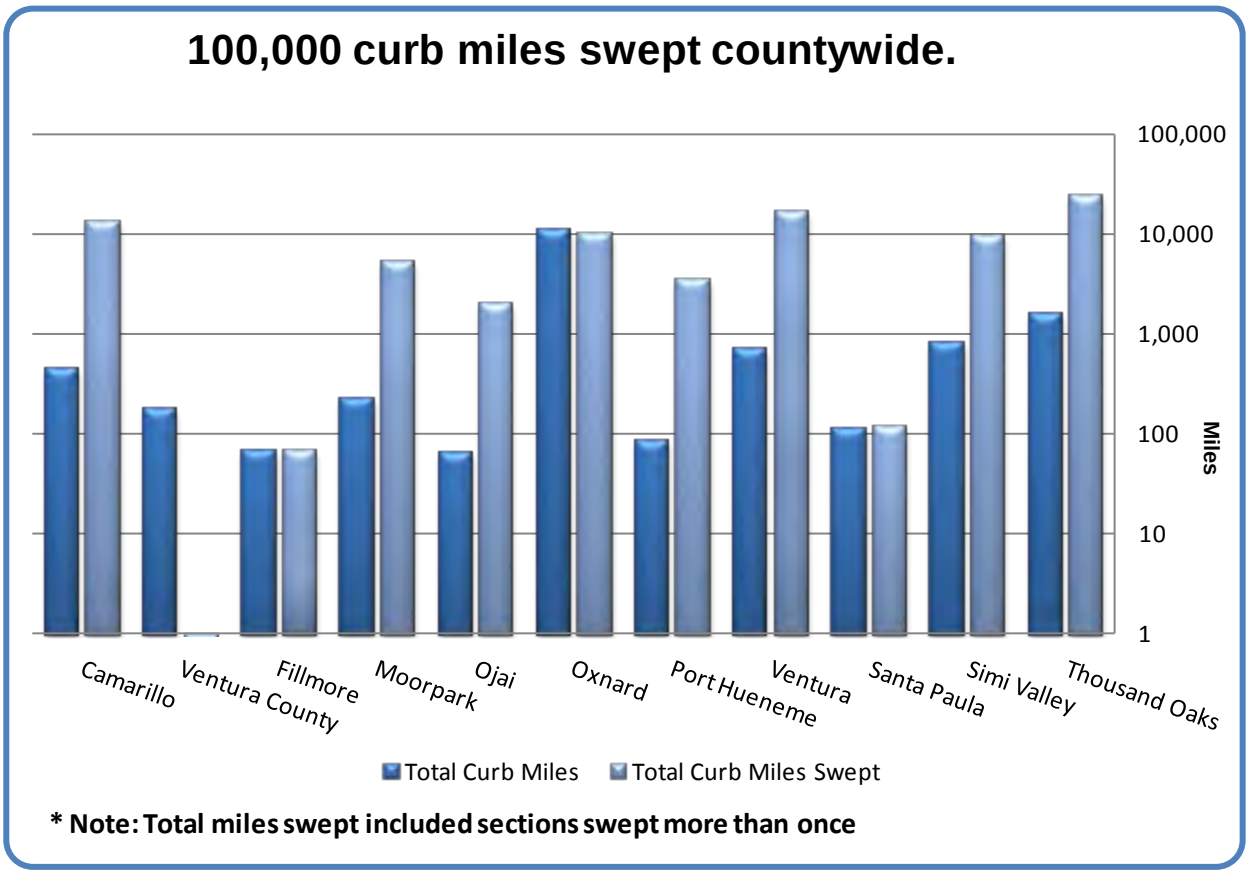



***Figure 7-9 Curb Miles Swept***

### 7.8.2 BMP Implementation for Road Reconstruction Projects

For any road reconstruction project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing road surfaces the Permittees require that appropriate BMPs are implemented. The vast majority of this work falls under the definition of routine maintenance as the road will maintain the line and grade and original purpose of the facility. The implementation of these BMPs ensures the project will not impact stormwater without the need for a formal SWPPP or other documentation.

| Require that appropriate BMPs be implemented for any project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing road surfaces | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

## 7.9 PA7 – EMERGENCY PROCEDURES

The Emergency Procedures Control Measures ensures that each Permittee can conduct repairs of essential public service systems and infrastructure in emergency situations with a self-waiver. A self-waiver is required when there is a discharge to the storm drain system and the repairs needed to halt that discharge cannot be made within one day.

### 7.9.1 Invoke Emergency Procedures Self-Waiver

Fortunately during the Permit term there were not any emergencies that caused a Permittee to invoke Emergency Procedures Self-Waiver. Any Self-Waivers invoked would be reported here.

## 7.10 PA8 – TRAINING

Training is important for the implementation of the Public Agency Activities Program Element. An effective training program is one of the best pollution prevention BMPs that can be implemented because it prompts behavioral changes that are fundamentally necessary to protect water quality.

Each Permittee targets staff based on the type of stormwater quality and pollution issues they typically encounter during the performance of their regular maintenance activities. Targeted staff included those who perform activities in the following areas: stormwater maintenance, drainage and flood control systems, streets and roads, parks and public landscaping and corporation yards.

Training methods vary amongst Permittees and range from informal meetings, to formal classroom training or self-guided training. The Permittees also train staff on the prevention, detection and investigation of illicit discharges and illegal connections (ID/IC). (See Section 8 for more information regarding ID/IC training).

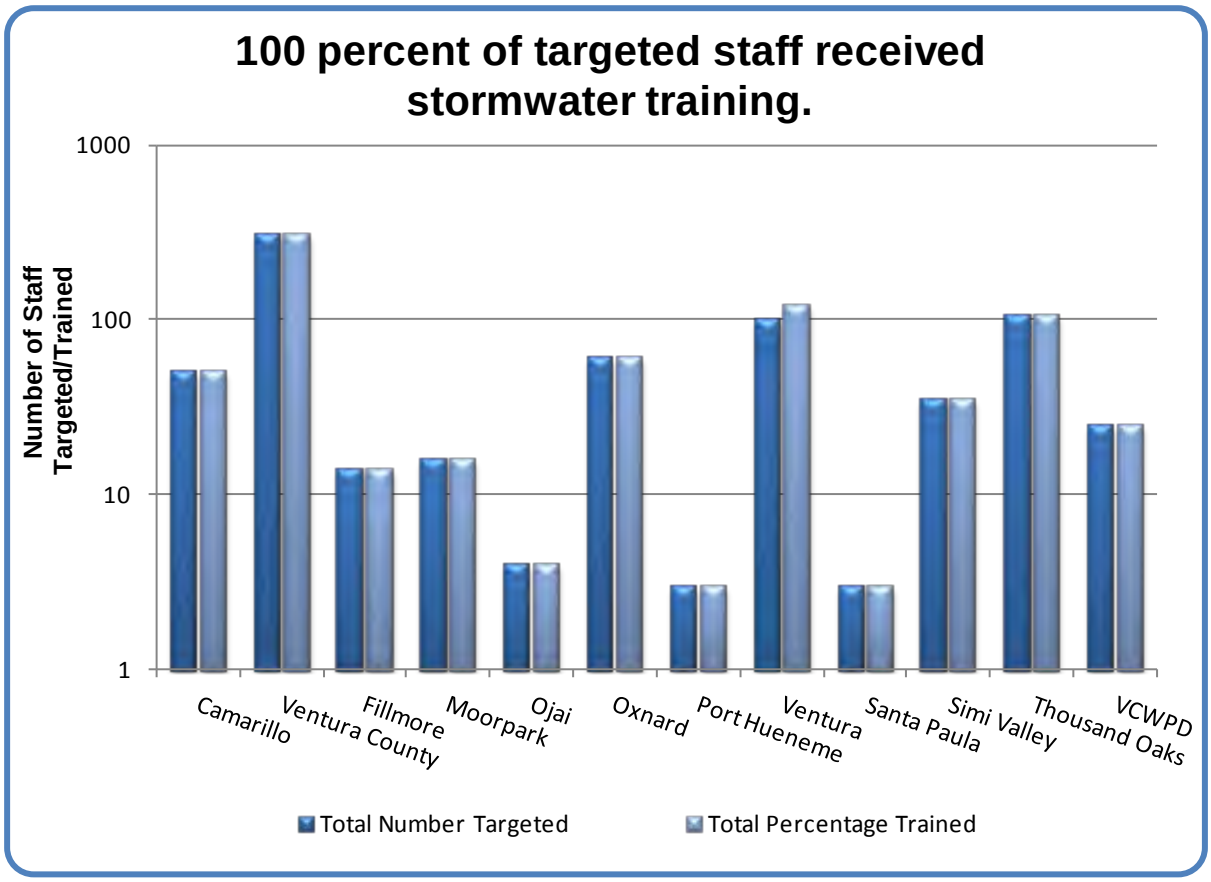



***Figure 7-10 Public Agency Training***

The Permittees provide training for contractors, or ensure that contractors hired had the required training, whose interactions, jobs, and activities affect stormwater quality. Not all employees receive the same training as certain positions require special focus, such as key staff that use or have the potential to use pesticides or fertilizers.

| Provide training for key staff whose interactions, jobs, and activities affect stormwater quality | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-16***

| Provide training for contractors, or ensure that contractors were trained, whose interactions, jobs, and activities affect | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | ☑ | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-17***

| Provide training for key staff that use or have the potential to use pesticides or fertilizers. | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-18***

| Provide training for contractors who use or have the potential to use pesticides or fertilizers, or ensure that contractors were trained. | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | ☑ | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 7-19***

| Target Audience | Subject Material |
|---|---|
| • Employees whose interaction, jobs and activities affect stormwater quality. | • Understanding of the potential for activities to pollute stormwater.<br>• Implementation of BMPs. |
| • Employees and contractors who use or have the potential to use pesticides and/or fertilizers | • Potential for pesticide-related surface water toxicity<br>• Proper use, handling, and disposal of pesticides<br>• Least toxic methods of pest prevention and control, including IPM<br>• Reduction of pesticide use |
| • Employees and contractors responsible for the ID/IC program | • Cover the full ID/IC program from identification to enforcement. |

***Table 7-3 Areas of Focus for the Public Agency Activities Program Element Training***

## 7.11 PA9 – EFFECTIVENESS ASSESSMENT

Effectiveness assessment is a fundamental component for developing and implementing successful stormwater programs. In order to determine the effectiveness of the Public Agency Activities Program, a comprehensive assessment of the program data is conducted as a part of the annual report. The results of this assessment are used to identify modifications that need to be made to the program. Each year the effectiveness assessment is reviewed and revised as needed.

By conducting these assessments and modifying the program as needed, the Permittees ensures that the iterative process is used as an effective management tool. Due to the types of data collected for the Public Agency Activities Program, current and future assessments will primarily focus on Outcome Levels 1-3.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?
- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly increased the awareness of a target audience?
- Outcome Level 4 (L3) answers the question: Can the Permittees demonstrate that the control measure/performance standard reduced the pollutant load?

The following is an assessment regarding the effectiveness of the Public Agency Program.

### 7.11.1 Public Construction Activities Management

**Require Public Projects to Comply with Planning and Land Development and Construction Program Requirements**

Where applicable, all Permittees require publically-owned or operated construction projects to comply with the Planning and Land Development and Construction Program requirements, or adopted standard practices for very small projects. (L1)

**Require Development of SWPCP for Projects that Disturb less than 1 Acre**

Grading or building permits are not an effective mechanism for identifying or defining small construction projects since they are not granted for public construction projects. Instead, all Permittees have effectively required small public projects to submit a SWPCP that identifies BMPs. (L1)

### 7.11.2 Vehicle Maintenance/ Material Storage Facilities/ Corporation Yard Management/ Municipal Operations

**Implement Required BMPs for Each Facility**

As indicated in figure 7-3 Permittees have developed and implemented SWPCPs at all corporate yards. Inspections are performed annually and deficiencies and quickly corrected by Facility staff. (L1)

### 7.11.3 Vehicle and Equipment Wash Areas

#### Eliminate Wash Water Discharges

The majority of Permittees have successfully eliminated wash water discharges through a variety of options including offsite disposal, disposal to sanitary sewer and treatment through clarifier. (L1) Discharges will continue to be eliminated as facilities are constructed, redeveloped or replaced.

### 7.11.4 Landscape, Park and Recreational Facilities Management

#### Implement IPM Program

The majority of Permittees have a draft IPM program that is consistent with the Permit. Further assessment will be conducted once the Permit deadline has passed (October 8, 2010).

#### Maintain and Expand Internal Inventory on Pesticide Use

Permittees have effectively restricted the purchase and use of pesticides and herbicides to staff certified by the California Department of Food and Agriculture. Permittees that contact out for pesticide applications include standard protocols and requirements as a condition of the contract. (L1)

### 7.11.5 Storm Drain Operation and Management

#### Implement Storm Drain System Mapping

Since Ventura Counties cities are all separated by open space and the MS4 from one city does not discharge to another, the need to integrate the maps into a countywide storm drain map is not as imperative as the need for a Permittee to be able to know what is upstream from any point in their MS4, and where that water will discharge. Given that the priority for the mapping is internal to the agency operating the system, the Permittees were given the autonomy to decide what form of mapping will work best for their needs.

#### Implement Catch Basin Maintenance Program

Each Permittee has identified criteria and a methodology for catch basin mapping and prioritization. More than 12,000 catch basins were cleaner during the Annual Reporting period. (L1) Although prioritization is due by July 8, 2011, Permittees have already completed the process of designating and reporting debris removal by prioritization. During 2010-11, Permittees collectively removed more than 250,000 tons of debris from catch basins. (L2)

As mentioned, prioritization designations are due by July 8, 2011. A more detailed assessment will be conducted at that time.

#### Install Trash Receptacles

The majority of Permittees have installed trash receptacles in high trash generation areas. Trash receptacles are cleaned out as necessary. (L1)

#### Install Additional Trash Management Devices

Permittees have begun the implementation of this performance standard. A more detailed assessment will be conducted once the deadline has passed (July 8, 2012).

#### Trash Management at Public Events

The majority of Permittees required trash management for any event in the public right-of-way. (L1)

#### Implement Storm Drain Maintenance Program

Each Permittee has a program to maintain curb inlet labeling. (L1) Additionally, all Permittees regularly maintain channels, ditches and detention basins. (L1) Implementation of this performance standard removed more than 23000 tons of debris from channels and ditches and 98,000 tons of debris from detention basins countywide. (L2)

#### Implement Spill Response Plan

All Permittees maintain a spill response plan. (L1)

#### Inspect and Maintain Permittee-Owned Treatment Control BMPs

Permittees that own or are authorized to maintain treatment control BMPs have programs to implement an inspection and maintenance program for all Permittee-owned treatment control BMPs, including post-construction treatment control BMPs. (L1)

### 7.11.6 Street and Roads Maintenance

#### Implement Street Sweeping Program

Permittees have implemented a street sweeping program that at a minimum, targets commercial areas and high trash generation areas twice a month. More than 100,000 curb miles were swept countywide. (L1)

#### BMP Implementation Road Reconstruction Projects

All Permittees required BMPs for any road reconstruction project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing. (L1)

### 7.11.7 Emergency Procedures

#### Invoke Emergency Procedures

No emergencies occurred that required Permittees to invoke Emergency Procedures. (L1)

### 7.11.8 Training

#### Conduct Training

Permittees provided training for 100% of targeted staff. Close to 600 staff were trained on the implementation of BMPs, reduction of pesticide use and reduction of illicit connections/illicit discharges. (L1)

## 7.12 PUBLIC AGENCY ACTIVITES PROGRAM MODIFICATIONS

On an annual basis, the Permittees plan to evaluate the results of the Annual Report, as well as the experience that staff has had in implementing the program, to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable. Any key modifications made to the Public Agency Program Element during the next fiscal year will be reported in the following Annual Report.

# 8 Illicit Connections and Illicit Discharges Elimination

## 8.1 OVERVIEW

Illicit connections and illicit discharges (IC/ID) can be concentrated sources of pollutants to municipal storm drain systems. To reduce this source of pollutants the Permittees have developed and implemented programs for the identification and elimination of ID/IC to the MS4. Key components of these programs are public reporting, field screening, incidence response, and enforcement actions.

The Permittees have developed and implemented programs for the identification and elimination of illicit discharges and illegal connections to the municipal separate stormwater sewer system (MS4). Some areas even have a cooperative effort with Police and Sheriffs to catch perpetrators by installing hidden security cameras in areas of frequent illegal dumping.

The term "illicit discharges" used in this program is any discharge to the storm drain system that is prohibited under local, state or federal ordinances. The term includes all discharges not composed entirely of stormwater except discharges allowed under an NPDES permit. Examples of illicit discharges include:

- Incidental spills or disposal of wastes or non-stormwater. These may be intentional, unintentional or accidental and would typically enter the storm drain system directly through drain inlets, and catch basins
- Discharges of sanitary sewage due to overflows or leaks; usually incidental but may be continuous
- Discharges of prohibited non-stormwater other than through an illicit connection. These typically occur as surface runoff from outside the public right-of-way (e.g., area washdown from an industrial site).

Categories of non-stormwater discharges not prohibited (exempted or conditionally exempted) under the Permit (and detailed in the SMP) are listed below.

- Stream diversions permitted by the State Board
- Natural springs and rising groundwater
- Uncontaminated groundwater infiltration [as defined by 40 CFR 35.2005(20)]
- Flows from riparian habitats of wetlands
- Discharges from potable water sources
- Drains for foundation, footing and crawl drains
- Air conditioning condensate
- Water from crawl space pumps
- Reclaimed and potable landscape irrigation runoff
- Dechlorinated/debrominated swimming pool discharges
- Non-commercial car washing by residents or non-profit organizations
- Sidewalk rinsing
- Pooled stormwater from treatment BMPs

Accidents are inevitable, so it will be impossible to eliminate all illicit discharges, and just as police and sheriffs cannot eliminate all crime in a community there will unfortunately be an element of society that will comply. However, through the combined efforts of the public education, business inspection, construction inspection and illicit discharge programs the preventable acts of willfully using the storm drain system to dispose of waste will be kept to a minimum.

Illicit connections, while sometimes done in error, cannot be considered accidents. An illicit connection to the storm drain system is an undocumented and/or un-permitted physical connection from a facility or fixture to the storm drain system. Finding and eliminating illicit connections requires ongoing investigation and screening efforts.

## 8.2 CONTROL MEASURES

The Permittees have developed several Control Measures and accompanying performance standards to ensure that the Illicit Discharges/Connections Program requirements found in the Permit are met and information provided for optimizing the Program.

The Illicit Discharges/Connections Program Control Measures are organized to be parallel to the organization of the Permit and consist of the following:

| ID | Control Measure |
|---|---|
| ID1 | Detection of Illicit Discharges and Illicit Connections |
| ID2 | Illicit Discharge and Illicit Connection Response and Elimination |
| ID3 | Training |
| ID4 | Effectiveness Assessment |

***Table 8-1 Control Measures for the Illicit Discharges/Connections Program Element***

## 8.3 ID1 – DETECTION OF ILLICIT DISCHARGES AND ILLICIT CONNECTIONS

Detection of ID/IC through public awareness, the availability of a public hotline, and conducting illicit connection screening ensures that the ID/IC Program is proactive in identifying and eliminating problematic discharges. This control measure reflects the Permittee's efforts to detect and eliminate ID/IC and provides several mechanisms for collecting information.

The Permittees have a number of programs supporting the detection of ID/IC. These programs include:

- Industrial and commercial facility site visits (outlined in Section 2: Industrial/Commercial Facilities Program)
- Public education materials (outlined in Section 3: Public Outreach)
- Drainage facility inspection (see Section 5: Public Agency Activities)
- Construction inspections and BMP implementation (outlined in Section 6: Development Construction)
- Water quality monitoring (outlined in Section 9: Monitoring and Reporting Program)

The performance standards for this ID/IC control measure and the activities that have been initiated and/or completed during this reporting period are summarized below.

### 8.3.1 Public Reporting

The Public Outreach Program control measures (See Section 3) details the methods by which the Permittees educate the community about stormwater pollution. Part of this outreach is information about the ID/IC Program and reporting of ID/IC when observed. For the first few years, as the Stormwater

Program evolved and the public became aware of what was not allowed down storm drains, reports of ID/IC increased; however, for the last six years reports of ID/IC have demonstrated a decreasing trend. Since the public is more aware of ID/IC this decrease likely represents a change in behavior and fewer pollutants reaching the storm drains.

Since the public are the eyes of the illicit discharge program many illicit discharges are identified through public reporting of the situation. The goal of this component, in tandem with the Public Outreach component, is to educate the public and facilitate public reporting of illicit discharges and illegal connections. The baseline objectives are:

- Implement a program to receive calls from the public regarding potential illicit discharges and illegal connections, communicate and coordinate a timely response, perform all necessary follow up to the complaint, and maintain documentation.
- Provide educational material on non-stormwater discharges and why they are harmful to streams, and oceans and how to report them;
- Target the land development/construction community with educational material and provide workshops on stormwater quality regulations and illicit discharge prevention response; and
- Target the industrial/commercial community with educational material and provide workshops on stormwater quality regulations and illicit discharge prevention and response.

