

7.0 Program Effectiveness Assessment

The following effectiveness assessment is based in part on the Municipal Stormwater Program Effectiveness Assessment Guidance, developed by the California Storm Water Quality Association (CASQA). The purpose is to confirm the desired results of the overall program and identify modifications that may be needed, thus ensuring the iterative process is used as an effective management tool throughout the permit implementation.

The following primary questions, or Outcome Levels, help to categorize and describe the desired results of the program:

Level 1 Outcome – Was the Program Element implemented in accordance with the Permit Provisions and SWMP?

Level 2 Outcome – Did the Program Element raise the target audience’s awareness of an issue?

Level 3 Outcome – Did the Program Element change a target audience’s behavior, resulting in the implementation of recommended BMPs?

Level 4 Outcome – Did the Program Element reduce the load of pollutants from the sources to the storm drain system?

Although each level has value in informing and/or supporting management decisions, not all Outcome Levels are used and the Outcome Levels are not necessarily conducted in sequence. In some cases, assessments at different levels may occur at once.

In addition to the systematic CASQA effectiveness assessment approach that is used for each of the BMP groupings within each of the six minimum control measures, each section includes a narrative summary of effectiveness that looks collectively at all BMPs within each minimum control measure. This programmatic evaluation is intended to ascertain if each of the minimum control measures as a whole is appropriate and effective, to evaluate whether certain BMPs are more successful and/or cost effective than others, and ultimately to determine if the overall storm water management program is working effectively.

MCM 1.0 Public Education and Outreach

The Public Education and Outreach portion of the SWMP focuses on communicating consistent messages regarding storm water quality to a broad audience through the continuation of existing programs and the development and implementation of new programs. The BMPs implemented for this minimum control measure are intended to teach the public and reinforce the importance of protecting storm water quality, both for the benefit of the environment and human health.

Although its effectiveness can be difficult to measure, public education is essential to achieving behavioral changes that can protect water quality. Because the SWMP focuses on non-point source pollution, the role of the individual in preventing this pollution is key. The BMPs selected for implementation educate community members about steps they can take both at work and at home to prevent and reduce water pollution.

Collectively, all the BMPs within the public education and outreach component of the County's storm water program are highly effective in increasing awareness about water quality issues in order to change behavior. The wide diversity of venues, events, means of communication, and partnering opportunities allows different segments of our population to hear a consistent message in a variety of ways thereby sustaining public interest in the program.

Since education of our youth is likely the single most effective way to significantly alter behavior of the general population over time, youth education remains a focal point and one of the most resource-intensive components of our storm water program. The County continues to sponsor a very successful youth education program involving classroom presentations and field trips to the Watershed Resource Center. Teacher evaluation indicates that it is extremely successful and effective.

Because of the makeup of Santa Barbara County's population, Latino outreach is also critical to the success of our program and a significant amount of resource is spent here as well. Outreach efforts include Spanish language television spots and brochures, youth education to Latino students County-wide at school science fairs, health fairs, and other after-school settings, and outreach at popular Latino community events such as Family Day in the Park. In Year 5 the PCW web site was updated to include Spanish translation on all pages.

Results from the November 2010 and August 2012 public opinion surveys indicate that our communication efforts are getting through to the intended audience and that residents show a general awareness of what they can do to prevent pollution. The survey finding that a minority of residents has a clear understanding of the storm drain system and their direct contribution to water quality indicates that education and outreach efforts are still an important and necessary part of our SWMP.

a) Outreach: Brochures, Website, Events, Media (BMPs 1.2, 1.3, 1.4 and 1.12)

Outreach with the public through print information, face-to-face contact, community events, website use and media campaigns has steadily increased over the seven years of implementing the SWMP:

- **Brochures.** Over 6,060 educational materials focused on preventing storm water pollution were distributed including over 2,902 to target populations of horse owners, dog owners, creekside residents and landscape professionals. Approximately 1,248 Spanish language materials were distributed in Year 7 through community events, mailings, and groups such as Agua Pura and Resource Recovery. In Year 7 several brochures were created or updated including a new postcard for RV dumping, a new North County focused brochure in both English and Spanish called Make the Connection, and added activity books from Project WET on watersheds, coastal ecosystems and wetlands. The County's recycling guide was updated as were coloring books and The Ocean Begins on Your Street. Overall outreach materials are successful at Level 2.
- **Website.** The PCW website provides an easily accessible method for the public to access water quality information, announcements, reports, and documents. In Year 5 the website received a major overhaul with an updated and improved look and the addition of a kid's page and Spanish translation of all pages. Overall the website is successful at Level 2.
- **Events.** A total of 100,776 attendees at a wide variety of public events were exposed to the County's clean water programs, exceeding the 15% population requirement. Events including Family Day in the Park were chosen to target the Latino population and the Santa Maria Trade Show was chosen to target business owners and operators. Public events have been highly effective in increasing community knowledge and awareness of the storm water program and water quality issues. Events such as Creek Week and Earth Day draw large numbers of people where the importance of protecting water quality is the main emphasis. Overall outreach at events is successful at Level 2.
- **Media.** Media messages on preventing water pollution were circulated via various newspaper ads, radio spots, bus ads, and targeted television PSAs. Most of the media campaigns included either bilingual or Spanish language versions. In Year 7, the County sponsored or participated in five media campaigns. PCW co-sponsored bilingual clean water ads on the interior and exterior of MTD buses in cooperation with the cities of Goleta and Santa Barbara. MTD buses have a ridership of over seven million passenger trips per year. Advertising has been an efficient way to reach our large and diverse population. Overall media campaigns are successful at Level 2.

b) Education: WRC, Youth, Latino (BMPs 1.5, 1.6 and 1.13)

The South Coast Watershed Resource Center (WRC) continues to be a focal point for water quality education programs on the south coast. The WRC was originally established with grant funds from the CA Coastal Conservancy largely due to an

active community effort. It continues to receive widespread community interest and support.

- WRC. 3,281 people visited the WRC through the youth education and community programs (856 for youth education, 1,942 for community meetings and 483 for events and programs). Management of the WRC continues to be through Explore Ecology. Explore Ecology is also responsible for a very successful youth education program involving classroom presentations and field trips to the WRC. Overall the WRC is successful at Level 2.
- Youth Education. Explore Ecology gave classroom presentations on water quality to 3,840 students through its Creek Kids series. Understanding water pollution fits into required curriculum topics, and school aged children are particularly receptive to the information presented. Teacher evaluation of the youth education program (see below) indicates that it is extremely successful and effective. Overall youth education is successful at Level 2.
- Evaluation of Youth Education. Classroom teacher evaluation of the Creek Kids series in Year 7 remains overwhelmingly positive. Of the 37 teachers who responded, over 90% of teachers gave the Creek Kids Series an 8 or higher on 7 questions (level 1 as the lowest and level 10 as the highest) and 100% responded that they want to participate next year. 78% of teachers stated that the Creek Kids Series was valuable to their students at a level 10 and 55% stated that the field trip to the WRC was valuable to their students at a level 10. The program continues to be revised and improved based on feedback from teachers and students and remains extremely popular and effective.
- Waste Reduction Workshops. 6,254 K-8 students in North and South County schools attended waste reduction workshops.
- Latino Education. Agua Pura taught 1,263 Latino students County-wide at school science fairs, health fairs, community events and other after-school settings about watersheds and watershed health. Overall Latino outreach and education is successful at Level 2.

