

SECTION C-6

PUBLIC EDUCATION

**PROGRAM EFFECTIVENESS ASSESSMENT
2006-07**





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 its financial contributions, participation in the Public Education Committee and the use of countywide materials. 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 2006-07 reporting period the County completed the following:

C-6.3.1 Public Education Material Distribution

The County has distributed approximately 82,388 brochures, 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.



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The County provided the following educational materials to its residents through the following County Departments:

Resources & Development Management Department (RDMD)

The primary mission of the RDMD is to provide, operate and maintain quality public facilities and regional resources for the people of Orange County. RDMD provides services on a local basis to unincorporated areas, to other County agencies and departments and on a countywide basis to regional facilities. RDMD provides educational materials to employees and/or residents at the following locations:

Construction Management – 1152 E Fruit Street, Santa Ana

The Construction Management Office provides the following materials at the front counter:

- *“The Ocean Begins At Your Front Door”*
- *“Keeping Pest Control Products Out of Creeks, River and The Ocean”*
- *“Help Prevent Ocean Pollution: Oil Collections Centers”*
- *“Help Prevent Ocean Pollution: Tips for Using Concrete and Mortar”*
- *“Construction Runoff Guidance Manual”*

Main RDMD Office – 300 N Flower Street, Santa Ana

In the lobby of the Osborne Building the following materials are made available:

- *“The Ocean Begins At Your Front Door”*
- *“Help Prevent Ocean Pollution: Household Tips”*
- *“Help Prevent Ocean Pollution: Recycle At Your Local Used Oil Collection Center”*

The County Property Permits Public Counter provides the following brochures at the front counter to applicants:

- *“Help Prevent Ocean Pollution: Tips for Pool Maintenance”*
- *“Help Prevent Ocean Pollution: Residential Pool, Landscape & Hardscape Drains”*

The Development Processing Center provides the following materials to applicants:

- *“Water Quality Management Plan (WQMP) Guidelines Memo”*
- *“When Is A WQMP Required?”*
- *“WQMP Template:”*
- *“Construction Runoff Guidance Manual”*
- *“Erosion and Sediment Control Plan (ESCP) Instruction Manual”*
- *“Best Management Practices (BMP) Fact Sheets”*



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Operations & Maintenance Division – 1750 S Douglass Rd, Anaheim

In the lobby of the Katella Yard the following materials are made available:

- *“The Ocean Begins At Your Front Door”*
- *“Help Prevent Ocean Pollution: A Guide for Food Service Facilities”*
- *“Help Prevent Ocean Pollution: Tips for Using Concrete & Mortar”*
- *“Help Prevent Ocean Pollution: Tips for Landscape & Gardening”*
- *“Help Prevent Ocean Pollution: Tools for Drains Maintenance”*

Harbors, Beaches & Parks Division – various locations

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 provides the following brochures:

- *“The Ocean Begins At Your Front Door”*
- *“Keeping Pest Control Products Out of Creeks, Rivers and the Ocean”*
- *“Help Prevent Ocean Pollution: Tips for Pet Care”*
- *“Help Prevent Ocean Pollution: Tips for Horse Care”*

Health Care Agency - Environmental & Regulatory Health Divisions

The Environmental Health Division is engaged in educational activities in the following areas that compliment the messages of the NPDES Stormwater Program main:

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. It assists businesses by providing workshops, educational literature and pollution prevention events.

The Pollution Prevention Program also operates a Used Oil Recycling Program that encourages the recycling of used motor oil and filters. It operates recycling programs for the following areas: All unincorporated County areas and the cities of Brea, Dana Point, Laguna Beach, Laguna Niguel, San Clemente, San Juan Capistrano, Yorba Linda and Villa Park.

The Used Oil Recycling Program developed a new multimedia interactive program with the California Integrated Waste Management Board (CIWMB). The interactive program has important environmental, clean water and recycling information, and has fun quizzes for adults and children. The quizzes can be accessed by visiting, http://www.ochealthinfo.com/regulatory/usedoil_quiz.htm.