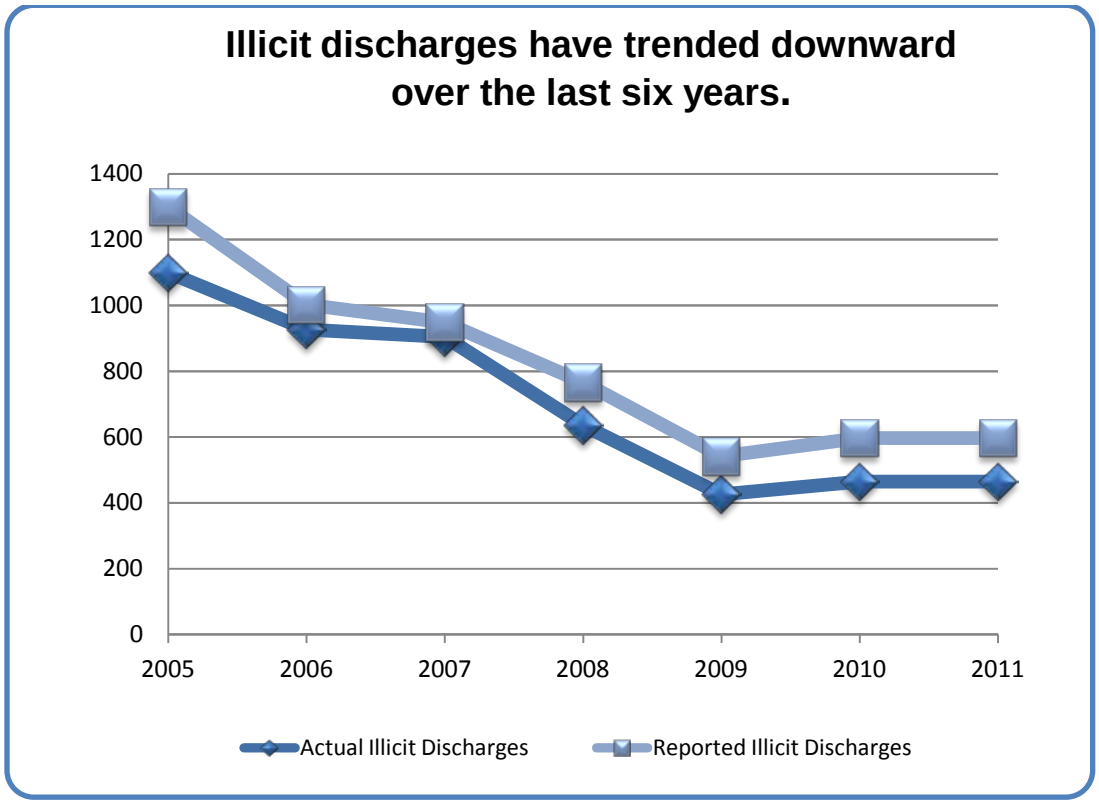



***Figure 8-1 Illicit Discharge Trends***

### 8.3.2 Publication of ID/IC Program Procedures

As part of the ID/IC outreach effort, the Permittees have documented their ID/IC Program through past Annual Reports which are available for public review at the Program's web site.[3] This is one means by which interested individuals can educate themselves of what constitutes ID/IC and how to report it. More directly, however, the program promotes the reporting of illicit discharges through the public information and public participation program.

| Document the procedures of the ID/IC Program and make them available for public review | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-1***

### 8.3.3 Public Reporting

Public reporting is one of the most important ways that the public can help prevent the discharge of pollutants from ID/IC. Each Permittee has identified staff serving as the contact person(s) for public reporting of ID/IC, as discussed further in Public Outreach Control Measures (See Section 3). As required by the Permit Permittees maintain a phone hotline to receive reports of ID/IC. Due to the need for timely response to illicit discharges by inspectors the web sites direct people to report by telephone to a "live person" instead of through email which, while quickly delivered, may not be read within the short time frame that a discharge is occurring. The Program maintains a website that contains the phone numbers for all the Permittees. This information is updated as necessary and, as required in the Permit, published in

[3] http://www.vcstormwater.org

the government pages of the local phone book and other appropriate locations. A list of hotlines are presented in Table 8-2 Permittee Hotlines below.

| Permittee | Hotline |
|---|---|
| Camarillo | (805) 388-5338 |
| County of Ventura Unincorporated Area | (805) 650-4064 |
| Fillmore | (805) 524-3701 |
| Moorpark | (805) 517-6257 |
| Ojai | (805) 640-2560 |
| Oxnard | (805) 271-2220 |
| Port Hueneme | (805) 986-6507 |
| Santa Paula | (805) 933-4212 |
| Simi Valley | (805) 583-6400 |
| Thousand Oaks | (805) 449-2400 |
| Ventura | (805) 667-6510 |
| VC EHD Sewage/wastewater discharges | (805) 654-2813 |
| VC EHD Hazardous waste and material discharges | (805) 654-2813 |
| VC PWA Transportation | (805) 672-2131 |
| VC WPD O&M | (805) 650-4064 |
| VC WPD Permit Section | (805) 650-4064 |

***Table 8-2 Permittee Hotlines***

| Maintain a phone hotline to receive reports of ID/IC | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-2***

| Maintain a web site to receive/direct reports of ID/IC | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-3***

Timely responses to reports of illicit discharges are necessary to have the opportunity to determine the source, identify the responsible party and have them initiate any cleanup to reduce pollutants from such discharge to the MEP. The baseline objectives include:

- Initiate response within 24 hours of receiving a report of discharge from the public, other agencies or observed by a Permittee field staff during the course of their normal daily activities;

- Investigate to determine the nature and source of discharge and eliminate through voluntary termination or enforcement action (when possible); and

- Educate identified responsible parties and initiate clean up and enforcement actions as necessary.

While the goal is to respond within 24 hours, most reports of illicit discharge are responded to within a few hours. Some Permittees have prioritized problem areas (where geographical and/or activity-related) for inspection, cleanup and enforcement using the methods defined in the program. All illicit discharges reported and the results of the inspections is presented in Figure 8-2.

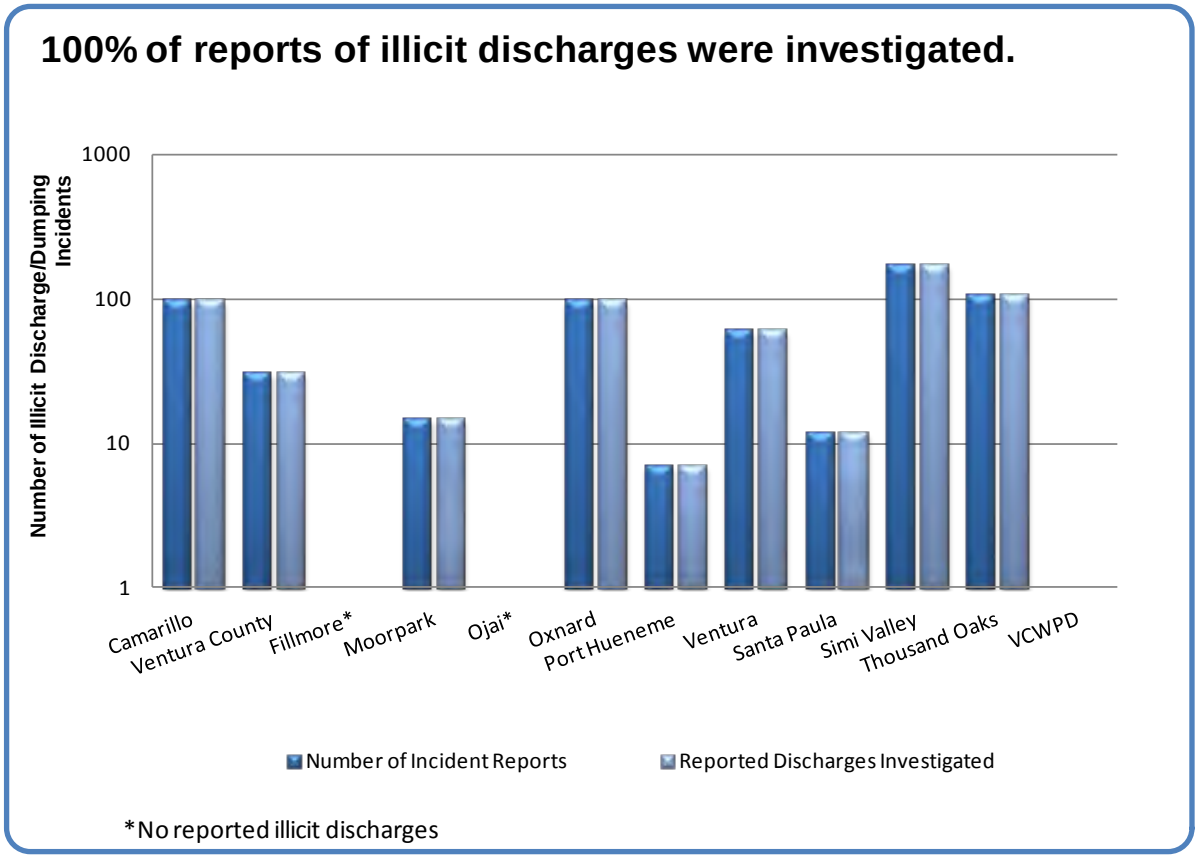



***Figure 8-2 Illicit Discharge Investigations***

### 8.3.4 IC/ID Tracking

Tracking the location of illicit connections and illicit discharges, aside from being a Permit requirement will assist the Program's efforts understanding which land uses, age of neighborhood or other potential identifier is common to the problem of illicit discharges and connections. That knowledge will be used in the future as the Public Outreach and Business Inspections programs continue to evolve.

In order to identify priority areas for further investigation and elimination of ID/IC, the Permittees will map all known connections to their storm drain system and all ID/IC incidents by July 8, 2012. The maps are to be developed in a uniform scale and format specified by the Principal Permittee.

| Keep records of all illicit discharge discoveries, reports, responses, and formal enforcement | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-4***

## Mapping of Known Connections to Storm Drain System

The benefit of mapping all storm drain connections is to allow the Permittees the ability to know the upstream location of an unknown, and conversely what might be possibly affected downstream. This is required in the Permit by May 7, 2012. Since the storm drain system includes all streets and gutters, literally mapping all known connections would include every driveway and property that drains to a street. Since an endeavor of that scale would be resource intensive and with an end product that will lack practical usability, the Perimttees have looked to the Regional Board for clarification of the requirement. In the response to comments on this topic the Regional Board provided the following statement: *"Known connections in the Order refer to permitted below grade connections whose locations are likely already known to Permittees. Staff agrees that mapping may reveal additional connections, but those are likely to be un-permitted."* This guidance creates a manageable effort and ultimately a useful product that will increase the Permittees ability to respond to IC/IDs.

## Mapping Illicit Connection Incidents

The Permit requires the mapping of all incidents of illicit connections to their storm drain system since January 2009 by May 7, 2012 at a scale and in a format specified by the Principal Permittee.

| Map all known connections to their storm drain system and all ID/IC incidents? (By May 7, 2012) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | | | ☑ |
| Fillmore | ☑ | | |
| Moorpark | | ☑ | |
| Ojai | | ☑ | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | | | ☑ |
| Santa Paula | | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |

***Performance Standard 8-5***

### 8.3.5 Screening for Illicit Connections

Inspections of infrastructure can detect and eliminate illicit connections to the MS4 and reduce pollutants discharged through such connections to the MEP. The objectives of illicit connections screening are to:

- Inspect the storm drain system to identify illicit connections during scheduled infrastructure maintenance by personnel
- Investigate and determine the origin and nature of the discharge when connections to the storm drain system are suspected or observed to be a source of an illicit discharge

#### Mapping of Storm Drain System

Similar to mapping requirements of known connections to the storm drain system the Permit requires mapping of the entire system in a phased approach outlined below.

- Map all channeled portions of the storm drain system by October 6, 2010
- Map all portions of the storm drain system consisting of pipes 36 inches in diameter or greater by May 7, 2012
- Map of all portions of the storm drain system consisting of pipes 18 inches in diameter or greater by May 7, 2014

| Submit a map of all channeled portions of the storm drain system in a uniform format? (Due by October 8, 2010) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-6***

| Submit to the Principal permitted a map of all portions of the storm drain system consisting of pipes 36 inches in diameter or greater in a uniform format? (Due by May 7, 2012) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | | | ☑ |
| Fillmore | | ☑ | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 8-7***

| Submit map of all portions of the storm drain system consisting of pipes 18 inches in diameter or greater in a uniform format? (Due by May 7, 2014) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | | | ☑ |
| Fillmore | | ☑ | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | | | ☑ |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | ☑ | | |
| Watershed Protection | | | ☑ |

***Performance Standard 8-8***

To assist in screening for illicit connections, the Permittees have mapped channels within their permitted area and the storm drain system. These maps were transmitted to the Principal Permittee and are in the process of being incorporated into the Watershed Protection District's GIS system. This incorporation may be as simple as having scanned drawings available through the GIS system when no true GIS data exists. Maps depicting the storm drain system consisting of 36 and 18 inches or greater will be completed by May 7, 2012 and May 7, 2014, respectively.

## Field Screening

The Permittees have developed an IC/ID Field Screening Protocol using the guidance from the "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments"[4]. This document is included as Attachment E and suggests that field screening consist of:

- Progressive sampling of manholes to isolate ID/IC to specific sections of the storm drain system (e.g., sampling progressively up the storm drain trunk from an outfall)
- Based on a specific indicator in ID/IC and land use of drainage area, survey of suspected generating sites within the drainage area and on-site testing (e.g., based on sudsy discharge and commercial drainage area, drive through drainage area to identify laundromats and conduct on-site testing)
- Tracking ID/IC to a pipe section of the storm drain system through video or smoke testing.

[4] *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*. The Center for Watershed Protection, Pitt R., October 2004. Chapter 13, 13.1,13.2, 13.3, 13.4

- Septic system inspections through homeowner surveys, surface inspections, or infrared photography (e.g., Inspect area above septic system for foul odors, wet ground)

As discussed previously in this section, the Permittees have begun to map the storm drain system in order to identify high priority areas for inspection. The Permittees will inspect the storm drain system based on these maps, and report illicit connections to the Regional Water Board. The requirements for screening were not effective during the reporting period and are outlined below.

- Screen all portions of the storm drain system consisting of pipes 36 inches in diameter of greater by May 7, 2012
- Screen all high priority areas identified during the mapping of illicit connections and discharges by May 7, 2012
- Screen all portions of the storm drain system 50 years of age or older by May 7, 2012

| **Screening of all portions of the storm drain system consisting of pipes 36 inches in diameter of greater? (Due by May 7, 2012)** | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | | | ☑ |
| Ventura County | | | ☑ |
| Fillmore | | ☑ | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | | | ☑ |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | | | ☑ |
| Watershed Protection | | | ☑ |

***Performance Standard 8-9***

| Screening of all high priority areas identified during the mapping of illicit connections and discharges? (Due by May 7, 2012) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | | | ☑ |
| Ventura County | | | ☑ |
| Fillmore | | ☑ | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | | | ☑ |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | | | ☑ |
| Watershed Protection | | | ☑ |

***Performance Standard 8-10***

| Screening of all portions of the storm drain system 50 years of age or older (Due by May 7, 2012) | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | | | ☑ |
| Ventura County | | | ☑ |
| Fillmore | | ☑ | |
| Moorpark | | | ☑ |
| Ojai | ☑ | | |
| Oxnard | | | ☑ |
| Port Hueneme | | | ☑ |
| Ventura | | | ☑ |
| Santa Paula | | | ☑ |
| Simi Valley | | | ☑ |
| Thousand Oaks | | | ☑ |
| Watershed Protection | | | ☑ |

***Performance Standard 8-11***

### 8.3.6 ID2 – Illicit Discharge/Connection Investigation and Elimination

Timely investigations of reports of ID/IC are necessary to have the opportunity to determine the source, identify the responsible party and initiate any cleanup to reduce pollutants from such discharge to the MEP. This reporting year, the Permittees continued to:

- Investigate the cause, determine the nature and estimate the amount of discharge for each reported illicit discharge/dumping incidents
- Determine when possible the type of materials and source type for each reported illicit discharge/dumping incidents
- Determine when possible the probable cause for the illicit discharge/dumping

- Conduct enforcement or educational activities to prevent similar discharges from reoccurring
- Verify that reported illicit discharge/dumping incidents were terminated and/or cleaned
- Refer illicit discharge/dumping or illegal connections to other agencies when appropriate
- Identify and eliminate illegal connections
- Provide educational materials and contact numbers for reporting illicit discharge/dumping when conducting stormwater inspections.

| **Respond within 1 business day or discovery or report of a suspected illicit discharge and abate, contain, and/or cleanup the discharge** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-12***

| **Investigate illicit discharges during or immediately following containment and cleanup activities** | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-13***

| Take appropriate enforcement action to eliminate the illicit discharge | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-14***

### 8.3.7 Legal authority

Although adequate legal authority existed for most potential pollutant discharges at the inception of the stormwater program in 1994, the Permittees determined for the first stormwater ordinance a Model Stormwater Quality Ordinance should be developed to provide a more uniform countywide approach and to provide a legal underpinning to the entire Ventura Countywide NPDES Stormwater Program.

Subsequently, all of the Permittees adopted largely similar versions of the model Stormwater Quality Ordinance. In addition, each Permittee has designated Authorized Inspector(s) responsible for enforcing the Ordinance. The Authorized Inspector(s) is the person designated to investigate compliance with, detect violations of and/or take actions pursuant to the Ordinance. These ordinances prohibit un-permitted discharges, and provide the Permittees with legal standing to legal authority to prevent and remove illicit connections and illicit discharges. A Stormwater Quality Ordinance has been adopted in each Permittees' jurisdictions as indicated in Table 8-3.

| Ordinance Adoption Dates | | |
|---|---|---|
| **Co-permittee** | **Adopted Date** | **Amendment Date** |
| Camarillo | 3/11/1998 | in progress |
| County of Ventura | 10/2/2001 | in progress |
| Fillmore | 12/8/1998 | 7/8/2012 |
| Moorpark | 12/3/1997 | 2008 |
| Ojai | 2/9/1999 | |
| Oxnard | 3/24/1998 | 3/24/2009 |
| Port Hueneme | 4/1/1998 | 2/1/2001 |
| San Buenaventura | 1/11/1999 | 7/8/2012 |
| Santa Paula | 11/16/1998 | 2010 |
| Simi Valley | 7/23/2001 | |
| Thousand Oaks | 10/14/1999 | |

***Table 8-3 Ordinance Adoption Dates***

The Permittees are aware that further ordinance revisions will be needed are are working together to indentify the needed amendments and draft an adoptable ordinance by the July 8, 2012 due date.

| Legal authority to prevent and remove illicit connections and illicit discharges | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | ☑ | | |
| Ojai | ☑ | | |
| Oxnard | ☑ | | |
| Port Hueneme | ☑ | | |
| Ventura | ☑ | | |
| Santa Paula | ☑ | | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-15***

### 8.3.8 Response to Illicit Connections

#### Investigation

Figure 8-1 indicates the number of illegal connections identified and eliminated. Each Permittee detects and eliminates illegal connections within its municipal storm drain system. Any illegal connection identified by the Permittees during routine inspections or reported by a third party is investigated. Appropriate actions are then taken to approve undocumented connections by permit procedure and/or pursue removal of those connections determined to be illicit connections and therefore not permissible.

If the discharge from an identified connection is determined to consist only of stormwater or exempted non-stormwater, the connection will be allowed to remain and will no longer be considered an illegal connection. Permittees may elect to issue a permit for the connection or allow the connection to remain if

information on the connection is documented; or the discharge will be permitted through a separate NPDES permit; if not the connection will be terminated through voluntary action or enforcement proceedings.

| Maintain a list of all connections under investigation for possible illicit connection and their status | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-16***

Each of the Permittee also maintains a record of all connections currently under investigation for possible illicit discharge and tracks their status.

| Complete investigation of reports of illicit connections to determine the source, nature, and volume of the discharge as well as the responsible party within 21 days | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-17***

The response time to an illicit connection is included in the Permittees' ID/IC database and does not exceed 21 days. The source, nature, and type of discharges from these connections as well as the responsible party are also documented in the Permittees' ID/IC database. Summary statistics of the source of the illicit discharge from these connections is grouped with all other illicit discharges.

## Termination

The Permit requires the connection terminated within 180 days of completion of the investigation. Upon confirmation of an illicit connection, the Permittees terminate the connection using formal enforcement within 180 days of completion of the investigation.

| Terminate the connection using formal enforcement within 180 days of completion of the investigation | | | |
|---|---|---|---|
| | Yes | No | In Progress |
| Camarillo | ☑ | | |
| Ventura County | ☑ | | |
| Fillmore | | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | | | ☑ |
| Watershed Protection | | | ☑ |

***Performance Standard 8-18***

## Documentation

The Permittees' ID/IC database documents the time by which the illicit connection is terminated. Owners of existing drains without appropriate permits (including encroachment permits) are notified to comply. For those drains where the owner is unresponsive or cannot be identified, each Permittee is responsible for deciding whether to formally accept the connection as part of their public drainage system or cap it off.

| Keep records of all illicit connection investigations and formal actions taken to eliminate all illicit connections | | | |
|---|---|---|---|
| | Yes | No | N/A |
| Camarillo | | | ☑ |
| Ventura County | ☑ | | |
| Fillmore | ☑ | | |
| Moorpark | | | ☑ |
| Ojai | | | ☑ |
| Oxnard | ☑ | | |
| Port Hueneme | | | ☑ |
| Ventura | ☑ | | |
| Santa Paula | | ☑ | |
| Simi Valley | ☑ | | |
| Thousand Oaks | ☑ | | |
| Watershed Protection | ☑ | | |

***Performance Standard 8-19***

Upon receipt of a complaint, the Permittees investigate the source and nature of the ID/IC with the goals of:

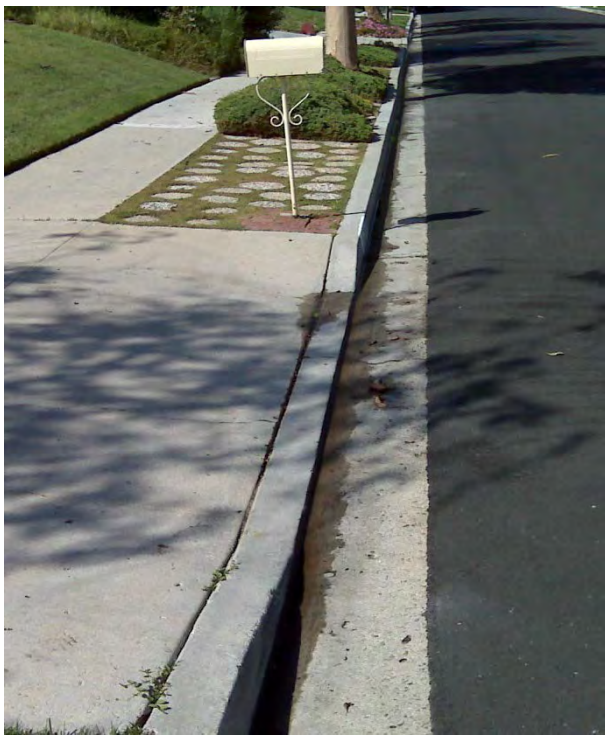
- Eliminating the ID/IC through voluntary termination or enforcement action (when possible)
- Educating identified responsible parties and initiating enforcement actions as necessary

## Investigation and Cleanup

Timely responses to reports of illicit discharges are necessary to have the opportunity to determine the source, identify the responsible party and initiate any cleanup to reduce pollutants from such discharge to the MEP. The baseline objectives include:

- Initiate response within 24 hours of receiving a report of discharge from the public, other agencies or observed by a Permittee field staff during the course of their normal daily activities
- Investigate to determine the nature and source of discharge and eliminate through voluntary termination or enforcement action (when possible); and
- Educate identified responsible parties and initiate enforcement actions as necessary.

***Evidence of an illicit discharge***



***Pollutants removed after cleanup***

While the goal is to respond within 24 hours, most reports of illicit discharge are responded to within a few hours. Some Permittees have prioritized problem areas (where geographical and/or activity-related) for inspection, cleanup and enforcement using the methods defined in the program. In the normal course of an investigation the responsible party will be directed to perform any possible clean-up. 100% of illicit discharges were investigated and 100% of confirmed illicit discharges were resolved.

