

## 7.0 Program Effectiveness Assessment

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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. The County will continue this effectiveness evaluation through the remaining two permit years so that appropriate and meaningful modifications can be made when our SWMP is renewed after the initial five year period that will increase the overall success of the program and achieve the maximum benefit with limited and dwindling County resources.

## **MCM 1.0 Public Education and Outreach**

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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. Teacher evaluation of the youth education program indicates that it is extremely successful and effective, with 100% of teachers indicating that they want to participate in the Art From Scrap Creek Kids Series next year.

Because of the makeup of Santa Barbara County's population, Latino outreach is also critical to the success of our program and a fair amount of resource is spent here as well.

Over the first three permit years, we have expanded our events and outreach efforts in northern Santa Barbara County and will continue to look for opportunities to partner with our northern cities, particularly now that their SWMPs are in effect.

Finally, our business outreach component has been expanding and gaining a great deal of community interest and participation. During permit Years 4 and 5, we will continue to explore additional opportunities for incentives for build-out areas, including partnering with other County retrofit incentive programs targeting energy savings and water conservation.

### **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 increased from Year 1:

- Brochures. Over 17,100 educational materials focused on preventing storm water pollution were distributed including over 1,500 to target populations of horse

owners, dog owners, creekside residents and landscape professionals. Approximately 9,350 Spanish language materials were distributed in Year 3 through community events, mailings, and groups such as Agua Pura and Resource Recovery. This is a significant increase over Year 2 distributions (1,800). This year the Backyard Composting Booklet was updated and two new brochures on Gardening with California Native Plants and Green is Good for Business were added to our inventory in an attempt to create renewed interest and an additional new focus to our storm water program. 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. While the number of visitors to the website decreased by 51% compared to Year 2, this is likely attributable to the dramatic increase of almost 250% over Year 1, something that would be difficult to sustain over time, unless major changes are occurring to the program. PCW will outreach to other agencies and organizations to provide links between websites where appropriate. We anticipate increased activity on our web site once the public and development community are engaged in discussions regarding hydromodification control during Years 4 and 5. Looking at the entire three years of the program, a cumulative 30% increase in hits (10% per year) has been achieved. Overall the website is successful at Level 2.
- Events. A total of 29,400 attendees at a wide variety of public events were exposed to the County's clean water programs, exceeding the 15% population requirement. 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 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. The Univision campaign reached an estimated 143,000 Spanish-speaking persons County-wide, an increase of over 10,000 from Year 2. Advertising has been an efficient way to reach our large and diverse population. The County has begun discussions with the City of Santa Maria in an attempt to increase the effectiveness of our media campaigns in the North County by combining resources. 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 focal point for water quality education programs on the south coast. The WRC was originally established with grant funds from the CA Coast Conservancy largely due to an active

community effort. It continues to receive widespread community interest and support. No similar level of participation and interest exists at this time in the North County.

- WRC. 2,268 people visited the WRC through the youth education and community programs (592 for youth education, 932 for community meetings and 744 for events and programs. Total visitation was up by over 160 visitors from Year 2 and almost 500 visitors more than in Year 1. Of note is that persons attending community events and programs at the WRC increased by 166 compared with Year 2. The WRC started opening on Sundays for drop-in visitors beginning in February of Year 3. Management of the WRC continues to be through Art From Scrap (AFS). During Year 3 the County completed a competitive bidding process and finalized a 5-year contract with AFS to provide youth education through classroom presentations and field trips to the WRC. Overall the WRC is successful at Level 2.
- Youth Education. AFS gave classroom presentations on water quality to 569 students in South County and 921 students in North County 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 3 was overwhelmingly positive. Of the 23 teachers who responded, 96% of teachers gave the Creek Kids Series an 8 or higher on 7 of the eight 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 74% stated that the field trip to the WRC was valuable to their students at a level 10. Evaluations were also given to 594 students representing 30 of 30 Creek Kids series' in North County and 5 of 5 Creek Kids series' in South County. 100% of the total number of targeted students were given the evaluations. The evaluations will continue to be used to revise program content as needed.
- 13,748 K-8 students in North and South County schools attended waste reduction workshops.
- Latino Education. Agua Pura taught 713 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, as occurred in 11 cases in Year 3 (see MG 3.4.2).