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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. Registered Environmental Health Specialists (REHS) inspect over 11,000 food establishments throughout Orange County.

During these inspections they provide the brochure and poster entitled "*Help Prevent Ocean Pollution: A Guide for Food Facilities*" and the brochure "*Sewage Spill Reference Guide*". The materials provide employees, managers and owners with the best management practices that businesses should employ while performing various maintenance activities. In addition, if NPDES stormwater issues are observed the inspector enters the information into a database that produces monthly reports identifying the food service facilities within each jurisdiction with violations. The report is provided to the County who in turn provides it to all the Permittees. It is the responsibility of each Permittee to follow up with each facility within their jurisdiction. The County conducts follow up inspections within its unincorporated areas providing additional training and materials as needed.

Hazardous Waste

The Environmental Health Division was designated by the State Secretary for Environmental Protection on January 1, 1997 as the Certified Unified Program Agency (CUPA) for the County of Orange. CUPA is the local administrative agency that coordinates six programs regulating hazardous materials and hazardous wastes in Orange County. They include: Hazardous Waste, Underground Storage Tanks (UST), Aboveground Storage Tanks (AST), Hazardous Materials Disclosure (HMD) Business Plan, and California Accidental Release Program (CalARP).

The County and City Fire Agencies within Orange County have joined the CUPA, as Participating Agencies, to form a partnership with the County's Unified Program. In most cities, Environmental Health administers the Hazardous Waste, Underground Storage Tank and Aboveground Storage Tank programs while the Fire Agencies administer the other three elements listed above.

The purpose of the Hazardous Waste Inspection 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 of 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*". The materials provide employees, managers and owners with the best management practices that businesses should employ while performing various maintenance activities.

Water Quality Program

The Water Quality Program encompasses three programs: Ocean Water Protection Program, Cross Connection Program, and Well Permitting Program.



The Ocean Water Protection Program ensures that all public recreational waters meet applicable bacteriological water quality standards for swimming, surfing and diving. Program staff routinely conduct microbial monitoring of ocean and bay waters, respond to sewage spills and other unauthorized discharges of waste, close sewage contaminated ocean and bay waters, post warning and closure signs, respond to illness complaints, issue rain advisories, and maintain a website (www.ocbeachinfo.com) and hotline (714-433-6400) which provides ocean and bay bacteriological water quality information to the public.

As part of the County's joint outreach effort to prevent water pollution, the Ocean Water Protection Program provides a daily stormwater tip in the Orange County Register. The stormwater tip is also provided on the Ocean Water Protection Program's website and Hotline Tips via email. The website was visited 317,543 times during the reporting year and approximately 250 were sent via e-mail.

In addition, the RDMD/WCRD website, www.ocwatersheds.com provides a link to www.ocbeachinfo.com website.

Animal Care Services

The Animal Care Services Division is a division of 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 distributes the stormwater brochure entitled "*Help Prevent Ocean Pollution: Tips for Pet Care*" in both English and Spanish throughout their Orange County facilities and at all outreach events.

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 33 branches currently display and provide the following Stormwater Program education materials to the public.

- "*Ocean Begins At Your Front Door*"
- "*Help Prevent Ocean Pollution: Household Tips*"
- "*Help Prevent Ocean Pollution: Tips for Landscape and Gardening*"
- "*Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Waste*"
- Project Pollution Prevention Bookmarkers

Integrated Waste Management Department (IWMD)

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 intra-County coordination with IWMD to ensure that the Orange County Stormwater Program promotes the proper disposal of household hazardous wastes both within the printed materials as well as at outreach events.



