

SECTION C-6

PUBLIC EDUCATION

PROGRAM EFFECTIVENESS ASSESSMENT





SECTION C-6, Public Education

C-6.0 PUBLIC EDUCATION

C-6.1 Introduction (LIP Section A-6.1)

Public education is an essential part of the County's municipal stormwater program. Developing programs to inform and involve the public can be an effective method for controlling urban runoff and stormwater pollution. Emphasizing the relevant impacts of urban runoff and stormwater pollution to each particular target audience increases the likelihood that the messages will be noticed and that the audience will support and participate in the program implementation.

The County recognizes that when a community has a clear idea of where the pollution comes from, how it directly affects them and what they can do to prevent those effects, the community will be more willing to support and participate in the pollution prevention program. The County also recognizes that the Third Term Permits set a high expectation for the performance of the public education component of the stormwater program.

C-6.2 Countywide Public Education Program (LIP Section A-6.2)

The County has, and continues to support, a strong countywide public education program as described in the 2003 DAMP (see **2003 DAMP, Section 6**). This program provides the common message and theme for the overall program, coordinates that message with neighboring counties to ensure that media overflow messages are compatible and provides combined media buying power that could not be achieved by the County and the other Permittees individually.

C-6.3 County Public Education Focus (LIP Section A-6.3)

The County supports the countywide effort through financial contributions, management of the countywide contract, participation in the Public Education Committee and the use of countywide materials, thematic messages and common look. The County also supplements the countywide campaign at a local level to address County specific issues and target constituencies that are best reached through a local rather than a countywide effort.

During the 2002/03 reporting period the County completed the following:

C-6.3.1 Public Education Material Distribution

The County has distributed over 20,000 brochure, magnets, bookmarks, and posters at various outreach events, presentations, trainings and through other County agencies. All public education materials are available for viewing, downloading and ordering on the County website, www.ocwatersheds.com or by calling the County's 24-hour hotline number, 714-567-6363.

The County provided the following educational materials to its residents at the following public facilities:



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Public Facilities and Resources Department

The primary mission of the Public Facilities & Resources Department (PFRD) is to provide, operate, and maintain quality public facilities and regional resources for the people of Orange County. PFRD provides services on a regional basis to unincorporated areas, and to other County agencies and departments. The following PFRD departments provide educational materials to employees and/or residents at their public facilities:

Harbors, Beaches & Parks Division

Harbor, Beaches & Parks operates regional recreational facilities and manages historical and natural resources. These 33,000 acres of parkland and open space include regional and wilderness parks, nature preserves and recreational trails, historic sites, and harbors and beaches. HBP provide the following brochures:

- *“Do You Know Where The Water in Your Storm Drain Goes?”*
- *“Keeping Pest Control Products Out of Creeks, Rivers and the Ocean”*
- *“Water Quality Guidelines for Pet Care Activities”*
- *“Water Quality Guidelines for Horse & Livestock Activities”*
- *“Water Quality Guidelines for Car Wash Fundraisers”*

County Property Permits

County Property Permits reviews, coordinates, issues, and monitors public right-of-way encroachment permits for construction/use of road, flood control systems, harbors, beaches, parks, and other County-owned property; processes special events, filming permits for all County facilities; collects fees, establishes surety and insurance amounts for public-right-of-way permits; and administers County franchise ordinances. The County Property Permits Public Counter provide the following brochures:

- *“Water Quality Guidelines for Permitted Lot and Pool Drains”*
- *“Pool Maintenance and the Water Quality Act”*

A number of other Orange County agencies also provide information to the public that aids in controlling stormwater pollution. These programs assist the Orange County Stormwater Program by reducing the amount of hazardous substances; pollutants or contaminants entering the storm drain system. These efforts include the following:

Health Care Agency - Environmental Health Division

The Environmental Health Division is engaged in educational activities in these main areas:

Pollution Prevention Program

The Pollution Prevention Program promotes the opportunities that are available to regulated businesses to reduce and eliminate the creation of hazardous waste. They assist businesses by



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providing workshops, educational literature and pollution prevention events. They also manage the county's used oil program that encourages the recycling of used motor oil and filters

Food Protection Program

The Food Protection Program focuses on the inspection of retail and wholesale food facilities such as restaurants, markets, bakeries, vending machines, food processing plants, food trucks, and food carts. The Registered Environmental Health Specialists (REHS) inspect over 9,000 food establishments throughout Orange County. During these inspections they provide the brochure entitled "Water Quality Guidelines for Exterior Restaurant Cleaning Operations" and the poster entitled "Good Cleaning Practices for the Food & Restaurant Industry". The materials provide employees, managers and owners with the best management practices that businesses should employ while performing various maintenance activities.

