

ANNUAL REPORT

General Permit for the Discharger of Storm Water from Small Municipal Separate Storm Sewer Systems (General Permit)

(See Small MS4 Annual Report Guidance for additional guidance on completing this Annual Report Form)

Check box if this is a new name, address, etc.

A. Permittee Information

- 1. Permittee (Agency Name): County of Santa Cruz
- 2. Contact Person: Rachel Fatoohi
- 3. Mailing Address: 701 Ocean Street, Room 410
- 4. City, State and Zip Code: Santa Cruz, CA 95060
- 5. Contact Phone Number: (831) 454-2160
- 6. WDID # 344MS03016
- 7. Have any areas been added to the MS4 due to annexation or other legal means? YES NO
 If YES

Outfall	Has map been updated?		Has SWMP been updated?		Receiving Water Name
	YES	NO	YES	NO	

- 8. Are you subject to the Design Standards contained in Attachment 4 of the General Permit? YES NO
 See the reports on BMPs 7-1-1 and 1-1-4 regarding implementation of design standards

- B. Reporting Period** (check one): July 1, 2010 to June 30, 2011
 July 1, 2004 to June 30, 2005
(Report is due by September 13) July 1, 2005 to June 30, 2006
 July 1, 2006 to June 30, 2007
 July 1, 2007 to June 30, 2008

C. Executive Summary

The County's Stormwater Management Program (SWMP) is a comprehensive program to establish and implement Best Management Practices (BMPs) to reduce the discharge of stormwater pollutants into water bodies and to protect and improve water quality within the urbanized but unincorporated areas of Santa Cruz County. The County's SWMP was approved by the Central Coast Regional Water Quality Control Board (CCRWQCB) on March 19, 2009, at which time the County was granted permit coverage under the statewide NPDES Phase II Municipal Separate Storm Sewer System Permit Water Quality Order No. 2003-0005-DWQ.

This annual report for the second year of SWMP implementation provides documentation of SWMP activities, consistent with the program effectiveness assessment laid out in section IV of Chapter 2 of the SWMP.

The Year Two BMP Implementation Status Table below gives a summary of the status of the second year of program implementation.

The table on page five summarizes the County's proposed modifications to the SWMP for Year Three.

County of Santa Cruz - Stormwater Management Program YEAR TWO BMP IMPLEMENTATION STATUS July 2010 - June 2011			
BMPs Due in Year Two	Responsible County Departments See Legend	Status/ Schedule See Legend	Update/ Changes See Legend
Public Education and Outreach Coordinator: Ana Maria Rebelo - DPW			
3-1-1: Brochures	DPW, SAN	C/A	N
3-1-2: Website	DPW	C/O	N
3-1-3: Community Events	DPW, EHS, SAN	C/O	N
3-1-4: Dog Waste Program	PARKS	C/O	N
3-1-5: Watershed and Creek Signage Project	DPW	C/F	N
3-1-6: Riparian Restoration and Protection	EHS, PLN	C/A	N
3-1-7: Septic System Maintenance	EHS	C/O	N
3-1-10: Educational Programs for Children	DPW	C/B	N
3-1-11: Disadvantaged Communities	DPW	C/A	N
3-1-12: Landscape Workshop	DPW	C/O	N
3-1-13: Our Water Our World Program	DPW	C/A	N
3-1-14: Monterey Bay Area Green Business Program	DPW, SAN	C/A	Y
3-1-15: Green Building Outreach	PLN	C/O	Y
3-1-16: Business/Industry Outreach	DPW, EHS, SAN	C/A	N
3-1-17: Media Campaign	DPW	C/O	N
3-1-18: Master Permit for Environmental Enhancement Projects	PLN	C/O	N
3-1-19: Water Quality Messages	AC, DPW, EHS, GS, PARKS, PLN, SAN	C/O	N
3-1-20: Interested Party List	DPW	C/O	N
Public Involvement and Participation Coordinator: Ana Maria Rebelo - DPW			
4-1-1: Storm Drain Stenciling	DPW	C/O	N
4-1-2: Countywide Stormwater Information Exchange Group	AC, DPW, EHS, GS, PARKS, PLN, SAN	C/O	N
4-1-3: Coordinate Local Stakeholder Outreach	DPW	C/O	N
4-1-5: Community Clean Ups	DPW	C/O	N
4-1-6: Clean Beaches Coalition	DPW	C/O	N
4-1-7: Participate in Regional Efforts	DPW, GS, PLN	C/O	N
4-1-8: Water Quality Messages	AC, DPW, EHS, GS, PARKS, PLN, SAN	I/B	N
Illicit Discharge Detection and Elimination Coordinator: John Ricker - EHS			
5-1-1: Storm Sewer Mapping	DPW	C/O	N
5-1-2: Sanitary Sewer Mapping	SAN	C/F	N
5-1-3: Illicit Discharge Program	EHS	I/B	N
5-1-4: Illicit Discharge Field Screening Investigation	EHS	C/O	N
5-1-5: MS4 Maintenance	DPW	C/O	N
5-1-6: Commercial/Industrial Facility Inspections	EHS, SAN	I/B	N
5-1-7: Information from the Public	AC, DPW, EHS, GS, PARKS, PLN, SAN	C/O	N
5-1-8: Locate and Correct Cross Contamination in Capitola	EHS, SAN	C/O	Y
5-1-9: Implement Pet Waste Ordinance	EHS	I/B	Y
5-1-10: Septic System Maintenance and Management Program	EHS	C/O	N

Small MS4 General Permit Annual Report –
Public Education and Outreach

5-1-11: Stormwater Ordinance	DPW, EHS, PLN	I/B	Y
5-1-12: Train Agency Staff	DPW, EHS, SAN	I/B	Y
5-1-13: Wasteload Allocation and Attainment Program	DPW, EHS, PLN	I/O	N
Construction Site Runoff Control Coordinator: Kent Edler - PLN			
6-1-1: Grading Ordinance	PLN	C/O	N
6-1-2: Riparian Corridor and Wetlands Protection Ordinance	PLN	C/O	Y
6-1-3: Erosion Control Ordinance	PLN	C/O	N
6-1-6: Plan Review	PLN	C/O	Y
6-1-7: Site Inspections	DPW, PLN	C/A	Y
6-1-8: Train Agency Staff	DPW, PLN	C/O	N
6-1-9: Construction Workshops	PLN	C/O	Y
6-1-10: Public Inquiry Program	PLN	C/O	N
Post-Construction Stormwater Management in New Development and Redevelopment Coordinator: Alyson Tom - DPW			
7-1-1: Land Use Policies and Ordinances	DPW, EHS, PLN	I/O	N
7-1-2: Post-Construction Stormwater Control Ordinance	DPW, EHS, PLN	I/O	N
7-1-4: Design Standards	DPW, PLN	C/O	N
7-1-5: CEQA Checklist	PLN	I/B	Y
7-1-6: On-Going Project Post-Construction	DPW, EHS, PLN	I/B	Y
7-1-7: Train Staff	DPW, PLN	C/O	N
7-1-8: Train Members in Development/Construction Industries	DPW, PLN	C/O	N
7-1-9: Enforceable Mechanisms	DPW, EHS, PLN	C/O	N
7-1-12: Implementation Strategy for LID and Hydromodification	DPW, EHS, PLN	C/O	N
Good Housekeeping and Pollution Prevention for Municipal Operations Coordinator: Dawne Harman - DPW			
8-1-2: Facility BMPs	AC, DPW, EHS, GS, PARKS, SAN	I/B	Y
8-1-3: IPM and IVMP	DPW, GS, PARKS	C/O	N
8-1-4: Municipal Parking Lot Sweeping	DPW, GS, PARKS	I/B	Y
8-1-5: Chlorinated and Brominated Water Discharges	DPW, GS, PARKS, SAN	C/O	N
8-1-6: Storm Drain Facility BMPs	DPW, GS, PARKS	C/O	N
8-1-7: Storm Water Pump Station BMPs	DPW, GS	C/O	N
8-1-8: Street Sweeping BMPs	DPW	C/O	N
8-1-9: Road Repair and Maintenance BMPs	DPW	C/O	N
8-1-10: Municipal Maintenance Employee Training	DPW, EHS, GS, PARKS, SAN	C/A	N

Departments:

AC - Agricultural Commissioner
 DPW - Department of Public Works
 EHS - Environmental Health Services
 GS - General Services
 PARKS - Parks, Open Space and Cultural Services
 PLN - Planning Department
 SAN - Sanitation District

Status/Schedule

C - Complete
 I - In Process
 NA - Not Addressed
 O - On Schedule
 B - Behind Schedule
 A - Ahead of Schedule
 F - Finished

County of Santa Cruz - Stormwater Management Program PROPOSED MODIFICATIONS FOR YEAR THREE	
BMP	Proposed Modification
Public Education and Outreach	
3-1-14: Monterey Bay Area Green Business Program	Consolidate the Green Building Outreach (BMP 3-1-15) into this BMP. Promote stormwater BMPs water conservation and energy conservation in local construction. Certify 30 construction professionals per year.
3-1-15: Green Building Outreach	Consolidate this BMP with the Green Business Program (BMP 3-1-14).
Illicit Discharge Detection and Elimination	
5-1-3: Illicit Discharge Program	Suggest a one-year delay in the time schedule.
5-1-6: Commercial/Industrial Facility Inspections	Suggest a one-year delay in the time schedule.
5-1-8: Locate and Correct Cross Contamination in Capitola	Wording in BMP should be modified to include actions to evaluate and reduce sewage leaks and spills in all sewered areas.
5-1-9: Implement Pet Waste Ordinance	Defer amendment of Pet Waste Ordinance and associated educational materials to year three or four.
5-1-11: Stormwater Ordinance	Suggest a one-year delay in the time schedule.
5-1-12: Train Agency Staff	Suggest a one-year delay in the time schedule.
Construction Site Runoff Control	
6-1-2: Riparian Corridor and Wetlands Protection Ordinance	Cease keeping logs of the inspections to verify if setbacks have been met. In year three we propose to create diagrams showing how required riparian corridors, buffers, and setbacks are determined. This diagram will be posted on the Planning Department website and made available to the public as handouts. In year three we propose to cease keeping logs of the types of problems on the sites. In year three we proposed to do a larger outreach to contractors so that they can be trained on erosion and sediment control as well. We also plan to update our website to make it easier to find information on effective erosion and sediment control.
6-1-6: Plan Review	In year three we propose to cease keeping logs of how many erosion and sediment control plans were not accepted in the first review and what the problems were. We will, however, continue to review erosion and sediment control plans prior to issuance of permits so that adequate measures are shown on the plans. We also propose to update our website to include an example erosion and sediment control plan, and we'll also include a checklist for minimum erosion and sediment control measures that we expect to see on the plans.
6-1-7: Site Inspections	In year three we propose to cease keeping logs of the type and status of violations. We will, however, continue to track the number of sites inspected, as well as how many letters to applicants were mailed out.
6-1-9: Construction Workshops	Extend outreach and focus on contractors.
Post-Construction Stormwater Management in New Development and Redevelopment	
7-1-5: CEQA Checklist	Postpone revisions to the County's CEQA checklist until Year Three after the Stormwater Ordinance is adopted.
7-1-6: On-Going Project Post-Construction	Postpone enforcement of on-going post construction monitoring to Year Three after the Stormwater Ordinance is adopted and an adequate enforcement mechanism is in place.
Good Housekeeping and Pollution Prevention for Municipal Operations	
8-1-2: Facility BMPs	Suggest a one-year delay in the time schedule.

Small MS4 General Permit Annual Report –
Public Education and Outreach

8-1-4: Municipal Parking Lot Sweeping	Postpone schedule due to funding limitations.
---------------------------------------	---

ACRONYMS AND ABBREVIATIONS

BASMAA	Bay Area Stormwater Management Agencies Association
BEMP	Best Environmental Management Practices
BMP	Best Management Practice
BWET	Bay Watershed Education and Training
CAP	Citizens Advisory Panel
CASQA	California State Stormwater Quality Association
CCRMC	Central Coast Recycling and Solid Waste Media Coalition
CCRWQCB	Central Coast Regional Water Quality Control Board
CDC	County Design Criteria
CEQA	California Environmental Quality Act
CPESC	Certified Professional in Erosion and Sediment Control
CUPA	Certified Unified Program Agencies
CWC	Coastal Watershed Council
DAG	Departmental Advisory Group
DPW	Department of Public Works
EHS	Environmental Health Services
EPA	Environmental Protection Agency
GIS	Geographic Information System
GSD	General Services Department
GSP	Green Schools Program
HazMat	Hazardous Materials
IPM	Integrated Pest Management
IVMP	Integrated Vegetation Management Program
LID	Low Impact Development
MCM	Minimum Control Measure
MEP	Maximum Extent Practicable
MS4s	Municipal Separate Storm Sewer System
NOAA	National Oceanic and Atmospheric Administration
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	National Resources Conservation Services
OWOW	Our Water Our World
Parks	Parks, Open Space and Cultural Services Department
PSA	Public Service Announcement
RCD	Resource Conservation District
RWQCB	Central Coast Regional Water Quality Control Board
SIN	Stormwater Information Exchange
SOS	Save Our Shores
SSOs	Sanitary Sewer Overflows
SUSMP	Standard Urban Stormwater Management Program
SWAG	Santa Cruz Watershed Action Group
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TMDL	Total Maximum Daily Load
USGBC	U.S. Green Business Council
WAAP	Wasteload Allocation Attainment Program
WFS	Waste Free Schools

Minimum Control Measures

PUBLIC EDUCATION AND OUTREACH PROGRAM

Target Audience: County Households

BMP 3-1-1 Brochures

Implementation Details:

Brochures provide information on how community members can prevent stormwater pollution. Brochures and posters are available in Spanish and English. (Provide the brochures electronically on the website in order to minimize waste.)

Measurable Goal: Compile the number of brochures distributed. Reach 15 percent of the target audience each year.

Status: During the past six years the County distributed over 33,000 pieces of educational material for County households, restaurants, vehicle service facilities, etc., about preventing storm water pollution. Most of our brochures are translated to Spanish. The County distributes the “Monterey Bay Begins On Your Street” brochures at school presentations through the Green Schools Program. Students in turn bring them home to share stormwater education with their families. Approximately 400 brochures were sent to Spanish speaking households during this fiscal year.

In addition, the County distributes quarterly newsletters promoting pollution prevention and healthy habits for attaining clean water. Approximately 240,000 newsletters go out annually to households and businesses in the County. Related stormwater topics from this last year included “Working together with the residents to protect our bay, fluorescent bulbs recycling for businesses, and the County of Santa Cruz ban on plastic bags. These articles can be found at the following link:

<http://www.dpw.co.santa-cruz.ca.us/www.santacruzcountyrecycles/News/index.html>

Given there are approximately 60,000 households in the unincorporated Santa Cruz County, the measurable goal was exceeded in Year Two.

The list of public education and outreach materials is given in the following Table.

Name of Brochure
Monterey Bay Begins On Your Street
Pollution Prevention Tips: Preventing Plumbing Problems And Sewer Overflows
Pollution Prevention Tips: Tending Your Garden, Pool And Spa
Pollution Prevention Tips: Taking Care Of Your Home And The Environment
Pollution Prevention Tips: Taking Care Of Your Vehicle And The Environment
Vehicle Service Facility Best Environmental Management Practices
Restaurant Wastewater Best Environmental Management Practices
County of Santa Cruz Recycling Guide
Worm And Backyard Composting
Household Hazardous Waste Collection Program
Alternatives To Household Chemicals
Environmentally Acceptable Food Packaging

Green Building: A Guide To Sustainable Materials And Methods In Santa Cruz County
Use And Disposal Of Pesticides
No Drugs Down The Drain Sharp And Medication Solutions In Santa Cruz County
Less Toxic Pest Management Tips For Pesticides And Water Quality
Less Toxic Pest Management Tips For Growing A Healthy Garden
Less Toxic Pest Management Tips For A Beautiful Lawn
Less Toxic Pest Management Tips For Keeping Fleas Off Your Garden
Less Toxic Pest Management Tips For Keeping Cockroaches Out Of Your Garden
Less Toxic Pest Management Tips For Controlling Aphids In Your Garden

Proposed Modification: None

Planned Year Three Activities: Continue to compile the number of brochures distributed and reach 15 percent of the target audience in 2011/12. Twenty percent of these brochures will be distributed in Spanish to Spanish speaking households.

BMP 3-1-2 County of Santa Cruz Website

Implementation Details:

The website will provide information on how community members can prevent stormwater pollution.

Measurable Goal: We continued to compile the number of website hits annually.

Status: We completed the BMPs for this item and identified room for improvement. The County's stormwater website was updated to include SWMP program information as well as links to related information so that it is easier to access. The stormwater website received 2,440 visitors in Year Two.

Cross promotion with other environmental programs such as advertising regionally and locally in the EcoCruz web portal and newsletters was continued in Year Two. The website address was also added to the general stormwater brochure (Monterey Bay Begins On Your Street) which was distributed to schools, parents via schools, businesses, and events. New materials, such as last year's Annual Report, were added to the website.

Proposed Modification: None

Planned Year Three Activities: Continue to compile the number of website hits annually and develop improvements to increase the utility of the website (i.e. improve presentation, and add new materials posted on site).

BMP 3-1-3 Community Events

Implementation Details:

Public events can reach a wide audience in providing information on how to prevent stormwater pollution.

Measurable Goal: Compile the number of events organized or attended. Include the number of people attending the event. Participate in at least two events each year.