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IWMD produces additional educational materials and distributes them at their facilities, outreach events, to cities, other County departments, schools and the public. During the 2006-07 reporting period, IWMD participated in or provided materials for the following community events:

- Mission Viejo Environmental Fair
- Earth Day Event, San Juan Capistrano

Numerous items made from recycled materials including pens, pencils, coasters, spinning tops, rulers, and mugs were distributed along with several brochures.

C-6.3.2 Employee Training and Outreach

The overall goal of the County is that its employees lead others by their example through the implementation of pollution prevention methods. The County has developed and implemented an internal job-specific training for its employees. This information can be found in detail in **Section C-5.6.** of this PEA.

General stormwater information has been provided to all County employees via email and through the County payroll system. Additionally, a monthly newsletter provides information to the approximately 1,260 employees of the Resources and Development Management Department. The following is a list of the outreach conducted during the 2006-07 reporting period:

- August 2006 - Published an article "During Coastal Cleanup Day Four 'Ws' and You Can Make a Difference" in The Resource for 1,260 RDMD employees. The article announced the Annual Coastal and Inner Coastal Cleanup Day events encouraging employee participation.
- December 2006 - "Watershed Fact Sheet" distributed with paycheck stubs to 1,260 County RDMD employees.
- April 2007 - Distributed a flyer "Celebrate Earth Day" with paycheck stubs to all 18,000 County employees.

During the 2006 – 07 reporting year, the County implemented general stormwater pollution prevention training for all new RDMD employees during the RDMD New Employee Orientation Program. The training consists of a short introduction, viewing of the "Stormwater 101" video and distribution of the "Stormwater 101" Fact Sheet.

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



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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

Earth Day 2007 Events

The County participated in the following events in honor of Earth Day 2007:

- *San Juan Capistrano Earth Day Celebration 2007, April 29, 2007*
- *Upper Newport Bay Earth Day event, April 22, 2007*

Snapshot Day

On May 5, 2007 the County of Orange participated in California Snapshot Day in partnership with Orange County CoastKeeper, a member organization of Citizen Watershed Monitors of Orange County (CWMOC). The CWMOC, sponsored by Southern California's Regional Water Quality Control Boards, was formed to grow the citizen water quality monitoring effort of watersheds in Orange County, with a networking approach and with participation from the involved agencies, non-profits, and community based organizations. CWMOC provides a forum for water quality monitoring related information sharing, technical assistance, quality assurance exercises, and field monitoring coordination involving people from the community with all levels of expertise.

This year's event marks the fourth year CWMOC has participated in California Snapshot Day and the second for the County. During the event the County hosted an information booth and provided hands-on demonstrations of water pollution testing using the Mobile Water Quality Lab. An informational booth was also hosted using the Enviroscope® models to teach the public about urban runoff and water quality related issues. Staff distributed brochures and magnets and fielded questions. In addition, sponsorship funding was provided to Orange County CoastKeeper. Volunteers monitored for basic water quality parameters in coastal waterbodies along California. Approximately 50 people participated in the event.

Orange County Police Canine Association (OCPCA) – 2006 Annual Canine Benefit Show

OCPCA is a non-profit organization comprised of police canine handlers. Through the annual benefit show OCPCA raises funds, which are donated to assist families of fallen or injured officers, provide medical care for retired police dogs, and provide training to its members.

On October 28, 2006 the Orange County Police Canine Association held its 19th Annual Canine Benefit Show at California State Fullerton's Titan Soccer Stadium. The County hosted a booth that was targeted mainly at dog owners, the main demographic in attendance. The County provided the following outreach materials: "*The Ocean Begins at Your Front Door*", "*Help Prevent*



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Ocean Pollution: Tips for Pet Care", "No Dumping Drains to Ocean" magnet and doggie walk bags. In addition, the pet waste ad was placed in the event's program which was distributed to everyone in attendance. Approximately 10,000 people attended the event.