**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. The Green Gardener Program originated in Santa Barbara and has since been adopted and used by other municipalities. In Year 3, the Green Gardener Program was selected to receive the Outstanding Regional Storm Water News, Information, Outreach, and Media Project Award at the 2008 Annual CASQA Conference in Oakland, CA which affirms the effectiveness of the program approach. Overall the Green Gardener Program is successful at Level 3 for changing behavior and at Level 4 for reduction in fertilizer and pesticide use.

The Green Gardener self-assessments and surveys are an effective way of tracking behavioral changes and provide insight into a landscape professional's level of knowledge and use of green gardening practices.

- Landscape Education. Landscape education again expanded its reach this year to almost 20,400 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 3 with the continuation of the Garden Wise Guys program on public television, upgrades and the addition of new interpretive signs to the Santa Maria Sustainable Garden, and the Green Gardening Day at a local nursery hosted by a District Supervisor. Overall landscape education is successful at Level 2.
- Business Outreach. Over 1,720 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 has been an effective way to increase the

awareness of County business owners and operators to water quality impacts. This year, workshops in both North and South County specifically targeted mobile businesses. The County also participated in the launch of a County-wide Green Business Program in four business sectors (Hotels, Restaurants, Automotive, and Office and Retail). Both of these additions increase the effectiveness of the business outreach program by expanding the audience and targeting specific businesses prone to polluting practices. 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
<b>Outreach</b>	Y1 Ongoing; website expanded & updated Y2 Ongoing Y3 Ongoing	Y1 Ongoing; website expanded & updated Y2 Ongoing Y3 Ongoing		
<b>Education</b>	Y1, Y2, Y3 Ongoing	Y1, Y2, Y3 Ongoing		
<b>Storm Drain Marking</b>	Y 1 Installation in North & South Co. Y2 Installation complete for S Co. Y3 Ongoing maintenance	Y 1 Installation in North & South Co. Y2 Installation complete for S Co. Y3 Ongoing maintenance		
<b>Hotline</b>	Y1 Hotline expanded Y2, Y3 Hotline maintained	Y1 Hotline expanded Y2, Y3 Hotline maintained	Y1 Hotline expanded Y2, Y3 Hotline maintained	Y1, Y2, Y3 Hotline calls leading to field discoveries
<b>Business Outreach</b>	Y1, Y2, Y3 Landscape and Business Outreach ongoing	Y1, Y2, Y3 Landscape and Business Outreach ongoing	Y1, Y2, Y3 Green Gardener Program Y3 Built-out incentive program	Y1 Complaints & Discoveries Y2, Y3 Complaints & Discoveries; Bus. Inspection Program Y1, Y2, Y3 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

## **MCM 2.0 Public Participation and Involvement**

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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.

Participation in quarterly stakeholder meetings has significantly decreased. However, they are well attended for special topics. For example, participation at our January meeting was exceptional, with over 100 attendees. This countywide forum focused on a timely topic of great interest, hydromodification criteria.

The County will consider using this north/south combined meeting forum with a relevant focus as a model for future meetings as it is a more efficient use of limited resources and of the public's time.

The County will also be partnering with other cities in holding joint stakeholder meetings as we move forward with the collaborative effort in developing hydromodification criteria. We expect stakeholder involvement to increase over the next two permit years as public discussions related to development and implementation of hydromodification criteria come to the forefront.

We will continue to evaluate appropriate vehicles to increase stakeholder involvement and the effectiveness of holding poorly attended meetings.

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

- Stakeholders Committee. PCW Stakeholders regularly provide comments and suggestions that are utilized to improve the effectiveness of County's SWMP and BMPs. The most active Stakeholders are from local non-profits and local government agencies. Much of their input is provided through non-meeting vehicles involving web site updates and e-mail exchanges. This is an effective and efficient way to inform, communicate and improve the overall program. Participation in stakeholder meetings did increase substantially this past permit year from 28 participants in Year 2 to 135 in Year 3 (and 117 discreet individuals). In Year 3, our most successful stakeholder meeting was a countywide forum on hydromodification criteria. This north/south combined meeting with a timely topic of interest will be a model for future meetings as it is a more efficient use of resources and the public's time. We expect that development of hydromodification criteria will be the focus of discussions over the next two permit years. Stakeholder meetings are successful at Levels 1 and 2.