Status: The County sponsored and coordinated Earth Day Santa Cruz. Approximately 3,000 people visited Earth Day in April 2011. There were approximately 100 vendors, of which half were non-profit agencies

offering environmental education and providing educational materials including the County of Santa Cruz' booths. Information on waste reduction, where to recycle medicines and sharps, hazardous materials, stormwater BMPs, water quality education, green business, and sanitary sewer overflow prevention were distributed at Earth Day. The targeted population to be reached during this event were residents of the City of Santa Cruz, unincorporated areas of the County of Santa Cruz, and neighboring Cities.

In addition, every year, the County partners with Save Our Shores (SOS), Ecology Action, and the Surfrider Foundation to promote Coastal Cleanup Day (CCD). During this event, SOS, the main coordinator agency of CCD, works with hundreds of volunteers to remove thousands of pounds of trash from beaches, rivers, watersheds, lakes and waterways. Between Santa Cruz and Monterey Counties alone, 6,043 volunteers removed 14,612 lbs of trash and 4,760 lbs of recyclables during CCD 2010.

Proposed Modification: None

Planned Year Three Activities: Continue to compile the number of events organized or attended with displays, and include the number of people attending the event. Continue to participate in at least two events each year.

BMP 3-1-4 Dog Waste Program

Implementation Details:

County Parks provides dog boxes at the parks. Communicate with Parks staff to determine if and where additional signage or doggie waste bags distribution locations are needed.

Measurable Goal: Continue to distribute doggie waste bags. Annually report the number of bags distributed.

Status: Approximately 34,000 doggie waste bags were distributed by County Parks, in 2011. Below is the list of locations where doggie waste bags are distributed:

Dog Waste Box Locations - 2011

Parks

- Anna Jean Cummings Park
- Felton Covered Bridge Park
- Highlands Park
- Ben Lomond Park
- Aptos Park
- Polo Grounds
- Hidden Beach Park
- Seascape Park
- Willowbrook Park
- Maplethorpe Park
- Coffee Lane Park
- Soquel Lyons Park
- Santa Cruz Gardens Park
- Floral Park
- Twin Lakes Park
- Hestwood Park
- Jose Avenue Park

Brommer Park
Moran Lake Park
Pinto Lake County Park
Mesa Village Park
Scott Park
Aldridge Lane Park

Beach access

Rockview
38th Avenue
30th Avenue
26th Avenue
21st Avenue
20th Avenue
Johans Beach Drive
Pleasure Point
Via Palo Alto
Dolphin and Sumner Beach Access
13th Avenue
12th Avenue

Proposed Modification: None

Planned Year Three Activities: Continue to distribute doggie waste bags and report the number distributed annually. Assess the need for additional doggie waste bags distribution sites and/or signage. Include evaluation of the need for doggie waste bags distribution sites at County beaches. Add/replace distribution stations/signage as needed.

BMP 3-1-5 Watershed and Creek Signage Project

Completed in Year One.

BMP 3-1-6 Riparian Restoration and Protection

Implementation Details:

Riparian restoration and protection are important aspects of achieving a healthy watershed. The County has a Stream Care Guide that it has developed and distributed for this purpose.

Measurable Goal: Distribute 50 Stream Care Guides to streamside residents. Distribution will be prioritized based on known riparian habitat conditions.

Status: In Year Two approximately 250 guides were distributed to County residents. Currently, guides are placed at the County Environmental Health and Planning Department counters. Through a partnership with the County of Santa Cruz RCD, the guide is distributed to the agricultural community too. The Stream Care Guide has also been posted on the Stormwater website. The guide can be found at:

http://www.dpw.co.santa-cruz.ca.us/Streamcare_Guide.pdf

Proposed Modification: None

Planned Year Three Activities: Continue to distribute the Stream Care Guide at events, fairs, and the Environmental Health and Planning Department counters.

BMP 3-1-7 Septic System Maintenance

Implementation Details:

Poorly maintained septic systems can be a significant source of fecal indicator bacteria which is a primary pollutant of concern in the County. The County has developed educational materials for septic system owners as part of the septic system maintenance program.

See http://sccounty01.co.santa-cruz.ca.us/eh/sewage_disposal/ehownergd.htm

Measurable Goal: Provide information on the educational aspects of the County’s septic system maintenance program in the annual report. Distribute septic system educational materials to at least 100 households.

Status: The County EHS has developed educational materials for septic system owners as part of the septic system maintenance program. EHS distributes hard copies of brochures on septic systems and greywater systems (approximately 120 brochures per year) at public counters and to residents who make direct inquiries. The brochures are also available on the County website referenced above.

Proposed Modification: None

Planned Year Three Activities: Continue to provide information on the educational aspects of the County’s septic system maintenance program in the annual report. Distribute septic system educational materials to at least 100 households annually.

BMP 3-1-8 Public Opinion Survey

Implementation Details:

Conduct surveys to determine effectiveness of programs and future program direction. Conduct an initial survey to determine baseline and follow-up survey to determine effectiveness of programs. Coordinate with other local agencies for this survey.

This BMP is not due until Year Three.

Planned Year Three Activities: Determine target audiences and method and distribution for public survey. Citizens solicited and survey completed. Report outcome of public survey and schedule of follow-up activities in the annual report.

BMP 3-1-9 Social Marketing Strategies

Implementation Details:

Continually assess new public education methods in order to improve the public education and outreach program effectiveness.

This BMP is not due until Year Four.

Target Audience: Children, regional agencies and local businesses

BMP 3-1-10 Educational Programs for children. (K-12)

Implementation Details:

Classroom presentations are provided through the GSP.

Measurable Goal: Educate 10 percent of school children every year. Coordinate stormwater education with our Green Schools Program. Administer pre and post presentation evaluations.

Status: The WFS was the original, award-winning program which focused entirely on waste reduction and recycling education. The GSP is the modified County schools program which builds on the success of the WFS program.

The GSP works with County schools to educate students, teachers, and staff on environmental topics such as storm water runoff, water quality and conservation, energy conservation, recycling, and waste reduction. The goal of this program is to support County schools as they evolve into “Green Schools” that promote wise resource activities by reducing waste, preventing pollution, and training students to conserve scarce resources like energy and water. The program provides both in-class and school-wide presentations, educational assemblies, and technical assistance to member schools. Following the presentations, the students reinforce this education with field trips such as beach cleanups and storm drain markings or landfill tours that complement classroom education. The County contracts with Save Our Shores (SOS), a local non-profit whose mission is to promote clean and healthy oceans. SOS conducts assemblies and classroom presentations, as well as field trips such as beach and watershed cleanups and storm drain labeling outings. The County also contributes funds to the O’Neill Sea Odyssey (OSO), another local non-profit organization, whose mission is to provide unique ecology, navigation, and marine sciences learning experiences to regional students in grades 4 through 6.

In Year Two, the GSP conducted over 90 school presentations with elementary, middle, and high school students, effectively educating approximately 3,000 students. The GSP offered individual classroom presentations and assemblies, though the majority of teachers opted for more interactive classroom activities. Teachers were able to choose from over 14 interactive activities and presentation options. The most popular presentation was the Waste Reduction for Healthy Oceans, which was conducted both as an individual classroom presentation, as well as an assembly. The following topics were covered with varying degrees of emphasis in all of the GSP presentations: Basic ocean science concepts (depending on grade level), the Monterey Bay National Marine Sanctuary and how watersheds affect marine resources in the Sanctuary, the problem of marine debris both in terms of anthropogenic sources and the impacts on living marine animals, and how our decisions and behaviors can impact natural resources. All lesson plans and activities were aligned with California Content Standards, which made for easier inclusion into the teacher’s on-going instruction. In addition, the GSP conducted over 30 cleanups on beaches, creeks, and school campuses, conducted three storm drain stenciling outings, and engaged students and community members in special events such as July 4th and 5th, Annual Coastal Cleanup Day, and Earth Day. Based on over 200 student surveys taken at random before and after presentations, the GSP was able to both increase knowledge and change behavior.

Students also participated in the three-hour, hands-on learning event aboard the OSO’s 65-foot catamaran in the Monterey Bay National Marine Sanctuary, with follow-up lessons in the Education Center at the Santa Cruz Harbor. After participating in the program, students are required to perform a community service project. The primary purpose of the program is to foster awareness of environmental stewardship and personal responsibility among program participants. This is done by delivering an interactive curriculum that emphasizes the connections between land and sea through a multidisciplinary approach including ecology, biology, and mathematics. A community service project encompasses a broad range of activities such as native plant

restoration, beach or creek cleanup, homeless garden projects, community environmental awareness projects, school recycling programs, and letter-writing campaigns for environmental causes. Teachers and group leaders are required to submit proof of completion of a community service project, which can be done via the OSO website.

During the 2010/11 program cycle, two surveys were administered to the groups participating in the program. Teachers and group leaders were asked to fill out a survey after participating in the program to get their feedback on the organization and effectiveness of the program, program materials, and the OSO website. A second survey was read aloud to the students that asked them (by a show of hands) about their knowledge of, and attitudes toward, the environment. This survey was administered to the students before and after the program, and thereby measured the amount of change in their environmental awareness. OSO has undertaken the analyses of these two surveys and other program data for use in evaluating the program, further planning, and developing funds for program expansion or replication.

The Student Survey showed that the OSO program was effective in promoting substantial increases in students' environmental awareness. An average of 76 percent of students agreed with the survey questions regarding environmental knowledge and responsible behavior before participating in the program, compared to 97 percent after attending the program. When student surveys were divided into "lower income" and "higher income" groups, results indicated that although both groups of students substantially increased their environmental knowledge after attending the program, the lower-income students showed a greater change (71 to 96 percent) and caught up with the higher-income students by the end (81 to 97 percent), with virtually all of the students agreeing with the survey questions.

For more information on the GSP see:

http://www.dpw.co.santa-cruz.ca.us/www.santacruzcountyrecycles/Green_Schools/index.html

The most recent information available from the County Office of Education indicates an enrollment of approximately 40,000 students. This means approximately 7.5 percent of students were educated through the GSP in the second year. This is under the measurable goal for the year

Proposed Modification: None

Planned Year Three Activities: Continue to educate 10 percent of school children every year and administer pre and post presentation evaluations pending on funding.

BMP 3-1-11 Disadvantaged Communities

Implementation Details:

Some communities may not be reached by initial outreach efforts. This BMP will identify potential communities that could benefit from stormwater education.

Measurable Goal: Identify communities not previously targeted by the stormwater education program.

Status: The County identified disadvantaged students which are being targeted through the GSP. The GSP aims to make its learning experiences available to students from all economic backgrounds. The economic levels of the communities from which participating groups came were estimated using the percentage of students receiving free or reduced price meals. Groups with less than 1/3 of their students receiving this benefit were considered "higher income," and groups with more than 2/3 of their students receiving this benefit were considered "lower income." Groups that fell between these extremes were considered "middle income."

Using this method of analysis, approximately 31percent of participating groups came from lower-income communities, 38percent came from middle-income communities, and 32 percent came from higher-income communities. During the last four years the percentage of groups from middle-income communities has increased slightly, with corresponding slight decreases in the percentages of groups from lower and higher-income communities .

Proposed Modification: None

Planned Year Three Activities: Continue implementing outreach targeting the communities identified.

BMP 3-1-12 Landscape Workshop

Implementation Details:

Provide an annual landscape workshop, contingent on funding.

Measurable Goal: Provide an annual landscape workshop.

Status: The City and County of Santa Cruz partnered during Earth Day events to bring two composting workshops to residents. Topics included stormwater pollution prevention, Integrated Pest Management, water conservation and erosion control among others. Graduates from the County’s previous “Master Composters” program led these workshops. Approximately 80 residents attended.

In addition, the County of Santa Cruz, in partnership with Ecology Action, developed the Monterey Bay Green Gardener Certification Program, which is offered during spring and fall. The Monterey Bay Green Gardener Certification Program offers hands-on, professional, bilingual training to landscape industry workers and the residential gardening community. The program’s focus is to demonstrate ecological alternatives to environmentally destructive landscaping practices that cause non-point source pollution and water waste in the watersheds of the Monterey Bay National Marine Sanctuary. The Monterey Bay Green Gardener Certification Program is financially supported by a consortium of water utilities and four adult education centers located in four major demographic areas of the Monterey Bay. BWET funding has allowed the program to incorporate hands-on learning experiences into the training so that Green Gardener alumni will be better watershed managers when making landscape maintenance decisions. The Monterey Bay Green Gardeners Program trained 90 landscapers in ecological landscaping methods in 2011, and at the end of our 5th season we have 425 graduates.

Proposed Modification: None

Planned Year Three Activities: Provide an annual landscape workshop, contingent on funding.

BMP 3-1-13 Our Water Our World Program

Implementation Details:

Provides pollution prevention and integrated pest management resources and training to retail store employees. Continuation of program is contingent upon grant funding.

<http://ourwaterourworld.org>

Measurable Goal: Provide training at 12 garden centers each year in Years Two through Five.

Status: The County was able to secure grant funding for implementation during Year Two.

The Monterey Bay *Our Water Our World* (OWOW) program promotes integrated pest management (IPM) strategies to home gardeners and professional landscapers to prevent pesticide and fertilizer contamination of urban waterways surrounding the Monterey Bay National Marine Sanctuary. In partnership with Ecology Action, the County of Santa Cruz OWOW program provides pollution prevention trainings and IPM resources to employees and customers of 13 participating garden retail stores serving residents living in watersheds located in the County. A BWET grant from the National Marine Sanctuaries Program of the National Oceanic and Atmospheric Administration (NOAA) provided matching material and staff support for OWOW program.

In May 2011 the County of Santa Cruz OWOW program completed store maintenance visits and employee trainings at the Home Depot in Soquel and Orchard Supply Hardware in Capitola. A total of seven new employees were trained for an average of 30 minutes in IPM and how to use OWOW materials to educate customers. Information about UC cooperative extension on-line retail employee training in IPM and how to read pesticide labels was left with each employee. OWOW literature racks were improved with the installment of plexiglass to hold literature in place. Shelftalkers were renewed, and pest management questions were answered during the course of each visit.

Also in May 2011, the County of Santa Cruz contributed funds for Ecology Action staff to coordinate a regional radio campaign with other OWOW municipal sponsors. The paid PSA directs customers to the OWOW symbol when looking for a less-toxic pest control product, and to the Monterey Bay Green Gardener website when looking for an ecological landscaping service provider. A total of 192 spots run in English and Spanish from June 11 through June 26, 2011, weekends on KCDU THE BEACH, KPIG, and KKHK radio stations.

Below is our regional OWOW 60-second PSA script:

“Killing lawn and garden pests with poison can be unsafe for humans, pets and the environment. Poison is poison. When you apply pesticides and fertilizers in your landscape, rain and irrigation can carry these chemicals into storm drains, creeks, rivers, and wetlands of the Monterey Bay National Marine Sanctuary. These chemicals can harm fish, seals, and other water creatures.

Take care of your lawn and garden with less toxic alternatives! Look for the *Our Water Our World* logo and information display where pesticides and fertilizers are sold at local nurseries and hardware stores. Or, hire a certified Green Gardener or an ecological landscaping contractor. Green Gardeners have been trained on less-toxic pest control, efficient irrigation systems, drought tolerant plant choices and more. For more information visit www.green-gardener.org. This announcement is sponsored by the City of Santa Cruz, the County of Santa Cruz, the City of Watsonville.”

Proposed Modification: None

Planned Year Three Activities: Provide training at 12 garden centers each year, contingent upon grant funding.

BMP 3-1-14 Monterey Bay Area Green Business Program

Implementation Details:

Promotes pollution prevention, waste minimization, and implementing BMPs.

<http://www.montereybaygreenbusiness.org>

Measurable Goal: Meet quarterly to coordinate the programs. Certify 30 Green Businesses each year. Provide program tracking information in the annual reports.

Status: The Monterey Bay Area Green Business Program and Pollution Prevention Task Force meets quarterly. To date, the Monterey Bay Green Business Program has certified a total of 201 businesses in the County of Santa Cruz of which 39 are currently in progress. This number includes the Cities of Scotts Valley, Watsonville, Capitola and the unincorporated area of the County, and it excludes the City of Santa Cruz which prepares its own database. The County joined the Statewide database to track progress on various environmental areas.

This year the Countywide Green Business Program has reduced the following Greenhouse Gas Emissions:

Greenhouse Gas Emissions	1,809,350 CO2 lbs
Water	3,784,730 Gallons
Energy	1,321,100 kWh
Waste	12,001,500 Recycling and Composting
Greenhouse Gas Emissions / Recycling and Composting	8,228,270 CO2 lbs
Waste/ Hazardous Waste reduced	4445 lbs
Waste/ Mercury reduced	2,127 mgs
Waste/ Recycling	94,060 lbs
Waste/ Fuel saved	252 gallons

Solid Waste:

Commodity	Waste Diverted (lbs)
Mixed Recycling	33,424
Mixed Organics	247,933
Garbage (Not diverted - sent to landfill)	7,483

During the last year this incentive program has been expanded to reach additional business areas. New checklists have been developed for multi-family dwellings and dentists. These will be the new business sectors that will be targeted during future years. This BMP, which was due in Year Three, has been completed ahead of schedule. The business sectors are chosen based on their opportunity to prevent pollution. Following are some of the stormwater pollution prevention opportunities as they relate to particular business sectors that are put into practice with the Green Business Program:

Vehicle service facilities: Switch to dry shop practices, improved spill cleanup, minimize tracking spills outside of shop, no servicing of vehicles outside of service bays, and no car washing where wastewater can enter a storm drain.

Food Service and Janitors: No washing of floor mats outside, improved tallow storage, eliminate the discharge of mop water outside, exterior dumpster storage BMPs, and proper pressure washing wastewater management.

Construction/Remodeling: Erosion control, exterior storage, and paint management.

Plumbers: Sanitary sewer overflow reductions.

Landscapers: Eliminate the use of pesticides that can come into contact with stormwater.