The Children's Groundwater Festival

The County participated with the City of Aliso Viejo, Lake Forest, Mission Viejo, San Juan Capistrano, San Clemente, Huntington Beach, Orange, and Newport Beach in the Children's Groundwater Festival, which took place on May 1, and 2, 2007. The festival 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 the Enviroscope® Coastal Model to teach almost 300 students about sources of pollution, water quality and their role 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
- "No Dumping Drains to Ocean" magnet
- Project Pollution Prevention bookmarks
- Project Pollution Prevention rubber duck
- Project Pollution Prevention pencils
- Project Pollution Prevention backpacks

Annual California Coastal/Inner Coastal & Watershed Cleanup Day

Coastal Cleanup Day is a partnership between the Coastal Commission, non-profit groups, cities and counties throughout the state, and is part of the International Coastal Cleanup organized by The Ocean Conservancy. The international cleanup includes 50 states and 90 countries. On Saturday, September 16, 2006, volunteers across the state helped clean up shorelines, bays, rivers, creeks, parks, roadsides, and highways, for the 22nd Annual California Coastal Cleanup Day. Coastal Cleanup Day provides an opportunity for residents to steward their neighborhoods, encouraging beautification around shorelines, creating pride in their surroundings and ultimately having a positive impact on our coastal waterways.

The County has participated as the Orange County coordinator for the last 18 years. In Orange County alone, 6,536 volunteers picked up 78,015 pounds of debris, 13,414 of which were recyclables.

Inner Coastal & Watershed Cleanup Day is held in conjunction with Coastal Cleanup Day, in partnership with the Coastal Coalition, the County, and Trails4All. 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



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reasonable public access to public lands. Administrative support for Trails4All is provided by RDMD/Harbor, Beaches & Parks.

Each September, the Inner Coastal & Watershed Cleanup Day brings together volunteers to collect trash and debris and help restore trails throughout Orange County. In 2006, the event attracted over 1,826 volunteers who collected approximately 19,000 pounds of trash, 3,360 of which were recyclables, at 21 sites in Orange County (some sites included in totals listed above).

The County and the cities of Buena Park, Fullerton and La Palma co-sponsored the clean up of the Fullerton Creek Channel in Buena Park. This was the second year for the Fullerton Creek Channel location which is a concrete lined channel. The location was selected to draw attention to the destination of all the trash and pollutants left in our yards, on sidewalks and roads. The event was a success with 54 volunteers removing some 1700 pounds (wet weight) of trash along a one mile stretch of the channel. The County also hosted other cleanup events at the Yorba Regional Park and Aliso and Wood Canyons Wilderness Park which collectively picked up over 3000 pounds of trash with the help of 300 volunteers.

Santiago Oaks Regional Park

Santiago Oaks Regional Park is located in an excellent example of a largely natural watershed. Santiago Creek flows through the park and includes a historic water supply dam. The park and surrounding area are rich in natural and cultural history. Approximately 25,000 visitors use the park each year for hiking, biking and horse back riding. It is also the setting for outdoor education and class field trips for local schools.

The County of Orange is working collaboratively with the Orange County Department of Education, Orange County Water District, and the Orange County Sanitation District to build a Watershed Educational Center (WEC) in the Santiago Oaks Regional Park to increase environmental awareness of and protection for the watersheds in Orange County.

In the fall of 2006, a consultant was hired to develop conceptual planning and design directions for interpretive exhibits and visitor experiences for the proposed Watershed Education Center (WEC). The center will utilize a series of interactive exhibits in combination with an outdoor education curriculum on the various watershed messages including drinking water systems, sanitation systems, various water resource programs such as groundwater and the storm drain 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.

In May 2007, the "Orange County Watershed Education Center: Interpretive Master Plan" was completed. This report presents a conceptual blueprint for interpretation at the WEC. Additional content development and design work will be required to advance the proposed project components from their present conceptual level to production ready design. Upon completion of the final design phase the County of Orange will have a completed bid package for WEC exhibits, and will be in a position to proceed with production and fabrication.