The discovery of potential or likely illicit discharges through business inspections has worked to reduce the number of overall illicit discharges. Inspections of infrastructure can also detect and eliminate illegal connections to the MS4 and reduce pollutants discharged through such connections to the MEP. The baseline objectives include:

- Inspect the storm drain system to identify illegal connections during scheduled infrastructure maintenance by personnel
- Connections to the storm drain system that are suspected or observed to be a source of an illicit discharge will be investigated to determine the origin and nature of the discharge
- Use business inspections to identify and resolve potential illicit discharges and illegal connections; and
- Educate the business community on the environmental and legal consequences of illicit discharges.

While the goal is to respond to illicit discharges reports within 24 hours, most reports are responded to within a few hours.

### Enforcement

Permittees continue to implement enforcement procedures to eliminate illicit discharges and illegal connections available through their legal authority of their respective ordinances. Most enforcement processes follow a common sequence. These typically include:

- Verbal or written warnings for minor violation
- Formal notice of violation or non-compliance with compliance actions and time frames
- Cease and desist or similar order to comply
- Specific remedies such as civil penalties (e.g., infraction), non-voluntary termination with cost recovery, or referral for criminal penalties or further legal action
- Authority to issue civil citations of $100 on site

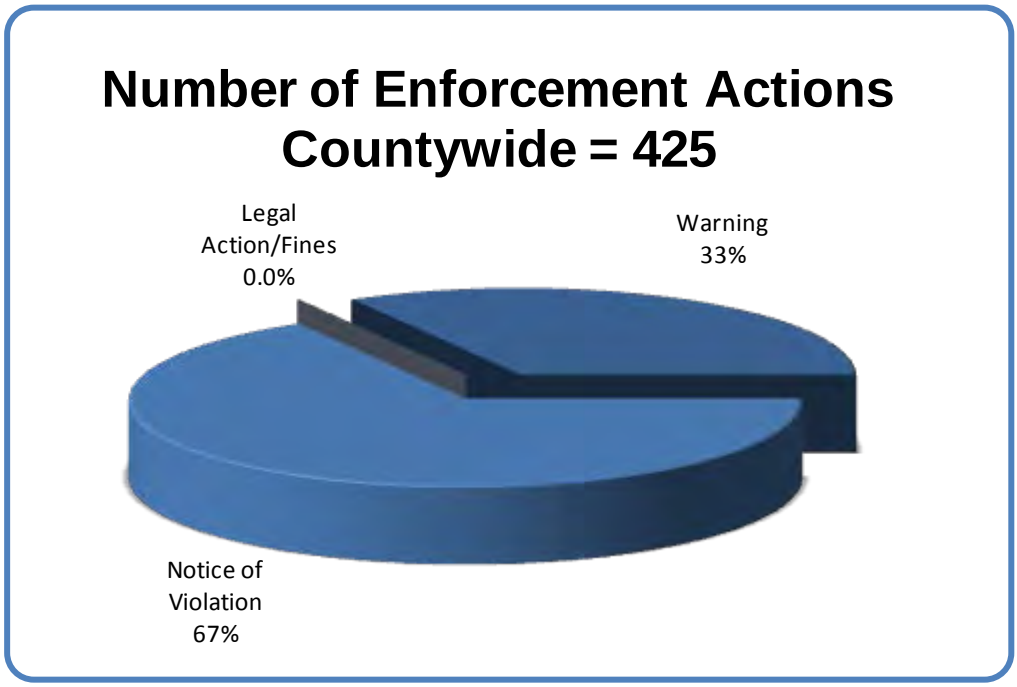



***Figure 8-3 Enforcement Actions Countywide***

Every time a responsible party is identified for an illicit discharge there is an opportunity for education and enforcement. Enforcement activity begins at the appropriate level as determined by the Permittees' authorized representative. For incidents more severe or threatening at the outset, enforcement starts at an increased level. Often times a verbal warning and requiring cleanup of the discharge is effective, if necessary the Permittee will charge the responsible party for cleanup services provided. Enforcement steps are accelerated if there is evidence of a clear failure to act or an increase in the severity of the discharge. Enforcement actions for violating any of the provisions of the Permittees' ordinances may include any of the following or a combination thereof:

- Criminal Penalties
- Monetary punishment
- Imprisonment
- Civil Penalties

Education of targeted audiences occurs through inspections of illicit discharges, businesses and construction activities. The importance of eliminating or mitigating non-stormwater discharges to local streams and channels is emphasized.

The capacity to issue civil citations has been added to the City of Oxnard's enforcement plan to ensure that repeat violators of local, state, and federal stormwater quality regulations are assessed a fine for their illicit (illegal) activities. The integration of this enforcement action allows the municipality to assess a $100.00 fee for those individuals or entities that receive a notice of violation (NOV) and thereafter again engage in the same illicit discharge activity. An additional $100.00 fine is assessed, per day and per violation, if a repeat violation is committed within a thirty (30) day period. If, after thirty (30) days, the

same party is once again engaging in similar illicit activities then a $200.00 citation is given. A $500.00 fine is issued to third time participants of an illicit discharge committed sixty (60) days after the initial citation. Since current City policy allows the Mayor to delegate the authority to issue civil citations to designated employees, no changes to the City's stormwater ordinance were necessary. The only prerequisite imposed on these employees was that they receive training on civil citation writing from the City of Oxnard Code Enforcement Unit. Simply having the ability, and threat, to issue a civil citation has proven to be enough of a deterrent to discourage/eliminate future occurrences of the same type of illicit activities from the local residents and the construction/building communities.

**Documentation**

Permittees keep records of all illicit discharge discoveries, reports, responses, and enforcement and track the efforts during the permit term in the Permittees' ID/IC database summarized in the figures below.

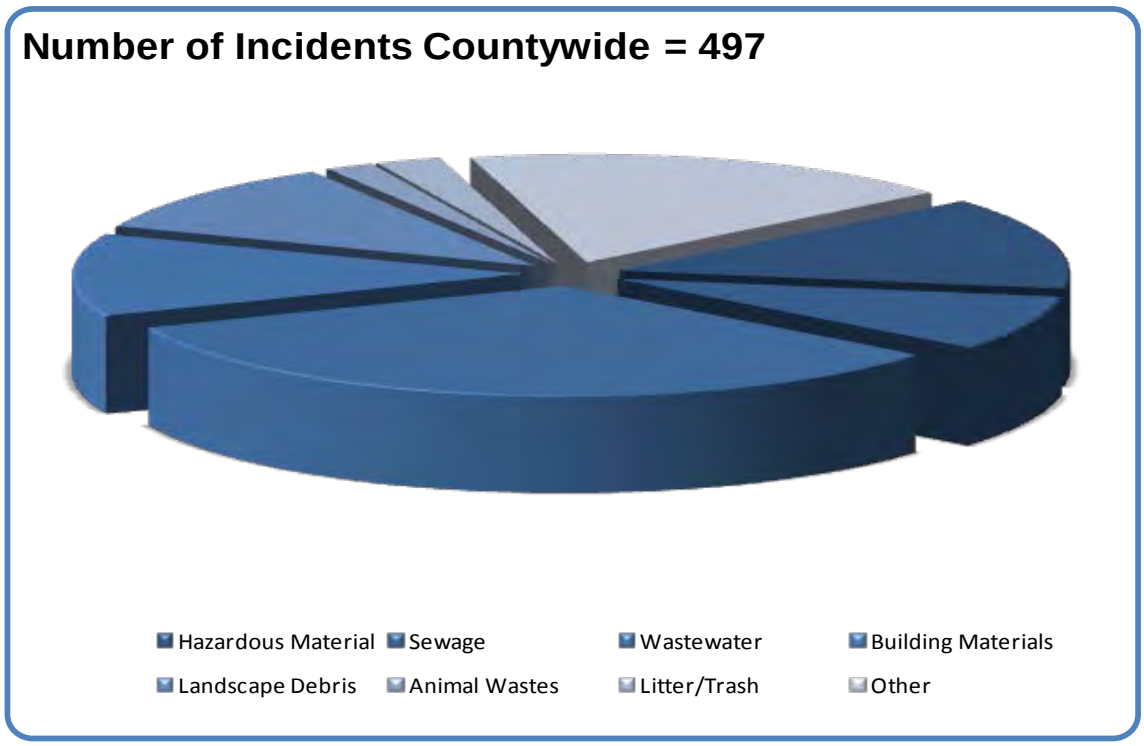



***Figure 8-4 Illicit Discharges Incidents***

As part of their field investigation of reported illicit discharges/dumping incidents, the Permittees attempt to determine the material's source. This investigation begins at the surface drainage system in the vicinity of suspected illicit discharges. This may include accessible areas in the public right-of-way adjacent to residences and businesses, catch basins, open channels near known points of discharge, and upstream manholes. If the source and responsible party can be determined, Permittees take one or all of the following actions when appropriate:

- Voluntary cleanup/termination;
- Initiate enforcement procedures;
- Take steps to prevent similar discharges from reoccurring.

When the source cannot be determined, the appropriate department or contractor will be notified to contain and clean up the material. Because these situations and materials can vary, procedures vary as well. In general, the following are steps that are taken by Permittees to determine sources:

- Verify location of the spill/discharge;
- Containment and cleanup;
- Investigate the cause (look for origin);
- Determine the nature and estimate the amount of illicit discharge/dumped material;
- When appropriate, refer documented non-stormwater discharges/dumping or illegal connections to the proper agency for investigation; and
- If appropriate, notify the RWQCB and/other proper agencies.

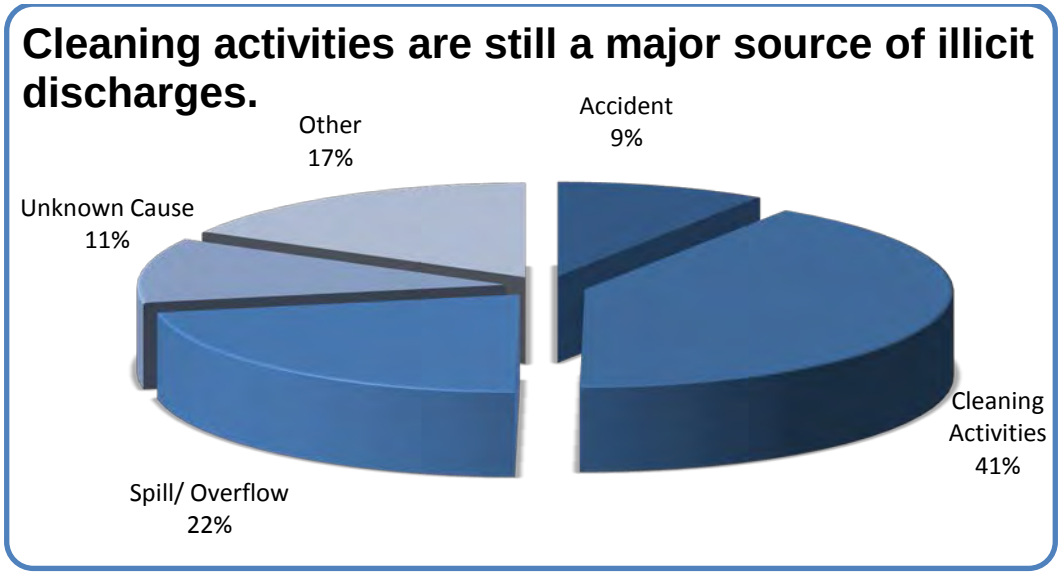



***Figure 8-5 Cause of Illicit Discharges***

## 8.4 ID3 – TRAINING

The Training Control Measure is important for the implementation of the ID/IC Program Element. An effective training program is one of the best pollution prevention BMPs that can be implemented because it prompts behavioral changes that are fundamentally necessary to protect water quality. The Co-evaluate the efficacy of the training modules they offer by conducting pre- and post-training surveys used to assess a trainee's command of a topic before and after receiving training on the subject.

### 8.4.1 Conduct Training

Each Permittee targets staff based on the type of stormwater quality and pollution issues they may encounter. Targeted staff included illicit discharge inspectors, drainage, roadway, landscape and facilities

staff, industrial pretreatment inspectors and code enforcement officers. Training is incorporated with existing business inspection, construction site, and public agency activity programs.

Staff is trained in a manner that provides adequate knowledge for effective illicit discharge identification, investigation, reporting and/or clean up. Training was achieved in a variety of ways, including informal "tailgate" meetings, formal classroom training and/or self-guided training methods. During this reporting period, Permittees trained 268 municipal staff on illicit discharge response and non-stormwater discharges.

The staff trained by the Permittees is presented in 8-10 and training program is outlined in Table 8-4**.**

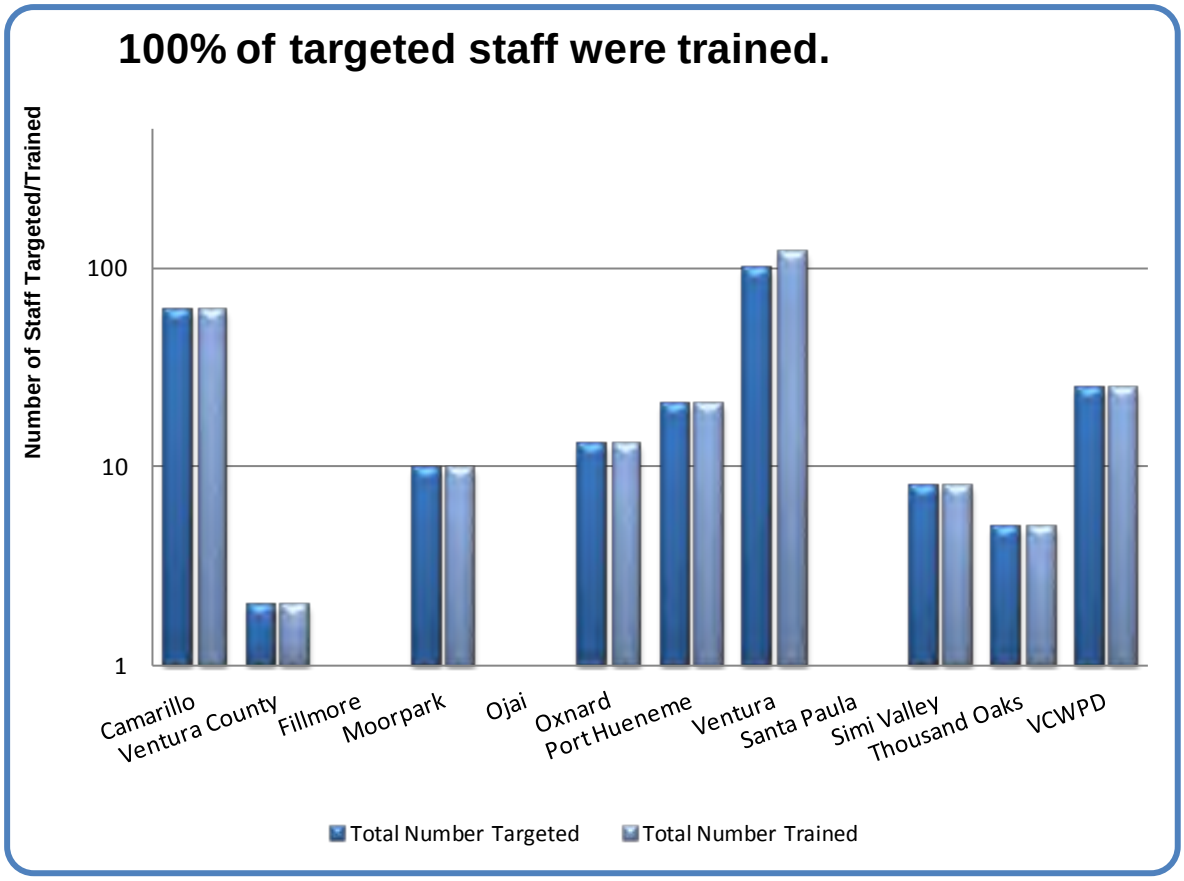



***Figure 8-6 Illicit Discharge and Illicit Connection Training***

| Target Audience | Format | Subject Material | Comments |
|---|---|---|---|
| • Illicit discharge inspectors<br>• Drainage, roadway, landscape, and facilities staff<br>• Industrial pretreatment inspectors<br>• Code enforcement officers | • Classroom<br>• On-site | • Identification<br>• Investigation<br>• Termination<br>• Cleanup<br>• Reporting of incidents<br>• Documentation of incidents | • Training seminars or workshops related to the program may be made available by other organizations |

***Table 8-4 Training Areas of Focus for the ID/IC Program Element***

## 8.5 ID4 – EFFECTIVENESS ASSESSMENT

Effectiveness assessment is a fundamental component required for the development and implementation of a successful stormwater program. In order to determine the effectiveness of the ID/IC Program Element, a comprehensive assessment of the program data is conducted as part of the Annual Report. The results of this assessment are used to identify modifications that need to be made to the Program Element. Each year the effectiveness assessment is reviewed and revised as necessary.

By conducting these assessments and modifying the Program Element as necessary, the Permittees ensure the iterative process is used as an effective management tool. Due to the types of data collected for the ID/IC Facility Program, current and future assessments will primarily focus on Outcome Levels 1 and 2.

- Outcome Level 1 (L1) answers the question: Did the Permittees implement the components of the Permit?

- Outcome Level 2 (L2) answers the question: Can the Permittees demonstrate that the control measure/performance standard significantly increased the awareness of its target audience?

The Permittees have effectively implemented an ID/IC program as described in the following sections. Past Annual Reports have documented the program and are available for public review at the Program's website. [5] (L1)

### 8.5.1 Detection of Illicit Discharges and Illicit Connections Public Outreach Implementation

#### Public Reporting

Each Permittee has identified staff serving as the contact person(s) for public reporting of ID/IC. The majority of the Permittees maintain a phone hotline to receive ID/IC complaints. (L1) Due to the need for timely response to illicit discharges Permittee web sites direct people to report by telephone to a "live person" instead of through email which, while quickly delivered, may not be read within the short time frame that a discharge is occurring. The Program maintains a website that contains the phone numbers for all the Permittees. (L1)

- For the first few years, as the Stormwater Program evolved and the public became more aware of what was not allowed down storm drains, reports of ID/IC increased; however, for the last five years reports of ID/IC have demonstrated a decreasing trend as shown in Figure 8-1. Since the public is more aware of ID/IC this decrease likely represents a change in behavior and fewer pollutants reaching the storm drains. (L3)

[5] http://www.vcstormwater.org

### IC/ID Tracking

The Permit requires the mapping of all incidents of illicit connections to their storm drain system since January 2009 by May 7, 2012 at a scale and in a format specified by the Principal Permittee. the Permittees have mapped channels within their permitted area and the storm drain system. These maps were transmitted to the Principal Permittee and are in the process of being incorporated into the Watershed Protection District's GIS system.

### Screening for Illicit Connections

To be developed – deadlines range from October 6, 2010 to May 7, 2014

## 8.5.2 Illicit Discharge and Illicit Connection Response and Elimination

### Legal Authority

Legal authority for most potential pollutant discharges has existed since 1994. More recently Permittees recently adopted a stormwater quality ordinance which more effectively and consistently ensured adequate legal authority across permittees. **(L1)**

### Response to Illicit Connections

Each ID/IC complaint was documented with the actions undertaken in response. (1) The Permittees responded to all reports of illicit discharge within 24 hours and often within a few hours. (L1) Where possible, the Permittees identified the source, nature, and volume of the discharge. Data shows that the source was identified 95% of the time. The Permittees eliminated all known illicit discharges during this fiscal year. (L1) The Permittees took enforcement action as shown in figure 8-7. (L1)

The Permittees have developed an IC/ID Field Screening Protocol using the guidance from the "Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments"[6] In order to identify high priority areas for inspection, the Permittees have begun to map the storm drain system. (L1) The Permittees investigated all illegal connection identified during inspections or reported by a third party within 21 days. (L1) Where possible, the Permittees determined the source, nature, and volume of the discharge.

## 8.5.3 Enforcement

Appropriate actions were then taken to approve undocumented connections and/or pursue removal of illicit connections. Upon confirmation of an illicit connection, the Permittees terminated the connection using formal enforcement within 180 days. (L1) Some of the Permittees maintained a list containing all connections under investigation for possible illicit connection and their status. (L1) The Permittees eliminated all known illicit connections during this reporting year. (L1)

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[6] *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*. The Center for Watershed Protection, Pitt R., October 2004. Chapter 13, 13.1,13.2, 13.3, 13.4

### 8.5.4 Training

**Conduct Training**

During this reporting year, the Permittees trained a total of 371 municipal staff members. Each Permittees permittee targets staff based on the type of stormwater quality and pollution issues they may encounter. Targeted staff included illicit discharge inspectors, drainage, roadway, landscape and facilities staff, industrial pretreatment inspectors and code enforcement officers. This permitting year 100% of targeted staff members were trained. (L1)

### 8.5.5 Illicit Discharges and Illicit Connections Program Element Modifications

On an annual basis, the Permittees evaluate the results of the Annual Report, as well as the experience that staff has had in implementing the program, to determine if any additional program modifications are necessary to comply with the Clean Water Act requirement to reduce the discharge of pollutants to the maximum extent practicable.

# 9 Water Quality Monitoring

## 9.1 OVERVIEW

As required by Order R4-2010-0108 (issued July 8, 2010), the Ventura Countywide Stormwater Quality Management Program successfully monitored water chemistry, toxicity and biologic function of creeks, rivers, and channels within Ventura County during the 2010/11 monitoring season. This chapter contains a summary of the monitoring program and results, for more complete information and data see the 2010-2011 Water Quality Monitoring Report in Attachment F.

The increased monitoring effort required in the NPDES permit was achieved through the upgrading of all monitoring stations and the data collection platform. New and existing monitoring stations were upgraded to allow remote communication by Stormwater Monitoring Program staff. This allowed sampling program initiation and sampler pacing to be modified as rainfall predictions changed before and throughout the storm. As an added benefit, data handling was significantly reduced, thereby decreasing both staff time and the likelihood of errors.

Monitoring locations for water chemistry and toxicity included Receiving water stations and Major Outfall stations. Receiving water stations are located in the lower reaches of the three major watersheds in Ventura County (Ventura River, Santa Clara River, and Calleguas Creek). Major Outfall stations, a component of the Stormwater Monitoring Program since 2009, are located in watersheds representative of each particular Permittee's contribution to downstream waters. The first four of these were constructed in 2009 in Ojai, Meiners Oaks, Ventura, and Camarillo. The seven remaining stations were brought online in Fillmore, Moorpark, Oxnard, Port Hueneme, Santa Paula, Simi Valley, and Thousand Oaks during the summer of 2010.

Water chemistry samples were collected at Receiving water and Major Outfall stations during four rainfall events, with each site being sampled during three of the events. The rain events occurred on October 6, 2010 (all sites), October 30, 2010 (all sites except MO-MEI and MO-OJA due to insufficient runoff), November 20, 2010 (MO-OJA and MO-MEI), and February 16, 2011 (all sites). Samples were collected at Receiving water and Major Outfall stations during one dry event during the wet season, which was split into two days (April 19 and April 28, 2011). Toxicity samples were collected during the first event of the season for the seven established sites, and the first two events of the season for the seven new sites. A smaller subset of water chemistry samples was collected at each of the Major Outfall stations (or similar alternate location if no flow was observed) on August 17, 2011, and August 18, 2011, as part of the dry -season, dry-weather monitoring prescribed in the NPDES permit.