Hazardous Waste

The Environmental Health Division implements the Hazardous Waste Inspection Program throughout Orange County. The purpose of this program is to ensure that all hazardous wastes generated by Orange County businesses are properly handled, recycled, treated, stored and disposed. Specialists in this program inspect facilities that generate hazardous waste, evaluate hazardous waste generating industries, investigate reports illegal hazardous waste disposal, and respond to emergency spills of hazardous chemicals. During inspections specialists routinely distribute the poster entitled "Good Gas Station Operating Practices" and "Good Operating Practices for the Auto Repair Industry".

Animal Care Services

The Animal Care Services Division is a division of the Regulatory Health Services that provide pet licensing and patrol services to 19 contract cities and all the unincorporated areas of the County. The Animal Care Services Public Education Office routinely distribute the stormwater brochure entitled "Water Quality Guidelines for Pet Care Activities" throughout their Orange County facilities and at all outreach events.

The Orange County Public Libraries

The Orange County Public library network consists of 33 branches, which provide a variety of services to residents throughout the County. All 31 branches currently display and provide all the Stormwater Program's education materials to the public.

The County of Orange Integrated Waste Management Department

The Integrated Waste Management Department (IWMD) manages the household hazardous waste program and utilizes a variety of educational materials to recommend alternatives to hazardous products as well as proper disposal of household hazardous waste. There has been close coordination with IWMD to ensure that the County promotes the proper disposal of household hazardous wastes both within the printed materials as well as at outreach events.



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During the reporting period, IWMD assisted the County in the developing of a new brochure, “*Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Materials*”. The brochure was developed to inform residents how improper disposal of household hazardous waste can lead to water pollution and provides information on how to properly dispose of household hazardous waste.

C-6.3.2 Employee Training and Outreach

During the reporting period, the following general stormwater program presentations were made to County staff.

Date	Group	Presenter	Presentation
February 11, 2003	Orange County Board of Supervisors	Vicki Wilson/PFRD	Stormwater Permits – Local Implementation Plan
March 12, 2003	PFRD/PDSD Division/Department Managers	Chris Crompton/PFRD	New Municipal Stormwater Permits for Orange County - Drainage Area Management Plan (DAMP)
April 1, 2003	County Engineer Orientation	Chris Crompton/PFRD	New Municipal Stormwater Permits for Orange County

The overall goal of the County is for its employees to lead by example through the implementation of pollution prevention methods. During the reporting period, a comprehensive internal training effort designed to supplement the Countywide training program was initiated.

C-6.3.3 Outreach to Construction Site Contractors/Developers

This information can be found in detail in **Section C-8.7** of this PEA.

C-6.3.4 Outreach to Industrial Site Owners and Operators

This information can be found in detail in **Section C-9.1.6** of this PEA.

C-6.3.5 Outreach to Commercial Site Owners and Operators

This information can be found in detail in **Section C-9.2.6** of this PEA.

C-6.3.6 Outreach to Residential Community, General Public, and School Children

Educating the general public and school children is essential to a successful outreach plan. The County has supplemented the countywide education effort with outreach events, web outreach, public presentations and school initiatives detailed below:



Outreach Events

Orange County Fair

The 110th Annual Orange County Fair was held on July 12th - 28th, 2002. The County partnered with the Orange County Sanitation District to host a joint booth with the theme - Make a Splash! Curb Urban Runoff. The joint booth provided information and educated the public on the issue of urban runoff. This year's event had a recorded total attendance of 898,197, which is a 6% increase over last year's attendance. Approximately 7,300 brochures, magnets, flyers and bookmarks were distributed to the general public at the fair. In addition to distributing approximately 7,300 brochures, magnets, flyers and bookmarks to the general public, all school-aged children received coloring books, and were invited to watch the Water Education Foundation's video entitled Frogline. Frogline teaches kids about non-point source pollution using a news format. Anchor Amphibians Finneas Frog and Kris Kroak explain what non-point source pollution is, how it impacts the environment, and what individuals can do to reduce or prevent this pollution. Approximately, 200 children visited our booth.

2003 Festival of Whales Ocean Awareness Day

The Festival of Whales is a non-profit organization comprised of volunteers whose mission is to provide a greater awareness and understanding of the migrating California Gray Whale and the preservation of the ocean environment. Ocean Awareness Day brings together many diverse City, County, State, public and non-profit groups in an effort to educate the community about the many different issues facing our oceans and the environment.

On March 16, 2003, the County participated in the event by setting up an informational booth and using the Enviroscope® Models to teach the public about urban runoff and water quality related issues. In addition, staff also provided brochures and magnets and fielded questions. Approximately 200 brochures, magnets, and bookmarks were distributed to the general public at the festival.