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Pollution Prevention Week

The County of Orange Environmental Health Division hosted the Annual Pollution Prevention (P2) event, Take a Break for Pollution Prevention on September 21, 2006 in Santa Ana. The goal of the event was to spread public awareness of pollution issues in Orange County and to inform people of what they can do to help prevent pollution. Awareness of recycling opportunities, waste reduction options, energy conservation and resource conservation were the primary themes of the event. The Orange County Stormwater Program hosted a table, highlighting the Sewer vs. Stormdrain message, and provided several materials that included tips on what people can do to reduce urban runoff and water pollution.

City of Mission Viejo Environmental Fair

In conjunction with National Public Works Week the City of Mission Viejo hosted an Environmental Fair for 3rd grade students on June 1, 2007. The fair provided presentations and demonstrations with stormwater pollution prevention messages in the hopes of developing a generation of environmental stewards. The County hosted a booth using the Enviroscope® Coastal Model to teach approximately 164 students about sources of pollution, water quality and their role in protecting the environment.

Water Camp 2007

The County, in collaboration with NWRI, MWDOC, OCWD and OCSD developed and implemented a week-long series of field trips and educational presentations focused on water topics June 25-29, 2007. Pertinent water topics included: the water cycle, treatment technologies, conservation, water pollution prevention and urban runoff. Ten students (ages 12-15) were selected to attend each of two sessions based on a demonstrated interest in water and the sciences.

The primary goals of the Water Camp were to teach local students about the water sciences and to increase water awareness amongst Orange County's youth. Another important goal of the program was to encourage students to consider pursuing careers in water science and other water-related fields. Efforts to promote this effort included introducing students to various jobs available in the field at various facilities, inviting water science professionals to come speak to the students, providing contact information and short professional biographies of each instructor at the Water Camp, and discussing potential awards available in the field (from science fair awards, to graduate fellowships, to the Stockholm Water Prize).

County Website Outreach

The County launched a comprehensive website, www.ocwatersheds.com, on April 18, 2002. This site features information on the RDMD/WCRD and the following information on its seven main web pages:

On December 8, 2004, the County launched its first Spanish-language webpage on this site. The Public Education webpage is now available in Spanish.



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Who We Are

This page provides the basics about WCRD: 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. During the 2006-07 reporting period, the hotline received 90 water pollution calls and 30 e-mails.

The hotline also provides tips on how to keep our waterways clean and properly disposal of materials that can be harmful to the environment.

Stormwater Program

This page provides information on the development of both Countywide and the County's stormwater program, the storm drain system, stormwater related documents such as the Third Term Permits, the Drainage Area Management Plan (DAMP), Local Implementation Plan (LIP), Report of Waste Discharge (ROWD) and 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 e-mail 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 EnviroScape model use and local volunteer opportunities and posts an environmental IQ test.

Public Education - Spanish

On December 8, 2004, the County launched a Spanish webpage to allow Spanish-speaking web users to gain access to the many Spanish language publications that the program has developed. It also provided contact numbers for ordering brochures, reporting spills and general information.