Through rigorous adherence to the Stormwater Monitoring Program's sampling protocols and through selection of a high-quality analytical laboratory, the Stormwater Monitoring Program was able to achieve a 97.3% success rate in meeting program data quality objectives.

Aluminum, *E. coli* and fecal coliforms were commonly found at elevated levels at most sites during wet-weather events, but rarely during dry-weather events. Other constituents that were found at elevated levels during the 2010/11 monitoring season include the following: chloride (predominantly during the dry-weather event); DDT and its breakdown products (ME-CC and MO-CAM only); mercury (ME-CC, ME-SCR and MO-CAM only during one or more wet-weather events); and dissolved copper (MO-VEN only, but during all events). The Program is using this information to identify pollutants of concern and direct efforts to reduce their discharge from the storm drain system.

Bioassessment sampling was performed at fifteen random [probabilistic (P)] and three targeted [trend (T)] sites throughout Ventura County, divided among each of the three major watersheds (six P and one T in the Ventura River Watershed, six P and one T in the Calleguas Creek Watershed, and three P and one T in the Santa Clara River Watershed). Sampling was conducted over seven days between June 29, 2011, and July 21, 2011.

## 9.2 WATER QUALITY MONITORING

In 2009, the Los Angeles Regional Water Quality Control Board (LARWQCB) issued a National Pollutant Discharge Elimination System (NPDES) permit – Order R4-2009-0057 – for Ventura County (Permit No. CAS004002). Included in this permit was a prescriptive monitoring program (No. CI 7388), which stipulated types of monitoring that were to be undertaken. The permit and monitoring program were remanded and consequently adopted on July 8, 2010, as Order R4-2010-0108 (Permit). All references to the permit requirements and due dates are to this final version of the permit.

This report summarizes the effort undertaken by the Ventura Countywide Stormwater Quality Management Program (Program) and the Stormwater Monitoring Program during the 2010/11 monitoring season. Pursuant to NPDES Permit No. CAS0040002, the Program must submit a Stormwater Monitoring Report annually by December 15th, and include the following:

- Results of the Stormwater Monitoring Program
- General interpretation of the results
- Tabular and graphical summaries of the monitoring data obtained during the previous year

Analysis of samples collected at various stations throughout the watershed gives an overall representation of the quality of stormwater discharges. The monitoring also aids in the identification of pollutant sources, as well as the assessment of Program effectiveness. Feedback provided by the monitoring program allows for changes to be made in the implementation of other Program aspects in order to resolve any problems and reduce pollutants that may exist. This adaptive management strategy should eventually show improved water quality through the stormwater monitoring program.. The pertinent parts of the Stormwater Monitoring Program include the following components.

### 9.2.1 Mass Emission Monitoring

Mass Emission stations are located in the lower reaches of the three major watersheds in Ventura County (Ventura River, Santa Clara River, and Calleguas Creek). As such, the Mass Emission drainage areas are much larger than the drainage areas associated with Major Outfall stations (described in Section 9.2.2), and include large contributions from other sources of discharge, such as wastewater treatment plants, agricultural runoff, non-point sources, and groundwater discharges.

The purpose of mass emission monitoring is to identify pollutant loads to the ocean and identify long-term trends in pollutant concentrations. This type of monitoring, in conjunction with the Major Outfall monitoring, is also useful in helping to determine if the Municipal Separate Storm Sewer System (MS4) is contributing to exceedances of water quality objectives by comparing results to applicable water quality objectives in the Los Angeles Region Water Quality Control Plan (Basin Plan) and the California Toxics Rule (CTR).

During the 2010/11 monitoring season, water quality samples from three wet-weather events and one dry-weather event were collected for water chemistry analysis at each Mass Emission station, as required by

the NPDES permit. Also, aquatic toxicity samples were collected at each Mass Emission station during Event 1 (October 6, 2010) and tested with the species that was determined to be the most sensitive to contaminants for each station, based on the results from the 2009/10 monitoring year.

### 9.2.2 Major Outfall Monitoring

A new component of the R4-2010-0108 Permit is the requirement to sample at one representative station of each Permittee's municipal separate storm sewer system (MS4). Many of the monitoring requirements for Major Outfall stations are similar to those for the Mass Emission stations, as are the reasons for undertaking this monitoring. Four of the stations were monitored beginning with the 2009/10 monitoring season and seven of the stations were new to the 2010/11 monitoring season. Station selection of these new sampling locations is described in Section 9.3.2.

During the 2010/11 monitoring season, water quality samples from three wet-weather events and one dry-weather event were collected for water chemistry analysis at each of the eleven Major Outfall stations, as required by the NPDES permit. Aquatic toxicity samples were collected at each of the four previously established Major Outfall stations during Event 1 (October 6, 2010) and tested with the species that was determined to be the most sensitive to contaminants for that station, based on the results from the 2009/10 monitoring year. Aquatic toxicity samples were collected at the seven new Major Outfall stations during Event 1 (October 6, 2010) and Event 2 (October 30, 2010). The results from this first year of aquatic toxicity monitoring will be used to determine which species is the most sensitive to contaminants at each station, with toxicity testing in subsequent years focusing on that particular species during the first event of each year.

Using the data from the Major Outfall monitoring in conjunction with the Mass Emission monitoring, the Stormwater Monitoring Program will help the Program determine if the MS4 is potentially contributing to impacts to beneficial uses by comparing results to applicable water quality objectives in the Basin Plan and the CTR. And, over the course of many years, the data will be able to describe trends in waters from the Major Outfall stations over time. This information will be useful in evaluating the effectiveness of the Program implementation and provide Permittees with real data on which to base future management decisions.

### 9.2.3 Dry-Season, Dry-Weather Analytical Monitoring

The Permit requires the analysis of pollutant discharges from representative MS4 outfalls in each municipality and in the unincorporated County area during dry-weather. The Stormwater Monitoring Program met this requirement by sampling once during the summer at or near Major Outfall stations, or at another representative site if flow was insufficient at the Major Outfall station.

### 9.2.4 Bioassessment Monitoring

Prior to the adoption of the new Orders (No. 09-0057 in 2009 and its replacement, R4-2010-0108 in 2010), the Stormwater Monitoring Program performed bioassessment monitoring in the Ventura River watershed at fixed locations. That sampling effort was terminated in favor of a new program working to standardize bioassessment monitoring throughout Southern California undertaken by the Stormwater Monitoring Coalition of Southern California (SMC) and led by the Southern California Coastal Water Research Project (SCCWRP). The Stormwater Monitoring Program was instructed to participate in this new program by performing sampling at 15 random sites and three targeted sites throughout the County annually, for the duration of the five year study. The sampling for this report year was performed in early summer of 2010.

## 9.3 MONITORING STATION LOCATIONS AND DESCRIPTIONS

### 9.3.1 Mass Emission Stations

Mass Emission stations are located in the three major Ventura County watersheds: Ventura River (ME-VR2), Santa Clara River (ME-SCR), and Calleguas Creek (ME-CC). In locating these stations, every effort was made to position the station as low as possible in the watershed to capture as much of the runoff as possible, while still remaining above tidal influence. See Figure 9-1. for the location of Mass Emission stations.

The ME-VR2 station is located at the Ojai Valley Sanitary District's wastewater treatment plant (WWTP) near Canada Larga Road and captures runoff from the city of Ojai, several unincorporated communities (e.g., Meiners Oaks, Casitas Springs), and a large portion of undeveloped landscape, the latter of which comprises the bulk of the watershed. Monitoring at the ME-VR2 station was initiated during the 2004/05 monitoring season after landslide activity at the original Ventura River Mass Emission station, ME-VR, precluded further sampling at that location.

The ME-CC station is located along University Drive near California State University at Channel Islands and captures runoff from the cities of Camarillo, Thousand Oaks, Moorpark and Simi Valley. This watershed has the largest urban influence (roughly 30% urbanized), but also includes significant contributions from agricultural runoff found predominantly in the lower two-thirds of the watershed. Monitoring at the ME-CC station was initiated during the 2000/01 monitoring season.

The ME-SCR station is located at the United Water Conservation District's (UWCD) Freeman Diversion Dam east of Saticoy and captures runoff from the cities of Santa Paula and Fillmore, communities upstream in Los Angeles County, agricultural fields, and a large amount of undeveloped landscape. Monitoring at the ME-SCR station was initiated during the 2001/02 monitoring season. Unlike at the other two Mass Emission stations, accurate measurement of flow at this location is not possible due to the configuration and operation of the diversion structure. In dry conditions, the river is usually diverted to groundwater infiltration ponds. In wet-weather conditions, the Santa Clara River can also flow past the diversion dam through two other routes. One route is through the river diversion gate structure where the majority of wet-weather flow passes. The other route is over the diversion dam, a situation which occurs only during high flows generated by large storm events. Wet-weather flow can only be measured at the diversion dam because there is no flow meter installed at the river diversion gate. There are technical challenges involved with measuring flow at the river diversion gate since floating debris and sediment can interfere with flow measurement and the large fluctuation in water level due to gate operation makes non-contact stage measurement difficult.

### 9.3.2 Major Outfall Stations

Seven new Major Outfall stations were added to the Stormwater Monitoring Program this year, which when added to the four Major Outfall stations added last year (2009), makes a total of eleven Major Outfall stations. As directed by the NPDES permit, these stations represent the runoff from each city/unincorporated county (Permittee) in which they are located. Municipalities selected for inclusion in the 2009/10 Stormwater Monitoring Program include Camarillo (MO-CAM), Ojai (MO-OJA),

unincorporated Meiners Oaks (MO-MEI) and Ventura (MO-VEN).[7] The stations in the seven remaining municipalities brought online for the 2010/11 Stormwater Monitoring Program include Fillmore (MO-FIL), Moorpark (MO-MPK), Oxnard (MO-OXN), Port Hueneme (MO-HUE), Santa Paula (MO-SPA), Simi Valley (MO-SIM), and Thousand Oaks (MO-THO). Details of the land use of each city and the representative watershed can be found in Attachment F. Figure 9-1 shows the location of the eleven Major Outfall and three Mass Emission stations.

- The MO-CAM station is located on Camarillo Hills Drain (a tributary of Revolon Slough) just north of Daily Drive in Camarillo. The predominant land use in the watershed is residential. Less than 8% of the watershed is commercial and less than 1% is agricultural.

- The MO-OJA station is located on Fox Canyon Barranca (a tributary of San Antonio Creek) near the Ojai Valley Athletic Club in Ojai. Almost half of the watershed is classified as vacant, with residential land use comprising about 40%. About 3% of the watershed is commercial and about 5% is agricultural.

- The MO-MEI station is located on Happy Valley Drain (a tributary of the Ventura River) near Rice Road in Meiners Oaks. Almost half of the watershed is classified as residential. Another quarter of the watershed is classified as vacant. About 3% of the watershed is commercial and about 15% is agricultural.

- The MO-VEN station is located on Moon Ditch (a tributary to the Santa Clara River) near the US101-Johnson Drive interchange in Ventura. Over half of the watershed is residential and a quarter is commercial. Industrial land uses account for almost 7% of the watershed, while agriculture comprises less than 1% of the watershed.

- The MO-FIL station is located on the North Fillmore Drain (a tributary of Sespe Creek) near Shiells Park in Fillmore. Almost half the watershed is residential and just over a third is classified as vacant. Agriculture land uses account for almost 7% of the watershed, while commercial comprises less than 1% of the watershed.

- The MO-MPK station is located on the Gabbert Canyon Drain (a tributary to Arroyo Las Posas) near the intersection of Los Angeles Avenue and Mira Sol Drive. Over half the watershed is classified as vacant, less than 10% of the land is residential, and almost 13% of the watershed is used for agriculture.

[7] Site names shown on the map reflect the names given to each site in the NPDES permit; site names throughout this report are shortened to those shown on chains-of-custody (COCs) for brevity. Under this naming convention, MO-CAM is synonymous with Camarillo-1, MO-FIL with Fillmore-1, MO-HUE with Port Hueneme-1, MO-OJA with Ojai-1, MO-OXN with Oxnard-1, MO-MEI with Meiners Oaks-1, MO-MPK with Moorpark-1, MO-SPA with Santa Paula-1, MO-SIM with Simi Valley-1, MO-THO with Thousand Oaks-1, and MO-VEN with Ventura-1.

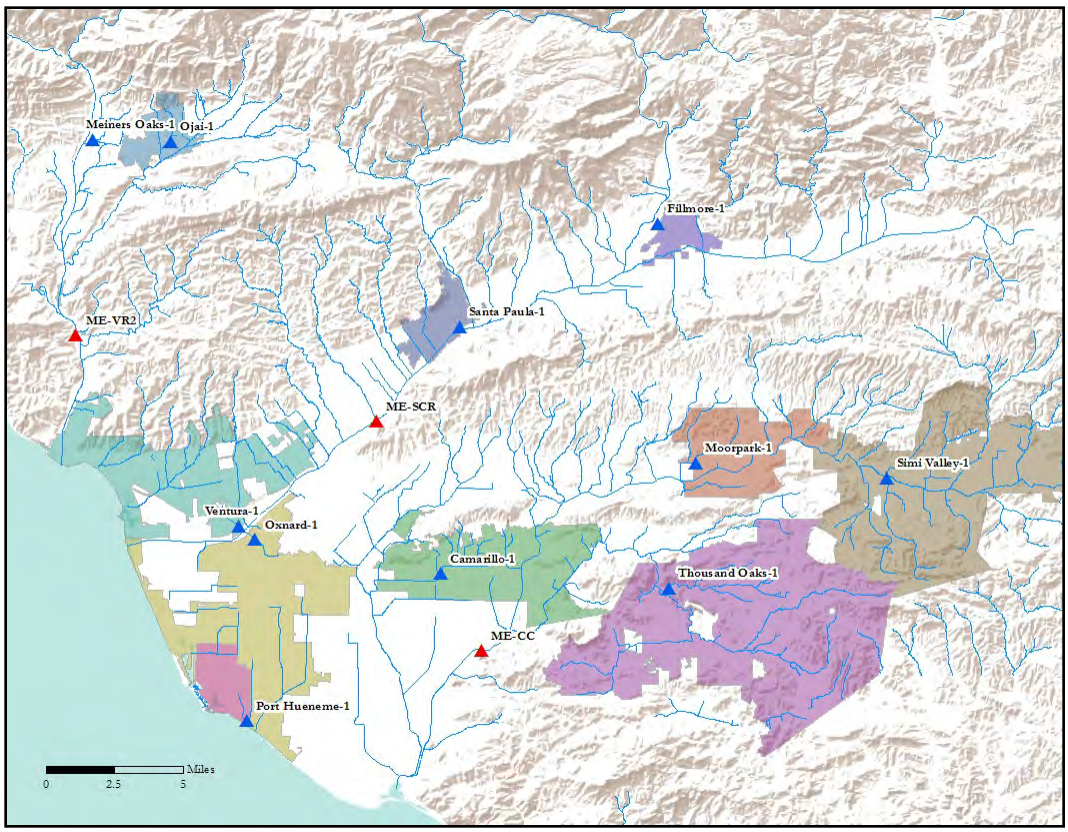


***Figure 9-1 Mass Emission and Major Outfall Sampling Locations***

- The MO-OXN station is located on El Rio Drain (a tributary to the Santa Clara River) near the corner of Buckaroo Avenue and Winchester Drive. Most of the watershed is classified as residential, however almost 20% is commercial and less than 2% is agricultural.

- The MO-HUE station is located on Hueneme Drain (a tributary of the J Street Drain at the Pacific Ocean) southeast of Bubbling Springs Park. The land use is predominantly residential, with commercial and vacant land uses accounting for only 3% each.

- The MO-SPA station is located on the 11th Street Drain where it enters the Santa Clara River, east of the Santa Paula airport. About half of the watershed is classified as residential, less than 15% as commercial, and schools and transportation account for about 10% each.

- The MO-SIM station is located on Bus Canyon Drain (a tributary of the Arroyo Simi) near the intersection of 5th Street and Los Angeles Avenue. Over half (57%) of the watershed is classified as vacant and about one third is residential. All other land uses account for less than 1% of the watershed each.

- The MO-THO station is located on the North Fork Arroyo Conejo (a tributary to Conejo Creek) in the Hill Canyon WWTP. The main land uses in the watershed are residential (56%) and vacant land (31%).

## 9.4 URBAN RUNOFF IMPACTS ON RECEIVING WATERS

Pursuant to Part 2 (Receiving Water Limitations) of the Countywide NPDES Permit (Order R410-0108, Permit No. CAS004002), the Permittees are required to determine whether discharges from their municipal separate storm sewer systems are causing or contributing to a violation or water quality standards (WQS). Additionally, Permittees are responsible for preventing discharges from the MS4 of stormwater or non-stormwater from causing or contributing to a condition of nuisance. Specifically, the Order contains the two following Receiving Water Limitations:

1. Discharges from the MS4 that cause or contribute to a violation of water quality standards are prohibited.

2. Discharges from the MS4 of stormwater, or non-stormwater, for which a Permittee is responsible, shall not cause or contribute to a condition of nuisance.

Compliance with the above Receiving Water Limitations is achieved by the Permittees through implementation of control measures and other actions to reduce pollutants in stormwater and non-stormwater discharges in accordance with the requirements of the Countywide NPDES Permit. The following section presents a discussion of WQS exceedances and elevated levels[8] that occurred during the three wet-weather and one dry-weather monitoring events during the 2010/11 season.

### 9.4.1 'Cause or Contribute' Evaluation Methodology

The evaluation used to determine if a pollutant is persistently causing or contributing to the exceedance of a WQS in receiving waters consists of three steps:

1. The water quality data collected at a receiving water site were compared to relevant WQS contained in the CTR and Los Angeles Basin Plan.

2. When a receiving water concentration is detected above a WQS for a particular constituent, the upstream urban runoff concentration of said constituent measured at a Major Outfall (i.e. outfall $\geq$ 36 inches) was compared to the WQS. If an elevated level relative to the associated WQS for said constituent was observed in both urban runoff and the receiving water, then the elevated level in the receiving water was determined "likely caused or contributed to by urban runoff." However, this comparison does not consider the frequency or persistence of elevated levels for a given constituent.

3. The persistence of an elevated level was determined by evaluating the number of times (frequency) that a constituent was observed in urban runoff and in excess of the WQS for the receiving water for a particular type of monitoring event (wet or dry) over the course of the monitoring season. If two or more elevated levels in urban runoff and in the receiving water were observed for a particular constituent over the course of the monitoring season, then the elevated level of said constituent were determined to be persistent. Ideally, an assessment of persistency would be based on a larger data set (e.g., 10 events or more) and an assumed percentage of

[8] "Elevated levels" is used to describe those concentrations that are above a particular water quality standard. These amounts are not referred to as "exceedances," as has been done for the Mass Emission stations, since, technically, those standards are only applicable to receiving waters, not to the outfalls that were monitored.

elevated levels (e.g., 50%), but given the need for an annual assessment two or more elevated levels from the existing, limited data set were used as the criterion to determine persistence.

### 9.4.2 Discussion of Concentrations Observed Above Water Quality Standards

**Trace Metals**

#### *9.4.2.1.1 Aluminum*

Urban runoff and receiving water concentrations of aluminum were found above the 1,000 µg/L Basin Plan objective at the majority of Major Outfall stations for one or more wet weather monitoring events during the 2010/11 season. Similarly, aluminum concentrations above the Basin Plan objective were measured at the ME-CC and ME-SCR receiving water stations during one or more wet events. Receiving water station ME-SCR yielded a result of the aluminum above WQO during the one dry weather monitoring event (Event 5) conducted during the current monitoring season. Major Outfall stations not showing wet weather aluminum above the WQS in the Calleguas Creek Watershed include MO-CAM (Event 4) and MO-SIM (Event 4); and in the Santa Clara River Watershed include MO-FIL (Event 2, 4), MO-OXN (Event 4), and MO-THO Event 4). Receiving water stations not showing wet weather exceedances for aluminum include ME-SCR (Event 1, 2) and ME-VR2 (all wet events). A summary of those monitoring sites were aluminum concentrations were observed above the Basin Plan objective is shown in Table 9-1.

Since the Program began monitoring for aluminum in 2004, it has frequently observed elevated levels of the Basin Plan objective for the metal at all Program monitoring sites (receiving water and land use). Aluminum is found as a ubiquitous natural element in sediments throughout Ventura County geology. These sediments are mobilized during stormwater runoff events from urban, agriculture, and natural sources resulting in concentrations of aluminum in excess of the Basin Plan objective. This is clearly shown by the highly elevated wet weather concentrations of the metal measured in all three watersheds monitored by the Program. Similar to the current season, dry weather aluminum concentrations observed above WQS during the past seven years have only been observed a limited number of times. With elevated levels of aluminum co-occurring in both urban runoff and receiving waters within the same watershed during the same monitoring event, it is likely that concentrations of aluminum in urban runoff can be considered contributing to the elevated level observed in receiving waters.

Aluminum is the third most common element on the planet and the most abundant metal in the earth's crust comprising over 8% of its chemistry. Aluminum is released to the environment mainly by natural processes, though acid environments caused by acid mine drainage or acid rain can cause an increase in the dissolved aluminum content of the surrounding waters (ATSDR, 1992; WHO, 1997). There are no know sources of acid mine drainage in Ventura County watersheds that could account for the aluminum detected, so the sources are likely natural.

| Aluminum detected above Basin Plan Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed | | | | | |
| ME-CC | X | X | * | X | |
| MO-CAM | X | X | * | | |
| MO-MPK | X | X | * | X | |
| MO-SIM | X | X | * | | |
| MO-THO | X | X | * | X | |
| Santa Clara River Watershed | | | | | |
| ME-SCR | X | | * | X | X |
| MO-FIL | X | | * | | |
| MO-OXN | X | X | * | | |
| MO-SPA | X | X | * | X | |
| MO-VEN | X | X | * | | |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-OJA | X | * | X | X | |
| MO-MEI | X | * | X | X | |
| * Not sampled during this event | | | | | |

***Table 9-1 Aluminum detected above Basin Plan Objective***

#### *9.4.2.1.2 Copper*

Based on the "cause or contribute" methodology copper from urban outfalls was not determined to be a persistent cause or contribution to WQS. Elevated levels compared to the hardness-based CTR objective for dissolved copper were observed at Major Outfall stations during both wet and dry monitoring events: MO-CAM (Events 1, 2, and 4), MO-OXN (Events 1,2, 4, and 5), MO-SPA (Events 1, 2, and 4), and MO-VEN (Event 5). No results above the CTR criterion for dissolved copper were observed at the receiving water stations during the 2010/11 season. Because results for copper were not observed above the CTR criterion in receiving waters (i.e., measured at the receiving water stations), there is no evidence to conclude that copper in urban runoff appreciably impacted receiving water beneficial uses during the 2010/11 monitoring season.