c) Storm Drain Marking (BMP 1.7)

Storm drain marking is complete in the County permit area and markers continue to be replaced as needed. The bilingual signs that say “No Dumping” raise awareness about the connection between storm drains and receiving waters and they help deter littering, dumping, and other practices that contribute to nonpoint source pollution. Storm drain marking is successful at Level 1 for implementation and Level 2 for raising awareness.

d) Hotline (BMP 1.8)

- Use of the hotline remains constant and continues to provide effective service to all members of the community in reporting water pollution. Residents who call

are connected directly to the responsible agency depending on the nature of the call and the location of concern. The hotline message was updated in Year 3 to clarify after hour calls and to streamline basic information, improving the effectiveness of the reporting system. Overall the hotline is successful at Level 3. The hotline is successful at Level 4 when calls result in field discovery and load reduction.

e) Business Outreach: (BMPs 1.9, 1.10, and 1.11)

The Green Gardener Program, Landscape Education and other Business Outreach helped train community members and professionals in reducing polluted runoff.

- Green Gardener Program. The number of gardeners certified through the Green Gardener Program remains stable, with a total of 52 gardeners certified through the program in Year 7. The Green Gardener Program originated in Santa Barbara and has since been adopted and used by other municipalities. In Year 4, the Green Gardener Program added five weeks to the curriculum, and was promoted to a vocational certificate program through Santa Barbara City College, indicating the success and effectiveness of the program. The County no longer administers the program, but continues to promote it through print and radio ads, web postings, and brochures at community events. Overall the Green Gardener Program is successful at Level 3 for changing behavior and at Level 4 for reduction in fertilizer and pesticide use.
- Landscape Education. Landscape education reached 1,952 community and business members through community events, participating in Our Water Our World nurseries and composting workshops. The effectiveness of this program was improved in Year 7 with the continuation of the Garden Wise program on public television, and the free distribution of DVD on Water Wise Gardening in Santa Barbara County. The County continues to promote the Santa Barbara County Green Landscape Consortium to promote sustainable natural landscaping practices. Overall landscape education is successful at Level 2.
- Business Outreach. Over 2,500 business owners and operators were reached through several targeted workshops, business trade shows, and direct contact during business inspections and field discoveries. Face-to-face interactions between the public and County staff have been an effective way to increase the awareness of County business owners and operators to water quality impacts. Business outreach is successful at Level 3 for changing behavior and at Level 4 for load reduction when responding to complaints or discoveries in the field or as part of a business inspection.

Table 7.1 Effectiveness Assessment Summary for Public Education and Outreach

Outreach Program Activities	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
Outreach	Y1 – Y7 Ongoing Y5 website expanded & updated	Y1 – Y7 Ongoing; Y5 website expanded & updated		
Education	Y1 - Y7 Ongoing	Y1 - Y7 Ongoing		
Storm Drain Marking	Y 1 Installation in North & South Co. Y2 Installation complete for S Co. Y3 – Y7 Ongoing maintenance	Y 1 Installation in North & South Co. Y2 Installation complete for S Co. Y3 – Y7 Ongoing maintenance		
Hotline	Y1 Hotline expanded Y2 – Y7 Hotline maintained	Y1 Hotline expanded Y2 – Y7 Hotline maintained	Y1 Hotline expanded Y2 - Y7 Hotline maintained	Y1 – Y7 Hotline calls leading to field discoveries
Business Outreach	Y1 – Y7 Landscape and Business Outreach ongoing	Y1 - Y7 Landscape and Business Outreach ongoing	Y1 – Y7 Green Gardener Program Y3 - Y7 Built-out incentive program	Y1 Complaints & Discoveries Y2 - Y7 Complaints & Discoveries; Bus. Inspection Program Y1 – Y7 Green Gardener fertilizer & pesticide reduction

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report

MCM 2.0 Public Participation and Involvement

The Public Participation and Involvement Minimum Control Measure is intended to foster active community support for the SWMP and give direction to its implementation. Participation by the public ensures that the program reflects community values and priorities and thus has the highest potential for success.

Stakeholders are kept informed of program updates and announcements via regular emails to our e-mail group lists. Often these non-meeting alternative communication vehicles are equally effective and more efficient than meetings, particularly at this point in our permit cycle when the program is well established and few changes are being proposed. Much of the input we receive from our most involved stakeholders occurs immediately through electronic communication.

The County will continue to hold meetings on relevant topics of interest as needed. Periodically, north and south county meetings are combined and held at a central location as a more efficient use of limited resources and of the public's time.

The County will attempt partnering with other cities in holding joint stakeholder meetings as we move forward with the collaborative effort in developing region-wide post construction requirements (hydromodification criteria). We expect stakeholder involvement to increase over the next permit year with implementation of new post construction requirements and the Statewide Phase II General Permit reissuance. We will continue to evaluate appropriate vehicles to increase stakeholder involvement.

Community forums and organized clean-ups continue to attract residents who are interested in making a tangible difference in improving water quality and offer opportunities for public involvement in the County's SWMP activities.

a) Steering Committee, Public Meetings and Forum (BMPs 2.1 and 2.2)

- Stakeholders Committee. PCW Stakeholder have been an effective way of communicating with the public and allowing opportunities for stakeholders to provide comments and suggestions that are utilized to improve the effectiveness of the County's SWMP and BMPs. This has been an effective and efficient way to inform, communicate and improve the overall program. Following six years of holding quarterly stakeholder meetings in both north and south Santa Barbara County, this component of the program has evolved into using e-newsletters and an annual community forum in conjunction with stakeholder meetings as needed. Stakeholder meetings are successful at Levels 1 and 2.
- Community Forum. Two public forums were held during Year 7, exceeding our measureable goal of one forum per year. Topics covering ocean friendly gardens and tracking bacterial sources in Arroyo Burro Beach attracted 32 community members. Overall community forums are successful at Level 2.

b) Coordination Among Agencies (BMP 2.3)

- Continuation of regular intergovernmental meetings is appropriate for coordinating among the different storm water management programs in the County. Local population perspectives and pollution sources vary across the County, and obtaining input from various agencies is useful in understanding these local differences. The intergovernmental meetings are efficient venues for planning joint pollution reduction efforts. Attendance is steady and is regularly represented by all of the Phase II agencies. Overall coordination among agencies is successful at Level 2 for raising awareness.

c) Volunteer Water Quality Sampling and Clean-ups (BMPs 2.4 and 2.5)

Community Clean-ups and Volunteer Water Quality Sampling attract residents who are typically enthusiastic about making a tangible difference in improving water quality and offer opportunities for involvement in the County's SWMP activities.