Painting Contractors: Eliminate washing of paint brushes outside. Specify BMPs for pressure washing.

Public Works has been involved in a Statewide California Green Business Program Network for the past seven years. Program coordinators from different Counties throughout the State have joined together to share resources.

Proposed Modification: Consolidate the Green Building Outreach into this BMP. Promote stormwater BMPs water conservation and energy conservation in local construction. Certify 30 construction professionals per year

Planned Year Three Activities: Continue to meet quarterly to coordinate the Green Business and Pollution Prevention programs. Certify at least 30 Green Businesses. Provide program tracking information in the annual reports.

BMP 3-1-15 Green Building Outreach

Implementation Details:

Promote stormwater BMPs, water conservation, and energy conservation in local construction projects. BMP brochures are available on the County website.

Measurable Goal: Promote stormwater BMPs, water conservation, and energy conservation in local construction. Certify 30 professionals per year.

Status: The County passed a Green Building Ordinance in January 2010. A Green Points Checklist for residential projects was created to help County residents comply with this Ordinance. This checklist helps to address global climate change by cutting greenhouse gas emissions in the County. It involves modest requirements to upgrade energy efficiency in new residential buildings and additions such as indoor air quality and resource conservation. More information can be found at: ,

http://www.sccoplanning.com/pdf/bldg/CountyResidentialChecklist_rev34.pdf

http://www.sccoplanning.com/pdf/bldg/ProposedGreenList_ver.24.pdf

The County certified 30 green building professionals including staff of the Planning Department. The State-wide green building code became effective in 2010.

Proposed Modification: Consolidate this BMP with the Green Business Program.

Planned Year Three Activities: None.

BMP 3-1-16 Business/Industry Outreach

Implementation Details:

Written materials and posters were distributed to businesses to minimize illicit discharges to the storm drain. Provide materials in both English and Spanish when applicable. This outreach currently targets the following

sectors: dentistry, photo processors, restaurants, dry cleaners, printers, machine shops, surfboard manufacturers, paint contractors, medical facilities, plumbers, restaurants, automotive services and office and retail.

If grant funding can be found, this program will be expanded to cover the tourist industry.

Measurable Goal: Compile number of materials distributed annually. Compile and report on the percentage of each type of business/industry contacted in each annual report. Deliver brochures to at least 100 businesses by hand to enable direct communication with business owners. Conduct at least two workshops on pollution prevention.

Status: The Environmental Compliance Unit of the Sanitation District conducted 478 industrial inspections within the last fiscal year. District personnel continue to educate light industries operating in Santa Cruz County on process-specific pollution prevention and waste minimization opportunities. During inspections, Best Environmental Management Practices (BEMP) pamphlets and demonstrations for each particular industry are given to business owners, managers, and employees. The inspector highlights proper stormwater issues and the importance of following the BEMPs. Additionally, the inspector explains the differences between storm drains and the sanitary sewer drains. BEMPs have been created for vehicle service facilities, dentists, photo processors, restaurants, dry cleaners, printers, machine shops, surfboard manufacturers, paint contractors, mobile car washers and medical facilities. Businesses/industries that are inspected are given the appropriate BEMP pamphlet. These pamphlets can be found at:

<http://www.dpw.co.santa-cruz.ca.us/environment.htm>

The following businesses were inspected by the District in 2010/11:

- 5 carwashes
- 13 dry cleaners
- 7 water treatment supply
- 1 hospital
- 9 machine shops
- 7 photoprocessors
- 1 print shop
- 46 miscellaneous industries
- 287 food service establishments
- 90 vehicle service facilities
- 2 wineries
- 8 educational institutions
- 1 medical center
- 1 dental office

NOTE: Inspections consisted of full facility inspection, partial facility inspection (in order to alleviate a specific problem on a certain date), plan reviews and new installs, and re-inspections. Only full facility inspections are recorded in the District's Pretreatment Program database.

On November 15, 2010, the Environmental Programs Coordinator gave a presentation on fats, oil, and grease (FOG) to a community college class for students entering the restaurant industry. The presentation focused on reducing sanitary sewer overflows (SSOs) by increasing awareness on grease management. Staff explained that when SSOs occur, untreated sewage can enter storm drains and contaminate surface waters. This harms aquatic ecosystems and causes beach closures.

District staff also partnered with the County, neighboring Cities, and non-profits to hold an Earth Day event in April 2010. The event featured kids' activities, while also disseminating adult environmental outreach. The

event featured five pollution prevention workshops. The workshops included composting (2), green building, graywater systems, and earth friendly eating. The event was zero waste and solar powered. Other attractions included vendors, public speakers, and music. The event was attended by nearly 3,000 people.

Proposed Modification: None

Planned Year Three Activities: Continue to compile number of materials distributed annually; report on the percentage of each type of business/industry contacted in each annual report; deliver brochures to at least 100 businesses by hand to enable direct communication with business owners; conduct at least two workshops on pollution prevention; and, if grant funding becomes available, implement outreach to the tourist industry.

BMP 3-1-17 Media Campaign

Implementation Details:

Media campaigns based on events such as Earth Day, Pollution Prevention Week, Creek Week, Marine Debris awareness, and year-round campaigns promote recycling and waste reduction, and storm water education. The County partners with non-profit organizations to promote pollution prevention. Media information will be provided in both English and Spanish.

Measurable Goal: Co-sponsor at least two media campaigns each year. Advertise County website to increase the number of visitors to the website. Track and report on the number of visitors to the County website.

Status: Media campaign events such as Earth Day, Pollution Prevention Week, Creek Week, Marine Debris awareness, and year-round campaigns promote recycling, waste reduction and stormwater education. The County partners with other agencies in the Monterey Bay region, as well as non-profit organizations, to promote pollution prevention. This year the County sponsored and participated in various local and regional media campaigns such as the “dog doo,” Protect your Central Coast, Bring your Own (water bottle, mug, bag, lunch box), California Coastal Cleanup Day, Our Water Our World, and various storm drain PSAs, surpassing the measurable goal for this BMP. These were placed in multiple radio ads, television and movie theaters. These ads were run in English and Spanish.

The Central Coast Recycling and Solid Waste Media Coalition (CCRMC) campaign included Spanish and English language broadcast radio and television to effectively reach the tri-County regional population and ran through June 2011. Television station selection was allocated 60 percent to English and 40 percent to Spanish language channels. Because the top-ranked English radio station in the area (KDON) also ranked number one among Hispanic audiences, only 25 percent of the buy went to Spanish language channels with the remaining 75 percent to English language radio stations.

The radio campaign featured a total of 1,120 weekday traffic sponsorships on four top-rated stations on-air and online to offer frequent 15-second reminders and tips about waste reduction, reuse, and recycling.

For Thanksgiving week, the County held an intense “Black-Friday Blitz” targeting holiday shoppers, with 864, 15-second spots reminding people about waste reduction, pollution prevention, reuse, and recycling in their holiday shopping, gift giving, and celebrating.

For Earth Day, the radio campaign included 240, 60-second spots in which we promoted Earth Day events from CCRMC members, provided ideas to help shoppers to remember their reusable shopping bags, and offered a free static-cling car window reminder to “remember your bags” through our website www.protectyourcentralcoast.org in partnership with www.conservingnow.com, who provides the window

clings free upon request. ConservingNow has provided a minimum of 1,400 static clings in the Monterey Bay area since the campaign launched.

There were a total of 2,224 radio ads (1,120 traffic sponsorship messages, 864 holiday tips, and 240 60-second spots) of which 566 were in Spanish and 1,168 in English.

The television campaign featured 1,720, 30-second spots on local Univision, Telemundo, CBS, NBC and FOX affiliates. During November and December 2010 we featured “Reduce, Reuse” which offers a visual calculation of the cumulative impact of replacing one daily disposable beverage container with a reusable container. In January, February and March 2011 we featured the “Resources” production, which reminded people that plastic products are made from petroleum, and recycling or reuse helps to reduce our carbon footprint.

From April through June 2011 we featured two new productions focused on reusable shopping bags. These spots are also available for viewing on www.youtube.com/admanor. “BYOB” (Bring Your Own Bottle) helped to show the problem of plastic and single-use bags in terms of litter and watershed/ocean pollution, offered the simple solution “Bring your own (reusable) bag” and a free reminder static cling through our website www.protectyourcentralcoast.org.

There were a total of 1,720 television ads: 1,039 in English and 681 in Spanish.

The CCRMC campaign also sponsored the heavily-promoted and widely-used KSBW.com mobile web page, which helped to link users to the www.protectyourcentralcoast.org web page.

The website was updated in April 2011 to add more pages and provide a more clear and user-friendly navigation to accommodate the evolution of the site since its introduction in 2007 as a simple portal site to the member agency recycling webpages.

The campaign also developed “Remember Your Reusable Bags” aluminum parking lot signs (in English and Spanish on same sign). A total of 622 signs were produced and distributed among the membership according to their annual campaign contributions, and several jurisdictions ordered extras. CCRMC members are working with local stores and property managers to have signs installed in shopping center parking lots.

Not including the parking lot signs and online impressions, the media budget of \$85,851 delivered 3,944 spots, 3,254 gross rating points, equivalent to an estimated 10,205,720 gross impressions during Year 2.

For website tracking and reporting see: 3.1.2.

Proposed Modification: None

Planned Year Three Activities: Continue to sponsor at least two media campaigns, advertise County’s website, and track and report on the number of visitors.

BMP 3-1-18 Master Permit for Environmental Enhancement Projects
--

Implementation Details:

Outreach to farmers through National Resource Conservation Service (NRCS), the Resource Conservation

District (RCD) of Santa Cruz County, and Watsonville area groups to minimize discharges of pollutants of concern to stormwater facilities.

Measurable Goal: Provide outreach information regarding the Master Permit program at the Planning Department information desk.

Status: The County has coordinated with the RCD in establishing a Master Permit for Environmental Enhancement Projects. This permit is specifically designed to allow private property owners to implement resource conservation activities that would otherwise be cost prohibitive. The Master Permit includes certain practices identified in the NRCS National Handbook of Conservation Practices that have already gone through the CEQA process and have been permitted by all required State and Federal agencies. The Master Permit was originally issued in 2005, and was extended on August 11, 2010. Most of the practices specifically address agricultural operations, and include installation of sediment ponds, grassed waterways and other plantings, grade control structures, stream channel stabilization, improvement of access roads, and other practices designed to reduce sediment loads in local streams. Over the past six years implementation of sediment basins, grassed waterways, and streambank protection practices alone have prevented erosion of 6,800 tons per acre per year of sediment on agricultural land in the Pajaro Valley watershed. The new round of projects this year included two wetlands enhancement projects that will help filter contaminants from agricultural fields through installation of vegetation buffers in the Pajaro River watershed

Proposed Modification: None

Planned Year Three Activities: Provide outreach information regarding the Master Permit for Environmental Enhancement Projects at the Planning Department information desk.

BMP 3-1-19 Water Quality Phone Messages

Implementation Details:

Establish protocol for receiving and replying to phone calls to the County regarding water quality questions or concerns.

Measurable Goal: Establish protocol for receiving and replying to phone calls to the County regarding water quality questions or concerns. Respond to 100 percent of calls to County staff within two days. Track and report on the number of calls received each year, date of calls, issues raised, and response to issues for each call.

Status: County Environmental Health has an existing water quality hotline (831) 454-3188 that provides information on bacteria levels at beaches and also provides an opportunity for the public to report water-related illness or other concerns. The phone line is checked on a daily basis for phone messages, with follow up action taken as needed. Reports and inquiries can also be submitted by e-mail to the County Environmental Health Water Resources website. County Environmental Health staff is on-call 24/7 to respond to reports of spills or discharges that are reported to 911. County Public Works also maintains a dispatch line 24/7 where the public can report sewage overflows (831) 477-3907 or storm drain problems (831) 477-3999. Calls involving construction related concerns are handled by the Planning Department. See BMP 5.1.7 for more related information.

The County investigated the possibility of establishing a single coordinated water quality hotline with other jurisdictions but does not currently have the resources to pursue this at this time.

Proposed Modification: None

Planned Year Three Activities: Respond to 100 percent of calls to County staff within two days, and track the number of calls received each year.

BMP 3-1-20 Interested Party List

Implementation Details:

The County has an interested party email list that is used to distribute the latest developments in the stormwater program.

Measurable Goal: The County has an interested party email list that is used to distribute the latest developments in the stormwater program. Coordinate with the City of Capitola to update the list. Provide summary of information sent out to list members in the annual report.

Status: During the preparation of the SWMP stakeholders were involved with development as well as providing input on changes along the way. The stakeholders' list started with a few interested groups at the beginning of the SWMP development to over 100 people representing multiple groups of the community such as watershed groups, local non-government agencies, City, County and State representatives, water districts, professional groups, developers, and any person/group who expressed interest in the SWMP. The stakeholders' list is the same for the County and the City of Capitola. We continue to update and add to the list as necessary.

During this second year of implementation, the stakeholders were contacted as follows:

1. On August 12, 2010, the first annual report was shared with stakeholders, and the stakeholders were invited to comment in advance of the public meeting or attend the public meeting and present their comments in person.
2. On May 5, 2011, the stakeholders were notified of the availability of the Gap Analysis, prepared by the County following the template provided by the RWQCB staff and its consultant, and invited to comment.
3. On May 23, 2011, DPW shared with the interested stakeholders draft new Runoff and Pollution Prevention Control Ordinance along with related County Design Criteria changes, and BMP manual for Construction Site Pollution Control and invited comments. We will also be meeting with the interested stakeholders in September 2011 to clarify the ordinance and receive additional input.

Proposed Modification: None

Planned Year Three Activities: Update the list annually. Provide summary of information sent out to list members in the annual report.

PUBLIC INVOLVEMENT AND PARTICIPATION

Target Audience: General Population

BMP 4-1-1 Coordinate / Implement Storm Drain Stenciling Program

Implementation Details:

Label half of storm drains in major business and residential areas. Coordinate with the local Surfrider Foundation, Save Our Shores, and other volunteer organizations for this work.

Measurable Goal: Check markers during routine maintenance and replace as needed. Coordinate this work with GIS inventory.

Status: The County of Santa Cruz, in collaboration with Save the Whales and Hope Services, labeled approximately 500 County-wide storm drains during the 2010/2011 fiscal year. More could have been labeled, but this year was a wet year which was not conducive for storm drain labeling outings. In addition, 150 storm drains were labeled using students as part of the Green Schools Program. Previously, inlets were stenciled. Because stenciling fades over time, the County is now replacing the stenciled markings with labels. There are approximately 2,000 inlets maintained by the County. This includes areas inside and outside of the MS4 permit limits. A total of 1,200 County maintained storm drains have been labeled with the new markers.

This work was coordinated and tracked with the County's GIS.

Proposed Modification: None

Planned Year Three Activities: Complete storm drain marking by Year Three. Check markers during routine maintenance and replace as needed. Coordinate this work with GIS.

Target Audience: Agency Staff, General Population

BMP 4-1-2 Participate in Countywide Stormwater Information Exchange (SIN) Group

Implementation Details:

Coordinate with local agency staff to create a group for discussing regional stormwater issues.

Measurable Goal: Coordinate with local agency staff to create a group for discussing regional stormwater issues. Participate in/organize two meetings per year.

Status: Staff from local agencies met three times in Year Two:

- August 26, 2010, at 320 Harvest Drive, items discussed: The TV outreach campaign results/information, communications by City of Watsonville staff with RWQCB staff, regional hotline number, LID education for both residents and contractors, Regional Joint Effort and future collaboration on a phone survey to assess public education efforts.
- December 9, 2010: At Moss Landing Harbor District, discussed Interim LID standards.
- February 1, 2011: Discussed Joint Effort Q2 reporting requirements, San Luis Obispo County Interim LID brochure, development project applicant checklist, and storm water Hotline telephone number.

Proposed Modification: None

Planned Year Three Activities: Continue to participate in/organize two meetings per year.

BMP 4-1-3 Coordinate Local Stakeholder Outreach

Implementation Details:

Establish a process for providing information to the public regarding the County's stormwater program and a process for receiving and incorporating public input into the program.

Measurable Goal: Establish a process for providing information to the public regarding the County's stormwater program and for receiving and incorporating public input into the program.

- Establish stakeholder process.
- Conduct one meeting per year.
- Stakeholder committee reviews SWMP and annual report.
- Advertise to increase attendance to stakeholder meetings and promote public participation in SWMP development and implementation in accordance with public notification and hearing requirements as needed.
- Report on number of attendees at stakeholder meeting and comments received.
- Encourage local agencies and organizations on ongoing mutual issues (e.g. funding, direction of public education efforts, targeted information campaigns, emerging issues).

Status: In conjunction with BMP 3-1-20, during this second year of implementation, stakeholders who were interested in being on the County's Interested Party List were added to an e-mail list. We continue to communicate with stakeholders by electronic mails.

1. On August 12, 2010, the first annual report was shared with stakeholders, and the stakeholders were invited to comment in advance of the public meeting or attend the public meeting and present their comments in person. No concerns or comments were raised regarding the annual report.
2. On May 5, 2011, the stakeholders were notified of the availability of the Gap Analysis, prepared by the County following the template provided by the RWQCB staff and its consultant, and invited to comment. No comments were received for the gap analysis work.

On May 23, 2011, we shared the draft new Runoff and Pollution Prevention Control Ordinance along with related County Design Criteria changes and BMP manual for Construction Site Pollution Control and invited comments. DPW will also be meeting with interested stakeholders in September 2011 to clarify the ordinance and receive input. We received one written comment which was addressed. We also received a suggestion to meet and highlight the new requirements to the stakeholders and the professional community, and we will be holding this meeting in September, 2011.