Tierra Nativa 2003 – Celebration of the Native Land

On Saturday April 26, 2003, the City of Mission Viejo commemorated Arbor Day, Earth Day, National Trail Day and National Volunteer Week as one event entitled "Tierra Nativa 2003 – Celebration of the Native Land." This event is the second largest Earth Day Festival in Orange County. The theme for this year's event was "RECYCLE: Rediscover Treasures." The focus was on recycling, stewardship of the land, water quality and conservation. The event was held along Oso Creek Trail and Jeronimo Open Space Trails where vegetation was planted, weeded and debris was cleaned up. County staff participated in the annual "Tierra Nativa 2003 - Celebration of the Native Land by setting up an informational booth in an effort to teach the public about urban runoff and other water quality related issues. Approximately 2,000 people attended the event.



The Children's Groundwater Festival

The Children's Groundwater Festival is an annual two-day event serving 4th and 5th grade students. This year's event was held on May 6 and 7, 2003 and featured lively entertainment and interactive displays led by groundwater and natural resources professionals representing government agencies, environmental organizations, higher education, and private business. The activities were designed to teach children about groundwater while having fun. The County has participated in this educational event each spring for the past six years.

Trails4All 6th Inner Coastal & Watershed Cleanup Day

Trails4All was established in 1992 as the Trails Council of Orange County. Incorporated in 1995 as a 501(C) nonprofit organization, its purpose is to assist in coordinating volunteer trail projects and to raise funds to support volunteer groups that undertake those projects. The organization is comprised of cyclists, equestrians, hikers, trail runners, community service groups, corporate volunteers and public agency staff working together to promote and advocate the rights and responsibilities of reasonable public access to public lands. Administrative support for Trails4All is provided by PFRD/Harbor, Beaches & Parks.

On September 21, 2002, the County participated in the 6th Annual Trails4All Inner Coastal & Watershed Cleanup Day." This event is held in conjunction with the "Coastal Cleanup Day" each September and brings together volunteers to collect trash and debris and help restore trails within the Talbert/Greenville Banning Channel, Los Alamitos/East Garden Grove/Bolsa Chica, Lower Santa Ana River & Santiago Creek, San Diego Creek, Aliso Creek and San Juan Creek watersheds. The Inner-Coastal and Watershed Cleanup attracted over 1700 volunteers who collected approximately 29,000 pounds of trash, 5,000 of which were recyclables, at 18 sites throughout Orange County. In addition to assisting with the organization and setup of the event, the County also assisted the City of San Juan Capistrano in hosting an informational booth. Approximately, 100 brochures were distributed.

Santiago Oaks Regional Park Watershed Education Center

The County of Orange is working collaboratively with the Orange County Water District, Municipal Water District of Orange County, Metropolitan Water District, Serrano Water District and the Orange County Sanitation District to build a watershed educational center in the Santiago Oaks Regional Park to increase environmental awareness of and protection for the watersheds in Orange County.

Santiago Oaks Regional Park is an excellent example of a largely natural watershed. Santiago Creek flows through the park and is dammed in one section by a historic earth dam. The park and surrounding area are rich in natural and cultural history. Approximately 25,000 visitors interface with the park each year by hiking, biking and horse back riding. The park currently serves as an environmental educational center for the Anaheim School District. Each year approximately 182 third grade classes participate in outdoor educational programs.

The center will utilize a series of interactive exhibits to better inform park visitors of the various watershed messages including drinking water systems, sanitation systems, various water



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resource programs (groundwater) and the storm drain/stormwater conveyance system. The center will also feature exhibits devoted to urban runoff to help promote public awareness concerning the connection between the ocean and storm drain system and ways that they can prevent pollution. An exhibit designer has been hired and is currently working on developing the exhibits.

County Website Outreach

The County launched its website, www.ocwatersheds.com, on April 18, 2002. This site features information on the Orange County Watershed and Coastal Resources Division and the following information on its six main web pages:

Who We Are

This page provides the basics about the division: our mission and goals, organizational chart, mailing address, office locations with maps, and contact information. In addition, it provides reports issued by the Orange County Grand Jury dealing with water quality and watershed planning, including their recommendations for the website.

Problem Reporting Hotline

This page provides forms to facilitate the reporting of water pollution and street drain problems. It also provides tips on how to keep our waterways clean and proper disposal of materials that can be harmful to the environment.

Stormwater Program

This page provides information on the development of the County's stormwater program, the storm drain system, stormwater related documents such as the Third Term Permits, contact information for stormwater program participants, and resource links.

Watersheds

This page contains a general introduction to the watersheds of Orange County, information on committees and public forums that meet to discuss specific topics of concern, a variety of maps displaying drainage ways, land elevations, city boundaries and land use, and documents specific to each watershed. In addition, each watershed has an email contact that can answer questions and provide additional information on specific watersheds.

Public Education

This page provides a variety of educational materials that are available for download and distribution. These include general stormwater pollution prevention materials to inform the community about the origins of urban pollution and pollutant and business specific materials, which provide Best Management Practice's guidelines for specific activities. In addition, it provides information on EnviroScope model use and local volunteer opportunities and posts an environmental IQ test.