- Community Clean-ups. Community Clean-ups result in a decrease in pollutant loadings to the creeks and ocean. Volunteers remove large amounts of trash from the creeks and beaches. During Year 7 clean-ups were scheduled during community events and with volunteer groups. In addition clean-ups were performed regularly at Hendry's Beach through the Watershed Resource Center and as part of the youth education program curriculum. The County continues to serve as the local coordinator for California Coastal Cleanup Day in Santa Barbara County which cleaned up 23 beaches and creeks countywide. Community clean-ups are successful at all levels.
- Volunteer Water Quality Sampling. Volunteer sampling is appropriate for fostering involvement of South County communities and communities in the Santa Ynez Valley. It is a less applicable method for reaching community members in North County where runoff is directed into detention basins and most channels contain flow for a very limited number of months out of the year. In South County, storm water runoff is directed into neighborhood creeks where the effects can be monitored. In Year 7 PCW organized three volunteer water quality monitoring events and provided water monitoring kits to Explore Ecology for use in their educational programs. Overall volunteer water quality sampling is successful at Level 2.

Table 7.2 Effectiveness Assessment Summary for Public Participation and Involvement

BMP	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
2.1 Steering Committee	Y1 North Co. Stakeholders Mtg. established Y2 – Y7 Ongoing meetings & interaction	Y1 North Co. Stakeholders Mtg. established Y2 - Y7 Ongoing meetings & interaction		
2.2 Public Meetings and Forums	Y1 – Y7 Ongoing	Y1 – Y7 Ongoing		
2.3 Coordination Among Agencies	Y1 – Y7 Ongoing meetings & cooperative efforts	Y1 – Y7 Ongoing		
2.4 Volunteer Water Quality Sampling	Y1 – Y7 Ongoing in connection with events or clean-ups	Y1 – Y7 Ongoing in connection with events or clean-ups		
2.5 Community Clean-ups	Y1 – Y7 Ongoing creek & beach clean-ups	Y1 – Y7 Ongoing creek & beach clean-ups	Y1 – Y7 Ongoing creek & beach clean-ups	Y1 – Y7 Ongoing creek & beach clean-ups

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report

MCM 3.0 Illicit Discharge Detection & Elimination

The following is an assessment regarding the effectiveness of the first seven years of implementation of MCM 3.0 Illicit Discharge Detection and Elimination (IDDE) Program as outlined in the SWMP. The County has effectively implemented the IDDE program through ongoing program elements such as creek walks, complaint and discovery response and follow up, development of a storm drain facility map, developing and distributing targeted educational materials to potential polluters, distributing mutt mitts to areas of pet waste concern and administering the storm water ordinance and the business inspection program.

Collectively, all the BMPs within the IDDE program are effective at reducing pollution in storm water by identifying and eliminating sources of illicit discharge and illegal dumping. The program depends on a number of partners including the public and other County Departments. In particular, it requires a coordinated business inspection effort making use of the hazardous materials, liquid waste, and food facility inspection programs, augmented by the PCW business inspection program implemented in Year 2.

Other components of the County's IDDE program include pollution prevention education related to the hazards and consequences of illegal disposal and alternative disposal options. Our program to distribute educational materials and provide alternative disposal options in cooperation with County resource recovery and recycling efforts has been robust and highly effective at reducing pollution and eliminating sources of illicit discharge.

One final key component of the County's IDDE program is the storm water ordinance. The current content and use of the ordinance has allowed PCW staff to enter private property, investigate potential pollution sources, issue notices of violation if necessary and ensure that discharges are abated in a timely manner. Our current ordinance provides the appropriate legal authority necessary to stop unauthorized discharges and to enforce storm water requirements.

a) Storm Sewer Mapping (BMP 3.1)

Storm Drain Facility Map – Drainage facility maps expedite location of illicit discharges and are a requirement of the General Permit. This is a permit requirement and as such, is successful at Level 1. Additionally, where staff and public are able to utilize the data for investigating sources of discharges, this BMP is successful at Level 2.

b) Storm Water Ordinance (BMP 3.2)

Storm Water Ordinance – The ordinance has been effective by assuring county staff the authority to conduct inspections where there appears to be an illicit discharge present and at businesses as authorized under Section 29-50 of the County Code. As described in the SWMP, the approach for addressing illicit discharges is first to educate the responsible party and to abate the discharge. It is critical to explain to the responsible party that

polluted discharges are illegal because of impacts to water quality. This is most effective through face-to-face contact which may be supported by or require written notification. All written notification cites the County's regulatory code, including the Discharge Ordinance (Chapter 29 County Code).

There have been no cases to date where higher levels of enforcement were necessary. All cases were handled as described above, through education and direct abatement. Should a responsible party continue to employ practices that could result in a serious threat to water quality, or if a responsible party fails to abate a discharge that is or may result in a serious threat to water quality, there are numerous tools for enforcement including Chapter 29, which include administrative fines.

Chapter 29 did not change the County's approach or response toward eliminating illicit discharges. Polluted discharges were regulated prior to the Discharge Ordinance through Health & Safety Code and Solid Waste Code. The primary benefit of Chapter 29 has been to support the new business inspection program administered by Project Clean Water. Chapter 29 provides authority to Public Works to enter private property and investigate potential pollution sources. Thus, a routine clean water business inspection program was implemented in Year 2 of the storm water program to augment the existing inspection programs for food facilities and facilities that create or store hazardous materials / wastes.

The content and use of the storm water ordinance has allowed the County to successfully continue and build upon our program of illicit discharge detection, control and elimination. This BMP is successful at Level 3 where communication occurs and follow-up visits confirm correction occurred; it is successful at Level 4 where abatement includes cleanup of material from the storm drain system.

c) Education & Outreach (BMP 3.3)

- Targeted Educational Materials and Training Workshops – The targeted educational materials are a very effective communication tool because they serve as a good guideline for discussing the illicit discharge concerns with the responsible party. They suggest alternatives to polluting. Once provided, the brochures can be re-distributed by the recipient to other appropriate people. This measurable goal is successful at Level 2.
- Mutt Mitts – This program effectively changed the target audience's behavior as well as reducing the load of pollutants resulting from pet waste. Project Clean Water placed 74,400 dog waste bags at nine stations along the Atascadero bike trail in Year 7. The County Parks Department, local non-profits, commercial sponsors and volunteers distribute bags to dispenser stations in local parks and open spaces. This measure was successful at Level 4.