The County has also been an active participant in the Santa Cruz Watershed Action Group (SWAG), a group of local agencies and organizations whose work relates to watershed health. During the second permit year this group met five times. Topics of discussion included: Regional Hotline and Regional coordination on education and training, Integrated Regional Water Management Plan, Prop 84 grant opportunities, Low Impact Development (LID), hydromodification, graywater permits, single use bag ban, NPDES updates, construction general permits, and the new State draft general MS4 stormwater permit.

Proposed Modification: None

Planned Year Three Activities: Continue to conduct one meeting per year. Stakeholders review SWMP and

annual report. Advertise to increase attendance to stakeholder meetings and promote public participation in SWMP development and implementation in accordance with public notification and hearing requirements as needed. Report on number of attendees at stakeholder meeting and comments received. Encourage local agencies and organizations on ongoing mutual issues (e.g. funding, direction of public education efforts, targeted information campaigns, emerging issues).

BMP 4-1-4 Monterey Bay Area Pollution Prevention Partnership

See BMP 3-1-14

BMP 4-1-5 Community Cleanups

Implementation Details:

The County sponsors creek cleanups during Coastal Cleanup Day, working with Save our Shores, Surfrider Foundation, and other watershed and environmental groups.

Measurable Goal:

- Sponsor volunteer coastal cleanup each fall, affecting a minimum of two watersheds per year.
- Sponsor two beach cleanups each year.
- Report on number of volunteers.

Status: County staff, in cooperation with local non-profits, sponsored the annual 4th of July weekend and Coastal Cleanup Day in September 2010. With the help of Save Our Shores, a local non-profit, approximately 4,000 volunteers participated in both events last year. The 4th of July and the Coastal Cleanup Day events engage the public to remove trash and debris from our beaches and waterways. It also helps to identify the sources of debris, and to change the behaviors that cause pollution in our County. Our motto is “Be Part of the Solution to Ocean Pollution!”

The following beaches/creeks were part of these clean-ups: Panther Beach, Davenport Main Beach, Twin Lakes, Rio Del Mar, and Seacliff beaches.

Proposed Modification: None

Planned Year Three Activities: Continue to work with Save our Shores, Ecology Action, and other watershed and environmental groups to sponsor beach and creek cleanups.

BMP 4-1-6 Clean Beaches Coalition

Implementation Details:

The County coordinates marine debris clean-ups with local organizations.

<http://www.cleanbeachescoalition.org/the-coalition-partners.html>

Measurable Goal: The County coordinates marine debris clean-ups with local organizations. Coordinate quarterly marine debris clean-ups. Report on number of volunteers.

<http://www.cleanbeachescoalition.org/the-coalition-partners.html>

Status: The County participates with local non-profits such as Save Our Shores and Ecology Action in the 4th

of July weekend and Coastal Cleanup day. Approximately 6,043 volunteers (for County of Santa Cruz and Monterey) participated this past year. In addition, as part of the Green Schools program, students are required to help with beach cleanups. This year, there were 33 beach cleanups in which 1,388 students from the ages of 10-18 participated, removing 485 lbs of trash and 161 lbs recyclables. See BMP 3-1-3.

Proposed Modification: None

Planned Year Three Activities: Continue to participate in the Clean Beaches Coalition, coordinate quarterly cleanups and report the number of volunteers.

BMP 4-1-7 Participate in Regional Efforts

Implementation Details:

Investigate opportunities to participate in regional, Statewide or national groups.

Measurable Goal: At a minimum, attend annual Integrated Pest Management Departmental Advisory Group meetings and monthly U.S. Green Building Council meetings.

Status: The County Board of Supervisors (Board) adopted an Integrated Pest Management (IPM) policy for County properties pest control. The policy established an IPM Departmental Advisory Group (DAG) to review the implementation and make recommendations to the Board. The group includes various members of County Public Works, General Services, and the community. The IPM DAG meets quarterly. For a detailed report on the 2010/2011 County's IPM program visit:

http://sccounty01.co.santa-cruz.ca.us/bds/Govstream/BDSvData/non_legacy/agendas/2011/20110614/PDF/014.pdf

The U.S Green Building Council (USGBC) is a non-profit organization dedicated to sustainable building design and construction. The Monterey Bay USGBC is a regional chapter that meets monthly to discuss how to implement green building practices in County schools. County staff attends these monthly meetings and are members of the Green Schools Advisory Committee.

The Integrated Waste Management Local Task Force is charged by the Board of Supervisors with coordinating recycling and waste reduction efforts between the County and the Cities of Watsonville, Capitola, Scotts Valley, and Santa Cruz. Programs include reduction of litter and debris which can contaminate the aquatic and marine environments. Special emphasis is placed on diversion of toxic and hazardous materials through the operation of Household Hazardous Waste (HHW) facilities and retail takeback programs for materials such as sharps, pharmaceuticals, fluorescent lamps, and used motor oil

In addition, the County collaborates with other regional groups. The Household Hazardous Waste group is a County-wide coalition that collaborates on programmatic issues and program promotion. Also, the Central Coast Recycling Media Coalition is a tri-County coalition that works together on promoting various issues such as marine debris education, recycling and waste reduction, as well as stormwater pollution as mentioned in BMP 3-1-1 Media Campaign.

Proposed Modification: None

Planned Year Three Activities: Continue to investigate opportunities to participate in regional, Statewide or national groups, attend at least one IPM DAG meeting and monthly U.S. Green Building Council meetings.

BMP 4-1-8 Water Quality Messages

Implementation Details:

See Public Education and Outreach Section

Measurable Goal: See Public Education and Outreach Section

BMP 4-1-9 Public Opinion Survey
--

Implementation Details:

See Public Education and Outreach Section

Measurable Goal: See Public Education and Outreach Section

ILLICIT DISCHARGE DETECTION AND ELIMINATION

Overview: Ongoing efforts have been maintained and expanded during the second year of implementation of the illicit discharge and detection program. Efforts will be further expanded upon final adoption of the County's stormwater ordinance, expected this year, which will give us more authority to eliminate other non-stormwater discharges to the storm drain system and natural waters.

BMP 5-1-1 Storm Sewer Mapping

Implementation Details:

Storm drain sewer system and outfalls are mapped in the urban areas of the County. The maps are utilized to track potential sources of illicit discharges and identify areas where infiltration might occur.

Measurable Goals:

- Provide ongoing database maintenance and updated maps in annual report.
- Incorporate storm drain mapping into GIS system.
- Provide updated maps on County GIS website.

Status: Storm sewers have been mapped and are available for use in the County's GIS system. They have been available on a dedicated stormwater website which allows the user to track the flow of water from their address or to a particular location:

<http://npdesgis.co.santa-cruz.ca.us>

They have been transferred to the general public web-based GIS system:

<http://gissc.co.santa-cruz.ca.us/default.aspx>

The storm drain maps are being updated in Zone 5 and Zone 6 as a part of a grant funded effort to update the drainage master plans for those zones.

Proposed Modification: None

Planned Year Three Activities:

- Continue to update storm drain maps as additional information becomes available.
- Use storm drain maps to track potential sources of contamination when detected, or to determine the path of spills if they occur.

BMP 5-1-2 Sanitary Sewer Mapping

Implementation Details:

Incorporate sanitary sewer maps to identify possible leaks or spills to the storm drain.

Measurable Goals:

- Incorporate sanitary sewer with storm sewer map.

Status: Sanitary sewers have been mapped and are available for use in the County GIS system. They have been added to the general public web-based GIS system (see link above). These maps are used in conjunction with storm drain maps to identify areas of potential contamination where leaks from the sanitary sewers system may enter the storm drain system. These locations have been sampled to determine if leakage is occurring. No leaks

have been identified in the County's jurisdiction.

Proposed Modification: None

Planned Year Three Activities: This BMP is complete.

- Continue to update sanitary sewer maps as additional information becomes available.
- Use sanitary sewer maps in conjunction with storm drain maps to identify potential sources of contamination for follow-up investigation.

BMP 5-1-3 Illicit Discharge Program

Implementation Details:

Develop and implement a program to identify and eliminate possible storm water pollution coming from those businesses and operations within the County's SWMP permit area that are not otherwise inspected by Environmental Health (Food Facilities and Hazardous Waste generators) and Public Works, or, certified by Public Works as a Green Business.

Measurable Goals:

- Structure/procedures for illicit discharge screening and investigation completed.
- Procedures and staff identified to conduct screening investigations and follow-up.
- Database to track illicit discharge reports and follow-up actions developed.
- Measurable goals will include annual routine inspections of 50 percent of the prioritized businesses and operations that may be sources of illicit discharge.

Status: Environmental Health staff has developed a base-line list of those industrial and commercial businesses not routinely inspected by County staff but that have the potential to cause stormwater pollution. These were prioritized and targeted based on their ability to emit pollutants of concern which include indicator bacteria and pathogens, nutrients, priority organics, sediment and heavy metals. Various sources of information, including the fictitious business names database and the telephone directory, were reviewed to identify businesses that have the potential to release contaminants. An initial assessment was conducted of the businesses in the main commercial areas outside of the Sanitation District (San Lorenzo Valley and Corralitos).

The following business categories were used to identify those businesses served by onsite sewage disposal (and not already inspected by the EHS HazMat and CP teams) that have the potential to emit stormwater pollutants of concern: garden stores/flowerists/landscaping; feed/pet supply; lumber/building materials/hardware; auto supply; heavy industrial equipment; hauling/storage; veterinarian/animal shelters; undertaking/cemeteries; metal/metalwork; paving/excavating; wood works; beauty salons; bike repair; carpet rug cleaners; glass/tile; printing.

The initial focus for business screening targeted business establishments located nearest to the primary receiving water body in northern Santa Cruz County, the San Lorenzo River. The County identified and field checked 25 businesses in the San Lorenzo Valley. Once the Stormwater ordinance is approved, which is anticipated to occur in 2011, the County will have the authority to more thoroughly inspect these targeted businesses for potential illicit discharges, and track any enforcement activities. In the remainder of 2011, EHS will continue to develop a complete list of businesses (served by onsite sewage systems) throughout Santa Cruz County that will be screened and targeted for illicit discharge inspections in 2012. EHS staff will also work with DPW staff to ensure comparable businesses are screened or inspected by DPW within the Sanitation District (see BMP 5-1-6 for a list of current DPW inspections).

Uniform procedures are currently being coordinated and developed within this Illicit Discharge Detection

program for education, inspections, and enforcement by both Environmental Health and Public Works.

Proposed Modification: None

Planned Year Three Activities:

- Maintain and expand the database listing facilities of potential concern and track illicit discharge reports and follow up actions;
- Perform additional field assessments of facilities;
- Provide incentives for targeted businesses to become ‘Certified Green’ Businesses through Public Works.

BMP 5-1-4 Illicit Discharge Field Screening Investigations

Implementation Details:

Perform field investigations to identify illicit discharges from storm drain outfalls. Creeks and outfalls will be sampled for fecal indicator bacteria, ammonia, nitrate, and human-specific bacterioides. Use of field test kits for other parameters will be considered.

Measurable Goals:

- Inspect and sample major creeks and outfalls annually for dry weather flows. Conduct upstream sampling and inspection where problems are found at outfalls. Approximately six creek locations and eight major outfalls will be sampled on at least an annual basis.
- Identify sources of dry weather flows annually.
- Abate illicit discharges or connections identified.
- Utilize current procedures to track illicit discharges and ensure completion of corrective work.
- Identify recurring illicit discharges.
- Report the number of illicit connections found/repaired/replaced annually.

Status: Samples have been collected from urban streams and storm drains by County Environmental Health staff and volunteers with the Coastal Watershed Council (CWC). From July 1, 2010 to June 30, 2011, CWC volunteers collected 25 samples from 7 storm drain outfalls and 54 samples from 8 other urban stream locations. CWC also collected samples from 80 locations, primarily urban streams, during Snapshot Day in 2011. CWC samples are analyzed by County staff for fecal indicator bacteria, nitrate, ammonia and phosphate. County staff collected and analyzed 548 samples from 25 locations in urban stream and lagoon samples throughout the County (including locations within the City of Santa Cruz). County staff also collected 60 samples at 31 locations in storm drains and ditches.

One failing septic system and one greywater discharge were identified and corrected this past year as a result of sampling. Noble Gulch in Capitola continued to have significantly elevated bacteria levels. This is a known problem area with a history of sewage leaks. The sewer line along Noble Gulch is scheduled for replacement as soon as funding can be secured. Sampling during previous years has identified sewer leaks in both the City of Santa Cruz and Capitola. As a result, numerous sewer upgrades have been completed.

Proposed Modification: None

Planned Year Three Activities:

- Continue to sample creeks and outfalls and identify sources of dry weather flows annually.
- Abate illicit discharges or connections identified.

- Utilize current procedures to track illicit discharges and ensure completion of corrective work.
- Identify recurring illicit discharges.
- Report the number of illicit connections found/repaired/replaced annually.

BMP 5-1-5 MS4 Maintenance

Implementation Details:

MS4 inspection and maintenance is an important opportunity for identifying illicit connections and discharges.

Measurable Goals:

- Storm Drain maintenance staff inspects for illicit discharges and connections during routine maintenance.
- Results of inspections are reported annually.

Status: Maintenance staff inspects and cleans the storm drain systems on a regular basis using a vacuum truck and hand equipment. The storm drain systems consist of drop inlets (DIs) and silt and grease traps. The surfaces of the DI grates are cleared of debris on an as needed basis for flood control maintenance. Two times a year (before winter and after winter) the DIs and silt/grease traps are inspected and cleaned out as needed. While performing this duty, if any illicit discharges are found, maintenance staff reports the situation to the Public Works dispatcher who in turn notifies the Environmental Health Department. Staff is directed to stay clear of any unknown substances until a representative from Environmental Health has given procedural guidance. This year 86 storm drains were inspected, and 5 were cleaned, netting 1.47 tons of material. In addition, 125 silt and grease traps were inspected and cleaned, netting 60.55 tons of material. No indications of illicit discharges were identified this year during maintenance procedures.

The results of the inspections are documented and recorded. Items noted in the report are location, size of the drain facility, volume and type of material removed, the time the facility was cleaned, as well as any observations made by the maintenance staff, such as “full of trash,” “oily sheen on water,” “dead animal,” etc. (See BMP 8-1-6)

Proposed Modification: None

Planned Year Three Activities:

- Continue to inspect for illicit discharges and connections during routine maintenance.
- Results of the inspections reported annually.
- Report on the number of illicit connections found/repaired/replaced annually.

BMP 5-1-6 Commercial and Industrial Facility Inspections

Implementation Details:

County Environmental Health Inspectors inspect and monitor regulated facilities that handle hazardous materials annually for storage practices and spill response. Food facilities are inspected three times a year for good house-keeping practices, and proper disposal of garbage and wastewater. Additional elements will be added to the inspection procedures to ensure full compliance with stormwater BMPs at least once per year. DPW Sanitation Inspectors inspect regulated facilities that are connected to sewers, and EHS Inspectors inspect those facilities served by onsite sewage disposal systems.

Measurable Goals:

- Reporting, record keeping, and referrals will continue under the Certified Unified Program Agencies (CUPA) program and the food facility program. All facilities will be inspected. Records will be maintained of identified impacts on the storm system and correction made.
- Inspection programs will be expanded, and inspectors will be trained to provide for full stormwater inspections to ensure all BMPs are in compliance.

Status: Stormwater illicit discharge inspection coverage and enforcement powers reside with both Public Works-Sanitation and the EHS. County Public Works-Sanitation has stormwater inspection responsibilities for industrial, commercial, and food facilities served by sewer. EHS staff will be responsible for inspecting sites served by onsite sewage disposal.

As the designated CUPA since July 1997, the Hazardous Material (HazMat) Section of the County Environmental Health Services (EHS) is responsible for the administration of hazardous materials and hazardous waste programs within the stormwater permit coverage area. This includes inspecting sites and monitoring their compliance with hazardous materials provisions and spill response as authorized under the County's CUPA program. Since 1997, EHS HazMat inspectors have inspected inventoried sites with the potential to discharge hazardous waste and materials into storm drain systems. HazMat staff will continue reporting, record keeping, and spill response as directed under the current CUPA.

The Consumer Protection section of County EHS is responsible for inspecting all facilities that sell or give away food. Routine inspections are conducted annually with frequent follow-ups and enforcement based upon complaints or inspection violations. The primary stormwater issues that staff focuses on during routine food facility inspections are: cleaning mats outside, dumping wash water outside, exterior material and garbage storage and maintenance, and checking of onsite septic tank and drainfield for surfacing sewage. Stormwater and wastewater violations in the past have been noted on official Food Inspection forms. This will be expanded with the new stormwater forms and the additional authority provided by the stormwater ordinance.

The EHS Consumer Protection Team received online illicit discharge training in July 2011. Once the stormwater ordinance is adopted, the EHS Stormwater Inspection form will be used once every three years to record stormwater violations and corrections noted by EHS staff. During other routine inspections CalCode currently allows EHS staff to inspect for and conduct enforcement on illicit discharges detected at food facilities.