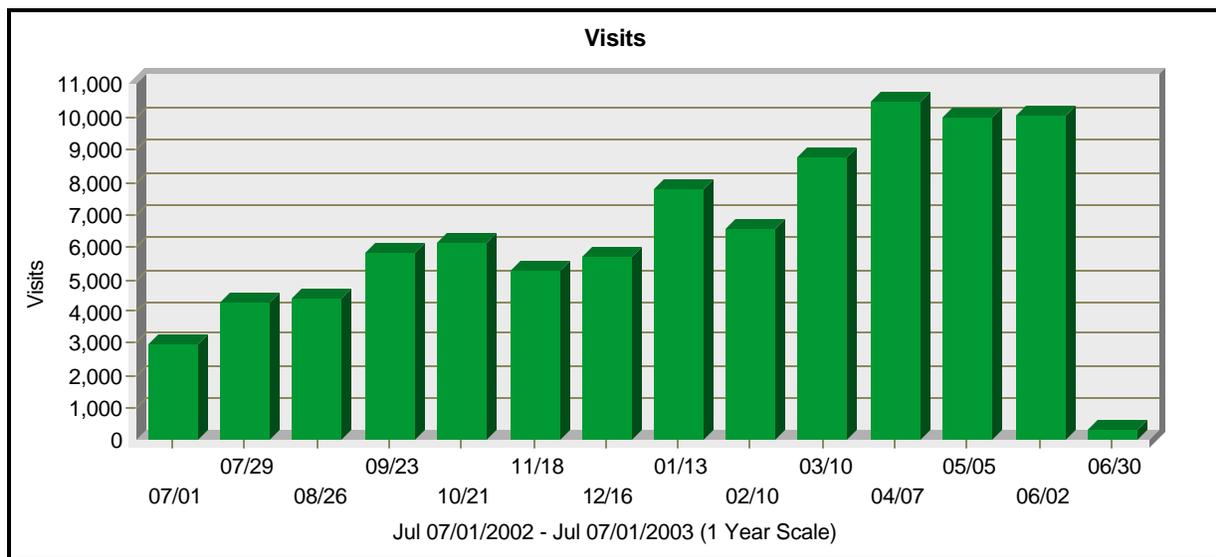
Rainfall & Weather

This page provides rainfall data from rainfall recording stations throughout Orange County. During rain storms data is updated every 6 to 12 minutes. It also provides hydrologic reports with annual totals for rainfall and stormwater levels within flood control channels as well as links to other weather related websites.

During the reporting period, the following website usage statistics were generated:

General Statistics

The visits graph below displays the overall number of visits to the website on a monthly basis.



The general statistics table below provides an overview of the activity on the website. The table shows that the website experienced 1,247, 548 hits. A hit is a single action on the Web server; for example, a visitor downloading a single file is logged as a hit. The table also shows that the website was visited 88,612 times. A visit is the number of times a visitor comes to the website. The table also shows that the average length for each visit was approximately 16 minutes.

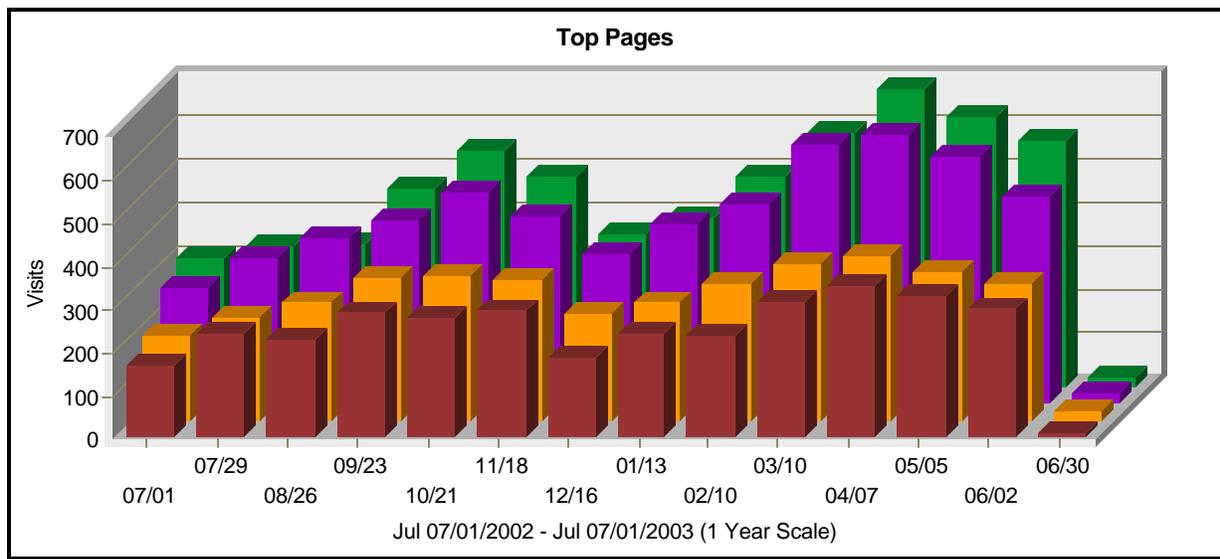
General Statistics - Report Range: 07/01/2002 00:00:00 - 07/01/2003 00:00:00		
Hits	Entire Site (Successful)	1,247,548
	Average per Day	3,408
Page Views	Page Views	196,586
	Average per Day	537
	Document Views	182,409
Visits	Visits	88,612
	Average per Day	242
	Average Visit Length	00:15:55
Visitors	Unique Visitors	25,209
	Visitors Who Visited Once	19,892
	Visitors Who Visited More Than Once	5,317