- **Community Forum.** Three public forums were held during Year 3, exceeding our measurable goal of one forum per year. The Community Forum during Creek Week “Green Home, Blue Ocean – Simple Things You Can Do to Protect our Ocean” presented by Darla Inglis of the Low Impact Development Center was attended by 20 community members. Digging In: A Guide to Community-Based Habitat Restoration” presented by the California Coastal Commission attracted 35 community members. The most successful event was a public forum called “Synthetic Sea – A Free Community Forum on Plastic Marine Debris” co-sponsored with the City of Santa Barbara attracting 65 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 most of the Phase II agencies. Overall coordination among agencies is successful at Level 2 for raising awareness.

Ongoing cooperative efforts include:

- PCW staff regularly attends CASQA meetings, serves as co-chair on the CASQA Phase II subcommittee, regularly participates in monthly California-wide Phase II subcommittee conference calls, acts as the primary contact for the Phase II partners and shares CASQA updates with the other committee members.
- Active communication during the Phase II enrollment cycle and updates concerning SWMP reviews and approval.
- Collaboration and information sharing related to development of hydromodification criteria and efforts to form a regional effort.
- Regular collaboration with the cities of Santa Barbara, Goleta, and Santa Maria on media, outreach and events.
- The county-wide Green Business Program involves nearly all of the Phase II entities as program partners.

**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 resulted in a decrease in pollutant loadings to the creeks and ocean. Volunteers removed large amounts of trash from the creeks and beaches. Clean-ups were scheduled during community events and with volunteer groups as needed or requested throughout the year. Community clean-ups are successful at all levels.
  - The County continues to serve as the local coordinator for California Coastal Cleanup Day in Santa Barbara County. PCW staff acted as “beach captains” for three local beaches. The County Parks Department hosted seven volunteer group clean ups at local beaches. PCW organized a total of four beach clean ups with volunteer groups, three at Isla Vista beach during the year and one at Jalama Beach during Earth Day. In addition clean-ups are performed regularly at Hendry’s Beach through the Watershed Resource Center as part of the youth education program curriculum.
  - County Public Works provides funding to support the Isla Vista Parks and Recreation Department’s Adopt-A-Block volunteer program, organizing weekly and monthly clean-ups in Isla Vista and at local beaches. Over 20 UCSB campus groups consistently participate. In Year 3 volunteer hours increased substantially, from 1,113 volunteer hours in Year 2 to 4,262 in Year 3.
- 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. PCW identifies volunteering water quality data as qualitative and is primarily used as an educational tool to inform and engage the public in the current health of local creeks. Using simple kits, monitoring can help capture the effects of nutrient loading on dissolved oxygen levels. 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
<b>2.1 Steering Committee</b>	Y1 North Co. Stakeholders Mtg. established Y2, Y3 Ongoing meetings & interaction	Y1 North Co. Stakeholders Mtg. established Y2, Y3 Ongoing meetings & interaction		
<b>2.2 Public Meetings and Forums</b>	Y1, Y2, Y3 Ongoing	Y1, Y2, Y3 Ongoing		
<b>2.3 Coordination Among Agencies</b>	Y 1, Y2, Y3 Ongoing meetings & cooperative efforts	Y1, Y2, Y3 Ongoing		
<b>2.4 Volunteer Water Quality Sampling</b>	Y1, Y2, Y3 Ongoing in connection with events or clean-ups	Y1, Y2, Y3 Ongoing in connection with events or clean-ups		
<b>2.5 Community Clean-ups</b>	Y1, Y2, Y3 Ongoing creek & beach clean-ups	Y1, Y2, Y3 Ongoing creek & beach clean-ups	Y1, Y2, Y3 Ongoing creek & beach clean-ups	Y1, Y2, Y3 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

### **MCM 3.0 Illicit Discharge Detection & Elimination**

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The following is an assessment regarding the effectiveness of the first three 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.