This conclusion does not mean these data will be ignored by the Program as it is actively addressing copper. Permittees supported the Brake Pad Partnership and Senate Bill (SB) 346 adopted September 27, 2010 – that authorized legislation to phase out the copper contained in vehicle brake pads. SB 346, authored by Senator Christine Kehoe (D-San Diego), requires brake pad manufacturers to reduce the use of copper in brake pads sold in California to no more than 5% by 2021 and no more than 0.5% by 2025. This true source control action will help significantly reduce copper in urban runoff. Several of the Major Outfall sites are next to freeways or railroad lines (MO-CAM, MO-OXN, and MO-VEN) ) where copper-containing dust from vehicles and trains is continually produced and deposited; the SB346 legislation will help address this issue. In the future, similar legislation to address train brake pads may help to further reduce copper in runoff.

| Copper detected above CTR Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-CC | | | * | | |
| MO-CAM | X | X | * | X | |
| MO-MPK | | | * | | |
| MO-SIM | | | * | | |
| MO-THO | | | * | | |
| Santa Clara River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | |
| MO-SPA | X | X | * | X | |
| MO-OXN | X | X | * | X | X |
| MO-VEN | | | * | | X |
| Ventura River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | | * | | |
| MO-OJA | | | * | | |
| Coastal Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-2 Dissolved Copper detected above CTR Objective***

#### *9.4.2.1.3 Selenium*

Selenium from urban outfalls was not determined to be a persistent cause or contribution to WQS exceedences. One Major Outfall in the Calleguas Creek Watershed (MO-SIM) and two Major Outfalls in the Santa Clara River Watershed (MO-SPA and MO-VEN) exhibited total selenium concentrations in excess of the 5.0 µg/L CTR criterion during the one dry weather event monitored by the Program. No such elevated levels were observed at any of the receiving water stations during the same event, resulting in the finding that selenium concentrations in urban runoff are not causing or contributing to concentrations observed above a water quality standard for the constituent in receiving waters.

Elevated concentrations observed for selenium in dry weather are not surprising because selenium is naturally found in the groundwater of Ventura County. Groundwater infiltrating into storm drains is likely the source of the selenium found in these major outfalls. Additionally, selenium introduced and transported by landscape irrigation water from ground water wells is being addressed by water conservation efforts of the Permittees. There is currently a TMDL addressing selenium in the Calleguas Creek watershed which will address this issue. Initial studies are showing that the levels of selenium detected are not affecting beneficial uses. More information will be available as the TMDL process continues.

| Selenium detected above CTR Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-CC | | | * | | |
| MO-CAM | | | * | | |
| MO-MPK | | | * | | |
| MO-SIM | | | * | | X |
| MO-THO | | | * | | |
| Santa Clara River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | X |
| MO-SPA | | | * | | |
| MO-OXN | | | * | | |
| MO-VEN | | | * | | X |
| Ventura River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | |
| MO-OJA | | * | | | |
| Coastal Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-3 Sites with Selenium detected above CTR Objective***

#### *9.4.2.1.4 Zinc*

Zinc from urban outfalls was not determined to be a persistent cause or contribution to concentrations observed above the hardness-based CTR objective for dissolved zinc. Elevated levels were observed at two Major Outfall stations during wet weather monitoring events: MO-OXN (Event 1 and 4) and MO-SPA (Events 1 and 2). No elevated levels were observed for Major Outfall stations during the one dry weather event monitored by the Program. More importantly, no exceedances of the CTR criterion for dissolved zinc were observed at any of the receiving water stations during the 2010/11 season. The lack of concentrations observed above water quality standards for zinc at the receiving water stations indicates that zinc concentrations in urban runoff did not affect the beneficial uses in the receiving water.

| Zinc detected above CTR Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed - Outfalls not causing or contributing to exceedance | | | | | |
| ME-CC | | | * | | |
| MO-CAM | | | * | X | |
| MO-MPK | | | * | | |
| MO-SIM | | | * | | |
| MO-THO | | | * | | |
| Santa Clara River Watershed - Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | |
| MO-SPA | X | X | * | X | |
| MO-OXN | X | | * | | |
| MO-VEN | | | * | | |
| Ventura River Watershed - Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | |
| MO-OJA | | * | | | |
| Coastal Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-4 Zinc detected above CTR Objective***

#### *9.4.2.1.5 Mercury*

No mercury elevated levels were observed at the Ventura River receiving water station (ME-VR2) during the 2010/11 season. Within the Santa Clara River Watershed, elevated mercury concentrations in urban runoff (MO-SPA, MO-VEN,) were observed during in one event at the same time a result above the CTR mercury criterion was seen in the receiving water. Based on the findings of this one wet weather event, the Program does not consider mercury at this time to constitute a persistent pollutant in urban runoff that is causing or contributing to impairments of beneficial uses in the Santa Clara River Watershed.

Concentrations above the 0.051 µg/L CTR criterion for mercury were observed during two or more wet weather events at both the urban runoff monitoring locations (MO-CAM, MO-MPK, MO-SIM, MO-THO, MO-MEI, MO-OJA) and the Calleguas Creek receiving water station. Based upon the various co-occurrences of elevated levels of mercury in both the receiving waters and urban runoff as measured at Major Outfalls, it is determined that mercury in urban runoff likely contributed to concentrations observed above the CTR criterion for mercury in the Calleguas Creek Watershed during Events 1 and 2. Because these co-occurring concentrations occurred for two or more monitoring events, the Program's 'cause or contribute' evaluation methodology considers the concentrations observed above the CTR mercury criterion in the Calleguas Creek Watershed to be persistent.

While total mercury concentrations in excess of the 0.051 µg/L CTR criterion for mercury are regularly detected at the ME-CC and ME-SCR stations during wet weather monitoring events, they have yet to be observed during a dry weather monitoring event. Similar to aluminum, mercury concentrations above the

CTR criterion are observed almost exclusively during stormwater runoff events. Mercury has also historically been observed in rare cases during wet weather monitoring events in the Ventura River Watershed which has less than 5% of the watershed developed. Atmospheric mercury deposition is a likely source of the detected mercury since there is no known local industrial sources or mercury mining operations in Ventura County.

| Mercury detected above CTR Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed | | | | | |
| ME-CC | X | X | * | | |
| MO-CAM | | X | * | | |
| MO-MPK | | X | * | | |
| MO-SIM | | | * | | |
| MO-THO | X | X | * | | |
| Santa Clara River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | X | | * | X | |
| MO-FIL | | | * | | |
| MO-SPA | X | X | * | | |
| MO-OXN | | | * | | |
| MO-VEN | X | X | * | | |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | X | * | | | |
| MO-OJA | X | * | | | |
| Coastal<br>Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-5 Mercury detected above CTR Objective***

## Efforts to reduce metals in urban runoff

Because metals are associated with sediment, the Stormwater Program has a number of control measures and BMPs that address metals in general, and sediment specifically. These control measures include steps to remove sediment from the storm drain system through street sweeping, catch basin cleaning, debris basin maintenance and publicly owned BMPs. A thorough discussion of these programs is provided in Section 7 Public Agency Activities. Preventing sediments containing metals from entering the storm drain system is just as, if not more important than removing them after they enter the storm drain system. Industrial and commercial inspections, construction inspection, and illicit discharge response and elimination, are significant efforts targeted at eliminating the discharge ofmetals. These are covered respectively in Sections 4 Industrial/Commercial Facilities Programs, Section 6 Development Construction, and Section 8 Illicit Connections and Illicit Discharges Elimination.

In addition, the construction program element is structured to address sediment from construction sites and includes review of grading plans, requirements for sediment and erosion control BMPs, and field

inspections to confirm BMP implementation. More recently the State Water Resources Control Board adopted WDR Order 2009-0009 DWQ, the Construction General Permit, which covers all construction sites with greater than one acre of active land disturbance. This new Order incorporates a risk-based approach to address pollutants from construction sites including sediments and associated metals. The General Permit includes rigorous site planning, numeric effluent and action limits, and minimum BMPs as a function of the site risk for discharging sediment. It is expected that this new Order will provide further control of sediment from construction sites within Ventura County.

Although the transport of metals is not usually through direct actions of the public, public education of stomwater pollution prevention can provide assistance the efforts of the other programs and future efforts can be tailored to address sources of metals such as promoting household hazardous waste collection events to dispose of mercury containing compact fluorescent light bulbs. Other efforts include the Brake Pad Partnership and Senate Bill (SB) 346, legislation that authorizes the phase out copper from vehicle brake pads discussed above.

Beyond these efforts conducted under the municipal stormwater programs, certain metals (copper, nickel, selenium, and mercury) are being addressed under the TMDL program. These constituents have been identified as causing impairment in Calleguas Creek, its tributaries, and Mugu Lagoon. As a result a Metals Work Plan has been developed and is currently being implemented[9]. This multiple year plan provides the framework to (1) determine whether or not metals impairments still exist in the watershed, (2) develop site-specific objectives for copper and nickel, and (3) if necessary, identify the control measures needed to meet the TMDLs. It is expected that the control measures identified under this effort will inform the efforts to address aluminum and mercury in the Callegaus Creek and Santa Clara River watersheds.

### Pathogen Indicators

Urban runoff and receiving water concentrations of *E. coli* and fecal coliform bacteria were detected above their respective Basin Plan objectives during all four wet weather events at all of the Major Outfall and at all but one of the receiving water stations monitored during the 2010/11 season. The single exception to these results was a non-exceedance for fecal coliform at the ME-SCR station during Event 1. These indicator bacteria are routinely measured at concentrations in excess of WQS during wet weather event. The story is different, however, with regard to dry weather monitoring during the 2010/11 season, no dry weather bacteria exceedances were observed at any of the receiving water stations. The majority of Major Outfall stations exhibited concentrations of indicator species above Basin Plan objectives during dry weather monitoring. The exceptions include no elevated levels observed for MO-THO, MO-OXN, and MO-VEN during Event 5.

However, these results are not reflected in the water quality of the beaches. The results of the Beach Water Quality Monitoring Program in Ventura County has been outstanding with Heal the Bay's *2011 End of Summer Beach Report Card* stating "Overall water quality at beaches throughout Ventura County remains among the best in the state. All monitored beaches received A grades in this report."

[9] http://www.calleguascreek.org/ccwmp/4d.asp November 3, 2011.

| Pathogens detected above Basin Plan Objective | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed<br>Outfalls not causing or contributing to exceedance in dry weather | | | | | |
| ME-CC | X | X | * | X | |
| MO-CAM | X | X | * | X | X |
| MO-MPK | X | X | * | X | X |
| MO-SIM | X | X | * | X | Fecal only |
| MO-THO | X | X | * | X | |
| Santa Clara River Watershed<br>Outfalls not causing or contributing to exceedance in dry weather | | | | | |
| ME-SCR | *E. coli* only | X | * | X | |
| MO-FIL | X | X | * | X | X |
| MO-SPA | X | X | * | X | X |
| MO-OXN | X | X | * | X | X |
| MO-VEN | X | X | * | X | |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance in dry weather | | | | | |
| ME-VR2 | X | X | * | X | |
| MO-MEI | X | * | X | X | X |
| MO-OJA | X | * | X | X | |
| Coastal | | | | | |
| MO-HUE | X | X | * | X | X |
| * Not sampled during this event | | | | | |

***Table 9-6 Pathogens detected above Basin Plan Objective***

The stormwater program has in place control strategies that directly address indicator bacteria concentrations in urban runoff. The existing Program includes a comprehensive residential public outreach program that utilizes radio, newspaper, online banners, outdoor bulletins, and transit shelters to educate the public about preventing animal waste from entering storm drains. The Program estimates that the outreach efforts achieved more than 2.7 million gross impressions (over three times the population of Ventura County) during the permit year. The pollutant outreach campaign was expanded 2009 to include the mailing of a brochure to horse owners, equestrians and horse property owners. The brochure identified BMPs that horse owners should take to reduce bacteria in stormwater runoff. Finally, the Program also conducts outreach to reduce bacteria and nutrients in runoff from pet waste. The Program installs dispensers for pet waste pickup bags at beaches, parks and trail heads. It is estimated that over 2 million pet waste bags are given out each year and there are now close to 400 pet waste bag dispensers throughout the County encouraging pet owners to pick up after their pets.

The efforts of the Illicit Discharges/Illicit Connections Program also help to reduce bacteria in stormwater runoff by identifying and stopping illicit wastewater discharges. Eliminating illicit discharges not only protects water quality by eliminating the bacteria in the discharge, but also eliminates the ability for the discharge to pick up and transport bacteria on its way to the storm drain system. The indicator bacteria are also found to thrive in natural environments and sediments. The prevention of the transport of sediments is discussed in Section 9.3.1.6 and include steps to remove sediment from the storm drain system through street sweeping, catch basin cleaning, debris basin maintenance and publicly owned BMPs. Industrial and commercial inspections, construction inspection, and illicit discharge response and elimination represent

significant efforts to eliminating the discharge metals. These are covered respectively in sections Section 7 Public Agency Activities, 4 Industrial/Commercial Facilities Programs, Section 6 Development Construction, and Section 8 Illicit Connections and Illicit Discharges Elimination.

In addition to the municipal stormwater program, bacteria are being addressed through the TMDL programs in Calleguas Creek and soon the Santa Clara River. Various reaches of Calleguas Creek are listed on the Section 303(d) list due to fecal coliform bacteria. A Bacteria Work Plan has been developed to addresses this problematic pollutant. Addressing bacteriological impairments in the watershed is a challenging task. Bacteriological contamination is a common occurrence throughout California and the United States. However, only a few TMDLs have been developed to control this pollutant, partially due to the many complexities associated with this task. Bacteria TMDLs are complicated by the fact that the standards are based on indicator organisms, not the actual pathogenic bacteria. As a result, it is difficult to ascertain whether a particular water concentration of non-pathogenic indicator bacteria will cause human illness. Adding to the complexity is the fact that wildlife and other naturally occurring sources contribute to bacterial sources. Naturally occurring sources of bacteria have the potential to impact human health, but are extremely difficult to control. Additionally, the warm waters of southern California provide ideal conditions for supporting bacteria populations naturally present in creek bed sediments. Finally, bacteria are ubiquitous throughout the watershed at levels that significantly exceed water quality standards.

Developing control measures to reduce observed bacteria concentrations to meet water quality standards is challenging. Treatment measures to address bacteria are likely to be costly and difficult to implement (especially with respect to infrequent and short-term, but high volume events that compose stormwater runoff). As a result, implementing measures that will result in compliance with the existing water quality objectives at all times will be extremely difficult. Consequently, the tasks in the Bacteria Work Plan are designed to address these complexities to the extent possible and provide mechanisms for protecting the identified beneficial uses in the watershed as is feasible. The strategy outlined in this work plan will assess the beneficial uses and risks to human health from bacteria and use that information to develop a TMDL to address bacteriological impairments. In the near-term an educational program focusing on the requirements of local domestic animal waste ordinances and the effects of domestic animal waste on the watershed is being considered[10]. Like the metals TMDL, it is expected that the results from the bacteria TMDL will assist the municipal stormwater program in addressing this problematic pollutant because the successful efforts in Calleguas Creek can be applied throughout the County to address indicator bacteria.

As a means to better refine the implementation of BMPs that might result in additional reductions of indicator bacteria, the Permittees are evaluating source identification monitoring at Major Outfalls. This may include source tracking through additional sampling for indicator species or using Bacteroidales genetic markers to identify the source(s) of fecal bacteria. Such an approach was used in the Calleguas Creek watershed as part of the TMDL monitoring effort. Knowing what bacteria sources – agriculture (horse and/or cow), humans, dogs, and birds – are responsible for the high levels of indicator bacteria measured during storm events will assist in the selection of BMPs better suited to control a particular bacteria source.

[10] http://www.calleguascreek.org/ccwmp/4f.asp November 3, 2011.

## Organics and Pesticides

Only a single organic compound, Bis(2-ethylhexyl)phthalate, was detected during the course of the 2010/11 season, but was determined not to be a persistent cause or contribution to concentrations observed above WQS. This chemical, found in plastics and considered a common laboratory contaminant, was detected above both the Basin Plan (4 µg/L) and CTR (5.9 µg/L) objectives at the MO-MPK and MO-OXN Major Outfall stations during the dry weather monitoring event (Event 5). No Bis(2-ethylhexyl)phthalate elevated levels were observed in receiving waters. The lack of elevated levels for this constituent at the receiving water stations indicates that Bis(2-ethylhexyl)phthalate concentrations in urban runoff did not affect beneficial uses in the receiving water. Bis(2-ethylhexyl)phthalate is ubiquitous in plastics and is therefore a common sampling and laboratory contaminant. The Program will be running equipment blanks to determine if contamination of sampling equipment is a possible source of these detections.

Concentrations observed above WQS for pesticides were limited to Pentachlorophenol and 4,4'-DDE. Pentachlorophenol was only detected at only one Major Outfall (MO-MPK; Events 1, 2 and 4) above its relevant criteria, which include a Basin Plan objective of 1 µg/L and a pH-based CTR criterion. No Pentachlorophenol exceedances were observed in receiving waters. The lack of exceedances for this pollutant at the receiving water station indicates that Pentachlorophenol concentrations in wet weather urban runoff did not affect downstream receiving water beneficial uses with regard to this chlorinated hydrocarbon. The Watershed Protection District and the City of Moorpark worked in a joint effort to identify the source of Pentachlorophenol. A special inspection was performed on the SoCal Edison Transfer Station along with special monitoring of the runoff. SoCal Edison has responded by increasing BMPs on the site and changing some of their material handling procedures. Subsequent sampling events have shown a steady decrease in the amount of Pentachlorophenol detected with the goal of eliminating this organic compound in the next permit year.

It should be noted that toxicity evaluations of water collected from the MO-MPK station during Event 2 found chronic toxicity at 4.0 TUc. A Toxicity Identification Evaluation (TIE) performed on the water sample revealed that metabolically-activated organophosphate compounds are a possible source of the observed toxicity, and to a lesser degree, non-polar organic compounds and chlorine also could have contributed to the observed toxicity. While the 4.6 µg/L concentration of Pentachlorophenol measured in the MO-MPK sample during Event 2 marked an exceedance of the Basin Plan objective for Pentachlorophenol, it is unlikely that the compound was responsible for the observed chronic toxicity. A review of the EPA ECOTOX Database found that Pentachlorophenol mortality effects on Selenastrum occur at concentrations over three times greater than the concentration measured in the MO-MPK sample. Additionally, while Chlorpyrifos, Dacthal, and Malathion were also detected in the sample, the concentrations of these constituents were one-to-many orders of magnitude below the concentrations anticipated to result in the observed chronic toxicity as per the ECOTOX Database. The most likely candidate as the causative agent of the observed chronic toxicity is Bromacil. This herbicide was measured at a concentration of 42 µg/L in the MO-MPK sample, and the ECOTOX Database lists the compound as having an EC50 value of 6.8 µg/L. Bromacil currently lacks a water quality standard that could be used to compare ambient water concentrations of the herbicide to concentrations known to produce ecological effects.

| Organics and Pesticides detected above Basin Plan and CTR Objectives | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed | | | | | |
| ME-CC | | 4,4'-DDE | * | | |
| MO-CAM | | 4,4'-DDE | * | | |
| MO-MPK | Pentachlorophenol | Pentachlorophenol | * | Pentachlorophenol | Bis(2-ethylhexyl)phthalate |
| MO-SIM | | | * | | |
| MO-THO | | | * | | |
| Santa Clara River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | |
| MO-SPA | | | * | | |
| MO-OXN | | | * | Bis(2-ethylhexyl)phthalate | |
| MO-VEN | | 4,4'-DDE | * | | |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | |
| MO-OJA | | * | | | |
| Coastal<br>Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-7 Organics and Pesticides detected above Basin Plan and CTR Objectives***

The other pesticide observed during the 2010/11 wet weather events were limited to 4,4-DDE. Concentrations observed above the 0.00059 µg/L CTR Human Health objective for 4,4'-DDE were observed only during Event 2 at the MO-CAM (Calleguas Creek Watershed) and MO-VEN (Santa Clara River Watershed) Major Outfall stations and at the Calleguas Creek receiving water station (ME-CC). Based upon the co-occurrence of 4,4'-DDE in both receiving waters (ME-CC) and urban runoff as measured at the Major Outfall MO-CAM, there is concern that 4,4'-DDE in urban runoff likely may be affecting the beneficial uses of the Calleguas Creek Watershed during Event 2, however, because this was a single event it was determined not to be a persistent cause or contribution to concentrations observed above WQS.. No such 4,4'-DDE result was observed in receiving waters in the Santa Clara River Watershed during Event 2.

The two DDT-related compounds for which concentrations observed above CTR Human Health have been recorded by the Program during past monitoring efforts are the legacy pesticides 4,4'- DDD and 4,4'-DDE. These legacy pesticides are associated with Ventura County's extensive farming history. Because these chemicals are associated with soil and sediments the same efforts for metals discussed in **Section 9.3.1.6** will help to reduce the mobilization of this legacy pesticide and its breakdown products. These compounds are currently being addressed in the Calleguas Creek Watershed through the implementation of the Calleguas Creek Watershed OC Pesticides and PCBs Total Maximum Daily Load (TMDL), adopted by the Los Angeles Regional Water Quality Control Board in July 2005. The Ventura Countywide co-permittees located in the Calleguas Creek watershed were actively involved in the TMDL development and are participating in its implementation. Legacy pesticides, such as the DDT-related

compounds, will be further monitored over the course of the TMDL's implementation phase, and if high concentration areas (i.e., "hotspots") of these pesticides are identified, special studies will be implemented to address these hotspots.

### Salts

Concentrations observed above WQS for salts in the three watersheds monitored by the Program were limited to dry weather and elevated levels of chloride and total dissolved solids objectives have been historically observed during dry weather events when flows are comprised of a larger groundwater component. Concentrations observed above the Basin Plan site-specific objective of 60 mg/L for chloride at the MO-MEI and MO-OJA Major Outfalls were seen during dry weather Event 5, however the Ventura River at the ME-VR2 receiving water station did not have an exceedance of the site-specific objective of 100 mg/L for its sampling location. During this same dry weather event, a result above the Basin Plan 800 mg/L objective for total dissolved solids was also observed at the MO-MEI station with no exceedance of TDS at the receiving water site ME-VR2. Dry weather chloride and TDS concentrations in the Santa Clara River Watershed were limited to an elevated level above the Basin Plan objective of 250 mg/L for chloride at the MO-VEN Major Outfall station and an elevated level above the Basin Plan objective of 500 mg/L for TDS at the MO-VEN and MO-OXN stations. Because urban runoff elevated levels of salts did not co-occur with such elevated levels in receiving waters in the Ventura and Santa Clara River watersheds, the Program concludes that urban runoff monitored during both wet and dry discharge events did not affect receiving water beneficial uses with regard to salts in these watersheds during the 2010/11 season.