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Top Pages

The top pages graph below displays the number of visits the four most popular web pages received on the website on a monthly basis. The top pages table lists the top four pages as follows: Watersheds, Stormwater, Who We Are, and Public Education. It should be noted that the Stormwater Homepage and the Public Education Homepage combined received over 9,362 visits. The table also shows how often they were viewed and the average length of time each page was viewed. A view is the number of times the specified page was viewed by a visitor. A visitor can view each page more than once, and each view is counted.



Top Pages					
	Pages	Views	% of Total Views	Visits	Avg. Time Viewed
1	http://www.ocwatershed.com/watersheds/introduction.asp	8,770	4.46%	6,247	00:01:01
2	http://www.ocwatershed.com/StormWater/swp_introduction.asp	7,821	3.97%	5,895	00:01:03
3	http://www.ocwatershed.com/WhoWeAre/wwwa_introduction.asp	5,391	2.74%	4,022	00:01:07
4	http://www.ocwatershed.com/PublicEducation/pe_introduction.asp	4,417	2.24%	3,467	00:00:57

Public Education Environmental Quiz

The public education webpage posts a quiz which tests visitor’s environmental IQ regarding stormwater pollution. The quiz is comprised of ten questions to help determine the public’s general knowledge and behaviors regarding stormwater pollution. This information can also be used to determine changes in knowledge and behavior over time. During this reporting period, 256 visitors took the quiz. Of those 256 participants, 71% answered 7 or more answers correctly.



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The key results of the quiz were:

- Sixty-nine percent (69%) understood that the storm drain and sewer systems were not part of the same underground drain system;
- Sixty-eight percent (68%) understood the water that enters the storm drain system flows straight to the ocean and does not go to a wastewater treatment plant;
- Seventy-six percent (76%) understood that with few exceptions, it is illegal to dispose or allow anything other than stormwater into the storm drain;
- Eighty percent (80%) understood that putting used motor oil in the trash or pouring it down the storm drain can pollute creeks, rivers and the ocean.;
- Seventy-seven percent (77%) would divert the water to a landscaped or planted area, when washing their vehicles at home;
- Seventy three percent (73%) would select less toxic pesticides or fertilizers, read directions and use only the amount indicated;
- Seventy three percent (73%) would store bags of cement or plaster under cover and away from storm drains when performing home repairs or remodeling

In addition, to providing information about a respondents knowledge and behaviors regarding stormwater pollution the quiz is also being used as an educational tool. For every incorrectly answered question a correct response and explanation are provided.

Outreach Presentations

The following is a table of presentations in which information was presented to the general public, as requested or when deemed necessary.

Date	Group	Presenter	Presentation
July 10, 2002	Westminster Chamber of Commerce	Larry Honeybourne, HCA	NPDES Requirements and Water Quality
August 21, 2002	BIA Government Affairs Committee	Chris Crompton, PFRD	New Municipal Stormwater Permits for Orange County
September 5, 2002	Business Development Assoc of Orange County	Chris Crompton, PFRD	New Municipal Stormwater Permits for Orange County
September 23, 2003	NPDES Public Meeting	Larry McKenney, PFRD Chris Crompton, PFRD Karen Ashby,	Stormwater NPDES Public Input Meeting



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Date	Group	Presenter	Presentation
		PFRD Chip Monaco, PFRD	
October 8, 2002	National Council of Pool Plasterers	Karen Ashby, PFRD	Orange County Existing Development - Industrial/Commercial Program
October 21, 2002	Residents of the Prima Deshecha Watershed	Tom Wilson, 5 th District Supervisor Richard Haimann, PFRD	Proposed Project for Poche Beach
October 22, 2002	Orange County Community Awareness & Emergency Response (OC CAER)	Grant Sharp, PFRD	Orange County Existing Development - Industrial/Commercial Program
October 29, 2002	Building Industry Association	Grant Sharp, PFRD	Orange County Construction Program
November 20, 2002	APWA Water Resources Committee Workshop	Chris Crompton, Committee Planner	Wetlands Workshop
November 20, 2002	Talbert Watershed Stakeholders	Max Andersen, PFRD	Water Quality and BMP Implementation
January 14, 2003	Orange County Planning Commission	Chris Crompton, PFRD URS	Public Hearing on CEQA ND for DAMP
January 23, 2003	Orange County Coastal Coalition	Michael Wellborn, PDSD	New Fats, Oil, & Grease (FOG) Disposal Ordinance for Orange County
February 7, 2003	UCI Extension Class	Chris Crompton, PFRD	New Municipal Stormwater Permits for Orange County
February 6, 2003	Huntington Beach Environmental Board	Mary Anne Skorpanich, PFRD	Coastal Water Quality
February 11, 2003	Orange County Board of Supervisors	Vicki Wilson, PFRD	Stormwater Permits – Local Implementation Plan