While this is an effective and efficient use of limited County resources, it does present challenges as our partnering departments often have competing priorities, different mandates and different oversight agencies. The business inspection program is relatively new and still evolving. Among the IDDE BMPs, it requires the greatest amount of staff resource. For these reasons, this component will continue to be carefully monitored during Year 4 to see if it has the appropriate level of resource allocation and attention.

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 and will continue unchanged into Year 4. 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. In Year 3, the Solid Waste Association of North America (SWANA) chose the County of Santa Barbara Department of Public Works Resource Recovery & Waste Management Division to receive the SWANA 2008 Gold Excellence Award for Integrated Waste Management. The Excellence Awards Program recognizes outstanding programs and facilities that promote socially, environmentally, and economically sound management of solid waste. The resource recovery and recycling component of the County's IDDE program is 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.

In Year 3 there were no cases through the PCW complaints, discoveries, or inspections programs where an active discharge was occurring and enforcement was necessary. All cases were handled through awareness, 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 tools available for enforcement including administrative fines. 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 29-50. As described in the revised SWMP (submitted 2008), 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. Improvement of content and use of the storm water ordinance does not seem warranted and is not recommended at this time. 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. Abatement occurred in 11 cases in Year 3 (see MG 3.4.2).

**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. The County distributed over 340,000 Mutt Mitts this permit year. 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. In Year 3, the Solid Waste Association of North America (SWANA) chose the County of Santa Barbara Department of Public Works Resource Recovery & Waste Management Division to receive the SWANA 2008 Gold Excellence Award for Integrated Waste Management. The Excellence Awards Program recognizes outstanding programs and facilities that promote socially, environmentally, and economically sound management of solid waste. 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 were performed in 1 location as a result of creek walks. 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. We believe that 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 use of limited resources.

- 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 they may need to be addressed. Inspectors provide and discuss targeted educational information that identify 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. In Year 3, sixteen businesses required minor corrections and all completed the corrections, or correction was in progress, within the time specified by staff. 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 will be able to effectively eliminate recurrent discharges. During Year 3, this measure was 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
<b>3.1 Storm Sewer Mapping</b>	Y1, Y2, Y3 Map and Updates	Y1, Y2, Y3 Map and Updates		
<b>3.2 Storm Water Ordinance</b>			Y2 Approve Code Revisions Y3 Implement ordinance	Y2, Y3 Where cleanup results
<b>3.3 Education &amp; Outreach</b>		Y1, Y2, Y3 Brochures and workshops Y1, Y2, Y3 Waste collection & Recycling	Y1, Y2, Y3 Waste collection & Recycling	Y1, Y2, Y3 Mutt Mitts Y1, Y2, Y3 Waste Collection & Recycling
<b>3.4 Spill Complaint and Response</b>			Y1, Y2, Y3 Complaint and Discovery Investigations	Y1, Y2, Y3 Complaint and Discovery with cleanup
<b>3.5 Commercial/Industrial Facility Inspections</b>	Y1, Y2, Y3 Implementation of all inspection programs consistent w/ state laws	Y1, Y2, Y3 Haz Mat Inspections Y1, Y2, Y3 Food Service Inspections Y2, Y3 PCW Business Inspections	Y1, Y2, Y3 Haz Mat Inspections Y1, Y2, Y3 Food Service Inspections Y2, Y3 PCW Business Inspections	Y1, Y2, Y3 Where inspections results in correction and cleanup
<b>3.6 Field Investigations and Abatement</b>	Y1, Y2, Y3 Creek Walks	Y1, Y2, Y3 Where direct communication occurs	Y1, Y2, Y3 Where follow-up confirms cleanup	Y1, Y2, Y3 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

## **MCM 4.0 Construction Site Storm Water Runoff Control**

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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 already required.

In order to meet or exceed the requirements of the Phase II General Permit, it is anticipated that the P&D staff will make revisions to the Grading Code and will take recommendations to the Board of Supervisors for consideration by fall 2010. Training for Building and Safety Division, Building Inspectors and for Development Review Division, planning staff will continue.