- Waste Collection & Recycling Programs. Knowledge and awareness for the target audience was increased through Resource Recovery's recycling programs. In 1995, the County's diversion rate was only 30 percent. By 2008 it was at 69 percent, putting Santa Barbara County in the top 10% of diversion rates in California. This measure was successful at Level 2 and 3.
- Recycling and Hazardous Waste Collection Programs The County hazardous waste collection programs have resulted in recycling of thousands of pounds and thousands of gallons of hazardous waste which may have otherwise been disposed into the storm drains (Refer to Table 3-1 in Chapter 3). By preventing opportunity for these wastes to be dumped or otherwise mismanaged, these measures are effective at protecting the storm drains by removing wastes at a Level 4.

d) Spill & Complaint Response; Field Investigation & Abatement (BMPs 3.4 and 3.6)

- Complaint and Discovery Response. The complaint and discovery response program is very effective in that the response time is very short and therefore issues addressed as quickly as possible. Staff has face-to-face communication when possible with the responsible party and provides targeted educational materials related to the discharge in question. Written materials highlight areas of code infraction to enforce the message. Follow up inspections and/or meetings occur to ensure abatement has been completed, if abatement is required. This BMP is successful at Levels 3 and 4 where follow-up results in elimination of discharge.
- Creek Walks. Creek walks allow staff to discover sources of pollution that would otherwise not be reported. Clean-ups are performed as necessary. This BMP is successful at Level 1, with outcome success at Levels 3 and 4 in the case where cleanup occurred.
- Septic System Pumper Report and Conversions. This program follows plumbing code requirements. Through the voluntary pumper's reports, EHS is able to require those owners of seriously failing septic systems located within 200' of a sanitary trunk line to connect to the sanitary system. Implementing plumbing code requirements is successful at Level 1 while eliminating potential discharges to the storm drain system is successful at Level 4.

e) Commercial / Industrial / Business Inspections (BMP 3.5)

As stated in our SWMP the illicit discharge detection and elimination MCM relies on coordination among local agencies with complementary regulatory responsibilities. The County's overall inspection program includes the County Fire Department's hazardous materials inspection program, the Public Health Department's liquid waste and food facility inspection programs, and the business inspections of Public Works PCW. These

inspection programs address both environmental and human health and safety issues and have an ongoing inspection schedule with follow-up enforcement authorities.

While their regulations and mandates are different, there is overlap in that a clean business means less pollution in our waterways. By addressing wash water disposal, good housekeeping practices, storage and containment of waste and trash, etc, in their routine inspections, these Departments help the County minimize duplication of effort.

One of the successes of administering the storm water program is cooperation from other departments that also have limited resources. Although each have important mandates and report differently to State or Federal agencies, overall this cooperative effort is efficient and effective, with PCW staff targeting those businesses not already inspected by Public Health or Fire but with potential to cause storm water pollution. The existing coordinated business inspection effort making use of the hazardous materials, liquid waste and food facility inspections programs, augmented by the PCW business inspection program, is an effective and efficient way of ensuring that all potentially polluting businesses are inspected and made aware of clean water practices.

- Hazardous Materials Generators Inspections. This program has several components that make it effective. The hazardous materials generators permit requirements consist of employee training that covers appropriate handling, storage, and disposal and reporting of hazardous materials and wastes including plans for the containment of spills and the procedures to be followed in the event of a spill. Also regular site visit inspections are conducted. Directly reaching these businesses with trained Fire Department staff looking for improperly stored material or maintenance practices is successful at Level 3.
- Environmental Health Services Food Facility Inspections. This program is very effective in that it gives the inspectors the authority to close a facility down if they are not in compliance. Direct inspections at businesses by trained health inspectors looking for improperly stored material or maintenance practices is successful at Level 3 and in those cases where practices are modified and pollutants are removed from areas of storm water runoff, successful at Level 4.
- Project Clean Water Business Inspection Program. The Business Inspection Program has been very effective in several ways. First it enables staff to get direct attention from the owners and/or managers of potentially polluting businesses. PCW staff speaks with owners and managers directly about possible illicit discharges and informs them that there can be serious consequences if discharges are not abated in a reasonable amount of time. This program allows staff to take a close look at businesses to identify any possible illicit discharges that may need to be addressed. Inspectors provide and discuss targeted educational information that identifies business-appropriate BMPs. Lastly, just by having PCW staff in the field, there is opportunity to detect other illicit discharges from neighboring businesses that may not be a targeted business or

- illicit discharges elsewhere in the community. This program is successful at Level 1 for implementation and Level 3 for follow-up with businesses.
- Recurrent Discharges Elimination Program Development. A program to eliminate recurrent discharges from businesses inspected that had violations was effectively developed. Utilizing the authority under the County’s Storm Water Ordinance’s escalating severity of consequences of enforcement actions, scheduled follow-up inspections, and good record keeping, the County is able to effectively eliminate recurrent discharges, should they occur. This measure is effective at Level 1.

Table 7.3 Effectiveness Assessment Summary for Illicit Discharge Detection and Elimination Program

BMP	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
3.1 Storm Sewer Mapping	Y1 – Y7 Map and Updates	Y1 – Y7 Map and Updates		
3.2 Storm Water Ordinance			Y2 Approve Code Revisions Y3 – Y7 Implement ordinance	Y2 – Y7 Where cleanup results
3.3 Education & Outreach		Y1 – Y7 Brochures and workshops Y1 – Y7 Waste collection & Recycling	Y1 – Y7 Waste collection & Recycling	Y1 – Y7 Mutt Mitts Y1 – Y7 Waste Collection & Recycling
3.4 Spill Complaint and Response			Y1 – Y7 Complaint and Discovery Investigations	Y1 – Y7 Complaint and Discovery with cleanup
3.5 Commercial/Industrial Facility Inspections	Y1 – Y7 Implementation of all inspection programs consistent w/ state laws	Y1 – Y7 Haz Mat Inspections Y1 – Y7 Food Service Inspections Y2 – Y7 PCW Business Inspections	Y1 – Y7 Haz Mat Inspections Y1 – Y7 Food Service Inspections Y2 – Y7 PCW Business Inspections	Y1 – Y7 Where inspections results in correction and cleanup
3.6 Field Investigations and Abatement	Y1 – Y7 Creek Walks	Y1 – Y7 Where direct communication occurs	Y1 – Y7 Where follow-up confirms cleanup	Y1 – Y7 Eliminate discharges thru cleanup

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report

MCM 4.0 Construction Site Storm Water Runoff Control

The Construction Site Storm Water Runoff Control minimum control measure is implemented and enforced under authority of the County P&D Department, through County code, policy, and practice.

Recommendations from the Grading Ordinance evaluation report completed during Year 2 were evaluated during Year 3. Some recommendations, such as tracking system upgrades and a standard list of minimum construction BMPs for planners to use were implemented in Year 3. The recommendation to require performance bonds for all projects exceeding 500 cubic yards of grading is required.

In order to meet or exceed the requirements of the Phase II General Permit, the County made revisions to the Grading Ordinance that were adopted by the Board of Supervisors on November 9, 2010. The Grading Ordinance was revised to ensure that all drainages are adequately protected from construction and non-construction related activities including vegetation removal, landscaping, and clearing and grubbing. Changes to permit requirements ensure regulatory oversight and the application of best management practices for regulated disturbance.

Program changes were implemented in Year 4 and 5 to ensure that all construction sites disturbing an acre or more are inspected at least twice a month during the rainy season as required by the County SWMP. Program changes to provide adequate staffing of inspectors, cross-training, improvements to the permit tracking system, and management review and oversight ensure that the minimum number of construction site inspections is performed. These program changes, in conjunction with the Grading Ordinance revisions cited above, have improved the overall effectiveness of the construction site runoff control program.

a) Grading Code and Land Use Permitting (BMPs 4.1, 4.2, 4.3, 4.4, 4.5, and 4.6)

Chapter 14 of County Code was updated prior to SWMP implementation and evaluated during Year 2.