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Date	Group	Presenter	Presentation
February 26, 2003	San Jacinto Watershed TMDL Group	Chris Crompton, PFRD	TMDL Experiences in Newport Bay Watershed
March 25, 2003	Coto De Caza Master Board of Directors	Chris Crompton, PFRD	CIA/HOA Program, Training Module
April 1, 2003	Huntington Harbour Waterways Task Force	Ken R.Smith, PFRD Bill Hisey, PFRD Jim Hoskins, PFRD	Trash & Debris
April 1, 2003	County Engineer Orientation	Chris Crompton, PFRD	New Municipal Stormwater Permits for Orange County
April 8, 2003	Coto De Caza Residents	Grant Sharp, PFRD	CIA/HOA Program, Training Module
April 9, 2003	San Diego Regional Board	Vicki Wilson, PFRD Tim Casey, Laguna Niguel Ziad Mazboudi, San Juan Capistrano	Update on Permit Implementation/Project Pollution Prevention
April 16, 2003 April 17, 2003 April 22, 2003	CASQA BMP Municipal Handbook Workshops	Grant Sharp, PFRD	Orange County Municipal Activities Program
May 8, 2003	City Planning Directors Association	Chris Crompton, PFRD URS	The New Orange County Municipal Stormwater Permits – Impacts on Planning Departments and Development
May 14, 2003	Poche Beach residents	Tom Wilson, 5 th District Supervisor Larry McKenney, PFRD	Poche Beach and Prima Deshecha Source Tracking Investigation Plans
May 16, 2003	Santa Ana Regional Board	Vicki Wilson, PFRD John Berhorski, Seal Beach Gary LaForge, Costa Mesa	Update on Permit Implementation/Project Pollution Prevention
May 21, 2003	Cal State Fullerton Extended Studies, Environmental Compliance Certificate Course	Grant Sharp, PFRD	New Municipal Stormwater Permits for Orange County
June 3, 2003	UCI Planning Class	Chris Crompton, PFRD	New Municipal Stormwater Permits for Orange County – Impacts on New Development



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Date	Group	Presenter	Presentation
June 12, 2003	Automotive Service Council Chapter 50	Chris Crompton, PFRD	Automotive Repair Business, Training Module
June 13, 2003	ASCE Water Quality Engineering Workshop	Sonia Nasser, PFRD Ruby Maldonado, PDSO Lea Umnas, PDSO Psomias	New Municipal Stormwater Permits for Orange County
June 17, 2003	City of San Clemente City Council	Larry McKenney, PFRD	Poche Beach project and related activities in Prima Deshecha Watershed

School Outreach Initiatives

The following initiatives targeted schools and school aged children:

2002 Orange County Fair

As indicated above the County participated at the 110th Annual Orange County Fair held on July 12th - 28th, 2002. In addition to distributing approximately 7,300 brochures, magnets, flyers and bookmarks to the general public, all school-aged children received coloring books, and were invited to watch the Water Education Foundation's video entitled Frogline. Frogline teaches kids about non-point source pollution using a news format. Anchor Amphibians Finneas Frog and Kris Kroak explain what non-point source pollution is, how it impacts the environment, and what individuals can do to reduce or prevent this pollution. Approximately, 200 children visited our booth.

The One-Tier Back Watershed Education Project

The One-Tier Back Watershed Education Project is a collaborative effort between the Ocean Institute and the County. The County is partnering with the Ocean Institute to provide a watershed based education program. The Ocean Institute was established in 1981 as a community-based 501(c) (3) organization and is known for its unique marine science and maritime history programs. More than 80,000 K-12 students and 6,000 teachers annually participate in the Institute's 61 award-winning, immersion style programs.

One Tier Back is a standards based program which targets 5th grade students countywide in communities not adjacent to the coast. Each class will engage in a project that addresses specific concerns within their respective watershed. At the completion of their project the class will present their findings to their peers as well as invited guests such as elected officials and water enthusiasts. The goal of this program is train students in self-management of their watersheds and to provide them with the tools to effect change within their communities.