Collectively all of the BMPs related to construction site storm water runoff are effective. Staff reductions in the Grading section of our P&D occurred in Year 2 and again in Year 3 of the SWMP implementation. Reductions were due to decreased permit activity related to the poor economy. Reduced staff resulted in minor challenges in meeting the minimum number of construction site inspections during the rainy season. Every effort will be made to meet the measurable goal of two inspections/month during the rainy season in Year 4. Improvements to the permit tracking system should result in increased efficiency.

### **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 (in years to come).
- 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 already required. Outstanding recommendations, including Grading Ordinance revisions will continue into Year 4. 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 via 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, Level 4 where practices are used and maintained to prevent pollutants from being discharged into the County MS4.
- 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, Level 4 where inspections result in proper use, maintenance, or abatement of improper practices, thus preventing pollutants from being discharged into the County MS4. However, pollution prevention can only be assured when all required inspections take place. Since records shown in Attachment 4A and 4B indicate that County staff failed to make a second SWPPP inspection on three cases during Year 3, this BMP is less than effective and warrants focused attention in the remaining two permit years.
  - Enforcement. No Stop Work Orders were issued in Year 3. 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 a 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. The next phase of improvements includes the addition of a wireless access module which will allow grading inspection staff to download and input information directly while in the field. 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 attended training during Year 3; effective at outcome Level 2.
- Compliance (D-Rev). All planners and compliance inspectors received training during Year 3. Ongoing training of planners and compliance inspectors under this program is effective at an outcome Level 2.

**c) 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 and 3. 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 education the public, planners, and regulatory staff, effective at an outcome Level 2.

**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
<b>4.1 Grading Ordinance Revisions</b>	(Completed prior to SWMP)	(Completed prior to SWMP)	(Completed prior to SWMP)	
<b>4.2 Evaluate Grading Ordinance</b>	Y2 Conduct Evaluation	Y2 Conduct Evaluation, review results with staff and public Y3 Analyze results of eval. and make recommendations		
<b>4.3 Erosion &amp; Sediment Control; Control of Wastes</b>	Y1, Y2, Y3 Ongoing implementation permit procedures Y1, Y2, Y3 Complaints forwarded to inspectors	Y1, Y2, Y3 Ongoing application of BMPs at construction sites thru proper plan submittals	Y1, Y2, Y3 Inspections and Correction Notice Y1, Y2, Y3 Complaint response Y1, Y2, Y3 verbal warnings or correction notices issued	Y1, Y2, Y3 Where BMPs used at construction sites prevent / eliminate discharges Y1, Y2, Y3 Where inspectors identify & prevent / eliminate discharges
<b>4.4 Review of Plans, etc</b>	Y1, Y2, Y3 Ongoing thru permit procedures	Y1, Y2, Y3 Ongoing application of BMPs at construction sites thru proper plan submittals	Y2, Y3 Revisions to Accela & overall permit tracking	
<b>4.5 Discretionary Projects - Land Use Permits</b>	Y1, Y2, Y3 Ongoing thru permit procedures		Y1, Y2, Y3 Inspections and Correction Notice Y1, Y2, Y3 Complaint response	
<b>4.6 Evaluate Land Use Permit Program Efficacy</b>	Y2 Conduct Evaluation	Y2 Conduct Evaluation, review results with staff and public		
<b>4.7 Staff Training</b>		Y1 Grading Inspectors Y2, Y3 Grading plus dev-rev and compliance inspectors		
<b>4.8 Construction Workshops</b>		Y2, Y3 Workshops Y2, Y3 Website 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

**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 P&D 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. The County's post-construction storm water management program will continue to evolve over the next two years of our permit period with development and implementation of hydromodification control criteria discussed in new BMPs 5.7, 5.8 and 5.9.

Our permit tracking system was upgraded during Year 3, improving the ability to track the status of projects across departments and to provide improved capability to enter notes during building and zoning inspections. The next phase of improvements includes the addition of a wireless access module which will allow inspection staff to download and input information directly while in the field. All of these improvements increase the efficiency of inspection staff and make the sharing of information across departments more efficient and effective.

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 presentations to Planning Advisory Committees to ensure that general plan and community plan updates include effective and up-to-date policies and development standards.