The Environmental Compliance Unit of the Sanitation District conducted 478 industrial inspections within the last fiscal year. Inspections consisted of full facility inspection, partial facility inspection (in order to alleviate a specific problem on a certain date), plan reviews and new installs, and re-inspections. Only full facility inspections are recorded in the District's Pretreatment Program database. The following businesses were inspected by the District in 2010:

5 carwashes
13 dry cleaners
7 water treatment supply
1 hospital
9 machine shops
1 print shop
46 miscellaneous industries
287 food service establishments
90 vehicle service facilities
8 educational institutions
2 wineries

1 medical center
1 dental office

District personnel continue to educate light industries operating in Santa Cruz County on process-specific pollution prevention and waste minimization opportunities. During inspections, Best Environmental Management Practices (BEMP) pamphlets and demonstrations for each particular industry are relayed to business owners, managers, and employees. The inspector educates the representative about proper stormwater issues and the importance of following the BEMPs. Additionally, the District highlights the differences between storm drains and the sanitary sewer drains. BEMPs have been created for vehicle service facilities, dentists, photo processors, restaurants, dry cleaners, printers, machine shops, surfboard manufacturers, paint contractors, mobile car washers and medical facilities. Businesses/industries that are inspected are given the appropriate BEMP pamphlet. These pamphlets can be found at:

<http://www.dpw.co.santa-cruz.ca.us/environment.htm>

The stormwater ordinance will give both departments enhanced onsite enforcement powers for identified stormwater violations at industrial and commercial sites, including the authority to issue immediate notices of violation.

Proposed Modification: None

Planned Year Three Activities:

- Environmental Health HazMat Inspectors and Consumer Protection inspectors will receive further training in storm water illicit discharge identification; training will focus on CASQA storm water BMPs developed for Hazardous Materials and Hazardous Waste sites and CASQA BMPs designed specifically for food facilities, respectively.
- The enforcement and penalty provisions of the soon to be adopted County Stormwater Ordinance will be implemented in years 3-5 and will support the inspection efforts.
- Consumer Protection inspectors will use a new supplemental Stormwater Inspection form. A similar form will be developed for HazMat Inspectors.
- Inspectors will distribute information on stormwater BMPs as a handout to all commercial and industrial facility operators over the course of years 3-5.
- Annual tracking and submission of stormwater violations, enforcement efforts, and follow-ups will be accomplished and recorded with the use of the new EHS Stormwater Inspection Form, including entry in a database.

BMP 5-1-7 Information from the Public
--

Implementation Details:

The County currently receives and responds to reports from public of non stormwater discharges.

Measurable Goals:

- Use current water quality message protocol to receive and respond to calls from the public.
- Report number of calls received and follow-up actions taken, including number of illicit discharges identified and corrected.

Status: The County currently receives reports from the public in a variety of ways:

- Direct calls to Environmental Health Services (EHS) during regular business hours which may relate to septic system failures, sewage spills, hazardous materials discharge, or other water quality related report or inquiry. The large majority of calls are received this way.
- Emails to EHS on the same subject.
- Calls to the EHS water quality hotline.
- Calls to Public Works dispatch (24/7) regarding sewer spills or storm drain issues.
- Calls to 911-Netcom (24/7) regarding sewer spills, hazmat spills or storm drain issues. Netcom pages the on-call EHS staff.
- Calls to Planning Department regarding erosion and pollution from construction projects or erosion in general.

In 2010-11, EHS staff responded to the following calls:

- Twenty two emergency response calls that related to some type of hazardous material that entered or could potentially enter the storm drain and/or creek. Most were either paint or automotive type wastes (fuel, oil, etc).
- Seventeen after-hours emergency response calls that involved sewage spills or potential releases into storm drain or water ways.
- Eight two complaints received by telephone or email regarding septic system failures, greywater discharges, sewer lateral overflows, mostly in rural areas. 37 did not turn out to be actual problems, 15 are in progress, and the rest were corrected.
- Three complaints regarding pet waste and two complaints regarding livestock impacts on water quality.

Proposed Modification: None

Planned Year Three Activities:

- Use the current water quality message protocol to receive and respond to calls from the public.
- Report number of calls received and follow-up actions taken, including number of illicit discharges identified and corrected.

BMP 5-1-8 Locate and Correct Cross-Contamination from Sewers in the City of Capitola

Implementation Details:

The County has conducted video surveillance of all sewer systems in Capitola in the vicinity of Soquel Creek and is upgrading substandard sewer mains in that area with the assistance of the Clean Beach Program and other grant funds. No additional work was completed in 2010-11.

Measurable Goals:

- Monitoring and testing of sanitary sewer lines initiated within 100 yards of Soquel Creek. (Year One to Three)
- Priority replacement / repair list completed. (Year Three)
- Replacement / repair of illicit or substandard connections initiated. (Year Three)
- Develop and implement a sewer lateral upgrade program as necessary based on water quality evaluation conducted after sewer main replacement. (Year Four)
- Report on progress and follow-up activities in annual documentation of linear feet of sewers upgraded and number and percentage of laterals inspected and upgraded. (Year Two to Five)

Status: Most of the sewer lines in close proximity to Soquel Creek and Aptos Creek in Capitola Village and the Rio del Mar area have been videoed during the past five years. Sewers and lateral connections were found to be

in poor condition, with potential for leaks to groundwater, the stormdrain system, and eventually the creeks and lagoons, which have elevated bacteria levels, with some presence of indicators of human sources (potentially 10 percent).

Most of the main sewer lines have now been replaced in Capitola and Rio del Mar. During 2010-11, 4,569 feet of sewer line was replaced in Rio del Mar, including 50 lateral connections, and 5,692 feet of sewer line was replaced in the Live Oak area. Sanitary sewer leaks into Noble Gulch have been identified as a continuing significant source of contamination to Soquel Creek and Capitola Beach. Plans to replace the sewer line have been developed, and grant funds are being sought to upgrade those sewers.

Once these modifications are complete, further monitoring will be conducted to indicate whether or not the private sewer laterals are significant sources of contamination. If it is believed that they may be, grant funds will be sought for a pilot inspection program to confirm the condition of the laterals and help fund upgrades as needed.

Proposed Modification: Wording in BMP should be modified to include actions to evaluate and reduce sewage leaks and spills in all sewer areas.

Planned Year Three Activities:

- Priority replacement / repair list completed. (Year Three)
- Replacement / repair of illicit or substandard connections initiated. (Year Three)
- Develop and implement a sewer lateral upgrade program as necessary based on water quality evaluation conducted after sewer main replacement. (Year Four)
- Report on progress and follow-up activities in annual documentation of linear feet of sewers upgraded and number and percentage of laterals inspected and upgraded. (Year Two to Five)

BMP 5-1-9 Implement Pet Waste Ordinance
--

Implementation Details:

The County has an ordinance that prohibits the deposition of pet waste in public spaces. The ordinance will be amended to require the proper collection and disposal of pet waste on private property to prevent discharge of fecal material to the storm drain system. The ordinance will be implemented through education programs, complaint response, and existing enforcement procedures.

Measurable Goals:

- All complaints received regarding handling of pet waste will be pursued.
- Amend pet waste ordinances
- Develop educational materials to inform residents of the updated ordinance. Identify the form, content, frequency and target audience for educational efforts.
- Post educational materials on the County website, and distribute at least 100 printed materials annually.
- Number of complaints and other enforcement activities will be reported annually.

Status: The County received and investigated three complaints regarding pet waste creating a health hazard or nuisance. All but one of these has been resolved. Amendment of the pet waste ordinance and related activities has not yet been initiated, as this is a lower priority, relative to other issues, such as adoption of the stormwater and water conservation ordinances. Amendment of the pet waste ordinance will be considered in year three or four.

Proposed Modification: Defer amendment of Pet Waste Ordinance and associated educational materials to

year three or four.

Planned Year Three Activities:

- Amendment of pet waste ordinance.
- Number of complaints and other enforcement activities will be reported annually.
- All complaints received regarding handling of pet waste will be pursued.

BMP 5-1-10 Implement Septic Systems Maintenance and Management Program

Implementation Details:

The County implements a septic system management program in the San Lorenzo Watershed and other areas of the County. This program provides for water quality testing and investigation, tracking of septic system maintenance efforts, and requirements for system evaluation and upgrade in conjunction with remodels.

Measurable Goals:

- County will require all systems to be evaluated prior to approval of a major remodel.
- Inspect 1,000 septic systems every three years.
- County will provide a triennial report of the number of septic systems pumped, inspected and upgraded in its primary watersheds. The Basin Plan calls for triennial reporting of onsite system maintenance efforts.

Status: The County continued to implement its Onsite Wastewater Management Program. The triennial status report is in preparation. Approximately 214 inspections of individual septic systems were conducted during the past year, including response to 82 complaints. The number of inspections was limited by staff vacancies, but will be increased next year. All systems are evaluated at the time that a building permit is submitted for a remodel. If the septic tank has not been pumped and inspected within three years, it is required. If the remodel proposes adding bedrooms or more than 500 square feet, the system must be brought up to current standards.

Proposed Modification: None

Planned Year Three Activities:

- County will provide a triennial report of the number of septic systems pumped, inspected and upgraded in its primary watersheds of the County. The Basin Plan calls for triennial reporting of onsite system maintenance efforts.
- Inspect 1,000 septic systems every three years.
- Continue to require all systems to be evaluated prior to a major remodel.

BMP 5-1-11 Stormwater Ordinance

Implementation Details:

Prepare ordinance to prohibit non-stormwater discharges into storm drain, and implement appropriate enforcement procedures and actions.

Measurable Goals:

- Adopt and enforce ordinance.
- Evaluate effectiveness of ordinance based on enforcement activities and abatement results.
- Make recommendations for improvement where shortcomings are identified.

Status: Staff from Environmental Health, Planning and Public Works has developed a comprehensive draft

ordinance for Santa Cruz County. This ordinance includes sections to address hydromodification and physical modification of drainageways. The ordinance will empower staff from all three departments to require compliance with key provisions of the stormwater program, including prohibition of non-stormwater discharges. The draft ordinance has been through several phases of in-house review and has been provided to the public stakeholders for comment. A stakeholder workshop is scheduled for fall 2011, and the ordinance will be taken through the adoption process after that. Adoption is anticipated by early 2012.

Proposed Modification: Suggest a one-year delay in the time schedule.

Planned Year Three Activities:

- Adopt and enforce ordinance.
- Evaluate effectiveness of the ordinance based on enforcement activities and abatement results.
- Make recommendations for improvement where shortcomings are identified.

BMP 5-1-12 Train Agency staff

Implementation Details:

Provide training to Agency staff on the administrative process for the Illicit Discharge Program.

Measurable Goals:

- One hundred percent of applicable agency staff will be trained, including food facility inspectors, CUPA inspectors, environmental compliance inspectors, road and storm drain maintenance workers, and water quality investigators.
- Report outcome of training and follow-up activities.

Status: Environmental Health Consumer Protection staff responsible for food facility inspection received illicit discharge training focusing on the most common discharge violations encountered at food facilities. These areas of concern include dumpsters, tallow bins, outdoor storage, indoor drains and exterior wastewater management (equipment and mat washing). While CalCode currently gives EH CP inspectors the authority to address illicit discharges at food facilities served by onsite sewage disposal systems during any routine inspection, a stormwater inspection checklist will now be used by Consumer Protection staff once every three years for all food facilities served by onsite sewage. Those food facilities on public sewer will continue to be inspected by DPW-Sanitation. Environmental Health Consumer Protection and Hazardous Materials (CUPA) staff will be further trained upon completion of the stormwater ordinance and stormwater inspection checklist for commercial and industrial facilities.

DPW Environmental Compliance Staff conducted stormwater training for Santa Cruz County Public Works staff. Training focused on pollution prevention and stormwater best management practices for municipal operations. A copy of the training can be found at:

http://dpwintranet/NPDES/Npdes_DPW_Stormwater_Training.ppt#1

Sanitary sewer spill response training for sanitation workers was also conducted. Training focused on proper response procedures in the event of a sanitary sewer overflow. Staff was informed on how to prevent the spill from reaching a storm drain and proper clean up methods. All spills are reported to the Regional Water Board. If a spill reaches a water body, sanitation district staff takes samples in order to report the bacteria levels to the RWQCB.

Proposed Modification: Suggest a one- year delay in the time schedule.

Planned Year Three Activities:

- Complete training of 100 percent of applicable agency staff, including food facility inspectors, CUPA inspectors, environmental compliance inspectors, road and storm drain maintenance workers, and water quality investigators.
- Report outcome of training and follow-up activities.

BMP 5-1-13 Wasteload Allocation Attainment Program

Implementation Details:

Develop, submit, and implement Wasteload Allocation Attainment Programs (WAAP) addressing the San Lorenzo River, Aptos/Valencia Creeks, Soquel Lagoon, and Watsonville Slough pathogens/fecal indicator bacteria Total Maximum Daily Loads, as well as the San Lorenzo River sediment TMDL and the Aptos/Valencia Creeks sediment impairment.

Measurable Goals:

The Wasteload Allocation Attainment Program will address:

- An implementation and assessment strategy;
- Source identification and prioritization;
- BMP identification, prioritization, implementation (including schedule), analysis, and assessment;
- Monitoring program development and implementation (including schedule);
- Reporting and evaluation of progress toward achieving wasteload allocations;
- Coordination with stakeholders; and
- Other pertinent factors.

Status: Most of this work has already been completed through the preparation of the TMDLs, implementation plans, stormwater program and the County investigations that went into preparation of the TMDLs. Preparation of the formal WAAP was deferred, pending final adoption of the pathogen TMDLs for San Lorenzo River, Soquel Creek and Aptos Creek in 2010.

It is our intention to prepare a single Wasteload Allocation Attainment Program document that will address all of the TMDLs for Santa Cruz County. We expect to have a draft of that document available for submittal to the RWQCB by October 15, 2011. In the meantime, the County is already implementing numerous actions to attain its wasteload allocations as have been documented in numerous reports. The WAAP will further document and summarize those activities.

The County faces the ongoing challenge of directing limited staff and funding resources toward those efforts that will provide the greatest improvements in water quality, water resources management, and watershed functioning. It is not possible to implement all programs with current resources.

Proposed Modification: None

Planned Year Three Activities:

- Complete preparation of WAAP description and track implementation.

CONSTRUCTION SITE STORMWATER RUNOFF CONTROL PROGRAM

Overview: The County completed all of the Year Two requirements under the Construction Site Stormwater Runoff Control Program (Table 6-1 of the SWMP). Year Two of this program focused, in large part, on inspecting construction sites and ensuring compliance with the County’s grading, erosion control, and riparian and wetlands protection ordinances, as well as tracking of stormwater inspections. Several training courses on construction stormwater BMPs were also developed and provided to County staff and private consultants. Information on construction requirements was posted on the County website. The only slight departure from the approved SWMP was related to BMP 6-1-3. Rather than update the erosion control ordinance to deal with construction waste, the County will address this issue within the context of the stormwater ordinance revision required by BMP 5-1-11.

Target Audience: Agency Staff

BMP 6-1-1 Grading Ordinance (County Code Chapter 16.20)
--

Implementation Details:

The existing County Grading Ordinance requires all grading permit applications to include an erosion control plan for all surfaces exposed during construction. The ordinance also requires the plan to include revegetation measures for all surfaces exposed during grading activities.

Measurable Goal: Compare Grading Ordinance to construction Minimum Control Measure (MCM) and evaluate effectiveness. Report on required BMPs.

Status: All grading permit applications submitted were reviewed for conformance with the Grading Ordinance intended to prevent erosion and drainage issues. Plans were evaluated for the following BMPs:

- Driveway and roadway surfacing requirements (depending on grade)
- Slope stability requirements (2:1 or flatter)
- Slope compaction requirements
- Minimization of disturbance and grading
- Submittal of an erosion and sediment control plan

Additionally, when appropriate, discretionary approvals included a condition that grading be initiated no later than a specified date. The purpose of this condition is to help ensure that grading can be completed, and erosion and sediment control BMPs installed by October 15 every year, which is typically the beginning of the rainy season.

The County’s Erosion Control and Grading ordinances were also compared to construction MCMs to evaluate effectiveness. In general, these ordinances meet or exceed construction MCMs. The County’s Erosion Control and Grading ordinances work to limit excessive disturbance of site and grading in the rainy season. These ordinances also require erosion control plans for all sites that include grading, even if they disturb less than one acre.

Proposed Modification: None

Planned Year Three Activities:

- Evaluate effectiveness of existing grading ordinance, and modify if necessary.
- Report on required BMPs.

BMP 6-1-2 Riparian Corridor and Wetlands Protection Ordinance (Chapter 16.30)

Implementation Details:

The existing Riparian Corridor and Wetlands Protection Ordinance sets forth rules and regulations to limit development activities in order to achieve long-term watershed protection, to protect water quality, maintain open space, and prevent erosion. The Riparian Ordinance currently requires the following development setbacks: 50' from each side of a perennial stream. 30' (minimum) from each side of an intermittent or ephemeral stream 100' from the high water mark of a lake, wetland, estuary, lagoon or natural body of standing water

Measurable Goals: Inspect sites twice yearly during construction to verify compliance with riparian setbacks. Issue non-compliance letters to applicants if violations occur, and track the number issued per year. Evaluate effectiveness of erosion and sediment control measures indicated on the plans and commonly used on construction sites, and modify as necessary. Report on required BMPs. Annually report on the number of Riparian Exceptions granted by the County to the Riparian and Wetlands Protection Ordinance as well as the number of times the ordinance is applied to a new development or redevelopment project. Include a description of any Exception and the rationale for the Exception. Compile the descriptions and make them publicly available. Provide the Regional Water Quality Control Board with notification at least 30 days prior to the issuance of any major Exception, and the rationale for its issuance, as a sole correspondence.

Status: From July 2010 through June 2011, 255 building permits were reviewed by County Planning Department resource planning staff. Inspections conducted to date indicate that all of the projects permitted are in compliance with the required riparian setbacks. No violations occurred, and no non-compliance letters were issued.

Of the applications reviewed, 18 Riparian Exceptions were approved, (see Table 6-1-2.1) and 10 exemptions were given. Of the 18 Riparian Exceptions, the Water Quality Control Board was specifically notified of two major Riparian Exceptions, and the rationale for their issuance, in correspondence to Mr. Phil Hammer dated January 26, 2011, and Ms. Julia Dyer dated May 17, 2011.