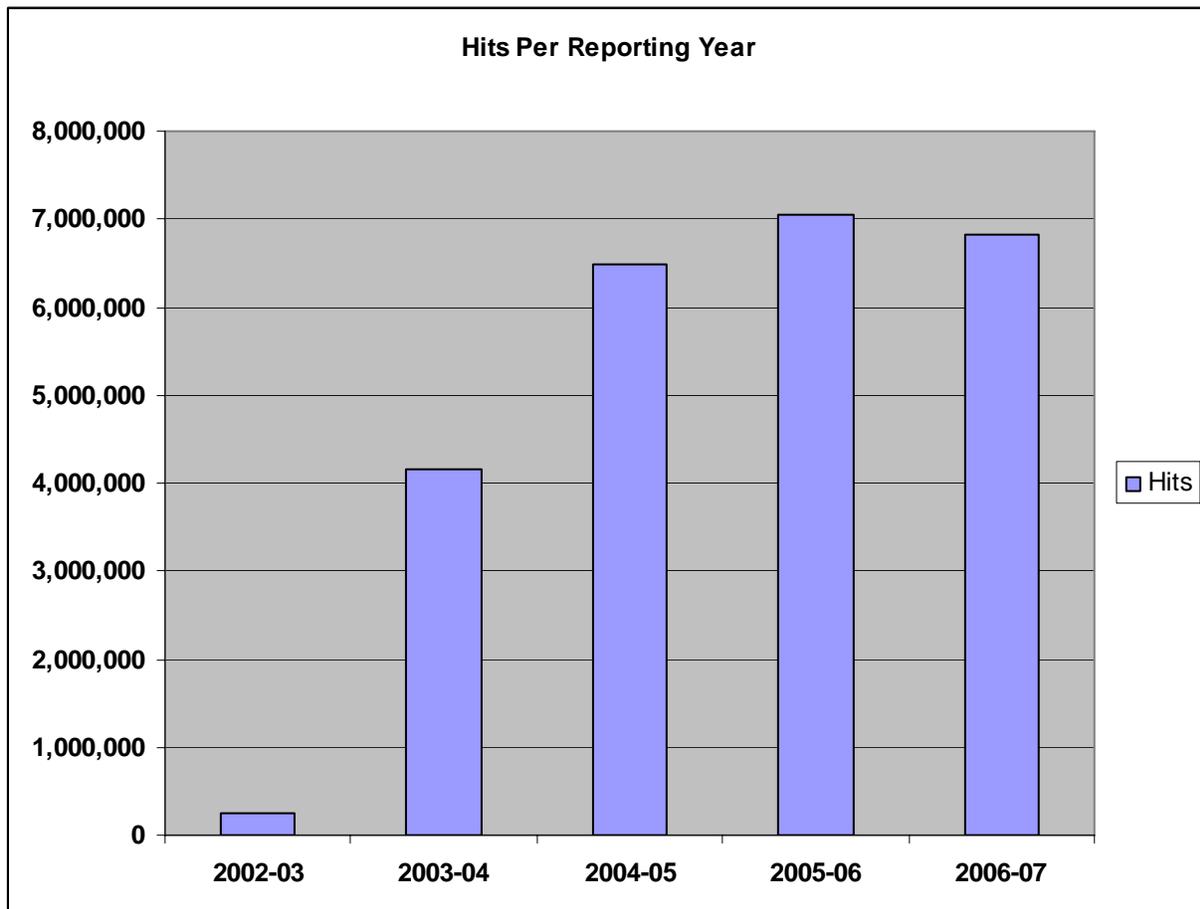
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Rainfall & Weather

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.

General Statistics

The graph below shows the total number of hits per reporting year. The website experienced 6,814,672 hits during the 2006-07 reporting period, compared to 7,060,765 for 2005-06, 4,911,506 for 2004-05, 4,165,217 for 2003-04 and 69,553 for 2002-03. This represents a 3% decrease in the number of visitors to the site from the previous reporting year.



The sharp increase in activity on the website from 2003-04 to 2005-06 may be attributed to the aggressive outreach campaign conducted by the Permittees on a countywide basis, that



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included the website address on all outreach materials and announcements; this effort continued through the 2006-07 reporting period.