- Grading Code / Land Use Permitting Evaluation. Procedures and effectiveness for implementing this control measure were evaluated during Year 2 and recommendations made public. Recommendations from the report were evaluated during Year 3. Analyzing the Grading Code and presenting to the public is successful at Levels 1 and 2 and ultimately Levels 3 and 4.
- Recommendations Implemented. Training building inspectors was added during Year 2, as recommended from evaluation. Some recommendations, such as tracking system upgrades and a standard list of minimum construction BMPs for planners to use were implemented in Year 3. Performance bonds for all projects exceeding 500 cubic yards of grading are required. Revisions to the Grading Ordinance were adopted and implemented during Year 5. Implementation of report recommendations is effective at outcome Level 2.

- Erosion Sediment Control Plans. Ongoing review of Erosion and Sediment Control Plans provide site-specific evaluation. The review of plans through the Grading Permit process is successful at multiple levels. It is effective at outcome Level 1 in accordance with the General Permit requirements; successful at Level 2 where submittals require awareness of potential pollutant discharges from grading sites; successful at Level 3 where plans are used to correct or modify contractor behavior to prevent pollutant discharges; and, successful at Level 4 where practices are used and maintained to prevent pollutants from being discharged into the County storm drain system.
- Inspections. All grading permitted sites are inspected regularly at various intervals based upon the phase of construction and the time of year. All sites greater than 1.0 acre in disturbance are required to be inspected, at a minimum, twice per month in the rainy season exclusively for potential storm water impacts. The inspection of construction sites operating under a Grading Permit is successful at multiple levels. It is effective at outcome Level 1 in accordance with the General Permit requirements; successful at Level 2 where inspections result in a communication between inspector and contractor, whether written or verbal, increasing awareness of potential pollutant discharges; successful at Level 3 where inspections result in correction or modification of contractor behavior; and, successful at Level 4 where inspections result in proper use, maintenance, or abatement of improper practices, thus preventing pollutants from being discharged into the County storm drain system. However, pollution prevention can only be assured when all required inspections take place. Program improvements to ensure that all required inspections are performed were implemented in Year 4 and 5.
- Enforcement. County inspectors have the authority to issue and enforce stop-work notices. Revisions to the Grading Ordinance implemented in Year 5 include a reference to Chapter 24A of the Santa Barbara County Administrative Fines Code, which allows a \$500 per day administrative fine and on the spot \$1,000 fine for one time offences. This revision to the Grading Ordinance results in better compliance by contractors and increased effectiveness for the enforcement program.

No Stop Work Orders were issued in Year 7. All corrections were accomplished through verbal warnings or written correction notices. Avoiding Stop Work is a strong incentive for contractors to make immediate and responsive corrections to avoid punitive action, and immediately effective at a Level 3 for changing behavior.
- Complaints Submitted by Public. Building and Safety staff respond to all legitimate complaints and make a site visit within 48 hours. Regarding “review and act on all information submitted by public to B&S Division”, it is difficult to assess the effectiveness of these procedures because complaint/violation cases are not tracked by the nature of the violation, for example failing construction BMP

for water quality vs. a zoning violation such as size of structure. However, the approach for complaint response is consistent regardless of the complaint details and all detailed records of violations (nature of violation, follow-up measures) are retained within a case file. Planning & Development Permit Compliance staff always notify Building & Safety Grading Inspectors in cases where corrective measures are required for clean water BMPs. Responding to complaints is effective at an outcome Level 3.

- Improvements in Permit Tracking. All data associated with permit processing is tracked through countywide software called Accela. During Year 3, major upgrades were made to the system which provided new functionality to the permit information management process. Changes were also made to the reporting function which allows detailed notes that are entered during inspections to appear on reports, thus providing a more complete understanding of what occurred on a given case. All of these improvements increase the efficiency of grading inspection staff. Work toward these changes is effective at Level 1, and will ultimately produce a change in the way planners record and track projects at an outcome of Level 3.

b) Training (BMP 4.7)

- Grading (B&S). All grading inspectors have received extensive training in the past and obtain ongoing training at staff meetings and through professional affiliations as needed; effective at outcome Level 2.
- Compliance (D-Rev). All planners and compliance inspectors receive clean water best management practice training through ongoing management review and oversight; effective at an outcome Level 2.

b) Construction Workshops / Website (BMP 4.8)

- Website. The construction link on the Project Clean Water website was substantially updated in January 2007, with minor updates in Years 2 through 5. The County's Building & Safety website also provides information on the permit including grading permit submittal requirements, fees, and application/permit status with links to BMPs guidance for Erosion and Sediment Control Plans and/or Storm Water Pollution Prevention Plans. Together, these two websites provide guidance on the requirements for obtaining Grading Permits, where to find appropriate County-adopted BMP manuals, and what is required to comply with the local clean water requirements. Having this resource available and maintained on a web page provides an effective outreach opportunity for educating the public, planners, and regulatory staff, effective at an outcome Level 2.
- Construction Workshops. For the first five year implementation period of the Storm Water Management Program, the County has sponsored and promoted

annual public workshops on construction site best management practices, offering a valuable forum for the construction industry and planning and building regulators. A Caltrans sponsored construction workshop was held in Year 4 at UCSB, covering construction BMPs and the new Construction General Permit. Attendance was improved over previous years, likely due to interest in new Construction General Permit requirements. While this measure has been effective at an outcome Level 2, little significant change in regulations or practice lead to a declining interest in attending workshops making this measure unnecessary. As reported in the Year 5 Annual Report, this measurable goal has been met for the five year program implementation period and was deleted beginning in Year 6. Providing timely information on the web site and distributing pamphlets on preparing construction site SWPPPs at the building permit counter is more effective than holding resource intensive and sparsely attended workshops.

Table 7.4 Effectiveness Assessment Summary for Construction Site Storm Water Runoff Control

BMP	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
4.1 Grading Ordinance Revisions	(Completed prior to SWMP)	(Completed prior to SWMP)	(Completed prior to SWMP)	
4.2 Evaluate Grading Ordinance	Y2 Conduct Evaluation	Y2 Conduct Evaluation, review results with staff and public Y3 Analyze results of eval. and make recommendations Y4, Y5 Revise Grading Ordinance		
4.3 Erosion & Sediment Control; Control of Wastes	Y1 – Y7 Ongoing implementation of permit procedures Y1 – Y7 Complaints forwarded to inspectors	Y1 – Y7 Ongoing application of BMPs at construction sites thru proper plan submittals	Y1 – Y7 Inspections and Correction Notice Y1 – Y7 Complaint response Y1 – Y7 verbal warnings or correction notices issued	Y1 – Y7 Where BMPs used at construction sites prevent / eliminate discharges Y1 – Y7 Where inspectors identify & prevent / eliminate discharges
4.4 Review of Plans, etc	Y1 – Y7 Ongoing thru permit procedures	Y1 – Y7 Ongoing application of BMPs at construction sites thru proper plan submittals	Y2 – Y7 Revisions to Accela & overall permit tracking	
4.5 Discretionary Projects - Land Use Permits	Y1 – Y7 Ongoing thru permit procedures		Y1 – Y7 Inspections and Correction Notice Y1 – Y7 Complaint response	
4.6 Evaluate Land Use Permit Program Efficacy	Y2 Conduct Evaluation	Y2 Conduct Evaluation, review results with staff and public		
4.7 Staff Training		Y1 Grading Inspectors Y2 – Y7 Grading plus dev-rev and compliance inspectors		
4.8 Construction Workshops		Y2 – Y5 Workshops Y2 – Y7 Web improvements		

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report

MCM 5.0 Post-Construction Storm Water Management in New and Redevelopment

The Post-Construction Storm Water Management in New and Redevelopment minimum control measure is implemented under authority of the County Planning & Development Department through County code, policy, and practice. Other County departments such as Public Works, Fire, and Public Health, provide early input to the permitting and development process including some of the General Permit Attachment 4(B) design requirements.