Best Management Practices incorporated into the Riparian Exceptions included: 1) obtaining and adhering to the approved plans and conditions of all other required permits (e.g., building, grading); 2) limiting construction activities to the period between April 15 and October 15; and 3) implementing an approved erosion and sediment control plan. Other project-specific measures were also required, as appropriate, such as limitations on use of mechanized equipment, biological surveys and monitoring, informational training sessions for construction personnel, and approval and implementation of a habitat restoration plan.

The County also inspected 193 active grading permits during the 2010/2011 winter season. A spreadsheet was used to track how many sites were out of compliance during our inspections. Approximately 90 percent had adequate erosion, sediment and drainage control onsite at the first winter inspection.

The erosion control plans that were submitted had to show erosion and sediment control BMPs to be implemented during construction (see BMP 6-1-3 for specific requirements). The inclusion of BMPs on the plans was effective in making property owners and contractors aware of erosion and sediment control requirements and also gave them a better idea of what to install. The fact that 90 percent of the sites inspected during the rainy season had adequate erosion and sediment control measures installed at the first winter inspection, is probably attributed to the requirement that erosion and sediment control BMPs be shown on the plans, reflecting the continuing success of this program.

Proposed Modification: Continue to track riparian exceptions and exemptions and perform inspections of

riparian setbacks during construction. Cease keeping logs of the inspections to verify if setbacks have been met. We've found that the amount of work involved with keeping logs can be better spent on performing inspections, developing training material and training the public. Since our ordinance is not well understood by the public, in year three we propose to create diagrams showing how required riparian corridors, buffers, and setbacks are determined. This diagram will be posted on the Planning Department website and made available to the public as handouts.

Continue to perform erosion control inspections of all sites during the winter time (twice during the rainy season). Continue to issue verbal warnings, correction notices and / or stop work notices when inspections indicate that a project is out of compliance. In year three we propose to cease keeping logs of the types of problems on the sites. We've found it to be more effective to focus on performing inspections and providing trainings, than to log the types of problems, especially with the reduction in staff in the Planning Department due to budget constraints. In year three we proposed to do a larger outreach to contractors so that they can be trained on erosion and sediment control as well. If needed, multiple trainings will be held to accommodate additional people. We also plan to update our website to make it easier to find information on effective erosion and sediment control.

Planned Year Three Activities: Same as Year One and Two plus:

- Evaluate effectiveness of Riparian Ordinance and Modify / Update as necessary.

BMP 6-1-3 Erosion Control Ordinance (Chapter 16.22)

Implementation Details:

The existing Erosion Control Ordinance, a product of the San Lorenzo River Watershed Management Plan and subsequent General Plan adoptions (see BMP 7-1-1), applies to all projects with a potential to cause accelerated erosion. All grading projects, new single-family dwellings, and commercial projects are required to have an erosion control plan. Smaller projects (such as additions) are reviewed on a case-by-case basis to determine whether an erosion control plan is required. The ordinance requires erosion and sediment controls during construction and mechanisms for enforcement. The ordinance also requires projects to limit disturbance of existing vegetation and also to control runoff to prevent erosion on a long-term basis.

Measurable Goals: Update Erosion Control Ordinance to require BMPs to cover containment of construction waste on site (such as concrete washouts, building materials, sanitary waste, and litter). Report on required BMPs.

Status: Rather than update the Erosion Control Ordinance to deal with construction waste, the County is addressing this issue within the context of the stormwater ordinance revision required in BMP 5-1-11. That ordinance has been drafted to include a section on best management practices for construction activities, which will allow the County to require and enforce plans for the containment and control of construction waste. Specific measures that can be employed to fulfill this requirement will be incorporated into the County Construction Site Stormwater Pollution Control BMP Manual. In that way, the most appropriate measures can be selected and tailored to a specific site and project.

In addition, all applications for grading projects, single-family dwellings and commercial projects were required to have an erosion and sediment control plan submitted to the County for review and approval. The plans were required to show locations and details of erosion and sediment control measures to be implemented during construction. More specifically, plans were required to show:

- Protection of inlets

- How bare soils would be treated (seed, straw, erosion control blankets)
- Perimeter controls (straw rolls, silt fencing, etc.)
- Stabilized construction entrance(s)
- Temporary drainage control
- Covering of stockpiles
- Notes regarding cessation of work during inclement weather

The County's Erosion Control and Grading ordinances were also compared to construction MCMs to evaluate effectiveness. In general, these ordinances meet or exceed construction MCMs. The County's Erosion Control and Grading ordinances work to limit excessive disturbance of site and grading in the rainy season. These ordinances also require erosion control plans for all sites that include grading, even if they disturb less than one acre.

Proposed Modification: None.

Planned Year Three Activities: Present the ordinance to the Board of Supervisors for consideration and approval, and begin implementing the new requirements. Continue reporting on required BMPs.

BMP 6-1-4 Evaluate Building Permit Program Efficacy

Implementation Details:

Evaluate the Building Permit program for construction BMPs.

This BMP is not due until Year Three.

BMP 6-1-5 Discretionary Projects – Land Use Permits

Implementation Details:

Additional BMPs may be required for discretionary projects (e.g. restricted fueling areas, equipment maintenance).

This BMP is not due until Year Three.

Target Audience: Agency Staff, Design Firms and Construction Contractors

BMP 6-1-6 Plan Review

Implementation Details:

Erosion and sediment control plans must be submitted and approved prior to construction.

Measurable Goals: Approval of erosion and sediment control plan (or Stormwater Pollution Prevention Plans) on 100 percent of projects. Track how many erosion control plans were not accepted on the first review and what the problems were. Track the types of designers who prepared the plans that were not approved on the first review (e.g., home owners, architects).

Status: The County reviewed, tracked and ultimately approved all erosion and sediment control plans submitted with permit applications. Tracking included documenting deficiencies and other problems with the

plans and who prepared the plans. Of the erosion control plans reviewed, approximately 70 percent were adequate as originally submitted. Problems identified on the other 30 percent of the plans were broad and ranged from not showing locations and details of BMPs to lack of notes or improper application of BMPs. Problems associated with the plans did not appear to be associated with whether they were prepared by a civil engineer, architect, unlicensed designer, or a property owner.

Proposed Modification: In year three we propose to cease keeping logs of how many erosion and sediment control plans were not accepted in the first review and what the problems were. We've found that the erosion control plans tend to be more generalized and represent a snapshot of a static project, while in reality construction sites change during the course of their permits. We've found it to be more effective to focus our time on training and educating plan developers, planners and contractors on how to adequately control erosion and sediment during construction. We've also found that inspections on sites during the rainy season to be more effective as well. We will, however, continue to review erosion and sediment control plans prior to issuance of permits so that adequate measures are shown on the plans. We also propose to update our website to include an example erosion and sediment control plan, and we'll also include a checklist for minimum erosion and sediment control measures that we expect to see on the plans.

Planned Year Three Activities:

- Continue to approve erosion and sediment control plan (or SWPPP) on 100 percent of projects.
- Update the Planning Department's website to include an example erosion and sediment control plan and also a checklist for items to be included on the plans.

BMP 6-1-7 Site Inspections

Implementation Details:

Grading and Erosion Control ordinances require site inspection and enforcement at permitted construction sites. Inspections focus on sediment and erosion control BMPs.

Measurable Goals: Inspect 100 percent of active grading permits at the start of the rainy season and again in the middle of the rainy season. Focus inspections on the presence of required BMPs as well as proper installation and anticipated effectiveness. Conduct inspections of grading projects, new single-family dwellings, and commercial projects for stormwater construction BMPs during the non-rainy season. Take enforcement actions where BMPs are found to fail, or have been installed or implemented improperly.

Status: County staff sent letters to the 193 permit-holders with active grading permits reminding them to install erosion and sediment control on their construction sites. After the letters were sent, the County inspected these 193 projects twice during the winter season. The types of projects included single-family dwellings, commercial developments, stand-alone grading projects, and retaining walls. Inspections focused on the adequacy of erosion, sediment and drainage control on the sites, and were performed at least twice during the rainy season for each site.

Proposed Modification: In year three we propose to cease keeping logs of the type and status of violations. We will, however, continue to track the number of sites inspected as well as how many letters to applicants were mailed out. We've found it to be more effective to perform the inspections than to log the types of problems that we've encountered.

Planned Year Three Activities:

- Inspection (and enforcement) of all active grading permits for stormwater BMPs twice during the rainy season.

- Inspection of active grading permits for stormwater BMPs at rough grade, final and building inspections during non-rainy season.
- Creation of a construction site BMP checklist to be used by field staff.
- Send erosion and sediment control reminder letters. Track number and status of violations.
- Inspect for control of waste at construction sites.

BMP 6-1-8 Train Agency Staff

Implementation Details:

Inspector and permit reviewers trained on implementing construction stormwater BMPs, including enforcement protocols.

Measurable Goal: Train 100 percent of grading and building inspectors as well as plan review staff annually. Track results of pre and post training quizzes.

Status: All Planning Department grading and building inspectors were trained on erosion and sediment control as well as all plan reviewers. In addition, several staff members from the Department of Public Works and the Redevelopment Agency were trained as well. The training focused on:

- The background and genesis of the NPDES requirements
- Why erosion and sediment control is important
- Requirements of the County's Stormwater Permit
- Examples of the Stormwater Permit implementation program
- Photos and a discussion of good and bad erosion and sediment control measures
- Construction waste control
- Other training and certifications available
- Discussion, questions and answers

Quizzes were given before and after the trainings. The quizzes focused on the basics of erosion and sediment control as well as what is covered by our SWMP. Although pre-presentation quizzes scored well, post-presentation quizzes scored better.

Staff plans to update the presentation to include photos from the 2010/2011 winter season.

Proposed Modification: None

Planned Year Three Activities: Train all Planning Department permit and plan review staff in addition to building and grading inspectors. Track results of pre and post training quizzes.

BMP 6-1-9 Construction Workshops

Implementation Details:

Provide BMP workshops for construction community. Augment website information. Brochures available at the County Website.

http://www.sccoplanning.com/html/misc/all_brochures.htm#Environment

Measurable Goal: Update brochures if and when needed. Develop workshop material for construction community. Provide one public workshop annually.

Status: There are several brochures on the County website that relate to construction-related requirements. One, titled “Erosion and Sediment Control Plans,” identifies the information that must be submitted for approval of an erosion and sediment control plan. A sample plan for a single family dwelling under construction is also included in this brochure. A second pamphlet, titled “Erosion and Sediment Control on Your Construction Site,” provides information on specific erosion, sediment, and runoff (drainage) control measures, and the importance of maintaining these measures after installation. A third brochure presents a list of Certified Professionals in Erosion and Sediment Control that can assist in the preparation of erosion and sediment control plans.

One public workshop was given to the community that focused on effective erosion and sediment control practices. The training included an overview of the County’s SWMP requirements, pictures of good and bad sites, an example erosion control plan and other information. Forty people attended the training. A breakdown of the participants is below:

Summary of Erosion Control Training Attendees	
Civil Engineers	16
Soils Engineers	5
Architects	5
Planning Consultants	4
Contractors	5
Geologists	2
Designers	3

Proposed Modification: Extend outreach and focus on contractors.

Planned Year Three Activities:

- Develop workshop material for construction community, focusing on contractors.
- Provide one public workshop annually.

BMP 6-1-10 Public Inquiry Program

Implementation Details:

Develop a process for responding to public questions and concerns regarding the stormwater program. Coordinate with the water quality message protocol as applicable.

Measurable Goal: Process for receiving and considering public inquiries regarding construction activities implemented. Method for tracking publicly submitted information established. Track the number of public inquires and complaints received about stormwater issues on projects.

Status: When complaints are received regarding stormwater concerns, the messages are directed to the resource planner assigned to the particular area where the complaint is. Resource planners then investigate the complaint to determine if there is an active building permit or not. If there is an active building permit, the resource planner visits the site, and the visit is logged in the erosion control tracking spreadsheet. If there is not an active building permit, the complaint is transferred to the Planning Department’s Code Compliance section to determine if there is a violation of the County Code.

Proposed Modification: None.

Planned Year Three Activities: Continue to respond to complaints and track the complaints.

TABLE 6.1.2 RIPARIAN EXCEPTIONS JULY 1, 2010 - JUNE 30, 2011

Approval Date	Application #	APN	Type Of Project	Rationale For Exception
8/2/2010	101020	099-111-12	Construction of a new SFD and driveway over an existing drainage swale	Necessary to allow access to new SFD.
9/22/2010	09-0402	031-011-02	Recognize landscape contractor's yard including removal of unpermitted improvements to riparian area.	Allows for work to remove the unpermitted improvements in the riparian area and allow for restoration.
10/28/2010	101006	064-191-17	Recognize a 260' retaining wall	To allow for larger RVs to be parked at the RV Park. Existing riparian area already degraded.
11/8/2010	101068 / 06-0488	103-171-79	Construction of a new SFD	Necessary due to size of parcel and setback constraints
1/21/2011	07-0198	No APN	Construction of a pedestrian pathway	Proper design and function of an arterial street
1/21/2011	08-0394**	030-112-05	Construction of a lube/oil changing facility	To allow for reasonable use of the parcel since the majority of parcel is in riparian area.
2/15/2011	09-0131	078-101-03	Construction of a 25' diversion wall 42' retaining wall, & rock slope protection	To protect the home and prevent failure of an existing retaining wall into the creek
2/18/2011	07-0634	109-112-05, etal	Construction of a bypass roadway around a landslide	Needed for access to homes
3/10/2011	101055	040-163-15	Placement of gabion retaining wall	Necessary to protect the home on the property
3/22/2011	111030	087-021-26	Demolish a cabin, replace a culvert, add two picnic tables and revegetate area	Restoration of riparian corridor and prevention of road failure
3/23/2011	09-0407	037-101-58, 59	Development of a neighborhood park which include a pedestrian bridge over the riparian area. Also restoration of riparian area.	Establishment of continuity of the park. Habitat restoration.
4/27/2011	101082	030-151-20 etal	Extension of previous Rip. Ex. Also includes inclusion of a new parcel.	Necessary to implement restoration plan
5/9/2011	111002	No APN	Replacement of failed culvert and road embankment	Necessary to prevent closure of Schulties Road
6/3/2011	09-0230	086-082-22	Construction of new SFD, a sewer pipeline over a creek and a 6' tall retaining wall	Due to geologic constraints there is no other place to place the new SFD or leachfield.
6/9/2011	101078*,**	028-181-05	Recognize construction of retaining walls	Mimics original legal non-conforming wall
6/13/2011	111012	099-011-09 etal	Repair of a landslide and roadway embankment	Necessary to prevent closure of Olsen Road.

County of Santa Cruz
 Small MS4 General Permit Annual Report

6/17/2011	101077	102-471-03 etal	Replacement of failed culvert	Necessary to provide secondary access
6/30/2011	101015	081-071-08	Addition to an existing SFD	Addition located farther from creek than other improvements
6/21/2011	111000	030-153-24	Removal of abandoned mobile home utilities, paving, concrete pads, removal of non-native shrubs	Part of a plan for a larger restoration plan of the area

* Currently being appealed by the Coastal Commission

** Major Riparian Exception

POST CONSTRUCTION STORMWATER MANAGEMENT IN NEW AND RE-DEVELOPMENTS

Target Audience: Agency Staff

BMP 7-1-1 Land Use Policies and Ordinances

Implementation Details:

Since 1980 existing General Plan policies and County land use ordinances have provided an implementation framework for compliance with this minimum control measure and provide significant long-term watershed protection (these policies and ordinances were revised and strengthened in 1983 with the adoption of the Local Coastal Program Land Use Plan and IP). These policies and ordinances were originally identified in the **San Lorenzo River Watershed Management Plan** as necessary implementation measures to improve the water quality of the San Lorenzo River Watershed. The 1980 and 1994 County General Plans and the 1983 Local Coastal Program Land Use Plan incorporated these policies and ordinance provisions for County-wide application.

These policies and ordinances include, but are not limited to, the protection of riparian corridors, wetlands and other sensitive habitats, implementation of FEMA floodplain/floodway protection measures, application of grading and erosion control requirements to all development activities, and protection of Monterey Bay and Coastal Water Quality through development controls on storm water runoff. [Existing General Plan/LCP policies and ordinances are found on the County Website: <http://www.sccoplanning.com> see Sections 5.1, 5.2, 5.4, 5.5, 5.7, 6.3 of the General Plan/LCP and Chapters 16.10, 16.20, 16.22, 16.30 and 16.32]

These policies are implemented as a part of the review for all development activities conducted in the unincorporated area of the County, regardless of size or location.

Because of our long-standing implementation of watershed protection measures and low impact development (LID), the BMP proposed is to assess the effectiveness of the implementation of the existing policies in maintaining and enhancing long-term watershed protection. To accomplish this, a program to measure the effectiveness of these controls shall be instituted. The program will assess habitat degradation and pollutant loading in the context of contributing land use types. This should be accomplished in conjunction with other jurisdictions where watersheds are shared. Intermediate results of this program will be used to determine what policies and/or ordinances need to be revised to strengthen watershed protection. (see BMP 7-1-2)

Measurable Goals:

- Develop and implement a review program to measure the effectiveness of County policies and ordinances in providing long-term watershed protection and healthy functioning watersheds;
- Amend current ordinances to incorporate the specific BMPs associated with the land uses identified in Attachment 4 of the General Permit (except section B.2.i because this will be covered by the hydromodification control criteria covered by BMP 7-1-10). Include the implementation of these amended ordinances in the proposed monitoring program. Conduct stakeholder outreach to get feedback on the draft Stormwater Ordinance. Adopt the Stormwater Ordinance.