Dry weather elevated level above salts objectives in the Calleguas Creek watershed did show co-occurring excursions above the Basin Plan site-specific objective of 150 mg/L for chloride at the MO-MPK, MO-SIM, and MO-THO Major Outfall stations, as well as at the ME-CC receiving water station. Similarly, dry weather concentrations observed above the Basin Plan site-specific (850 mg/L) and recommended (500 mg/L; used for MO-CAM) objectives for TDS were observed at the MO-CAM, MO-MPK, MO-SIM, and MO-THO Major Outfall stations, and at the ME-CC receiving water station. Within the Calleguas Creek Watershed, elevated salts concentrations in urban runoff is determined to have likely contributed to the concentrations observed above the Basin Plan objectives for chloride and TDS in the receiving water during dry weather Event 5. The Program is unable to evaluate whether or not elevated level above salts objectives within the watershed are a persistent issue during any given monitoring season because the Program is limited to a single wet season-dry weather monitoring event. Additionally, the other dry weather event, the dry season-dry weather monitoring event, required to be conducted by the Program represents grab sampling (as opposed to composite sampling) and does not include a requirement to evaluate chloride and TDS. The Program can only state that historic monitoring data collected during wet season-dry weather sampling events show regular elevated levels of chloride and total dissolved solids objectives in the Calleguas Creek Watershed.

| Salts detected above Basin Plan Site-specific Objectives | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed | | | | | |
| ME-CC | | | * | | Chloride, TDS |
| MO-CAM | | | * | | TDS |
| MO-MPK | | | * | | Chloride, TDS |
| MO-SIM | | | * | | Chloride, TDS |
| MO-THO | | | * | | Chloride, TDS |
| Santa Clara River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | |
| MO-SPA | | | * | | |
| MO-OXN | | | * | | TDS |
| MO-VEN | | | * | | Chloride, TDS |
| Ventura River Watershed Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | Chloride, TDS |
| MO-OJA | | * | | | Chloride, TDS |
| Coastal Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-8 Salts detected above Basin Plan Site-specific Objectives***

Boron, chloride, sulfate, and total dissolved solids ("salts") are currently being addressed in the Calleguas Creek Watershed through the implementation of the Calleguas Creek Salts Total Maximum Daily Load (TMDL), adopted by the Los Angeles Regional Water Quality Control Board in October 2007. The CCW Salts TMDL only applies during dry weather and applies to the receiving water, not at tributary outfalls. During the first three years of the TMDL implementation plan for the watershed, the primary implementation action is water conservation, which all of the Permittees have done. The ultimate goal of the TMDL is to bring the watershed into "salt balance" where the inputs of salts are equal to or less than the amount of salts exported out of the watershed during dry weather. Water conservation on the part of municipalities reduces the input side of the equation. The salts loading calculation is performed on an annual basis and wet weather exports are not considered in the analysis. Beyond water conservation, the proposed implementation plan does not include many options for MS4 dischargers. Most of the planned actions are construction of groundwater desalters and reverse osmosis treatment at wastewater treatment plants as these are considered to be the major source of the salts. Municipal stormwater actions to control salts are limited due to the fact that most salts in runoff come from source water supplies. The primary course of action for municipalities is to reduce outdoor water use, thereby limiting the amount of runoff that may contain high salts from entering urban tributaries and receiving waters. Permittees have also taken steps to prohibit discharges from Salt Water pools. Camarillo has conducted outreach to pool service companies and provided articles in their local newsletter to residents alerting them that they cannot discharge salt water pools to the storm drain system. The cities of Thousand Oaks and Simi

Valley also banned the discharge of salt water pools to the storm drain system. Self regenerating water softeners are a source of salts in the watershed, though not commonly to the storm drain system. Permittees have prohibited their use at commercial and industrial facilities, while education is provided to discourage their use by residents. These are all efforts that should assist with reducing salts in the watershed.

## Nutrients

An urban runoff concentration for Nitrate plus Nitrite was recorded at the MO-SIM Major Outfall above the 10 mg/L Basin Plan objective during the dry weather monitoring event (Event 5). No such co-occurring elevated levels were observed for the nutrient at the receiving water monitoring station (ME-CC). elevated levels of nutrient objectives occasionally have been recorded by the Program, but currently nutrients in urban runoff are not determined to likely contribute to concentrations observed above WQS for nutrients in receiving waters.

| **Nutrients detected above Basin Plan Objective** | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-CC | | | * | | |
| MO-CAM | | | * | | |
| MO-MPK | | | * | | |
| MO-SIM | | | * | | Nitrate + Nitrite as N |
| MO-THO | | | * | | |
| Santa Clara River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | |
| MO-SPA | | | * | | |
| MO-OXN | | | * | | |
| MO-VEN | | | * | | |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | |
| MO-OJA | | * | | | |
| Coastal<br>Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | | | * | | |
| * Not sampled during this event | | | | | |

***Table 9-9 Nutrients detected above Basin Plan Objective***

## Other Constituents

No other constituents were found to cause or contribute to exceedances of water quality objectives. Dissolved oxygen concentrations below the Basin Plan 5 mg/L objective were measured at the Major Outfalls MO-HUE (Events 1 and 2) and MO-FIL (Event 5). This is not unexpected at these two sites as the conditions at both locations create standing water where the water is not agitated or aerated to provide addition of oxygen as would be the case in a flowing storm drain or receiving water. At Port Hueneme the

flow from the major outfall must be pumped out to the receiving water, the pumps are intermittent and the flow backs up until they are triggered. It has been noted that dissolved oxygen levels rise quickly when the pumps are operating. At Fillmore the outfall is covered by a flap valve to protect the city from high flows in the receiving water backing up the storm drain; correspondingly dry weather flow in the storm drain backs up until there is enough weight to open the flap. No exceedances of the Basin Plan objective for dissolved oxygen were observed at any of the Receiving water stations during the 2010/11 season. The lack of exceedances for dissolved oxygen at the receiving water stations indicates that dissolved oxygen concentrations in urban runoff did not significantly affect receiving water quality with regard to this parameter. The Program also measure pH levels above the Basin Plan's 6.5 – 8.5 standard unit range at the MO-CAM (Events 2 and 5), MO-MEI (Event 5), MO-OXN (Event 5), and MO-VEN (Event 5) Major Outfall stations. No exceedances of the Basin Plan pH range objective were observed at any of the receiving water stations during the 2010/11 season. The lack of exceedances for pH at the receiving water stations indicates that pH levels in urban runoff did not affect receiving water beneficial uses with regard to this parameter.

| **Other constituents detected above Basin Plan Objective** | | | | | |
|---|---|---|---|---|---|
| Site | Event 1 (Wet) | Event 2 (Wet) | Event 3 (Wet) | Event 4 (Wet) | Event 5 (Dry) |
| Calleguas Creek Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-CC | | | * | | |
| MO-CAM | | pH | * | | pH |
| MO-MPK | | | * | | |
| MO-SIM | | | * | | |
| MO-THO | | | * | | |
| Santa Clara River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-SCR | | | * | | |
| MO-FIL | | | * | | Dissolved Oxygen |
| MO-SPA | | | * | | |
| MO-OXN | | | * | | pH |
| MO-VEN | | | * | | pH |
| Ventura River Watershed<br>Outfalls not causing or contributing to exceedance | | | | | |
| ME-VR2 | | | * | | |
| MO-MEI | | * | | | pH |
| MO-OJA | | * | | | |
| Coastal<br>Outfalls not causing or contributing to exceedance | | | | | |
| MO-HUE | Dissolved Oxygen | Dissolved Oxygen | * | | |
| * Not sampled during this event | | | | | |

***Table 9-10 Other constituents detected above Basin Plan Objective***

# 10 - Attachments

Attachment A Commercial and Industrial Inspection Checklists

Attachment B Post Construction BMP Inspection Checklist

Attachment C Construction Inspection Checklist

Attachment D Model Integrated Pest Management (IPM) Program

Attachment E Illicit discharge Field Screening Protocol

Attachment F Water Quality Monitoring Report

# Attachment A - Industrial/Commercial Inspection Checklist

## Attachment A – Commercial Inspection Checklist

City of Camarillo – Public Works Dept. 805-383-5659 *Work Order #:* _____

**STORMWATER INSPECTION CHECKLIST FOR COMMERCIAL BUSINESSES**
**☐ FOOD SERVICE, ☐ AUTO-RELATED ☐ LAUNDRY ☐ NURSERY FACILITIES**

INSPECTION TYPE: ☐ 1st Routine[1] ☐ 2nd Routine[2] ☐ Complaint Response ☐ Follow-up Visit
INSPECTION DATE: _____ TIME: _____
INSPECTOR NAME: _____ PHONE #: _____
FACILTY NAME: _____ FACILTY ADDRESS: _____
FACILTY CONTACT NAME: _____ PHONE #: _____
**FACILITY CONTACT SIGNATURE (acknowledging receipt of insp.):** _____
FACILITY SIC/NAICS # _____ CATEGORY: _____
FACILITY IS LOCATED IN Calleguas Creek Watershed and discharges to Revolon Slough; Beardsley Wash; Conejo; Calleguas
(Circle one Water body)
Does Facility discharge to MS4 that directly discharges to an ESA? ☒ Yes ☐ No If yes, is there an approved TMDL Implementation Plan? ☒ Yes ☐ No

| | BMP # | Inspection Criteria | Yes | No[3] | N/A |
|---|---|---|---|---|---|
| 1 | SC-10 | **Unauthorized Non-stormwater discharges.** Are controls being implemented to eliminate non-stormwater discharges? | | | |
| 2 | SC-11 | **Accidental Spills/Leaks.** Is the facility effectively preventing and responding to spills and leaks? | | | |
| 3 | SC-20 | **Vehicle/Equipment Fueling.** Are effective fueling source control devices and practices being implemented? | | | |
| 4 | SC-21 | **Vehicle/Equipment Cleaning.** Are effective equipment/vehicle cleaning practices and appropriate wash water management practices being implemented? | | | |
| 5 | SC-22 | **Vehicle/Equipment Repair.** Are effective vehicle/equipment repair practices and source control devices being implemented? | | | |
| 6 | SC-30 | **Outdoor Loading/Unloading.** Are effective outdoor loading/unloading practices being implemented? | | | |
| 7 | SC-31 | **Outdoor Liquid Storage.** Are effective outdoor liquid storage source controls and practices being implemented? | | | |
| 8 | SC-32 | **Outdoor Equipment Operations.** Are effective outdoor equipment source control devices and practices being implemented? | | | |
| 9 | SC-33 | **Outdoor Storage of Raw Materials.** Are effective source control practices being implemented and appropriate structural devices being used and maintained? | | | |
| 10 | SC-34 | **Storage and Handling of Solid Waste.** Are effective solid waste storage/handling practices and control measures being implemented? | | | |
| 11 | | **Grease Trap/Clarifier Info.** Is Grease Trap/Clarifier being properly maintained? Size of Trap/Clarifier _____ Last Svc. Date: _____ | | | |
| 12 | By Municipality | **Waste/Hazardous Materials Storage, Handling & Disposal.** Are effective storage, handling and disposal procedures for hazardous materials being implemented? | | | |
| 13 | SC-41 | **Building and Grounds Maintenance.** Are effective facility maintenance practices being implemented? | | | |
| 14 | SC-43 | **Parking/Storage Area Maintenance.** Are effective parking/storage area designs and housekeeping/maintenance practices being implemented? | | | |
| 15 | SC-44 | **Storm Water Conveyance System Maintenance Practices.** Are proper conveyance system operation and maintenance protocols being implemented? | | | |
| 16 | | **Post Construction Treatment Device**. If facility has treatment device, is it being properly maintained? Device Type: _____ | | | |

[1] 1st Routine inspection is due by 7/8/2012; [2] 2nd Routine inspection is due not earlier than 6 months after the 1st insp. and not later than 7/8/2015
[3] Note Violation/Correction Needed in Comments Section

**ENFORCEMENT ACTION TAKEN**

| | | | |
|---|---|---|---|
| | Verbal Warning | | Cease & Desist Order Issued |
| | Notice of Noncompliance (1ST written notice via City Storm Water Mgr. ltr.) | | Referred to LA Regional Water Board |
| | Administrative Compliance Order Issued (2nd written notice via City PW Dir. ltr.) | | Legal Action Initiated |

**FOLLOW-UP INSPECTION NECESSARY?** ☐ **YES** ☐ **NO**

**OUTREACH MATERIAL GIVEN TO FACILITY**: _____
(List type of material (Business brochure, BMP fact sheet #)

**COMMENTS**: (Identify # violated above, type of violation and suggested corrective action needed.)

_____

_____

_____

_____

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## Attachment A - Industrial Inspection Checklist

CITY OF VENTURA
ENVIRONMENTAL SERVICES OFFICE
www.venturasenvironment.com

SID # _____

City of Ventura Environmental and Water Resources Division – Environmental Services
**STORMWATER INSPECTION CHECKLIST FOR INDUSTRIAL FACILITIES**

INSPECTION TYPE: ☐ 1st Routine[1] ☐ 2nd Routine[2] ☐ 2nd Routine-No Exp. Fac.[3] ☐ Complaint Response ☐ Follow-up Visit

INSPECTION DATE: _____ TIME: _____

INSPECTOR NAME: _____ PHONE #: _____

FACILTY NAME: _____

FACILTY ADDRESS: _____

FACILTY CONTACT NAME: _____ PHONE #: _____

**FACILITY CONTACT SIGNATURE (acknowledging receipt of insp.):** _____

FACILITY SIC/NAICS # _____ CATEGORY: _____

FACILITY IS LOCATED In: Ventura River, Misc. Coastal, Lower Santa Clara River, Watershed **(Circle one Water Body)**
Does Facility discharge to MS4 that directly discharges to an ESA? ☐ Yes ☐ No If yes, is there an approved TMDL Implementation Plan? ☐ Yes ☐ No

| State Industrial NPDES Permit Information | Yes | No[4] | N/A |
|---|---|---|---|
| Does facility have coverage/WDID # under State Industrial Permit?<br>WDID #_____ | | | |
| If facility has coverage/WDID # under State Industrial Permit, does facility have SWPPP on site? | | | |
| If facility's SIC code is identified in Category 10 of Attachment 1 to the Industrial Permit, does facility have any industrial materials, equipment or activities that are exposed to stormwater? (Category 10 includes: SICs 20,21,22,23,2434,25,265,267,27,283,285,30,31 (except 311),323,34 (except 3441),35,36,37(except 373),38,39 or 4221-4225). | | | |
| If a Category 10 SIC facility and **no exposure**, did facility file a Notice of Non-Applicability with the LARWQCB?<br>Date filed: _____ LARWQCB Approval Letter Received: (if yes, attach copy to inspection form) | | | |

| | BMP # | BMP Inspection Criteria | Yes | No[4] | N/A |
|---|---|---|---|---|---|
| 1 | SC-10 | **Unauthorized Non-stormwater discharges.** Are controls being implemented to eliminate non-stormwater discharges? | | | |
| 2 | SC-11 | **Accidental Spills/Leaks.** Is the facility effectively preventing and responding to spills and leaks? | | | |
| 3 | SC-20 | **Vehicle/Equipment Fueling.** Are effective fueling source control devices and practices being implemented? | | | |
| 4 | SC-21 | **Vehicle/Equipment Cleaning.** Are effective equipment/vehicle cleaning practices and appropriate wash water management practices being implemented? | | | |
| 5 | SC-22 | **Vehicle/Equipment Repair.** Are effective vehicle/equipment repair practices and source control devices being implemented? | | | |
| 6 | SC-30 | **Outdoor Loading/Unloading.** Are effective outdoor loading/unloading practices being implemented? | | | |
| 7 | SC-31 | **Outdoor Liquid Storage.** Are effective outdoor liquid storage source controls and practices being implemented? | | | |
| 8 | SC-32 | **Outdoor Equipment Operations.** Are effective outdoor equipment source control devices and practices being implemented? | | | |
| 9 | SC-33 | **Outdoor Storage of Raw Materials.** Are effective source control practices being implemented and appropriate structural devices being used and maintained? | | | |
| 10 | SC-34 | **Storage and Handling of Solid Waste.** Are effective solid waste storage/handling practices and control measures being implemented? | | | |
| 11 | | **Grease Trap Info.** Is Grease Trap being properly maintained?<br>Size of Trap _____ Last Svc. Date: _____ | | | |
| 12 | By Municipality | **Waste/Hazardous Materials Storage, Handling & Disposal.** Are effective storage, handling and disposal procedures for hazardous materials being implemented? | | | |
| 13 | SC-41 | **Building and Grounds Maintenance.** Are effective facility maintenance practices being implemented? | | | |
| 14 | SC-43 | **Parking/Storage Area Maintenance.** Are effective parking/storage area designs and housekeeping/maintenance practices being implemented? | | | |
| 15 | SC-44 | **Storm Water Conveyance System Maintenance Practices.** Are proper conveyance system operation and maintenance protocols being implemented? | | | |
| 16 | | **Appendix D Fact Sheets.** If applicable, is facility applying requirements on these fact sheets? | | | |
| 17 | | **Post Construction Treatment Device.** If facility has treatment device, is it being properly maintained? Device Type: _____ | | | |

[1]1st Routine insp. due 5/7/2012; [2]2nd Routine insp. for facilities with exposure due not earlier than 6 months after the 1st insp. & not later than 5/7/2015 [3]2nd routine insp. yearly at min. of 20% of facilities determined not to have exposure (Non Applicability Letter on File)
[4]Note violation/correction needed in comments section

**ENFORCEMENT ACTION TAKEN**

| | | | |
|---|---|---|---|
| | Verbal Warning/Written Notice of Correction (1st written notice via City SW Insp.) | | Cease & Desist Order Issued |
| | Notice of Violation (2nd written notice via City Storm Water Insp.) | | Referred to LA Regional Water Board |
| | Administrative Compliance Order Issued (3rd written notice via City PW Dir. ltr.) | | Legal Action Initiated |

**FOLLOW-UP INSPECTION NECESSARY? YES _____ NO _____**
**OUTREACH MATERIAL GIVEN TO FACILITY:** _____
(List type of material (Business brochure, BMP fact sheet #)

**COMMENTS**: (Identify # violated above, type of violation and suggested corrective action needed.)

(Use addition sheet for comments)

**Stormwater Quality Program (805) 207-6371**

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# Attachment B - Post Construction BMP Inspection Checklist

## Attachment B - Post Construction BMP Checklist

**CITY OF CAMARILLO – PUBLIC WORKS DEPT. (805-383-5659)** 3/12/2010
STORM WATER POST-CONSTRUCTION TREATMENT DEVICE
INSPECTION CHECKLIST

**Type of Device:** _____ **Location of Device:** _____

**Date of Inspection:** _____ **Inspector:** _____

**Photos Taken:** □ Yes □ No Quantity: _____

**Property Manager/Designee:** _____ **Company:** _____

**Mailing Address:** _____

**Phone Number:** _____

**Service Information:**

**Grassy swale/biofilter/grass strip, catch basin filter, clarifiers, pervious concrete, etc**.

- □ Needs removal of litter and debris _____
- □ Needs to be swept _____
- □ Removal of accumulated sediment _____
- □ Reseed and/or apply mulch to damaged grass areas _____

Other repairs/maintenance necessary: _____

_____

- □ No Maintenance is needed at this time

**Detention Basins**

- □ Needs removal of litter and debris from banks and basin _____
- □ Repair erosion to banks and bottom _____
- □ Clean/repair inlet riprap and pilot channels _____
- □ Clean/repair outlet to prevent clogging _____
- □ Sediment accumulation of 25% or more of original depth (should be cleaned) _____
- □ Perimeter fencing needs repair _____
- □ Apply Mosquito abatement procedure _____

Other repairs/maintenance necessary: _____

_____

- □ No Maintenance is needed at this time

Additional Notes: _____

_____

_____

_____

Outreach Material Given to Facility: _____

Is follow-up inspection needed?

□ Yes □ No

_____ _____

*Inspector Signature* *Date*

# Attachment C - Construction Inspection Checklist

Attachment C - Construction Inspection Checklist

**CITY OF CAMARILLO – PUBLIC WORKS DEPT. (805-383-5659)** 10/6/09

STORM WATER INSPECTION CHECKLIST
FOR CONSTRUCTION ACTIVITIES **Work Order:** _____

**Project Name:**_____ **Project #:** _____

**Project Location:** _____ **Grading Permit #:** _____

**Date/Time:** _____ **Quantity of Rainfall:** _____

**Contractor Information:**

Contact Rep.:_____ Company Name:_____ Phone Number:_____

**INSPECTION TYPE:** □ Wet Season □ Dry Season □ Routine □ Follow-Up □ Pre-storm □ During-storm □ Post-storm □ Final

**CONSTRUCTION PHASE:** □ Grading & Land Dev □ Streets & Utilities □ Vertical Construction □ Final Landscaping

**CONSTRUCTION REQUIREMENTS:**

Is SWPPP/SWPCP on site: □ Yes □ No Is Notice of Intent WDID on site: □ Yes □ No □ N/A WDID #:_____

**RISK DETERMINATION:** Sediment and Receiving Water Risk Level: □ One □ Two □ Three

**DEWATERING ACTIVITIES:** Has a NPDES Permit been filed: □ Yes □ No If yes, is the Permit on site: □ Yes □ No

| YES | NO | N/A | INSPECTION CRITERIA |
|---|---|---|---|
| | | | 1. **SITE PLAN:** Does the site plan reflect the project site's condition(s)? |
| | | | 2. **SLOPE EROSION MANAGEMENT:** Are slope erosion management BMP's in place per the SWPCP/SWPPP |
| | | | 3. **SEDIMENT TRAPPING:** Are all sandbags, straw bales, and/or silt fences in place and are they functioning properly? |
| | | | 4. **SEDIMENT BASINS:** If desilting or sediment basins are being used, are they functioning properly? |
| | | | 5. **SEDIMENT MANAGEMENT AT DRAINAGE DISCHARGE POINTS:** Are the drainage discharge points reasonably free of any significant erosion or sediment transport? |
| | | | 6. **SITE SEDIMENT MANAGEMENT:** Is sediment, debris, or mud contained within the site? |
| | | | 7. **PUBLIC ROAD SEDIMENT MANAGEMENT:** Are ingress and egress locations to the construction area stabilized to prevent the tracking of construction materials offsite or onto impervious areas? |
| | | | 8. **MATERIALS MANAGEMENT:** Are material handling and storage areas reasonably clean and free of spills, leaks, or any other harmful materials? |
| | | | 9. **MATERIALS MAINTENANCE:** Are all materials properly covered/contained? |
| | | | 10. **DESIGNATED MATERIAL STORAGE AREA:** Are all locations of temporary soil stockpiles or construction materials in approved areas? |
| | | | 11. **VEHICLE & EQUIPMENT MAINTENANCE:** Are all the equipment storage, cleaning, fueling, and maintenance areas reasonably clean and free of spills, leaks, or any other harmful materials? |
| | | | 12. **PAINT, CONCRETE & SAW CUTTING WASTE MANAGEMENT:** Are waste containment areas functioning properly? |
| | | | 13. **BMP IMPLEMENTATION:** Has an effective combination of BMPs been selected for the project site? |
| | | | 14. **BMP INSTALLATION & MAINTENANCE:** Are the BMPs identified on the SWPCP/SWPPP, and/or installed in the proper location according to plan specifications? |
| | | | 15. **POST-CONSTRUCTION BMPs:** Have post-construction BMPs been inspected prior to issuing the Certificate of Occupancy? |
| | | | 16. **HIGH RISK SITES:** Has the project proponent's qualified SWPPP personnel inspected the site's BMPs during installation and weekly during the wet season (October-April)? |
| | | | 17. **BMP LOG:** Is a log kept on site which indicates BMPs are being evaluated, maintained and/or modified in the event that they fail or are not appropriate? |
| | | | 18. **ILLICIT DISCHARGE:** Is non-stormwater runoff leaving the site? |
| | | | 19. **PUBLIC PROJECT (CIP) SWPPP/PCP**: Does the SWPPP/PCP have the required training and inspection records? |

**Field Directive Issued:** □ Yes □ No

**Non-Compliance Issued:** □ Yes □ No
□ Verbal □ Stop Work Order □ Citation
□ Warning □ Notice of Violation

**Notes/Comments:** _____

_____

_____

_____

**Inspector** **Phone Number** **Contractor's Signature**
*(Acknowledging receipt of Inspection Report)*

White – Storm Water File Yellow – Storm Water Inspector Pink – Site Copy

# Attachment D - Model Integrated Pest Management (IPM) Program

**Attachment D Model Integrated Pest Management (IPM) Program**

*Ventura County Application Protocol*
*Adopted July 2001*
*Amended October 15, 2009*

# Application Protocol
# Pesticides, Fertilizers, and Herbicides

## 1.0 Ventura County Watershed Protection District NPDES Stormwater Permit

The purpose of this standard operating procedure (SOP) is to define an application protocol for the routine and non-routine application of pesticides, fertilizers, and herbicides (including pre-emergents). This SOP provides a comprehensive policy to comply with the Ventura County Permit (CAS004002), a guidance to provide for consistent implementation countywide for Ventura County Watershed Protection District (VCWPD), the County of Ventura, the Cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura, Santa Paula, Simi Valley, and Thousand Oaks (referred to separately as Co-permittees), and a method for reducing runoff of pesticides, fertilizers, and herbicides to the storm drain system. This protocol was amended to reflect new requirements in the May 7, 2009 Ventura County Municipal Stormwater Permit, Order No. 09-0057.