Overall, the County's Hillside and Watershed Protection Policy (Policy #7) is clear and unambiguous in intent: *Degradation of the water quality...shall not result from development of the site.*

By applying this policy through the permit process (both ministerial and discretionary), the County provides consistent review of water quality impacts and appropriate mitigation to protect water quality from storm water runoff.

During Year 3, Water Board staff completed a focused program audit and determined that water quality controls are being effectively integrated into development projects and the County is fulfilling the intent of design standards contained in Attachment 4 of the General Permit. Water Board staff reported to the Regional Board that they were pleased with the progress the County has made to ensure that water quality is not further degraded through future development.

During Year 4 the County revised its SWMP to reflect participation in the regional joint effort to develop hydromodification control criteria (post construction requirements). During Year 5 the County implemented new application requirements related to implementation of Low Impact Development (LID) intended to clarify requirements and assure that LID is considered early in the design process. Training and outreach began related to new LID application requirements with planners, decision-makers, the development community and PCW stakeholders. During Years 6 and 7, the County participated in the Joint Effort, through participation on the Joint Effort Review Team and Water Board workshops.

Our staff training program has and will continue to evolve based on the number of new staff and perceived need. Project Clean Water staff is directly involved in the development review process and can monitor whether additional, focused or revised training of P&D staff is necessary. We will continue to provide staff training and presentations to advisory committees and decision-makers to ensure consistent application of County policy related to water quality. Because of the close working relationship between Planning & Development (which is responsible for reviewing projects and applying conditions) and PCW (which is responsible for managing and reporting on the SWMP) effectiveness assessment and follow-up is continuous and ongoing.

Effectiveness will best be assessed once the new post-construction regulations are implemented and awareness from the development community increases. During Years 1 through 7, effectiveness focused on Outcome Level 2 (raise awareness) and Outcome Level 3 (change behavior, resulting in implementation of BMPs), with the goal of the overall storm water program of Outcome Level 4 (Reduce Pollutant Load).

a) Land Use Policies and Permit Review Process (BMPs 5.1, 5.2, 5.4)

Relevant land use policies and procedures were updated prior to Year 1, as described in the Storm Water Management Program. During Years 1 through 7, the County continued to implement these updated policies and procedures. During Year 2, many of the recommendations from the Year 1 evaluation were implemented, as discussed in Section 5.0.

- Updated Community Plans. Several community plans were updated during Year 2 through 7 to include Low Impact Development design considerations. For example, the Mission Canyon Residential Design Guidelines includes direction for use of permeable paving on driveways, and development of hillside areas to minimize grading and runoff from impervious surfaces. This measure is considered successful at Level 3.
- Improved Submittals. Development applications continue to improve over time as applicants become more familiar with the County requirements and expectations. This is largely due to directed outreach efforts, staff training, and direct communication to applicants during pre-application meetings and Subdivision Design Review Committee meetings. There are currently specific application requirements to address “measures that will be incorporated into the project design to address storm water quality (e.g. protect riparian corridors, reduce runoff, reduce directly-connected impervious area, eliminate pollutant sources)” and planners cannot deem an application “complete” until the applicant has addressed how storm water runoff will be treated (for Attachment 4(B) category project applications).

During Year 5, the County implemented new development application requirements related to interim Low Impact Development (LID) intended to clarify requirements and assure that LID is considered early in the design process. The revision makes clear that certain discretionary projects subject to the Attachment 4 must include minimum LID measures for the application to be deemed complete. Development of this application revision involved ongoing coordination meetings between PCW and Planning & Development staff, multiple public meetings, targeted outreach to the engineering and development industry, training to P&D staff, and updates to the Accella tracking system and associated Procedures Manual. Improvements in initial design and submitted applications are successful at outcome Level 2 and where submittals have improved, behaviors have changed resulting in complete submittal requirements early in the project application which is effective at Level 3.

- Improvements in Permit Tracking. All data associated with permit processing is tracked through a countywide system called Accela. During Year 3, major upgrades were made to the system which provided new functionality to the permit information management process. During Year 5, improvements were made to allow planners to input and track data related to LID features in projects. All of these improvements increase the internal efficiency of the permit tracking system. This work is successful at Level 3.
- Inspections During Construction. All projects issued a discretionary permit undergo regular inspections during construction to ensure compliance with permit conditions and mitigation measures. Inspections are designed to assure, 1) the project construction complies with all conditions of approval, 2) the design is consistent with final approved plans, 3) construction meets all codes and standards, and 4) the final project complies with any conditions of use or final design conditions, such as landscaping. Failure to do so could result in a Stop Work Order, which is a highly effective mechanism to assure immediate correction. Only when the project has complied with all conditions of approval, codes, standards and plans, will the Planning and Development Department issue final occupancy clearance and release the construction bonds. Linking project closure with proper installation of all elements of project design provides an effective mechanism to assure compliance. Construction inspections are successful at a Level 3 outcome and where abatement occurs, Level 4.
- Certification Upon Completion. Projects that have structural treatment control measures, required as a condition of permit issuance, must be certified by the design engineer upon completion, prior to final Occupancy Clearance. The two main reasons treatment control measures fail is because 1) they are not installed correctly and 2) they are not maintained. Requiring the licensed design engineer to certify installation is a very effective way to assure the long-term function of the BMP, because it assures legal responsibility for proper installation. This is effective at a Level 3 outcome.
- Maintenance Inspections. Project Clean Water staff requires a maintenance agreement for all projects to assure perpetual maintenance of treatment control facilities by the property owner. P&D staff also inspects those projects with structural treatment control in place, or under construction. County follow-up on maintenance activity assures the long-term function of the BMP; failure to do so would be in violation of the recorded maintenance agreement. Assuring the treatment BMP is functioning to treat pollutants from storm water runoff is successful at an outcome Level 4.
- Scope. It is worth noting that all discretionary development and redevelopment proposed throughout the County, not just those limited to the SWMP permit area, are analyzed for consistency with policies. This provides a broader and more consistent approach to development countywide. This expanded scope is successful at an outcome Level 3.

b) Program Evaluation (BMP 5.3)

During Year 1, the County together with a consultant team developed an in-depth analysis of County policy and practices, compared the policy and practices to the minimum General Permit requirements, and identified areas of permit deficiency or opportunities to improve. This resulted in a number of effective changes at the County, including:

- Revised Flood Control standard conditions, successful at Level 3;
- Revisions and updates to the Planner’s Guide to Standard Conditions of Project Plan Approval, successful at Level 3;
- Revised draft of treatment control BMP standard conditions of approval, successful at Level 3;
- Revised draft Public Works Engineering Design Standards, successful at Level 3;
- Updated post-construction web page, successful at Level 3.