The County has begun to explore opportunities for incentive programs for innovative site design and we will continue to work toward integrating water quality criteria into the existing Innovative Building Review Program (IBRP) during Year 4. Alternatively, there may be an opportunity to partner in yet-to-be-developed County incentive programs focused on energy efficiency and sustainability through funding from the American Reinvestment and Recovery Act of 2009. Since a number of water quality measures and low impact development techniques have the added benefit of energy savings through water conservation, it may be possible to piggy-back on this effort. Programs being

considered include an expanded IBRP program and/or a municipal financing district program to fund energy saving retrofits in the residential and commercial sectors. This latter effort would also help to implement BMP 1.14 related to incentives for built-out areas.

Effectiveness will best be measured over the 5-year implementation period once post-construction regulations, including hydromodification control, are fully developed and awareness from the development community increases. During Years 1 through 3, 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 3, 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 and Appendix 5C.

- Updated Community Plans. Several community plans were updated during Year 2 and 3 that included Low Impact Development design considerations. For example, the draft 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. While this was reported as being successful at Level 3 in the Year 2 Annual Report, it is now more appropriately considered successful at Level 2 since the updated community plans are not fully implemented and operational.
- Improved Submittals. Applications are improving over time as applicants become more familiar with the County requirements and expectations. Although there is a specific application item requesting the applicant 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)”, the quality of response to this application item has improved over time. This is due in part to directed outreach efforts, staff training, and direct communication to applicants during pre-application meetings and SDRC meetings. Furthermore, 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). 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. Changes were also made to the reporting function which allows detailed notes that are entered during building and zoning compliance inspections to appear on reports, thus providing a more complete understanding of what occurred on a given case. 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. Staff also inspects those projects with structural treatment control in place, or under construction. As stated above, the two main reasons treatment control measures fail is because 1) they are not installed correctly and 2) they are not maintained. 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 3, training provided by PCW staff focused primarily on development review planners. Additional training opportunities were also provided in the form of LID training and a Hydromodification Workshop. The Hydromodification Workshop was attended by planning and public works staff as well as members of the development community. Most outreach or training to decision makers and to the development / design community occurred in Year 1, however presentations on low impact development were given in Year 3 to Long Range Planning staff and the citizen’s Planning Advisory Committee involved in the Goleta Community Plan update. Such presentations are highly effective because they target individuals responsible for developing policies and development standards in general plan documents 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.

Staff Training: Response to Assessment Quiz. During Year 3, all training attendees completed a follow-up survey. Results showed areas of common misunderstanding improved from Year 2, however the overall score dropped somewhat. Since the survey showed a small but obvious decline in correct answers coming from the same individuals tested in prior years, a more intensive, one-hour presentation will be presented in Year 4. This will assure broad understanding and consistent application of policy, standards, and processes to implement Attachment 4. Any new County implementation policy concerning LID / hydromodification will be addressed, as appropriate. In addition, alternative training tools such as videos will be explored. Overall, staff training is successful at Level 3.

**d) Incentive Program (BMP 5.6)**

During Year 3 the County considered a number of incentive programs for innovative site design. Most of the traditional methods such as density bonus, fast track review and fee reduction were determined to be infeasible at this time due to limited staff and financial resources. Our most promising option for achieving this BMP is by integrating water quality criteria into the existing Innovative Building Review Program (IBRP). Alternatively, there may be an opportunity to partner in yet to be developed County incentive programs focused on energy efficiency and sustainability through funding from the American Reinvestment and Recovery Act of 2009. We will continue to develop this program in Year 4. The success of this BMP is yet to be determined.

**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
<b>5.1 Update Land Use Policies</b>	Y1 Modify Policy Y2 Modify Guidance		Y2, Y3 Update Comm Plans & Development Guidance	
<b>5.2 Implement Design Standards Per General Permit</b>	Y1, Y2, Y3 Apply policy per standard procedures	Y1 Develop website Y2, Y3 Improve Submittals	Y2 Improvement tracking (Accela) Y1, Y2, Y3 Construction Inspections Y1, Y2, Y3 Certification Y2, Y3 Improve Submittals	Y1, Y2, Y3 Compliance inspections that result in abatement of discharges or correction per plans
<b>5.3 Evaluate Program Efficacy</b>	Y 1 Conduct Program Evaluation		Y2, Y3 Implement Recommendations	
<b>5.4 Project Evaluations</b>				Y1, Y2, Y3 BMP Maintenance Inspections
<b>5.5 Staff Training</b>		Y1 Decision Maker presentations Y2 Decision Maker presentations	Y2, Y3 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

## **MCM 6.0 Pollution Prevention / Good Housekeeping Practices for Municipal Operations**

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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 three 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.