## 2.0 Scope

The scope of this application protocol is to focus on preventing pesticides, fertilizers, and herbicides from entering the storm drain system and discharging to receiving waters. This protocol is applicable to 1) the outdoor use of pesticides, herbicides, and fertilizers; 2) the use of pesticides and fertilizers where the materials may come into contact with precipitation; 3) the use of pesticides, herbicides, and fertilizers where these materials may come into contact with runoff (natural or induces); and 4) the use of pesticides, herbicides, or fertilizers anywhere where they ay be directly or indirectly discharged to a storm drainage system.

This protocol is applicable to any Co-permittee staff and contracted services that apply pesticides, fertilizers, or herbicides. Such staff commonly include, park, public works, purchasing, building/grounds maintenance, hazardous materials, and pesticide application staff.

This protocol is not applicable to the indoor use of pesticides, herbicides or fertilizers, but is applicable to the consequential outdoor handling, mixing, transport, or disposal of materials related to indoor use. This protocol does not apply when another NPDES permit and/or abatement orders are in effect at the selected site.

Furthermore, this protocol is not intended to replace federal or state requirements or provide complete directions for applying, handling, transporting, mixing, or storing pesticides, fertilizers, or herbicides. Consult federal and state requirements for this additional information. Use information for each pesticide, fertilizer, or herbicide can be found on the manufacturer's label. Additional safety information can be found in chemical-specific material safety data sheets (MSDSs).

## 3.0 Definitions

**Application** – means the use of the product as a fumigant, direct surface spray, treatment, drench, injection, incorporation, side-dressing, pre-emergent, furrowed spread, or broadcast agent.

**California Department of Pesticide Regulation (CDPR)** – The state agency responsible for regulating the use of pesticides in California.

**Direct On-site Supervision** – A QAC (or QAL, if services contracted) is physically present and available, on-site (within the location as specified in the Monthly Summary Pesticide Use Report Form located on the Colorado Department of Pesticide Regulation website: http://www.cdpr.ca.gov/docs/pur/forms/enf060.pdf) to directly manage and control the application (of any pesticide, herbicide, or fertilizer) by supervising others. The QAC or QAL manages and controls the application of pesticides, herbicides, and fertilizers through available verbal communication to include direct interaction, telephones, cellular phones, 800mhz phones, and radios.

**Feasible** – means capable of being accomplished in a successful manner, within a reasonable period of time, taking into account economic, environmental, social, and technological factors.

**Forecasted Storm Event** – A weather event predicted to commence within the next 24-hour time window, where at least 0.25 inches of rain or more is forecasted to fall.

**Herbicide** – A common pesticide focused on killing weeds and other plants that grow where they are not wanted.

**Integrated Pest Management (IPM)** – means a sustainable approach to managing pests by combining biological, cultural, physical and chemical tools in a way that minimizes economic, health, and environmental risks.

**Manufacturer's Label** – The main source of information on how to use the product correctly, safely, and legally. The main sections of a label are: common name and brand name, active ingredient, EPA registration number, signal words, first aid, directions for use, and storage/disposal.

**Material Safety Data Sheets (MSDSs)** – An information sheet provided by a chemical manufacturer describing chemical qualities, hazards, safety precautions, and emergency procedures to be followed incase of a spill, fire, or other emergency.

**Non-Routine Application** – A non-scheduled application to include a "one-time" or an "emergency" use of pesticides, herbicides, and fertilizers.

**Notice of Intent (NOI) for Pesticide Usage**– An oral or written notification submitted prior to the use of a restricted use pesticide, pursuant to a permit.

**Pesticide** – Defined by the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) as "…any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects, rodents, nematodes, fungi, weeds, or any other forms of life declared to be pests, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant.

**Qualified Applicator Certificate Holder (QAC)** – Any person who has successfully passed the California State Pesticide Laws and Regulations exam, and qualified in one or more pest control categories and may therefore apply restricted materials, supervise pesticide application, but who is not entitled to supervise the operations of a pest control business.

**Qualified Applicator License Holder (QAL)** – Any person who has successfully passed the California State Pesticide Laws and Regulations exam, and qualified in one or more pest control categories and may therefore apply restricted materials and supervise the pesticide application/operations made by a licensed pest control business.

**Routine Application** – A scheduled (weekly, quarterly, annually, etc.) use of a pesticide, herbicide, or fertilizer to attain a specific goal.

**Signal Word** – Defines approximately how hazardous a pesticide could be to people by using descriptors such as DANGER, WARNING, CAUTION, or DANGER-POISON.

**Storm Event** – A weather event that produces more than .25 inch of precipitation.

**Use** - means any pesticide related activity including:

Pre-application to include arranging for application, mixing, loading, and making necessary preparations for application;

Application of the pesticide; and

Post-application activities – control of the treated area, management of the treated area, transportation, storage, disposal of excess pesticides, equipment wash, containers, and cleaning of equipment.

*Use does not include emergency responders, commercial transportation, manufacturing, formulating, or packaging.*

## 4.0 Responsibilities

**Co-permittees shall:**

a. Designate a QAC or QAL holder, to provide advice and assistance in all matters related to pesticide usage, disposal of products, and safety.

b. Provide pesticide applicators (including contracted businesses) with appropriate record keeping forms to document pesticide use http://www.cdpr.ca.gov/docs/pur/forms/enf060.pdf) (Attachment A).

c. Annually verify that the purchasing, storing, mixing, loading, and safety tasks for pesticide, fertilizer, and herbicide use are in accordance with this protocol, applicable laws, and regulations including the current and valid QAC/QAL certifications.

d. Verify that no banned or unregistered pesticide is stored or applied.

e. Request landscapers to implement procedures to encourage the retention and planting of native vegetation to reduce water, pesticide and fertilizer needs.

f. Coordinate annual refresher training courses for all pesticide handlers to meet the continuing education requirements.

**Pesticide applicators shall:**

a. Be certified as or under the direct on-site supervision of, a QAC or QAL holder and be properly trained to start work with pesticides, fertilizers, and/or herbicides.

b. Follow manufacturer's label instructions and this SOP. When such instruction is in conflict with this SOP, the label instructions will be followed.

c. Ensure that no banned or unregistered pesticide is stored or applied.

d. Follow the policies and procedures established in this application protocol.

e. Report any unsafe work practices to their respective supervisors.

*Ventura County Application Protocol*
*Adopted July 2001*
*Amended October 15, 2009*

## 4.1 Integrated Pest Management Program (IPM)

Co-Permittees and Pesticide applicators shall implement an IPM program by May 7, 2010 that includes the following:

a. Pesticides are used only if monitoring indicates they are needed according to established guidelines.
b. Treatment is made with the goal of removing only the target organism.
c. Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial, non-target organisms, and the environment.
d. Its use of pesticides, including Organophosphates and Pyrethroids do not threaten water quality.
e. Partner with other agencies and organizations to encourage the use of IPM.
f. Adopt and verifiably implement policies, procedures, and/or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) in the Permittees' overall operations and on municipal property.
g. Policies, procedures, and ordinances shall include commitments and timelines to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:
    1. Quantify pesticide use by its staff and hired contractors.
    2. Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.
    3. Demonstrate reductions in pesticide use.

## 5.0 Environmental Conditions

Environmental conditions (weather and site conditions) required for application of pesticides, fertilizers, and herbicides is dependent upon label and Ventura County Stormwater Permit requirements . Site conditions are determined by visually (V) observing the area for situations or by collecting information from recognized weather forecasting (F) organizations. For example, storm events can be tracked by using any Internet web link that forecasts rainfall (e.g. www.weather.com).

The following table is provided as a guide to applicators where weather or site conditions may impact the application of the pesticide, fertilizer, or herbicide. Weather/Site conditions must be verified for all listed conditions. Forecasting may be used for other weather/site conditions, but is necessary to establish a 24-hour timeframe prior to actual rainfall. A "Yes" indicates the weather/site conditions where application of pesticides, fertilizers, and herbicides may occur. A "No" indicates weather/site conditions where application of pesticides, fertilizers, and herbicides may not occur.

| Weather/Site Conditions | Form of Determining Weather/Site Conditions | Routine Application | Non-routine Application |
|---|---|---|---|
| Wind-free (sufficient to avoid spray drift from point of application) | V | Yes | Yes |
| Storm events (see definition) | V | No | No |
| Within one day of a forecasted storm event (see definition) > 0.25 inches | V, F | No (except for application of pre-emergents) | No |
| After a storm event where water is leaching or running | V | No | No |
| Water is running off-site | V | No | No |
| Rising groundwater | V | No | No |
| Ground is saturated | V | No | No |

## 6.0 Pollution Prevention and Spill Control

Irrigation canals, open trenches, surface waters, wetlands, designated 303(d) waterbodies, and groundwater sources should be noted and application shall be made to prevent contamination of these areas.

In the event that pesticides, fertilizers, and/or herbicides not intended for water application are inadvertently sprayed or spilled into the water sources listed above, the following steps are to be taken:

a. Stop all pesticide applications and assess the situation.

b. Prevent further contamination of water sources by using control measures such as storm drain inlet protection, absorbent materials, sandbags, or trenching.

c. Mark the area where the spill or overspray occurred.

d. Contact the environmental coordinator in your jurisdiction.

e. Report the spill to the appropriate department for clean up.

f. Contact governmental agency of reportable quantities.

# 7.0 Aquatic Pesticide Application

For control of pests and weeds in open water, storm drainage system, and flood control channel areas, only those materials specifically designed and registered for direct water application may be used. Directions on the labels must be followed as well as evaluating the application for the potential to harm the environment. Currently, the following is required prior to applying an aquatic pesticide.

a. Coverage is obtained and compliance is achieved under Water Quality Order No. 2004-009-DWQ – Aquatic Pesticide NPDES Permit. For copy of the permit visit the State Water Resources Control Board web site at: http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml.

b. Directions on the label are followed.

c. The application site is evaluated prior to application for the potential of the pesticide to harm the environment.

# 8.0 Training and Documentation

## 8.1 QAC and QAL Requirements

Each Co-permittee will only use staff (including contracted businesses) that are under the direct on-site supervision of a QAC/QAL holder. The QAC/QAL must possess a valid and current certification. The applicator is responsible for following any federal and state requirements as well as all label requirements and reviewing the MSDS prior to use.

## 8.2 Training

Each person who applies pesticides, fertilizers, or herbicides must be trained for the following:

a. Appropriate application of the pesticide, fertilizer, or herbicide.
b. Application laws and regulations
c. Affects application may have on stormwater quality management
d. The type of chemical and the immediate and long term hazards resulting from exposure
e. The MSDS information
f. Safety procedures
g. Emergency spill information
h. Use of protective equipment
i. Cleanup procedures
j. Disposal procedures

## 9.0 Storage Facilities

Co-permittees will adopt a purchase, storage, and disposal policy such that all pesticides, fertilizers, and herbicides are under the control of a QAC/QAL holder. Pesticide storage facilities shall meet regulatory requirements to prevent releases into the surrounding environment, waterbodies, or be exposed to stormwater and protect the safety of personnel working within such facilities. These pesticides storage facilities shall be locked/secured when not in use. All doors/entrances to the facilities shall be posted with appropriate warning signs (as specified in the California Department of Pesticide Regulations, see references). All signs shall be legible at a minimum distance of 25 feet from any direction.

Pesticide containers should not be stored on the floor or bare ground. No floor drains, which empty into storm drains, are permitted within the storage facility. All pesticides in a storage facility shall either be in the original container, or the service container. Secondary containment is recommended, but not mandatory. All containers will have a copy of the product label attached.

Open bags of pesticides must be enclosed in a secondary container (a closed heavy plastic bag, or can with a tight lid), to prevent exposure or spillage. If the original pesticide containers are metal and are in a state of rust or deterioration, properly labeled plastic or metal secondary containers shall be provided to prevent accidental leakage.

## 10.0 Decontamination/Disposal

Each Co-permittee will adopt a decontamination and disposal procedure that is managed by a QAC/QAL and meets the following minimum requirements. Liquids produced during the decontamination process shall be handled according to federal and state requirements and managed to reduce exposure to stormwater and from entering the storm drain system or surface waters.

### 10.1 Cleanup

Containers used to apply pesticides, fertilizers, or herbicides of 28 gallons or less must be triple rinsed after each use. Containers sent back to the manufacturer will follow manufacturer's recommendations or State and Federal guidelines for transporting. The triple-rinse procedures will consist of the following:

a. Use ¼ the container volume for containers less than 5 gallons and 1/5 the container volume for containers greater than 5 gallons.

b. Place rinse medium in the container, securely close, agitate.

c. Drain rinse solution into tank mix. Allow draining 30 seconds.

d. Repeat steps b. and c. a minimum of two times; or

e. Invert emptied container over a nozzle located in the opening of the mix tank that is capable of rinsing all inner surfaces of the container.

For further information, please visit the web site for the California Department of Pesticide Regulations listed in Section 10 of this SOP.

### 10.2 Disposal

Pesticide, fertilizer, and herbicide waste includes leftover chemicals and chemical container rinsates. All pesticide waste shall be treated as hazardous waste. Minimization of pesticide waste is a high priority for the pesticide user. If waste is stored before removal, it should be stored in an area that is not exposed to stormwater, stormwater runoff, or surface water.

### 10.3 Storage

Storage of pesticides, fertilizers, and herbicides should be in accordance with requirements as specified in the manufacturer's instructions or California Department of Pesticide Regulations (see References) if the instructions from the manufacturer are not provided.

## 11.0 References

### 11.1 Regulations

a. Ventura County NPDES Permit CAS004002 (Order No. 09-0057)

b. Title 3 CCR, Pesticide and Control Operations Section 6674, 6700-6900 (CalEPA)

c. Uniform Fire Code, Pesticide Storage and Display

d. 40 CFR Regulations of Pesticides sections 165.1-180 (www.usepa.gov)

e. State Water Resources Control Board General NPDES Permit for the Discharge of Aquatic Pesticides for Aquatic Weed Control in Waters of the US; General Permit No. CAG990005 – Water Quality Order No. 2004-0009-DWQ

f. State Water Resources Control Board General NPDES Permit for Discharges of Aquatic Pesticides to Surface Waters of the United States for Vector Control; General Permit No. CAG990004 – Water Quality Order No. 2004-0008-DWQ.

### 11.2 Web Sites

a. California Department of Pesticide Regulation - www.cdpr.ca.gov

b. Weather tracking – www.weather.com

c. California Environmental Protection Agency (CalEPA) – www.calepa.ca.gov

d. State Water Resources Control Board – Aquatic Pesticide Permits - http://www.waterboards.ca.gov/water_issues/programs/npdes/aquatic.shtml

# Attachment E - Illicit Discharge Field Screening Protocol

**Attachment E Illicit discharge Field Screening Protocol**

Draft 10-Mar-2010

# ILLICIT CONNECTIONS AND ILLICIT DISCHARGES (IC/IDS) ELIMINATION PROGRAM

## FIELD SCREENING PROTOCOL

*PERMITTEE'S NAME*

## 1.0 PURPOSE AND OBJECTIVES

This Field Screening Protocol was prepared by the *Permittee's Name*. The purpose of this Field Screening Protocol is to present *Permittee's Name's* approach and procedures to complete illicit connections and illicit discharges (IC/IDs) field screening requirements under the Los Angeles Regional Water Quality Control Board Order No. 09-0057, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS004002, Waste Discharge Requirements for the Stormwater (Wet Weather) and Non-Stormwater (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems (MS4) NPDES Permit (Permit) within the Ventura County Watershed Protection District, County of Ventura, and the Incorporated Cities therein. Implementation of the Ventura County MS4 Permit is directed by the Ventura Countywide Storm Water Quality Management Program formed by the Ventura County Watershed Protection District, County of Ventura, cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura (Ventura), Santa Paula, Simi Valley, and Thousand Oaks.

## 2.0 IC/ID ELIMINATION PROGRAM REQUIREMENTS

The following is taken verbatim from the Subpart 4.H. of the Ventura County MS4 Permit. Each Permittee shall implement an IC/IDs program to eliminate, document, track, and report IC/IDs to the storm drain system, as follows:

### *1. General*

a) Implementation - Each Permittee shall implement an IC/ID Program. The IC/ID procedures shall be documented and made available for public review.

b) Tracking - All Permittees shall, no later than May 7, 2012, map at a scale and in a format specified by the Principal Permittee all known connections to their storm drain system. **All Permittees shall map at a scale and in a format specified by the Principal Permittee incidents of illicit connections and discharges since January 2009 on their baseline maps, and shall transmit this information to the Principal Permittee no later than May 7, 2012.** Permittees shall use this information to identify priority areas for further investigation and elimination of IC/IDs.

Page 1 of 13

## Attachment E Illicit discharge Field Screening Protocol



***2. Public Reporting***

a) Permittees shall establish and maintain a phone hotline and internet site to receive all reports of IC/ID complaints.

b) Permittees shall document the location of the reported IC/ID and the actions undertaken in response to all IC/ID complaints.

***3. Illicit Connections***

a) Screening for Illicit Connections

(1) Each Permittee shall submit to the Principal Permittee:

(A) A map at a scale and in a format specified by the Principal Permittee showing the location and length of underground pipes 18 inches and greater in diameter, and channels within their permitted area and operated by the Permittee in accordance with the following schedule:

(i) All channeled portions of the storm drain system no later than May 7, 2010.

(ii) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater, no later than May 7, 2012. This provision is not meant to exclude Permittees from using equally effective alternative methods not listed in the manual.

(iii) All portions of the storm drain system consisting of storm drain pipes 18 inches in diameter or greater, no later than May 7, 2014.

(B) The status of suspected, confirmed, and terminated illicit connections.

(2) Permittees shall conduct field screening of their storm drain systems in accordance with screening procedures described in the ***Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments*** (2004)[1]. Permittees shall conduct field screening of their storm drain system that has not been previously screened and reported to the Regional Board, for illicit connections in accordance with the following schedule:

(A) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater, no later than May 7, 2012.

(B) High priority areas identified during the mapping of illicit connections and discharges, no later than May 7, 2012.

(C) All portions of storm drain systems 50 years or older in age, no later than May 7, 2012.

(3) Each Permittee shall maintain a list containing all connections under investigation for possible illicit connection and their status.

[1] *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* The Center for Watershed Protection, Pitt R., October 2004. Chapter 13, 13.1,13.2, 13.3, 13.4

## Attachment E Illicit discharge Field Screening Protocol



b) Response to Illicit Connections

(1) Investigation -

Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall complete an investigation within 21 days, to determine the following:

(A) Source of the connection.

(B) Nature and volume of discharge through the connection.

(C) Responsible party for the connection.

(2) Termination –

Each Permittee, upon confirmation of an illicit storm drain connection, shall ensure the following:

(A) Termination of the connection within 180 days of completion of the investigation, using formal enforcement authority to eliminate the illicit connection.

(3) Documentation -

Each Permittee shall keep records of all illicit connection investigations and the formal enforcement taken to eliminate all illicit connections.

***4. Illicit Discharges***

(a) Investigation -

Each Permittee shall investigate an illicit/ illegal discharge during or immediately following containment and cleanup activities, and shall take appropriate enforcement action to eliminate the illegal discharge.

(b) Abatement and Cleanup -

Each Permittee shall respond, within 1 business day of discovery or a report of a suspected illicit/ illegal discharge, with actions to abate, contain, and/or clean up all illegal discharges, including hazardous waste.

**DEFINITIONS**

**Channel** - means an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two waterbodies.

**Illegal Discharge** - means any discharge to the municipal separate storm sewer (storm drain system) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illegal discharge includes all non-storm water discharges not composed entirely of storm water except discharges pursuant to an NPDES permit, discharges that are identified in part 1, "Discharge Prohibitions" of this order, or discharges authorized by the Regional Water Board Executive Officer.

**Illicit Connection** - means any engineered conveyance that is connected to the storm drain system without a permit or municipal authorization. It also means any engineered conveyance through which

discharges of pollutants to the separate storm drainage systems, which are not composed entirely of storm water or are not authorized by an NPDES permit, may occur.

**Illicit Discharge** - means any discharge to a municipal separate storm sewer (storm drain system) that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges that are identified in part 1, "Discharge Prohibitions" of this order, or authorized by the Regional Water Board Executive Officer.

**Illicit Disposal** - means any disposal, either intentionally or unintentionally, of material(s) or waste(s) that can pollute storm water.