The County provided the Institute 700 of the following outreach materials, which were distributed, to the students participating in the One Tier Back program:

- "The Ocean Begins at Your Front Door" Brochure
- "Do You Know Where The Water in Your Storm Drain Goes?" Brochure
- "Keeping Pest Control Products Out of Creeks, Rivers and the Ocean" Brochure
- "Water Quality Guidelines for Pet Care Activities" Brochure



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- *“Water Quality Guidelines for Horse & Livestock Activities” Brochure*
- *“Water Quality Guidelines for Car Wash Fundraisers”*
- *“Water Quality Guidelines for Landscaping and Gardening” Brochure*
- *Keep Gutters Clean for Those Downstream” Bookmarks*
- *Water Pollution Hotline Magnets*

The County has developed a Watershed Science for Teachers presentation that covers in detail what a watershed is, watershed ecology, watershed changes, current watershed issues in Orange County, and what you can do. The presentations were created for teachers participating in the One Tier Back program but are available to all teachers and can be downloaded from the County’s website.

The County provided the Ocean Institute use of two Coastal Enviroscope Models for demonstrations at the Institute. The Enviroscope model is a portable, interactive educational tabletop model that demonstrates the many sources of non-point source pollution and how it can affect inland and coastal waterways. It is a hands-on education and communication tool that is effective for all ages and allows the participants to relate water pollution sources in their communities to the impacts on our creeks, bays and ocean.

The model features typical sections of urban communities and demonstrates how everyday activities can contribute to water pollution. The users of the model interact with it by sprinkling different types of materials such as powdered drink mixes or cocoa onto the surface and then generating a rainstorm by using a spray bottle and spraying water onto the model. The user is then able to observe how the pollutants are "picked up" since the water is now the color of the drink mix or cocoa and observe how it travels from the land surface, through the creeks and ultimately to the coastal area. The model also emphasizes pollution prevention with a follow-up demonstration that shows how to prevent such pollution through the use of BMPs.

The Children's Groundwater Festival

As described earlier, the County participated in The Children's Groundwater Festival, which took place on May 6, and 7, 2003 and featured lively entertainment and interactive displays led by groundwater and natural resources professionals representing government agencies, environmental organizations, higher education, and private business. The activities were designed to teach children about groundwater while having fun. The County’s booth, “Stormy Times in Orange County” used Enviroscope models to teach over 500 students what a watershed is and how it functions, what non-point source pollution is, what point source pollution is, what storm drains carry and to where, and what their personal responsibility is in protecting the environment. Students were also shown the County’s rubber duck PSA. Each student participating received the following educational materials:

- *“The Ocean Begins At Your Front Door” brochure*
- *“Do You Know Where the Water in Your Storm Drain Goes” brochure*
- *“No Dumping Drains to Ocean” magnet,*
- *Water Pollution Hotline Magnets*
- *Bookmarker*



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C-6.3.7 Outreach to Quasi-Governmental Agencies/Districts

The following approaches were made to quasi-governmental agencies/districts:

Orange County Sanitation District

In addition to hosting a joint booth at the 2002 Orange County Fair, the County has collaborated with the Orange County Sanitation District (OCSD) in developing two brochures, the "*Sewage Spill Reference Guide*" and "*Help Prevent Ocean Pollution: A Guide for Food Service Facilities*". The sewage spill guide was developed to inform residents, businesses, and homeowners about the causes of, prevention of, and proper response to sewage spills. The food service facilities guide was developed to help identify appropriate practices food facilities should follow to protect the storm drain system.

In order to address the various regulatory, technical and coordination issues associated with preventing and planning for sanitary sewer overflow, the County and OCSD initiated a pilot project titled Tustin Area Spill Control (TASC) Demonstration Project. For more information refer to **Section C-3.3** of this PEA.

San Diego County Project Clean Water

The County has collaborated with the San Diego County Project Clean Water to produce a billing insert for inclusion in the San Diego Gas & Electric residential customer newsletter. The billing inserts will go out with January '04 bills. There will also be a similar article in the December '03 bill insert for Southern California Gas.

Permission was obtained from the City of San Diego to use and edit their 30-second "rubber duck" public service announcement (PSA). The PSA has been shown on movie theaters throughout Orange County.

Orange County Department of Education – Inside the Outdoors Science Program

Inside the Outdoors is an environmental education program administered by the Orange County Department of Education. The mission of Inside the Outdoors is to empower students, teachers, parents and the community to explore natural areas and expand their knowledge. There are three types of programs within Inside the Outdoors: Field Programs, School Programs and Outdoor Science School. The County has provided the program with the following outreach materials:

- *"The Ocean Begins at Your Front Door" Brochure*
- *"Do You Know Where The Water in Your Storm Drain Goes?" Brochure*
- *Waste Oil Collection Centers – North, Central and South Orange County*
- *Water Pollution Hotline Magnets*



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C-6.4 Public Participation (LIP Section A-6.5)

Public participation allows the public to be directly involved with the stormwater program. The County has encouraged public participation at the local level by:

C-6.4.1 Encouraging Behavior Change

Through the public education program, residents have been asked to make adjustments to their activities to reduce the impact to the storm drains and water quality.