During Year 3, Regional Board staff audited the County’s Storm Water Management Program with focus on the post-construction program. As stated in their April 10, 2009 letter, Water Board staff found “that water quality controls are being integrated into development review projects early on in the planning phase through the County’s Subdivision Review Committee (SDRC), Standard Condition of Project Plan Approvals, and project conditional letters submitted by Project Clean Water staff.” And that “County appears to be fulfilling the intent of the design standards contained in Attachment 4 of the General Permit.” Ongoing evaluation of the post construction program is successful at Level 3.

c) Staff Training, Education & Outreach Efforts (BMP 5.5)

During Year 7, all P&D development review staff received updates at regularly-scheduled staff meetings and through one-on-one consultation as-needed between planners and PCW staff. Training focused on new development application requirements discussed above under Improved Submittals and emphasized the planner’s role (vs. Public Works) in implementing LID and Attachment 4(b) design standards. These trainings are highly effective because they target individuals responsible for reviewing development projects thereby ensuring consistent application of County policy related to water quality. Staff training efforts were effective by targeting those directly involved in development review. Overall the effectiveness of education and outreach is successful at Level 2.

c) Incentive Program (BMP 5.6)

During Year 3 and 4 the County explored a number of incentive programs for innovative site design. As discussed in the Year 3 Report, most traditional methods such as density bonus, fast track review and fee reduction were determined to be infeasible due to limited staff and financial resources. An award program was developed during Year 4. This

program awards a Certificate of Recognition for excellent LID implementation on new and redevelopment projects. The incentive program is successful at Level 2.

Table 7.5 Effectiveness Assessment Summary for Post-Construction Storm Water Management in New and Redevelopment

BMP	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
5.1 Update Land Use Policies	Y1 Modify Policy Y2 Modify Guidance		Y2 – Y7 Update Comm Plans & Development Guidance	
5.2 Implement Design Standards Per General Permit	Y1 - Y7 Apply policy per standard procedures	Y1 Develop website Y2 - Y7 Improve Submittals	Y2 Improvement tracking (Accela) Y1 – Y7 Construction Inspections Y1 – Y7 Certification Y2 – Y7 Improve Submittals	Y1 – Y7 Compliance inspections that result in abatement of discharges or correction per plans
5.3 Evaluate Program Efficacy	Y 1 Conduct Program Evaluation		Y2 – Y7 Implement Recommendations	
5.4 Project Evaluations				Y1 - Y7 BMP Maintenance Inspections
5.5 Staff Training		Y1, Y2, Y4, Y5 Decision Maker presentations	Y2 – Y7 Staff training	

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report

MCM 6.0 Pollution Prevention / Good Housekeeping Practices for Municipal Operations

The Municipal Operations Pollution Prevention portion of the Storm Water Management Program is intended to ensure that County operations and the delivery of public services occurs in a manner that protects storm water quality and serves as a model for the community. The BMPs contained in this minimum control measure serve to implement appropriate and effective pollution prevention practices for the multitude of activities that the County is engaged in and to provide ongoing training for County staff regarding the potential impacts from municipal activities.

Collectively, all the BMPs within the municipal operations component of the County's storm water program are highly effective in increasing awareness among County staff in order to change behavior and ultimately to reduce pollution. Over the first six permit years, we have expanded our staff training program to include all appropriate departments and individuals. It is evident from our inspections that awareness levels have steadily increased and that County staff are following good housekeeping practices and are implementing pollution prevention measures on a routine basis.

During Year 3 facility-specific protocols were completed for all facilities identified in our Storm Water Management Program. More facilities are now being inspected, staff has been trained in the use of BMPs, and awareness of good housekeeping practices is increasing resulting in changes in behavior and reduced pollutant loads.

In addition to tracking BMP implementation, use of our web-based interactive BMP tracking system encourages awareness of actions that may be part of standard practices but have the added benefit of protecting water quality. Because their efforts are noted and tabulated, the system reminds site managers of the importance and value of continued BMP implementation.

Our street sweeping program was designed and is being implemented to provide the greatest water quality benefit per dollar spent. The County sweeps commercial districts and heavily-used arterial streets three times per year, prior to storms likely to mobilize accumulated materials into the storm drain system. These include areas of Orcutt, Goleta, Montecito, and Summerland. Isla Vista is swept every two weeks year round by the Goleta West Sanitary District. In addition, Isla Vista Parks and Recreation District organizes weekly volunteer litter removal and monthly community cleanup events throughout the Isla Vista area. The County has focused on sweeping 27 lane miles in areas where the greatest benefit is derived with the limited funds available. The street sweeping program along with our other municipal practices of cleaning and maintaining CDS storm drain units and bioswales are the most expensive of our municipal operations BMP's, although they are also likely the most successful at Level 4 for pollutant load reduction.

Our training program is fully developed and operational. Additional departments have been added to routine training, including Parks. All Public Works new employees get storm water awareness training based on their positions and need-to-know, with office

staff receiving a brief awareness training and field staff performing operations that are potentially polluting receiving much more intensive and focused training. We have instituted Corporation Yard Leadership training as part of the Storm Water Quality Protocols, where intensive training is provided to crew leaders and site managers, who in turn present the message and material to their staff through onsite, mandatory meetings. During Year 7, PCW staff provided training for municipal maintenance superintendents at the Central Coast Chapter Maintenance Superintendents Association Annual Training and Equipment Show in Santa Maria (June 19, 2013).

As an efficient means of ensuring that County contracted services are meeting water quality objectives, targeted training of General Services management staff that directly administer and oversee contracts is provided, effective as of Year 3. Training of General Service management staff is particularly important since they have a key role as caretakers of all County properties.

The County's municipal operations pollution prevention component of the Storm Water Management Program has been steadily and consistently improving and becoming more effective over the past seven permit years. We will continue to explore additional opportunities to improve municipal operations and the effectiveness of our BMPs. We will continue to seek opportunities to gain efficiencies in our training program, through such measures as expanding the Leadership training program and the use of training videos.

a) Audit, Protocols, Fact Sheets, Reporting (BMPs 6.1, 6.2, 6.3 and 6.4)

The County of Santa Barbara has an extensive array of government activities, ranging from public health services and clinics, to emergency services from Fire, Sheriff, and Public Works, to horse boarding and restaurant management. Effectiveness has improved over the seven permit years as the program has developed with the early focus on Outcome Level 2 (raise awareness) leading to Outcome Level 3 (change behavior, resulting in implementation of BMPs) eventually leading to an Outcome Level 4 (Reduce Pollutant Load) beginning in Year 3 and ongoing.

During the first six years:

- Survey Facilities. Establishing the database of facilities, assessing practices, and developing BMPs was an effective first step in the process of improving housekeeping practices of municipal operations. These measurable goals are successful at Level 1.
- Fact Sheets. The Best Management Practices Fact Sheets were developed based upon the type and nature of facilities surveyed. These measurable goals are similarly successful at Level 1.
- Audit Campuses. During Year 2, the database of facilities and BMP Fact Sheets was used to audit the largest County campuses that represented all County Departments for effective implementation of good housekeeping practices. In Year 3 additional facilities were added to those that are inspected by Project

Clean Water staff, including park facilities, fire stations, health clinics and three public works corporate yards. Where deficiencies in good housekeeping practices were noted, follow-up was provided immediately addressing any potential discharges. In Years 4 through 7, the areas were audited and found to be in compliance with good housekeeping measures. This BMP was successful at Level 3.