In consultation with Transportation Division maintenance crews, areas were selected for street sweeping in commercial areas that typically produce more pollutants than residential areas due to more traffic movement with cars frequently coming and going (hot cars drip more than cold cars) and higher concentrations of people. Since the sweeper operates at night, the streets are generally free of vehicles, thereby avoiding more expensive signage, ticketing, and towing of cars. Timing of street sweeping (prior to forecast rain and after at least four weeks of antecedent dry conditions) is also intended to maximize water quality protection. The County has focused on sweeping 27 lane miles

in areas where the greatest benefit is derived with the limited funds available. We will continue to evaluate the effectiveness of our street sweeping program along with our other municipal practices of cleaning and maintaining CDS storm drain units and bioswales. Combined these 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.

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 first 3 permit years. During Years 4 and 5, we will continue to explore additional opportunities to improve municipal operations and the effectiveness of our BMPs, including partnering with other County programs targeting energy savings and environmental stewardship. 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 three 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 three 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. 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. Records will be used to assess effectiveness of education and training, and identify opportunities for improvements. As of Year 3, 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. 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 3 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.

**c) 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. Over 30 creeks or channels were inspected by Flood Control maintenance crews in Year 3. 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 5,442 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 88,235 pounds of material were removed from the street sweeping program, an increase of almost 35% over Year 2. This is a directly-measurable pollutant load reduction, successful at Level 4.
  - Storm Drain Cleanout. A total of 25,820 of trash 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.

**d) 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 provided storm water training to crew leaders and site managers at six of our largest facilities, who in turn presented the message and material to their staff through onsite, mandatory “tailgate” or safety meetings. This training effort is successful at Level 2.
- Staff training. Training provided to General Services, Sheriff, Public Health, Parks, Fire, and Public Works field crews – total trained, 261 individuals. This is

a substantial increase from year 2 (101 individuals) and included departments that had not been previously trained. 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
<b>6.1 Evaluation of Santa Barbara County Facilities</b>	Y1 Survey			
<b>6.2 Site Specific Water Quality Protocols</b>	Y1 Protocols drafted, to be finalized Y3 Y3 Protocols finalized			
<b>6.3 Municipal Operations BMP Fact Sheets</b>	Y1 Develop Fact Sheets			
<b>6.4 BMP Fact Sheet Implementation &amp; Reporting</b>	Y2, Y3 Web-based Reporting		Y2, Y3 Audit campuses	
<b>6.5 Purchasing and Contracts</b>	Y1, Y2, Y3 Contracts		Y1 Fleet Vehicle Washing Contract	Y2, Y3 Inspect Washing Practices
<b>6.6 Integrated Pest Management Plan</b>			Y1, Y2, Y3 Implement IPM	
<b>6.7 Storm Drain Maintenance</b>	Y1, Y2, Y3 Flood Control Maintenance Y1, Y2, Y3 Culvert maintenance Y1, Y2, Y3 Implement SWPPPs		Y1, Y2, Y3 Implement IPM Y1, Y2, Y3 Implement SWPPPs	Y1, Y2, Y3 Storm drain cleaning Y1, Y2, Y3 Bioswales Y1, Y2, Y3 Flood Control maintenance or referrals Y1, Y2, Y3 Culvert cleaning maintenance or referrals Y1, Y2, Y3 Implement SWPPPs Y1, Y2, Y3 Implement IPM
<b>6.8 Street Sweeping</b>				Y1, Y2, Y3 Street Sweeping
<b>6.9 Staff Training</b>		Y2, Y3 Pocket Guide Y3, Corporate Yard Leadership Training Y2, Y3 Field Staff Training		Y2, Y3 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