C-6.4.2 Asking for Feedback

Providing opportunities for the public to ask questions and provide comments is vital to the success of a stormwater management program. When the public asks questions it provides valuable information about their major concerns, effective and ineffective approaches in dealing with their concerns, and fosters a relationship in which the public proactively engage in protecting the water quality.

The County has provided opportunities for residents to ask questions and give comments about the stormwater program. Specific examples include:

County Website

The County's website located at www.ocwatersheds.com includes a variety of ways for the public to communicate with municipal staff. Web pages are designed with contact information. Refer to **Section C-6.3.6** of this PEA for more information. Documents such as the Water Quality Monitoring Program are posted with links to an e-mail contact. In an effort to publicize this means of communication the County web address is listed all on all countywide outreach materials.

C-6.4.3 Participating in Outreach Events

Participation in outreach events allows for a two-way communication with the public. It is an excellent opportunity to not only disseminate stormwater public education information and materials but also allows the public to respond with question, comments and/or concerns.

Outreach Events

The County has participated in several public outreach events including the Children's Groundwater Festival, Festival of the Whales/Ocean Awareness Day, Tierra Nativa, the Orange County Fair and the Trails 4 All Inner Coastal and Watershed Clean Up Day. Refer to **Section C-6.3.6** of this PEA for more information.

Volunteer Information

The County's website provides a page devoted exclusively to providing volunteer information. This page provides a volunteer calendar for single day events and a volunteer opportunities list which provides a list of ongoing efforts in need of volunteers.



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C-6.4.4 School Programs

Providing children with the tools to actively participate in the protection of their local waterways and beaches creates powerful environmental stewards of the future.

One-Tier Back

The One-Tier Back Watershed Education Project is a collaborative effort between the Ocean Institute and the County. The County is partnering with the Ocean Institute to provide a watershed based education program to 5th grade students in communities not adjacent to the coast. Refer to **Section C-6.3.6** of this PEA for more information.

C-6.4.5 Public Participation Meetings

The public has a vested interest in stormwater management. The public should be informed of the water quality issues affecting their watershed and encouraged to participate in the policy, funding and project implementation process. During the reporting period, the public was invited to attend the following meetings sponsored by the County of Orange:

September 23, 2003	NPDES Public Meeting	Larry McKenney, PFRD Chris Crompton, PFRD Karen Ashby, PFRD Chip Monaco, PFRD	Stormwater NPDES Public Input Meeting
October 21, 2002	Residents of the Prima Deshecha Watershed	Tom Wilson, 5 th District Supervisor Richard Haimann, PFRD	Proposed Project for Poche Beach
November 20, 2002	Talbert Watershed Stakeholders	Max Andersen, PFRD	Water Quality and BMP Implementation
February 6, 2003	Huntington Beach Environmental Board	Mary Anne Skorpanich, PFRD	Coastal Water Quality
February 26, 2003	San Jacinto Watershed TMDL Group	Chris Crompton, PFRD	TMDL Experiences in Newport Bay Watershed
March 25, 2003	Coto De Caza Master Board of Directors	Chris Crompton, PFRD	CIA/HOA Program, Training Module
April 1, 2003	Huntington Harbour Waterways Task	Ken R. Smith, PFRD	Trash & Debris



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	Force	Bill Hisey, PFRD Jim Hoskins, PFRD	
April 8, 2003	Coto De Caza Residents	Grant Sharp, PFRD	CIA/HOA Program, Training Module
May 14, 2003	Poche Beach residents	Tom Wilson, 5 th District Supervisor Larry McKenney, PFRD	Poche Beach and Prima Deshecha Source Tracking Investigation Plans
June 17, 2003	City of San Clemente City Council	Larry McKenney, PFRD	Poche Beach project and related activities in Prima Deshecha Watershed

C-6.5 Program Effectiveness Assessment (LIP Section A-6.5)

Through its own public education effort, the County made **1,268,898** impressions during the reporting period.

C-6.6 Public Education Modifications

In an effort to develop an effective training program for its employees the County has extensively researched the municipal training programs developed by other municipalities, such as, the City of San Diego's Stormwater Pollution Prevention Employee Training Program. After extensive review the County has determined that an effective means of evaluating baseline awareness and identifying where to focus education and outreach efforts is through the use of a web-based survey. The survey would be used to determine the employees' current level of knowledge, attitudes, and practices related to stormwater pollution and used to direct the development of future outreach materials and training modules. This survey would also serve as a baseline measure against which future outreach efforts can be measured. Employees will be notified via email to response to this survey. A direct link to the survey will be provided in the email to facilitate the process.