**Open Channel** - means a storm drainage channel that is not a natural water course.

**Screening** - means using proactive methods to identify illicit connections through a continuously narrowing process. The methods may include: performing baseline monitoring of open channels, conducting special investigations using a prioritization approach, analyzing maintenance records for catch basin and storm drain cleaning and operation, and verifying all permitted connections into the storm drains. Special investigation techniques may include: dye testing, visual inspection, smoke testing, flow monitoring, infrared, aerial and thermal photography, and remote control camera operation.

## 3.0 INFRASTRUCTURE PROFILE

- *Briefly characterize storm drain system and sewers within the MS4 system (size, age, condition)*
- *Useful statistics to consider (number of storm drain outfalls, miles of storm drain pipe, total stream and channel miles, total areas serviced by storm drain, sewer, and septic tanks)*
- *Reference or include maps as appropriate*

## 4.0 LEGAL AUTHORITY

In accordance with Subpart 3.B of the Ventura County MS4 Permit, each Permittee shall possess the necessary legal authority to prohibit illicit connections and illicit discharges, and to remove illicit connections. To ensure uniform and consistent countywide approach and to provide a legal underpinning to the entire Ventura Countywide NPDES Stormwater Program, a Model Stormwater Quality Ordinance was developed, which was adopted subsequently by all Permittees with some minor jurisdiction-specific changes. The current Stormwater Quality Ordinance was adopted by *Permittee's Name* on *date*.

In addition, each Permittee has designated Authorized Inspector(s) responsible for enforcing the Ordinance. The Authorized Inspector(s) is the person designated to investigate compliance with, detect violations of and/or take actions pursuant to the Ordinance.

- *Provide reference to specific sections of the Permittee's Ordinances for IC/ID prohibition, elimination and enforcement actions,*
- *Determine if any permits are required to implement IC/ID Plan,*
- *Determine if effective inter-departmental coordination and cooperation currently occur*
- *Summarize enforcement capability or include enforcement plan if available*

## 5.0 MAPPING

As listed in the Section 2 of this Protocol, item a).(1).(A) in paragraph 3 "Illicit Connections", the Ventura County MS4 Permit contains specific mapping requirements including due dates for submittal of the required maps to the Principal Permittee. *Permittee's Name* is in the process of mapping all known connections within its jurisdiction.

- *Summarize current status of your mapping efforts*
- *Are maps of the storm drain system readily available?*
- *Determine system gaps that require mapping; describe how maps will be updated*
- *Determine if storm drain maps include coverage of sanitary and storm sewer networks*

## 6.0 STAFF ASSIGNED FOR FIELD SCREENING

The *Permittee's Name* selected the following staff to complete field and office assignments as a part of the IC/IDs field screening requirements presented in Section 2 of this Protocol:

| Name | Position | Organization | Phone Number | Responsibility |
|---|---|---|---|---|
| | | | | |

The staff selected for field and office assignments will have adequate training to follow this Field Screening Protocol and ensure compliance with the Ventura County MS4 Permit. The training will include basic field training, inspection, data collection, health and safety, and operation and calibration of field instruments.

- *Determine staff needs to complete field work*
- *Determine staff needs to complete data analysis and reporting*

## 7.0 IC/ID TRACKING AND ELIMINATION CAPABILITY

In order to meet Ventura County MS4 Permit requirements presented in Section 2 of this Protocol, the *Permittee's Name* selected the following individuals to support implementation of the IC/IDs Elimination Program:

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| Name | Position | Affiliation | Phone Number | Responsibility |
|---|---|---|---|---|
| | | | | |

The proposed staff and contractors are appropriately trained to respond to IC/IDs, spills, overflows, hazardous material emergencies that occur within *Permittee's Name's* jurisdiction. In the event that IC/IDs investigation and elimination involves more than one Permittee, the contact information presented in Table 1 should be used for notification. Each involved Permittee will be notified as responsible parties are identified.

- *Define responsibilities of Agency(ies), assigned personnel, pre-approved contractors to respond to spills, overflows, hazardous material emergencies,*
- *Determine if personnel is properly equipped and trained to respond to illicit connection*
- *Define strategy for keeping information up-to-date*
- *Define strategy for sharing tracking information among Agencies involved*

## 8.0 FIELD INSTRUMENTS AND ANALYTICAL LABORATORY

The following field instruments are identified as required and available to complete IC/IDs requirements of the Ventura County MS4 Permit presented in Section 2 of this Protocol:

| Field Instrument | Parameters to be Measured | Technical Specifications | Calibration Information |
|---|---|---|---|
| | | Exhibit A | Exhibit A |

In the event that water sample is required for off-site laboratory analysis, *Permittee's Name* has an on-going contract with *Laboratory Name*. The laboratory contact name is _____ and he/she can be reached at _____. Sample collection details are provided in Exhibit B. Results of lab analysis will be provided to _____ for data analysis and implementation as described in Section 10.

- *Determine requirements for field instruments*
- *Provide calibration procedures and forms*
- *Provide contact and contract information for the analytical laboratory*
- *Provide a sample collection checklist and chain-of-custody forms*

## 9.0 EDUCATION AND OUTREACH

Public Education is an essential part of a municipal stormwater program because changing public behavior can create a real reduction in environmental pollution. When a community has a clear understanding of where the pollution comes from, how it can affect them and what they can do to stop

## Attachment E  Illicit discharge Field Screening Protocol

**Table 1**
**Ventura County Illicit Discharge Response Contact List**

Prepared on 15-Jan-10

| Permittee | Dispatch | Primary Contact Name | Primary Contact Office Phone Number | Primary Contact Cell Phone Number | Alternate Contact Name | Alternate Contact Office Phone Number | Alternate Contact Cell Phone Number |
|---|---|---|---|---|---|---|---|
| Camarillo | (805) 388-5338 | n/a | n/a | n/a | n/a | n/a | n/a |
| Fillmore | (805) 524-8701 | | | | | | |
| Moorpark | (805) 517-6257 | Shaun Kroes | 805-517-6257 | n/a | Yugal K. Lall | 805-517-6255 | 805-218-5861 |
| Ojai | (805) 640-2560 | Brian Meadows | 805-646-5561 ext 114 | 805-797-1594 | n/a | n/a | n/a |
| Oxnard | (805) 271-2220 | Dispatch | (805) 271-2220 | n/a | Mark Pumford | (805) 271-2220 | n/a |
| Port Hueneme | (805) 986-6507 | Wastewater Div. | 805 986-6561 | n/a | n/a | n/a | n/a |
| Santa Paula | (805) 933-4212 | Jon Turner | (805) 933-4212 ext 303 | (805) 850-8562 | Richard Jones | (805) 933-4212 ext 310 | (805) 320-0497 |
| Simi Valley | (805) 583-6400 | Dispatch | 805-583-6400 | n/a | Ron Linton | 805-583-6429 | 805-297-6110 |
| Thousand Oaks | (805) 449-2400 | PW Counter | 805/449-2400 | n/a | Bob Carson | 805/449-2499 | n/a |
| Ventura | (805) 667-6510 | ID Hotline | 805-667-6510 | n/a | Karen Sedlacek | 805-667-6517 | 805-207-6371 |
| Ventura County | (805) 650-4064 | Paul Tantet | (805) 662-6737 | (805) 901-4783 | Ewelina Mutkowska | (805) 645-1382 | (805) 765-5068 |
| Ventura County EHD - for sewage/wastwater discharges | (805) 654-2813 | Dispatch | (805) 654-2813<br>After Hours On-call Emergency Response #: (805) 320-6244 | | n/a | n/a | n/a |
| Ventura County EHD - for hazardous waste and materials | (805) 654-2813 | Dispatch | (805) 654-2813 | n/a | n/a | n/a | n/a |
| VC PWA Transportation Dispatch www.pwa.road@ventura.org | (805) 672-2131 | Road Maintenance Dispatch | (805) 672-2131 | n/a | n/a | n/a | n/a |
| Ventura County WPD | (805) 650-4064 | Greg Martinez | 805-672-2102 | 805-340-1175 | Karl Novak | 805-672-2106 | 805-804-7792 |

it, they will be more likely to support the program, change their own practices, and help educate others.

The on-going countywide outreach campaign includes the following key elements:

- Watershed Awareness
- Public Awareness Surveys
- Identification of general and specific goals of the program
- Identification of target audiences and key messages for those audiences
- Development of program strategies and plan overview
- Pollution prevention program using a unified "brand name"
- Development of a watershed based outreach program
- Identification of opportunities to reach out to regulatory agencies
- Development of a model public education/public participation strategy for localization at the Permittee level
- Development and implementation of a school-aged children education outreach program
- Development and implementation of food facilities outreach program materials
- Development and implementation of automotive facilities outreach program materials
- Development and implementation of industrial facilities outreach program materials

The public outreach materials are available at http://www.vcstormwater.org/programs_residental.html

*Permittee's Name* have established a hotline at (805) *XX-XXXX* for illicit discharge reporting that has enabled easy reporting and improved response hotline.

- *Determine availability of*
  - *Hotline*
  - *Website to post outreach materials*
  - *Any community events to spread the message*
  - *Outreach materials*

## Attachment E Illicit discharge Field Screening Protocol

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### 10.0 IMPLEMENTATION PLAN

### 10.1 General

*Permittee's Name* will complete field screening of its storm drain system **no later than May 7, 2012**. Based on Ventura County MS4 Permit requirements, the screening will include the following system portions that have not been previously screened for illicit connections:

a) All portions of the storm drain system consisting of storm drain pipes 36 inches in diameter or greater;

b) High priority areas identified during the mapping of illicit connections and discharges; and

c) All portions of storm drain systems 50 years or older in age.

In addition, *Permittee's Name* continues responding to IC/IDs discovered during the industrial/commercial business inspections, its routine operation and maintenance activities, or as reported by the public.

### 10.2 Desktop Assessment to Support Field Screening (Optional)

Desktop Assessment provides a prioritization approach for completing screening requirements within the *Permittee's Name's* jurisdiction. The EPA Guidance recommends Desktop Assessment for municipalities with 20 or more stream miles of the storm drain system required for ID/IC screening.

Desktop Assessment was used by *Permittee's Name* to define where to begin searching for IC/ID problems in *Permittee's Name's* community. It involved processing and analysis of available mapping data to quickly characterize and screen for IC/ID problems at the community and subwatershed scale. Key factors considered in the analysis included *water quality, land use, development age, sewer infrastructure, and outfall density*.

In accordance with *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004) the following 5 steps were applied:

**Step 1: Delineate subwatersheds**

*Permittee's Name* delineated the following subwatersheds *or other drainage units* within the community, refer to Map X:

1)

- *List defined subwatersheds or drainage units*

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**Step 2: Compile mapping layers and subwatershed data**

*Permittee's Name* compiled available maps (Section 5) and data for each drainage unit (e.g., land use, age, outfalls, infrastructure history).

- *Summarize results of the map analysis; include layered maps if available.*

**Step 3: Compute discharge screening factors (SF)**

Out of 10 screening factors discussed in the EPA's Guidance Manual, *Permittee's Name* selected the following factors for the IC/ID problem analysis:

- ☐ Past Discharge Complaints and Reports
- ☐ Poor Dry Weather Water Quality
- ☐ Density of Generating Sites or Industrial NPDES Storm Water Permits
- ☐ Storm Water Outfall Density
- ☐ Age of Subwatershed Development
- ☐ Sewer Conversion
- ☐ Historic Combined Sewer Systems
- ☐ Presence of Older Industrial Operations
- ☐ Aging or Failing Sewer Infrastructure
- ☐ Density of Aging Septic Systems

The following are results of the SF analysis for *Permittee's Name's* community:

| | SF 1 | SF2 | SF3 | Raw IC/ID Problem Score | Normalized IC/ID Problem Score |
|---|---|---|---|---|---|
| *Subwatershed A* | | | | | |
| *Subwatershed B* | | | | | |

Example

Basis for assigning scores (based on benchmarks) to assess IDP is as follows:
Past discharge complaints/reports: <5 = 1; 5-10 = 2; >10 = 3
Dry weather water quality: <25% = 1; 25-50% = 2; >50% = 3
Storm water outfall density: <10 = 1; 10-20 = 2; >20 = 3
Average age of development: <25 = 1; 25- 50 = 2; >50 = 3

- *Checked selected factors*
- *Complete table;*

**Step 4: Screening at the subwatershed and community level**

Screen and rank illicit discharge potential at the subwatershed and community level

## Attachment E Illicit discharge Field Screening Protocol



The raw score values of the IC/ID potential problems were re-evaluated using SF data at the subwatershed and community level resulting in normalized scores listed above. Based on *Permittee's Name's* analysis, the following prioritization of the risk was determined:

- Highest risk at *Subwatershed X*
- Medium risk at *Subwatershed Y*
- Low risk at *Subwatershed Z*

**Step 5: Generate maps to support field investigations**

Incorporating all the Desktop Assessment results, *Permittee's Name* determined that communities A and B have minimal IC/ID problems, C and D exhibit clustered IC/ID problems, and E and F are of severe IC/ID problems, refer to Map(s).

The desktop assessment completed by *Permittee's Name* is used to guide field screening by generating the following outcomes:

1) Screening problem catchments or subwatersheds,
2) Creation of GIS or other database system to track outfalls,
3) Gaining an overall assessment as to the severity of illicit discharge problems in the community, and
4) Generation of basic mapping for subsequent field work

### 10.3 Field Screening Methodology

The primary field screening tool recommended by the EPA IDDE Guidelines is the Outfall Reconnaissance Inventory (ORI), which is used to find IC/ID problems, develop a systematic outfall inventory, and map or verify existing maps of the MS4. The ORI is a stream walk designed to inventory and measure storm drain outfalls, and find and correct continuous and intermittent discharges and illicit connections.

During ORI walk, *Permittee's Name's* trained staff will use EPA's "Outfall Reconnaissance Inventory Field Sheets" provided in Exhibit C to record field information. These sheets will facilitate recording outfall locations and characteristics. Field crew will describe the following indicators for flowing and non-flowing outfalls as listed in the "Outfall Reconnaissance Inventory Field Sheets":

1. Odor (flowing outfalls only);
2. Color (flowing outfalls only);
3. Turbidity (flowing outfalls only);
4. Floatables (flowing outfalls only);
5. Outfall damage (both flowing and non-flowing outfalls);

## Attachment E Illicit discharge Field Screening Protocol



6. Deposits/stains (both flowing and non-flowing outfalls);
7. Abnormal vegetation (both flowing and non-flowing outfalls);
8. Poor pool quality (both flowing and non-flowing outfalls), and
9. Pipe benthic/algal growth (both flowing and non-flowing outfalls).

*Permittee's Name* will compile ORI data including field information, GPS data, and photographs of outfall locations.

The ORI can discover obvious discharges that are indicated by flowing outfalls with very high turbidity, strong odors and colors, or an "off the chart" value on a simple field test strip. When obvious discharges are found and physical indicators are present, refer to Figure 1 "Illicit Discharge Source Investigation Flow Chart", field crews will initiate response within 1 business day. ORI crews may also encounter a discharge of hazardous materials or wastewater that should be immediately referred to the appropriate agency for cleanup, refer Table 1 "Ventura County Illicit Discharge Response Contact List".

In order to complete investigation of the IC/ID source, *Permittee's Name* will select appropriate investigative method from the following methods recommended in the US EPA Guidance Manual:

- Storm Drain Network Investigation (refer to subsection 10.3.1);
- Drainage Area Investigation (refer to subsection 10.3.2);
- On-site investigations (refer to subsection 10.3.3); and
- Septic system investigations (refer to subsection 10.3.4).

Detailed descriptions of the methods are provided in Chapter 13 of the *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004).

IC/ID discovery, investigation, and response will be documented using forms provided in Exhibit C. Appropriate information will be provided to Regional Water Quality Control Board in the Annual Report. In addition, per Permit requirements, *Permittee's Name* will map incidents of illicit connections and discharges since January 2009 on its baseline maps and transmit this information to the Principal Permittee no later than May 7, 2012.

### 10.3.1 Storm Drain Network Investigation

Field crews will strategically inspect manholes within the storm drain network system to measure chemical or physical indicators that can isolate discharges to a specific segment of the network. Once the pipe segment is identified, on-site investigations will be used to find the specific discharge or improper connection.

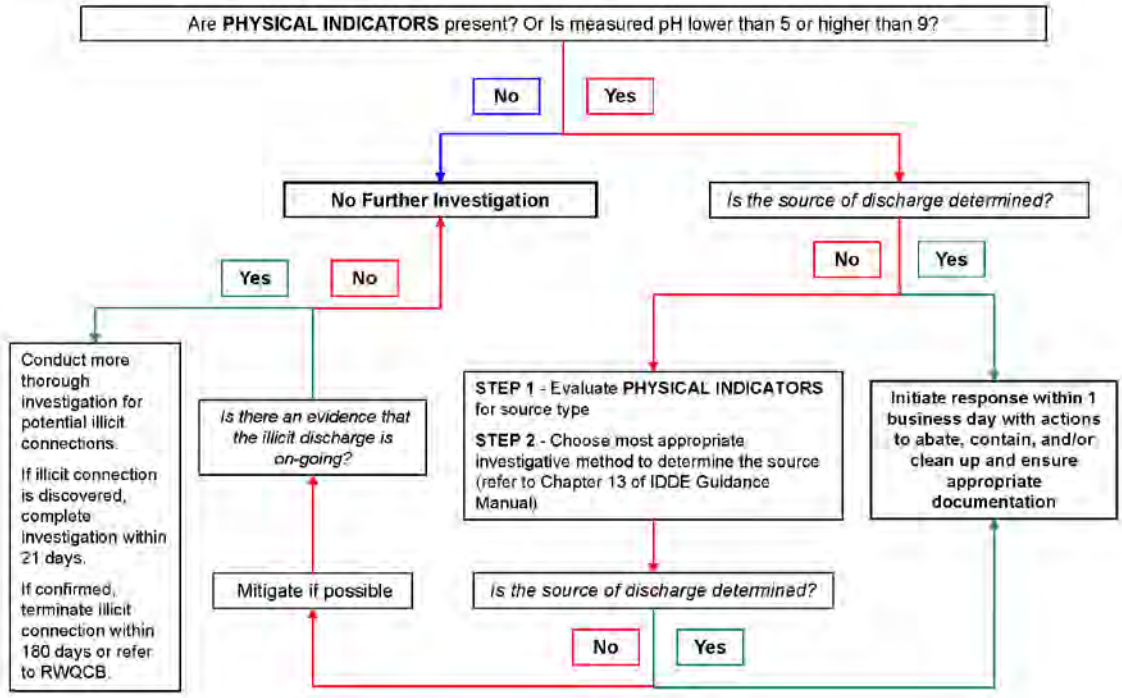
This method involves progressive visual inspections and/or sampling at manholes in the storm drain network to narrow the discharge to an isolated pipe segment between two manholes. When conducting a storm drain network investigation, field crews need to decide where and how to proceed with visual inspections and/or sampling in the network.

## Attachment E Illicit discharge Field Screening Protocol

**Figure 1 Illicit Discharge Source Investigation Flow Chart**

STEP 1 – Complete Outfall Reconnaissance Inventory Field Sheet

STEP 2 – Notify other Permittees if observed discharge is present in their facilities



The field crew should decide how to attack the pipe network that contributes to a problem outfall. Three options can be used:

1) Crews can work progressively up the trunk from the outfall and test manholes along the way.
2) Crews can split the trunk into equal segments and test manholes at strategic junctions in the storm drain system.
3) Crews can work progressively down from the upper parts of the storm drain network toward the problem outfall.

10.3.2 Drainage Area Investigation

This method relies on an analysis of land use or other characteristics of the drainage area that is producing the illicit discharge. The investigation can be as simple as a "windshield" survey of the drainage area or a more complex mapping analysis of the storm drain network and potential generating sites. Drainage area investigations work best when prior indicator monitoring reveals strong clues as to the likely generating site producing the discharge.

10.3.3 On-site Investigation (Optional)

On-site methods are used to trace the source of an illicit discharge in a pipe segment, and may involve dye, video or smoke testing within isolated segments of the storm drain network. While each approach can determine the actual source of a discharge, each needs to be applied under the right conditions and test limitations discussed in details in Chapter 13 of the *Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments* (2004). It should be noted that on-site investigations are not particularly effective in finding *indirect* discharges to the storm drain network.

10.3.4 Septic System Investigation (Optional)

Low-density residential watersheds may require special investigation methods if they are not served by sanitary sewers and/ or storm water is conveyed in ditches or swales. The major illicit discharges found in low-density development are failing septic systems and illegal dumping. Homeowner surveys, surface inspections and infrared photography have all been effectively used to find failing septic systems in low-density watersheds.

## 10.4 Health and Safety Considerations

The field crew (2 staff at minimum) will be trained to raise awareness of many hazardous circumstances that they may confront when conducting field screening of the storm drain system. These health and safety guidelines can only be effective, however, if they are considered, discussed, and applied with a large dose of prudent judgment.

Communication is also a major component. When doubts and concerns arise, field crew will discuss the matter with a supervisor. Furthermore, always err on the side of safety when assessing risk. If there is any doubt whether task can be safely performed, ask the crew leader/supervisor for further instructions and help. Protecting personal safety is more important than completing a risky task – **SAFETY FIRST!**

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The following list establishes a policy to use for personal protection and environmental sensitivity when performing field screening activities:

- If moving any heavy item, lift with legs while keeping the back straight.
- Do not lift heavy items without adequate help. If a waste object is beyond the means of the onsite crew, note its location and report to program manager.
- Avoid wading in water.
- Avoid walking near steep grades. Soil next to edge may be unstable and give way.
- Carefully avoid hazardous plant life such as poison oak (leaves-of-three beware of me).
- Be aware that some plants have leaves and stalks with sharp edges or thorns.
- Avoid prolonged sun exposure without a hat. Apply plenty of sunscreen prior to field work.
- Hydrate adequately by drinking at least one cup of water each hour on warm days.
- If you suspect a potentially dangerous material, avoid any contact. Note all necessary descriptive details including the precise location. Report the circumstances to the program manager for further instructions. Call 911 if there is an imminent threat.
- Call for support immediately if any suspected hazardous material container is found leaking.
- Be respectful of inhabited areas by moderating noise levels when working there.
- Use care to avoid damaging sensitive riparian (ecologically rich areas bordering natural water environments) vegetation or delicate aquatic ecosystems.
- Discuss your observations and ideas about safety with your associates and crew leader.
- Minimize accelerating erosion by not walking on steep banks.
- Avoid contact with animals wild or domestic. This includes watching where you are walking. Snakes will bite to deal with a perceived threat. Be cognizant of your surroundings.
- Report all injuries that occur. Immediate medical attention can sometimes prevent severe complications arising from small injuries as with infection caused by cuts and bites.
- If human encampments are found, do not disturb the inhabitants or their belongings. Take notes including the precise location. Report this information to the crew leader and/or program manager.
- Ensure appropriate traffic control measures are applied if needed.
- Field activities should be conducted in a safe manner following *Permittee's Name* Health and Safety Protocol.

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# Attachment F - Water Quality Monitoring Report

The 2010-2011 Water Quality Monitoring Report is provided in a separate document.