Status: County staff from the Departments of Public Works, Planning, and Environmental Health met multiple times over the second permit year to develop a new Stormwater Ordinance that could be used by all three departments for illicit discharge detection and elimination, construction stormwater management and post construction stormwater management. In addition, updates to the County's Design Criteria and new Draft County Construction Site Stormwater Pollution Control BMP Manual were developed in coordination with the Stormwater Ordinance. The current draft of the Stormwater Ordinance includes a listing of the Special Use

Categories identified in Attachment 4 of the General Permit. Based on the median sized commercial property in urban areas, the County has opted to lower the sizing threshold for commercial developments subject to Attachment 4 of the General Permit to 10,000 square feet. The draft updates in the County Design Criteria include the specific BMPs required for each Special Use Category as described in Attachment 4 of the General Permit with the exception of section B.2.i because it is anticipated that this will be covered by the hydromodification control criteria that will be developed by the joint effort and documented as BMP 7-1-10. Additional draft updates to the County Design Criteria include project size thresholds for mitigation requirements including requirements for redevelopment projects as well as updated maintenance agreement documents for different sized projects and types of stormwater BMPs.

The three draft documents went through internal reviews and were made available for stakeholder and public review in May 2011 in anticipation of adoption by the County Board of Supervisors in June 2011 (to review draft documents see http://www.dpw.co.santa-cruz.ca.us/Storm_Water/SWMP_Revisions.html). Due to comments received and requests for additional clarification from stakeholders, staff decided to schedule a separate stakeholder meeting in the fall of 2011 and postpone the Board of Supervisors meeting considering adoption of the draft documents to after the stakeholder meeting.

In the meantime, as part of the effectiveness evaluation, Public Works staff continues to review and track development projects that are permitted by the County. In conjunction with BMP 7-1-12 staff is tracking each approved project, the amount of impervious area added, and what type(s) of stormwater BMPs are included as part of their project.

As reflected under BMP 6-1-6, the County has implemented a tracking system to evaluate erosion and sediment control plans submitted with permit applications and implemented during construction. This effort includes tracking whether the plans are complete at the first submittal, who prepared the plans (e.g., property owner, architect), and inspection results regarding whether the plans were installed and maintained properly. Specific problems and deficiencies are recorded. This information will be used, in part, to determine whether any changes to the County's erosion control policies and/or ordinance are called for and, if so, what particular deficiencies need to be addressed. If policy and/or ordinance changes are not warranted, the tracking data may be useful in other ways, such as identifying methods in which public outreach and education could be improved.

In conjunction with the Central Coast Regional Water Quality Control Board's joint effort for developing hydromodification control criteria (joint effort) the County completed a gap analysis as described in BMP 7-1-9. This analysis identified County code, ordinance, and criteria that may need to be updated in conjunction with the development and implementation of hydromodification control criteria.

Proposed Modification: None

Planned Year Three Activities:

- In conjunction with the joint effort for developing hydromodification control criteria, develop and implement a review program to measure the effectiveness of County policies and ordinances in providing long-term watershed protection and healthy functioning watersheds;
- Modify policies/ordinances if necessary.
- Amend current criteria to incorporate the specific BMPs associated with the land uses identified in Attachment 4 of the General Permit (except section B.2.i because this will be covered by the hydromodification control criteria covered by BMP 7-1-10). Include the implementation of the amended criteria in the proposed monitoring program. Conduct stakeholder outreach to get feedback on the draft Stormwater Ordinance. Adopt the Stormwater Ordinance, updates to the County Design Criteria, and the County Construction Site Stormwater Pollution Control BMP Manual.

BMP 7-1-2 Post Construction Stormwater Control Ordinance

Implementation Details:

The County has routinely reviewed all development permits (discretionary and building) to reduce the impacts of stormwater runoff based on existing policies and ordinances. As discussed in BMP 7-1-1, a program will be instituted to measure the effectiveness of the policies and ordinances. If, as a result of the monitoring, there is a need to revise the policies and ordinances to provide long-term watershed protection, a stormwater control ordinance shall be created if changes to the existing ordinances are inadequate.

Measurable Goal: None for Year Two.

Status: Per the assessment completed in the first year for BMP 7-1-1 it was determined that the County would develop a new Stormwater Ordinance rather than providing updates to multiple existing ordinances. It is anticipated that this ordinance will be adopted during Year Three of the SWMP.

Proposed Modification: None

Planned Year Three Activities:

- Conduct stakeholder outreach to address questions and comments on the draft Stormwater Ordinance;
- Adopt the Stormwater Ordinance.

Target Audience: Agency Staff, Design Firms, Project Owners

BMP 7-1-3 Evaluate Existing Program Efficacy

Implementation Details:

Prior to the issuance of any discretionary permit for a development activity that will create more impervious surface, a preliminary drainage and erosion control plan is required to be submitted for review and approval. These preliminary plans must demonstrate that stormwater from the impervious surfaces will not contribute to flooding and water quality degradation and that all sediment will be contained on-site. For those projects where there will be no building permit or map filing, final plans are reviewed and approved based on the requirements of the ordinances and policies prior to authorization to commence work. Periodic inspections are required (see Chapter 6).

Prior to issuance of all building permits and prior to the recording of all Final and Parcel Maps, a final drainage and erosion control plan must be submitted for review and approval by Public Works and the Planning Department. After issuance of building permits or recordation of maps and Subdivision Agreements, periodic inspections occur (see Chapter 6 for Construction BMP implementation).

Conditions of approval for all drainage and erosion control plans require the implementation of construction and post construction measures to protect water quality, riparian habitats and prevent flooding.

This BMP is not due until Year Three.

Planned Year Three Activities:

- If it is determined that changes need to be made based on the program discussed in 7-1-1 revise procedures as necessary.

BMP 7-1-4 Design Standards

Implementation Details:

The County Code Chapters cited in BMP 7-1-1 and the County Design Criteria contain specific standards and conditions for the design of drainage and erosion control measures for all development and redevelopment within the County's jurisdiction. As stated in BMP 7-1-1, the County's ordinances already provide and will continue to provide a high level of long-term watershed protection and promote Low Impact Development (LID). The requirements include stormwater retention where feasible, bio-filtration of stormwater, and reduction of post-development flow rates to pre-development rates (through detention and other means). Planning policies promote retention of vegetation, protection of riparian corridors and site planning to minimize grading and site disturbance. Should the monitoring program identify ordinance or Design Criteria measures that are inadequate to protect watershed health or functioning, these ordinances and/or criteria will be amended to provide the level of protection necessary to protect the watersheds, including maximization of LIDs. The ordinances or Design Criteria will be revised to incorporate any subsequently approved hydromodification measures attached to this permit.

Measurable Goals:

- Assess and modify where necessary the County Design Criteria and other development project conditions to ensure compliance with General Permit requirements (Attachment 4, except section B.2.i because this will be covered by the hydromodification control criteria covered by BMP 7-1-10);
- Apply current and updated Design Criteria to 100 percent of applicable development projects.
- Revise Design Criteria and ordinances, as necessary, to incorporate interim hydromodification criteria.
- Structural and nonstructural stormwater control BMPs are conditioned.

Status:

In conjunction with BMP 7-1-1, County staff has drafted a new Stormwater Ordinance and has identified areas of the County Design Criteria that need to be updated to comply with Attachment 4 of the General Permit and to clarify project thresholds that require quantification of stormwater mitigations. The updates to the Design Criteria are anticipated to go through further public review and adoption during Year Three in conjunction with the proposed Stormwater Ordinance.

The current Design Criteria is applied to each applicable project that is routed to the Stormwater Management section of Public Works, including projects in the County that are outside of urban permit boundaries. During the second permit year (July 2010 through June 2011) 100 percent of the applications routed to the Stormwater Management Section of Public Works were reviewed relative to Design Criteria requirements. These requirements include mitigations for a range of storms for all projects that will result in an increase in impervious area. In order to meet these criteria, project applicants utilize both structural and nonstructural BMPs. See Section 3 of the current Design Criteria, which can be accessed at:

<http://www.dpw.co.santa-cruz.ca.us/DESIGNCRITERIA.pdf>

As part of the joint effort and BMP 7-1-12 the County and Central Coast Regional Water Quality Control Board agreed that the County's existing plan review process is sufficient as interim LID implementation for new and redevelopment projects.

Proposed Modification: None

Planned Year Three Activities:

- Modify the Design Criteria as identified as part of BMP 7.1.1, to incorporate interim hydromodification criteria, and to ensure compliance with Attachment 4;

- Apply the Design Criteria to 100 percent of applicable development projects;
- In conjunction with BMP 7.1.12 condition structural and nonstructural stormwater control BMPs.

BMP 7-1-5 CEQA Checklist

Implementation Details:

Review and revise, if necessary, the CEQA Initial Study checklist to ensure that stormwater runoff quality and quantity are considered.

Measurable Goal: Review and revise, where necessary, the CEQA Initial Study checklist to ensure that stormwater runoff quality and quantity are addressed, consistent with the goal of long term watershed protection.

Status: In May 2010 the County updated its CEQA Initial Study Checklist to fully reflect all current CEQA environmental review requirements. In addition, under BMPs 5-1-11 and 7-1-2, County staff has drafted a Stormwater Ordinance. Once completed and approved by the Board of Supervisors, staff will determine whether any revisions should be made to the Checklist in conjunction with this ordinance. Although it is premature to comment with certainty, we anticipate that it may be appropriate to expand the Checklist section on “Hydrology, Water Supply, and Water Quality” to include one or more additional questions.

Proposed Modification: Postpone revisions to the County’s CEQA checklist until after the Stormwater Ordinance is adopted in Year Three.

Planned Year Three Activities:

- Review the final Stormwater Ordinance adopted by the Board of Supervisors and, if appropriate, revise the County’s Initial Study Checklist to ensure that all relevant environmental issues associated with water quality control are adequately evaluated.

BMP 7-1-6 On-Going Project Post-Construction Monitoring

Implementation Details:

Following final inspection and acceptance of erosion control and drainage facilities associated with development or redevelopment, review of annually submitted reports will be conducted to insure that facilities are maintained.

Measurable Goals: Require, as a condition of approval of all building permits, discretionary permits and subdivisions, that annual reports be submitted prior to the winter season from property owners with constructed facilities. The report will document current condition of the facility and actions taken in the past year to maintain the facility; identify existing structural controls previously approved with maintenance agreements in the County; develop a program for tracking and enforcing maintenance of privately maintained structural controls.

Status: The Public Works Department Stormwater Management section has required all projects that are proposing structural stormwater quality or quantity treatment facilities to record a maintenance agreement that requires annual maintenance and reporting to the County (an example agreement is on page 100 as figure SWM-25 of the County Design Criteria and can be found at: <http://www.dpw.co.santa-cruz.ca.us/DESIGNCRITERIA.pdf>). During the second permit year approximately 50 projects had permits that were either issued or finalized with recorded maintenance agreements.

The requirement for recorded maintenance agreements has been in effect for more than 10 years at the County. This program was initially implemented for commercial projects that either had detention and/or water quality treatment units and has now grown to cover structural stormwater BMPs that are proposed for any residential or commercial project. The database was consolidated during the first permit year. There have been about 350 total stormwater maintenance agreements recorded since 1996. While the County has consistently required recorded documents prior to finalizing development permits, follow-up on annual maintenance and reporting has not been as consistent. This is partially due to the lack of funding and enforceable mechanisms available for routine system oversight by the County.

Recognizing the need for enforcement authority, the proposed draft Stormwater Ordinance and Design Criteria updates developed with BMPs 7-1-2 and 7-1-4 include on-going maintenance requirements for stormwater management facilities consistent with Attachment 4 of the General Permit and provide a mechanism for the County to fund the monitoring and enforcement of the maintenance of private stormwater management facilities. County staff will finalize a tiered system for providing oversight for these private facilities during Year Three of the SWMP. The proposed draft changes to the recorded maintenance agreements provided in the draft changes to the Design Criteria have been updated to be consistent with the tiered approach.

Proposed Modification: Postpone enforcement of on-going post-construction monitoring to Year Three after the Stormwater Ordinance is adopted and an adequate enforcement mechanism is in place.

Planned Year Three Activities:

- Continue to require recorded maintenance agreements for private stormwater management facilities.
- Track the number of structural controls maintained and reported on annually.
- Issue enforcement action for non-compliant conditioned projects.
- Track enforcement actions taken.
- Prepare ordinance amendments, if necessary, to strengthen requirements to provide for on-going monitoring and maintenance by property owners, with oversight by the County.

Target Audience: Agency Staff

BMP 7-1-7 Train Staff

Implementation Details:

Train designated staff in plan review, proper inspection and monitoring of structural controls, BMPs, and record keeping procedures. Particular emphasis will be placed on evaluating the adequacy of post-construction controls, low impact development, and hydromodification.

Measurable Goal: Train designated staff in plan review, proper inspection and monitoring of structural controls, BMPs, and record keeping procedures. Particular emphasis will be placed on evaluating the adequacy of post-construction controls, low impact development, and hydromodification. Train 100 percent of existing plan review and inspection staff annually.

Status: County Public Works, Planning, and Environmental Health review staff attended the UC Davis LID training program in September 2010 and the LID training in January 2011. Public Works Stormwater Management Section review staff regularly discusses development requirements regarding LID practices for consistency in comments and requirements among reviewing staff. Planning staff also holds regular meetings to discuss the requirements of the various code sections, as well as actual projects. Building plan checkers have also been trained in the California Green Building Code. An internal training updating Public Works staff on the new Construction General Permit was provided in May 2011.

Proposed Modification: None

Planned Year Three Activities:

- Train new staff as they are hired.
- Train 100 percent of existing staff annually.

BMP 7-1-8 Train Members of the Development and Construction Industries

Implementation Details:

Conduct training sessions with County planners and public sector engineers, architects, developers, consultants, etc. These training sessions will include specific attention to Low Impact Development (LID) and hydromodification.

Measurable Goal: Conduct one training session each year for County planners and public sector engineers, architects, developers, consultants, etc.

Status: The County Planning Department held training in January 2011 focused on erosion and sediment control. Forty members of the public attended the training. See BMP 6-1-9 for additional details regarding the training.

In conjunction with BMP 3-1-15 Green Building Outreach, the County trained and certified 30 green building professionals, including staff of the Planning Department.

Proposed Modification: None

Planned Year Three Activities:

- Conduct one training session each year for County planners and public sector engineers, architects, developers, consultants, etc. The training will include specific attention to low impact development and hydromodification.

Joint Effort for Developing Hydromodification Control Criteria

Target Audience: Agency Staff, Design Firms, Project Owners

The joint effort for developing hydromodification control criteria began on October 1, 2010. Implementation of BMPs 7-1-9 – 7-1-12 will be completed as part of the joint effort. Joint efforts' quarters 1 through 3 fall in Permit Year Two, quarters 4 through 7 fall in Permit Year Three, and quarters 8 and 9 fall in Permit Year Four.

BMP 7-1-9 Enforceable Mechanisms

Implementation Details:

Develop and/or modify enforceable mechanisms that will effectively implement hydromodification controls and Low Impact Development (LID). Enforceable mechanisms may include municipal codes, regulations, standards and specifications.

Measurable Goal: An analysis of all applicable codes, regulations, standards, and/or specifications that

identifies modifications and/or additions necessary to effectively implement hydromodification controls and LID.

Status: The County completed the “Gap Analysis” following the template provided by the Central Coast Regional Water Quality Control Board. The analysis was submitted to the RWQCB in April 2011. Once the final hydromodification control criteria is developed, applicable codes, regulations, standards, and specifications will be updated as necessary for effective implementation.

Proposed Modification: None

Planned Year Three Activities: None

BMP 7-1-10 Hydromodification Control Criteria

Implementation Details:

Derive County-specific criteria for controlling hydromodification in new and redevelopment projects using RWQCB-approved methodology developed through the joint effort

Measurable Goal: None in Year Two per the joint effort schedule.

Status: n/a

Proposed Modification: None

Planned Year Three Activities: None

BMP 7-1-11 Applicability Thresholds

Implementation Details:

Select applicability thresholds for applying Hydromodification Control Criteria to new and redevelopment projects. Applicability thresholds will be consistent with long-term watershed protection.

Measurable Goal: None in Year Two per the joint effort schedule.

Status: n/a

Proposed Modification: None

Planned Year Three Activities: None

BMP 7-1-12 Implementation Strategy for Low Impact Development (LID) and Hydromodification

Implementation Details:

Develop and enact a strategy for implementing LID and hydromodification control for new and redevelopment projects. The strategy will provide appropriate education and outreach for all applicable target audiences, and will include specific guidance for LID BMP design and for complying with hydromodification control criteria. The strategy will also apply LID principles and features to new and redevelopment projects during the two-year period preceding adoption of hydromodification control criteria.

Measurable Goal: Develop and enact a strategy for implementing LID and hydromodification control for new and redevelopment projects. The strategy will provide appropriate education and outreach for all applicable target audiences and will include specific guidance for LID BMP design and for complying with hydromodification control criteria. The strategy will also apply LID principles and features to new and redevelopment projects during the two-year period preceding adoption of hydromodification control criteria.

- Education and Outreach - Documentation of goals, schedules, and target audiences for education and outreach the County will conduct in support of the following strategic objectives: enforceable mechanisms, hydromodification control criteria, applicability thresholds, LID BMP design, and compliance with LID and hydromodification control criteria;
- Interim LID Implementation – Apply LID principles and features to all applicable new and redevelopment projects.

Status: The County developed the following education and outreach strategy as part of the joint effort.