- Tracking / Reporting. A web-based reporting system was developed in Year 2 for facility managers to track and report practices. During Year 3 the reporting system was made available on the County intranet for direct, individual reporting by facility managers. The reporting system was successfully utilized again in Years 4 through 7. Records will be used to assess effectiveness of education and training, and identify opportunities for improvements. This BMP is successful at Level 3.

b) Service Contracts (BMP 6.5)

- Fleet Vehicle Washing. New practices for complete wastewater recovery were implemented for fleet vehicle washing at County parking lots in Year 3 and continuously implemented in Years 4 through 7. Preventing discharges from occurring is successful at Level 4.
- Fleet Vehicle Washing: Practice Verification. Inspections to verify the effectiveness of the washwater recovery practices continued in Year 5 through 7 through a series of random checks whereby Project Clean Water staff appeared unannounced during a regularly-scheduled washing day (typically weekends). The fleet washing contractor continued to provide consistent performance recovering wastewater. There were no reported incidents of improper performance related to janitorial services or fleet fueling. This effort was successful at Level 4.
- Contracts. For improved clarity, new language for the county's janitorial contract with Service Master was added during Year 5 to require the use of standard good housekeeping practices and ongoing training of staff in the protection of water quality. Good housekeeping measures are continuously practiced by contract staff and overseen by County employees who manage those contract staff.
- **County Practices (BMPs 6.4, 6.6, 6.7, and 6.8)**

A number of ongoing county programs and practices provide protection of storm drains and receiving waters. These include culvert inspections, flood control maintenance, Resource Recovery's recycling and waste collection programs, ongoing Integrated Pest Management program, storm drain maintenance, and street sweeping, all described in detail in the SWMP. Specific areas of effectiveness include:

- Flood Control. Creeks and channels were inspected by Flood Control maintenance crews in Year 7. In addition to maintaining the channels through brush and debris removal, Flood Control staff refer water quality issues to Project

Clean Water staff for follow-up. This program is successful at Level 1 for implementation; where maintenance or referral occurs, successful at Level 4 for removing a pollution source.

- Public Works Roads Division Culvert Inspections and Maintenance. Routine inspection and maintenance resulted in 5,456 culverts inspected. Similar to Flood Control routine maintenance and inspection, this program is effective at Level 1 for implementation; where maintenance or referral occurs, successful at Level 4 for removing a pollution source.
- Solid Waste Facilities. Storm Water Pollution Prevention Plans implemented and updated at all solid waste facilities, as required by the State Water Resources Control Board consistent with the NPDES Industrial General Permit No. 97-03-DWQ. Implementation of these plans is effective at Level 3 and 4 by preventing pollutant loading. Regularly updating the plans is an NPDES permit requirement, successful at Level 1.
- IPM. Annually reporting on pesticide use has resulted in increased awareness and behavior changes in County staff by implementing pest management efforts which minimize, and in some cases eliminate the use of pesticides where feasible. Implementation of this program is successful at Level 3 and successfully proven at Level 4 through overall lowering of pesticide use since adoption of the IPM.
- Street Sweeping. A total of 82,950 pounds of material were removed from the street sweeping program. This is a directly-measurable pollutant load reduction, successful at Level 4.
- Storm Drain Cleanout. A total of 62,380 pounds of trash sludge was removed from the storm drain trash interceptors (CDS units). This is a directly-measurable pollutant load reduction, successful at Level 4.
- Bioswales. Storm drain discharges entering the Turnpike and two Rhoads Ave. bioswales intercepted and eliminated discharges from nuisance flows and small storm events. Therefore there is zero discharge of pollutants about 95% of the time (i.e. non-rainy days). This is a directly-observable pollutant load reduction, successful at Level 4.

c) Staff Training (BMP 6.9)

Education and outreach opportunities to County employees increases their knowledge and awareness. This improves performance of their municipal responsibilities, and increases the reporting of illicit discharges.

- Corporate Yard Leadership Training. Project Clean Water provides storm water training to crew leaders and site managers at six of our largest facilities, who in turn present the message and material to their staff through onsite, mandatory “tailgate” or safety meetings. During Year 7, PCW staff provided training for municipal maintenance superintendents at the Central Coast Chapter Maintenance

Superintendents Association Annual Training and Equipment Show in Santa Maria. This training effort is successful at Level 2.

- Staff training. Training is targeted to appropriate County departments on a rotating basis. This measurable goal is successful at Level 2.

Table 7.6 Effectiveness Assessment Summary for Pollution Prevention / Good Housekeeping Practices for Municipal Operations

BMP	Effectiveness Assessment Outcome Levels			
	Level 1	Level 2	Level 3	Level 4
	Implement Program	Increase Awareness	Behavior Change	Load Reduction
6.1 Evaluation of Santa Barbara County Facilities	Y1 Survey			
6.2 Site Specific Water Quality Protocols	Y1 Protocols drafted, to be finalized Y3 Y3 Protocols finalized			
6.3 Municipal Operations BMP Fact Sheets	Y1 Develop Fact Sheets			
6.4 BMP Fact Sheet Implementation & Reporting	Y2 - Y7 Web-based Reporting		Y2 – Y7 Audit campuses	
6.5 Purchasing and Contracts	Y1 – Y7 Contracts		Y1 Fleet Vehicle Washing Contract	Y2 - Y7 Inspect Washing Practices
6.6 Integrated Pest Management Plan			Y1 – Y7 Implement IPM	
6.7 Storm Drain Maintenance	Y1 – Y7 Flood Control Maintenance Y1 – Y7 Culvert maintenance Y1 – Y7 Implement SWPPPs		Y1 – Y7 Implement IPM Y1 – Y7 Implement SWPPPs	Y1 – Y7 Storm drain cleaning Y1 – Y7 Bioswales Y1 – Y7 Flood Control maintenance or referrals Y1 – Y7 Culvert cleaning maintenance or referrals Y1 – Y7 Implement SWPPPs Y1 – Y7 Implement IPM
6.8 Street Sweeping				Y1 – Y7 Street Sweeping
6.9 Staff Training		Y2 – Y7 Pocket Guide Y3 – Y7 Corporate Yard Leadership Training Y2 – Y7 Field Staff Training		Y2 – Y7 Increased referrals from County staff

Y1 – Reporting/assessment with the FY 2006-2007 Annual Report
 Y2 – Reporting/assessment with the FY 2007-2008 Annual Report
 Y3 – Reporting/assessment with the FY 2008-2009 Annual Report
 Y4 – Reporting/assessment with the FY 2009-2010 Annual Report
 Y5 – Reporting/assessment with the FY 2010-2011 Annual Report
 Y6 – Reporting/assessment with the FY 2011-2012 Annual Report
 Y7 – Reporting/assessment with the FY 2012-2013 Annual Report