**County of Santa Cruz
 Joint Effort: Q2 LID Education and Outreach Summary**

Target Audience	LID: Public Education & Outreach Efforts	Estimated Schedule
Residents		
	County plans to fund the Santa Cruz Resource Conservation District (RCD) to conduct an LID education program for residents w/in the County. A brief description of this program is provided in text below* and some of the specific work elements are included in this table.	Q4-Q9
	County website, Public Works’ web pages provides storm water information including a link to publications from the RCD. This includes the LID guidance manual “Slow it. Spread it. Sink it! A Homeowner's Guide to Greening Storm Water Runoff”.	Q2-Q9
Architects, Developers, Building Contractors, Design Consultants, etc:		
	Potential: Article in Builder’s Exchange newsletter, Downtown Association newsletter/email, or other trade organization.	Q3-Q5
	Potential: Workshop co-sponsored by Santa Cruz municipalities.	Q7
Residents & Architects, Developers, Building Contractors, Design Consultants, etc:		

	County co-funds Ecology Action, Santa Cruz Adult School, and the City of Santa Cruz to conduct a Green Gardner education program for landscapers and residents. In spring 2011, a series of "Ocean Friendly Landscaping" classes were held to teach landscaping skills that conserve water and reduce runoff pollutants such as: ecological landscape design, rainwater and gray water harvesting, proper installation of irrigation systems, less toxic pesticide control, etc.	Q3
	Article/informational piece on LID published in the local newspaper, <i>The Sentinel</i> . The article was published on April 30, 2011.	Q3
	Specific guidance on how to achieve and demonstrate compliance with the hydromodification control criteria and LID requirements made available to new and redevelopment project applicants.	Q8**
County Board of Supervisors		
	Potential: Agenda items at one or more meetings regarding new and/or modified enforceable mechanism (e.g. revised municipal code or mandatory Development BMPs) for applicable new and redevelopment projects.	Q7-Q8**

**Additional Description of the County of Santa Cruz/Resource Conservation District LID Education Program for Residents during the FY 2011:* The County plans on funding and partnering with the Resource Conservation District of Santa Cruz County (RCD) to conduct a Low Impact Development (LID) education program for residents within the County. Highlights of the program include the following:

- ◆ Public education workshops held at various public forums;
- ◆ Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" in local nurseries and landscape supply stores; and
- ◆ Distribution of the RCD home drainage guide "Slow It. Spread It. Sink It!" by RCD and County staff to residents upon request who heard about the brochure either by word of mouth, info cards from local nurseries, or from the RCD or County web sites.

** Schedule is dependent upon the Joint Effort's development of RWQCB approved methodology and may be delayed in accordance with any Joint Effort schedule changes per RWQCB approval.

The County submitted information regarding interim LID implementation to RWQCB staff in February 2011. This information described how our existing plan review process will be used to apply LID principles to new and redevelopment projects in the County. This project does/will result in incorporation of BMPs in the majority of projects that propose any increase in impervious area (building and discretionary permit projects).

Proposed Modification: None

Planned Year Three Activities: Develop and enact a strategy for implementing LID and hydromodification control for new and redevelopment projects. The strategy will provide appropriate education and outreach for all applicable target audiences and will include specific guidance for LID BMP design and for complying with hydromodification control criteria. The strategy will also apply LID principles and features to new and

redevelopment projects during the two-year period preceding adoption of hydromodification control criteria.

- Guidance - Develop, advertise, and make available LID BMP Design Guidance suitable for all stakeholders

POLLUTION PREVENTION / GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Target Audience: Agency Staff

BMP 8-1-1 Review Agency Housekeeping Programs

This BMP was completed in Year One.

BMP 8-1-2 Facility BMPs

Implementation Details:

Develop BMPs for agency facilities such as corporation and construction yards to address vehicle maintenance, material storage, and fueling operations. Use the Municipal Handbook from CASQA as a guidance document.

Measurable Goal: Annually document that facility BMPs are being implemented at 100 percent of facilities. Complete facility inspections checklist per schedule developed in Year One.

Status: Facility inspection at a road maintenance yard discovered sediment concerns which were addressed with the installation of tarps to cover loose material and straw wattles to prevent sediment from entering neighboring waterways. Road Maintenance Yard inspections are being performed using the approved checklist. Deficiencies are addressed and corrected.

Corporation Yard Storm Water Assessment checklists have been updated to be consistent with Environmental Compliance and Green Business checklists. Inspections using these updated checklists will begin in Year Three.

Based on site visits by RWQCB staff, the County has begun developing site specific maintenance plans for agency facilities. These will be completed in Year Three. Inspections following the checklist were only partially completed in Year Two. Complete inspections following the checklists/maintenance plans will be completed in subsequent years.

There are County facilities that are operating under separate discharge permits from the state. The tracking and reporting on these operations will continue under their respective permit programs.

Proposed Modification: Suggest a one-year delay in the time schedule.

Planned Year Three Activities: Annually document that facility BMPs are being implemented at 100 percent of facilities. Complete facility inspections checklist per schedule developed in Year One, and updated in Year Two.

BMP 8-1-3 Integrated Pest Management (IPM) and Integrated Vegetation Management Program (IVMP)

Implementation Details:

The County Board of Supervisors adopted an IPM Policy that has the long-term goal of eliminating pesticide

use on County property. The County has also adopted an IVMP that limits herbicide use on County roads. The policies are located at the following websites:

http://sccounty01.co.santa-cruz.ca.us/Bds/Govstream/Bdsvdata/non_legacy/agendas/2008/20080610/pdf/015.pdf
http://www.dpw.co.santa-cruz.ca.us/Operations/IVMP_Feb08.pdf

Measurable Goal: Document annual updates of IPM strategy, and report on BMPs implemented. Report reduction of County pesticide use.

Status: The County Board of Supervisors adopted an IPM Policy that has the long-term goal of eliminating pesticide use on County property. The County has also adopted an IVMP with the goal of eliminating herbicide use on the most environmentally-sensitive County roads.

Since its inception, the Santa Cruz County Integrated Pest Management program has been successful in significantly reducing the amount of the County’s pesticide usage. All departments are well aware of the program and the procedures for responding to pest concerns. The use of EPA Category I and II pesticides has been discontinued, and use of many Category III materials has been reduced.

Structural pest control at County facilities continues to apply less toxic measures, mechanical controls and habitat modification to reduce pest impacts. Monthly inspections at key facilities identify structural and sanitation problems that may encourage pest entry. Sustainable, low-toxicity products continue to be used.

County Parks continues to use alternative approaches for landscape and parks pest management. BMPs include mechanical pest exclusion, green-flaming weeds, landscaping with hardy native plants and hardscape elements (vs. lawns) and drip irrigation.

The County Administrative Office and each department are committed to achieving the goals of the IPM program. The following table shows trends in the use of the four major pesticides still used by the County:

Table 6 – 10 Changes in Use of Four Major Pesticides

Pesticide	Year					% Change 09 to 10
	2006	2007	2008	2009	2010	
Glyphosate gal.	201	160	105	171	142	-17%
Aluminum Phosphide lbs.	28	22	134	111	107	-4%
Diphacinone lbs.	76	38	23	0	0	0
Bromodialone lbs.	49	30	46	55	26	-53%

During the second permit year, four public meetings by the IPM Departmental Advisory Group were held.

The policy and most current annual report on this program can be found at:

http://sccounty01.co.santa-cruz.ca.us/bds/Govstream/BDSvData/non_legacy/agendas/2011/20110614/PDF/014.pdf

Proposed Modification: None

Planned Year Three Activities: Document annual updates of IPM strategy and report on BMPs implemented.

Report on reduction of County pesticide use.

BMP 8-1-4 Municipal Parking Lot Sweeping

Implementation Details:

The County owns and maintains parking lots. Parking lots can be a source of pollutants and should be swept regularly.

Measurable Goal: Develop a sweeping schedule. Implement and document maintenance per the sweeping schedule.

Status: Due to reduced funding, the County currently has limited staff and available resources to sweep parking lots. However, in order to more efficiently utilize existing resources, the Department of Public Works purchased the GBA software, a Geographic Information System (GIS) database, that will help operations staff develop, track, and report on parking lot sweeping, as well as develop a sweeping schedule. The database will provide consistency between County Public Works divisions and will assist in tracking reporting. Maintenance programs for parking lots that are under County Parks and General Services Departments will be developed separately.

Reduced funding has postponed the development and implementation of a municipal parking lot sweeping program. Storm drains in Maintenance Yards are inspected and cleaned twice a year to reduce or eliminate potential pollutants from being carried to local waterways.

Proposed Modification: Postpone schedule due to funding limitations.

Planned Year Three Activities: Develop a sweeping schedule. Implement and document maintenance per the sweeping schedule.

BMP 8-1-5 Chlorinated and Brominated Water Discharges

Implementation Details:

Municipal operations may result in the discharge of chlorinated and/or brominated water.

Measurable Goal: Implement and document that water discharges from maintenance at the County's public swimming pool go directly to the sanitary sewer without any discharges to the storm drain system.

Status: Water discharges from maintenance of the County's swimming pool go directly to the sanitary sewer without any discharges to the storm drain system.

Proposed Modification: None

Planned Year Three Activities: Implement and document BMP established in Year One.

BMP 8-1-6 Storm Drain Facility BMPs

Implementation Details:

The County owns and maintains a storm drain system. The system includes ditches and creeks, and silt and grease traps. Maintenance consists of regular inspections and removal of wastes.

Measurable Goal: Develop cleaning schedule. Track the frequency of cleaning and the amount of waste removed annually. Prioritize maintenance efforts based on the amount of waste removed.

Status: Maintenance staff inspects and cleans the storm drain systems on a regular basis using a vacuum truck and hand equipment. The storm drain systems consist of drop inlets (DIs) and silt and grease traps. The surfaces of the DI grates are cleared of debris on an as needed basis for flood control maintenance. Two times a year (before winter and after winter) the DIs and silt/grease traps are inspected and cleaned out as needed. While performing this duty, if any illicit discharges are found, maintenance staff reports the situation to the Public Works dispatcher who in turn notifies the Environmental Health Department. Staff is directed to stay clear of any unknown substances until a representative from Environmental Health has given procedural guidance. This year 86 storm drains were inspected and 5 were cleaned, netting 1.47 tons of material. 125 Silt and grease traps were inspected and cleaned netting 60.55 tons of material. No indications of illicit discharges were identified this year during maintenance procedures. Silt and Grease Traps are scheduled to be cleaned twice yearly, more often if the area is a known pollutant producer. Cleaning and the amount of waste removed annually are currently being tracked. Additional maintenance is based on the amount of waste removed.

Staff attended an introductory training of GBA (see BMP 8-1-4) in 2010. Reduced staffing has postponed the full development and implementation of the GBA software system.

Proposed Modification: None

Planned Year Three Activities: Track the frequency of cleaning and the amount of waste removed annually. Prioritize maintenance efforts based on the amount of waste removed.

BMP 8-1-7 Stormwater Pump Station BMPs

Implementation Details:

The County owns and maintains pump stations as part of the storm drain system. Maintenance and operation of the pump stations consists of regular inspections and removal of wastes.

Measurable Goal: Track the frequency of cleaning and the amount of waste removed annually.

Status: No removals in 2010 based on visual inspections. Removal of vegetation is slated for 2012, dependent on the acquisition of permits.

The County currently maintains three stormwater pumps.

One is a pump station at a County maintained detention basin at 38th Avenue and Brommer Street. This detention basin is off-line and has a well vegetated bottom. Sediment build up has not been and is not expected to be an issue at this facility. Visual inspections of this facility occur on a regular basis. The electrical pump equipment was recently retrofitted. The pump is only run during and subsequent to large (greater than 10 year) storm events.

The County also maintains two additional pumps located on the Pajaro River levee, one at Shell Road and another at Harkins Slough. The maintenance of these pumps consists of regular visual inspections and removal

and disposal of built up material on an as needed basis.

There are three flood control pump stations, noted below, that are maintained by the Public Works Drainage maintenance section.

Thirty-eight Avenue storm water detention basin – during storm events water is diverted into the retention basin to prevent flooding to downstream streets and properties. During normal operation, run off flows through a concrete lined channel that runs around the perimeter of the basin and off the property to an open channel downstream. This pump station is monitored on a weekly basis for proper operation of the pumps, vegetation control throughout the basin, and building and perimeter fence maintenance. Sediment, trash, and debris are removed on a regular basis to prevent material from being carried downstream by flood waters. Any sediment that is removed is disposed of properly. During a storm event the pump station is monitored daily for the above reasons.

Harkins Slough flood control pump station – this pump station prevents water from the adjoining Watsonville Slough from flowing into Harkins Slough, which is at a lower elevation, and flooding property upstream of the station. The water pumped by this station is used by the Pajaro Valley Water Management Agency (PVWMA) in its ground water recharge system. The pumps and station structure are monitored by Public Works staff bi-monthly during the summer season and daily during the winter months. The pumps use a float system which activates the pumps on an as needed basis. Sediment and floating vegetation in the slough channel are removed periodically (three to five years) to keep the area around the impellers clear to assure proper operation of the lift pump. Trash and debris are removed regularly and disposed of properly.

Shell Road flood control pump station – this pump station is located on the Watsonville Slough and prevents flooding to upstream properties along the slough from the tidal flow of the Pajaro River lagoon. The pumps use a float system which activates the pumps on an as needed basis. The pump station structure and lift pumps are monitored on a daily basis during the summer months and three to four times a day during a storm event. Sediment, trash, and debris from within the concrete weir at the station are removed regularly and disposed of properly.

Proposed Modification: None

Planned Year Three Activities: Track the frequency of cleaning and amount of waste removed annually.

BMP 8-1-8 Street Sweeping BMPs

Implementation Details:

The County sweeps 225 miles of commercial and arterial streets. Street sweeping is performed twice monthly.

Measurable Goal: Report the number of miles swept and the amount of waste removed annually. Prioritize efforts based on patterns of waste removal and field observation.

Status: Due to cuts in funding and personnel, Public Works is now operating one sweeper on an average of three to four days a week (concentrating on sweeping of bike lanes and curb and gutter in sensitive areas). Schedule 1 is swept on a regular basis. The streets listed on these schedules are swept at least once a month. Roads in Schedules 2 and 3 are no longer swept on a regular basis. They are monitored and swept on an as needed basis. The following describes the areas swept.

Schedule 1: Includes all designated bike lanes County wide as well as roads and streets in the Live Oak and

Mid County areas. This schedule includes the Opal Cliffs area, the streets around the various lagoons and beaches, and the Avenues between 41st and the Yacht Harbor.

Schedule 2: Subdivision areas in Mid County, Soquel, and south County to the Watsonville area.

Schedule 3: North County areas with and without curb and gutter such as Felton, Ben Lomond, Boulder Creek, Mt. Hermon, and the Davenport area.

For the calendar year July 2010 to July 2011:

-1,567 curb miles were swept.

-1,892 cubic yards of material was collected and properly disposed.

-on average, 1 mile swept equals to 1.2 cubic yards of debris picked up.

The number of miles and amount of waste removed annually is documented. Sweeping efforts are prioritized based on accumulated sediment in bike lanes and curb and gutters in sensitive areas.

Proposed Modification: None

Planned Year Three Activities: Report the number of miles swept and the amount of waste removed annually. Prioritize efforts based on patterns of waste removal and field observation.

BMP 8-1-9 Road Repair and Maintenance BMPs

Implementation Details:

Public Works road maintenance crews currently inspect, clean, and replace storm drain culverts (cross culverts) located within the public road right of way. Road crews also clean and grade roadside drainage ditches. Public Works has a road maintenance manual available at: http://www.fishnet4c.org/projects_roads_manual.html

Measurable Goal: Summarize road repair and maintenance BMPs implementation annually.

Status: The County maintains 599 miles according to an approved road maintenance manual. The road maintenance manual is posted on the County website and can be found here: http://www.fishnet4c.org/projects_roads_manual.html

The list of County maintained roads is available here: <http://www.dpw.co.santa-cruz.ca.us/Operations/RoadBible.pdf>

Repair and Maintenance BMPs are implemented for routine as well as emergency work including: culvert replacements, storm damage repairs and ditch cleaning. Erosion and sedimentation control are used according to FishNet 4C recommendations.

Proposed Modification: None

Planned Year Three Activities: Summarize road repair and maintenance BMPs implementation annually.

BMP 8-1-10 Municipal Maintenance Employee Training

Implementation Details:

Develop initial and refresher training program for municipal maintenance employees. The Department of

Public Works has several Erosion Control and BMP training videos that are used for training and are available on its website at:

www.dpw.co.santa-cruz.ca.us/EROSIONCONTROL.htm

Measurable Goal: Provide training to new employees.

Status: A stormwater training was developed for all operations employees at the Brommer Street Maintenance Yard. One hundred percent of the operators were trained on Stormwater Management BMPs during Year One. The presentation has been posted on the County's intranet for managers and supervisors to use in future years to train new and existing employees. There were no new employees to train during Year Two.

The Parks Maintenance Manager and two Parks Maintenance Supervisors in the Parks, Open Spaces and Cultural Services Department (POSCS) attended numerous IPM training sessions in 2010 in order to obtain more information about IPM practices. The topics included, among others:

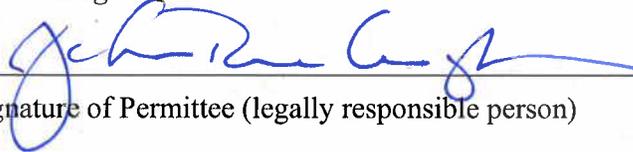
- . Biting and stinging arthropods
- . Vertebrate Pest Control
- . Soil Fertility
- . Turf grass renewal in spring
- . Identification and control of Wasps
- . Re-emergence of bed-bugs
- . Weed Resistance Management

Proposed Modification: None

Planned Year Three Activities: Provide training to new employees.

E. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

	3/31/2011
Signature of Permittee (legally responsible person)	Date Signed
John J. Presleigh	Director of Public Works
Name (printed)	Title