**Outreach Presentations**

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

| Date | Group | Presenter | Presentation |
|------------------|---|--------------------|---|
| July 19, 2006 | Newport Bay Watershed Meeting | Jamie Habben, RDMD | Sediment TMDL - Results of the 2004-05 Reporting Period |
| November 7, 2006 | Orange County HCA Hazmat Inspectors | Duc Nguyen | NPDES Storm Water Training |
| December 6, 2006 | OC Technical Advisory Committee | Richard Boon | RDMD |
| January 11, 2007 | Ocean Institute Kids Conference | Grant Sharp | Water Pollution/Spill Response |
| January 17, 2007 | County of Orange/RDMD | Grant Sharp | Erosion and Sediment Control Workshop |
| January 17, 2007 | Newport Bay Watershed Management Committee | Karen Cowan | Nitrogen and Selenium Management Program Quarterly Update |
| February 2007 | CWEA Conference | Richard Boon | Countywide Area Spill Control Project |
| April 18, 2007 | Newport Bay Watershed Management Committee | Karen Cowan | Nitrogen and Selenium Management Program Quarterly Update |
| March 9, 2007 | CASQA | Grant Sharp | Case Study: Orange County Investigation/Prosecution of an Illegal Discharge |
| March 27, 2007 | County of Orange/RDMD Standard Specifications Committee | Grant Sharp | Status of New MS4 and General Construction Permits |
| April 19, 2007 | NPDES Inspection Committee | Grant Sharp | Dry Weather Monitoring Program |
| May 3, 2007 | Dunn Edwards Paint Contractor Seminar | Grant Sharp | Pollution Prevention BMPs for the Painting Industry |
| May 24, 2007 | NPDES General Permittee Committee | Karen Cowan | Overview of Nitrogen and Selenium Management Plan |
| June 5, 2007 | Rancho Santiago Public Works Class | Duc Nguyen | RDMD Pollution Response |
| June 11, 2007 | Santa Ana HazMat Teams | Duc Nguyen | RDMD Pollution Response and Trauma Scene BMPs |



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| June 12, 2007 | Santa Ana HazMat Teams | Richard Boon | RDMD Pollution Response and Trauma Scene BMPs |
| June 13, 2007 | Santa Ana HazMat Teams | Richard Boon | RDMD Pollution Response and Trauma Scene BMPs |
| June 26, 2007 | WEF National TDML Conference, Bellevue, WA | George Edwards | Newport Bay Nutrient TMDL - Urban Nutrient Source Characterization |
| August 15, 2007 | Newport Bay Watershed Management Committee | Karen Cowan | Nitrogen and Selenium Management Program Quarterly Update |

School Outreach Initiatives

The following initiatives targeted schools and school aged children:

2006-07 Watershed Education Program

The *Watershed Education Program* is a collaborative effort between the Ocean Institute and the County 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.

The *Watershed Education Program* is a standards based program designed to bring 5th grade students in communities not adjacent to the coast to the Ocean Institute to explore the science of their respective watersheds. Each class engages in a project that addresses specific concerns within their respective watershed. At the completion of their project the class presents their findings to their peers as well as invited guests such as elected officials and non-profit groups. 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.

Over the period of the *Watershed Education Program* students from 29 Orange County and Los Angeles County schools participated. They included students from the following schools:

| School Name | City |
|---------------------------|-----------------|
| Don Juan Avila Elementary | Aliso Viejo |
| Landell Elementary | Cypress |
| San Antonio Magnet School | Huntington Park |
| James Cox Elementary | Fountain Valley |
| Saint Callistus | Garden Grove |



| | |
|----------------------------|------------------|
| El Morro Elementary | Laguna Beach |
| Eshleman Avenue Elementary | Lomita |
| Fisler Elementary | Fullerton |
| Webber Elementary | Westminster |
| Maryland Elementary | Vista |
| Laguna Road Elementary | Fullerton |
| John Malcolm Elementary | Laguna Niguel |
| La Tierra Elementary | Mission Viejo |
| Nelson Elementary | Tustin |
| Leffingwell Elementary | Whittier |
| John Malcolm Elementary | Laguna Niguel |
| Wagon Wheel Elementary | Trabuco Canyon |
| McPherson Magnet School | Orange |
| Carl Hankey Elementary | Mission Viejo |
| Newland Elementary | Huntington Beach |
| Harbor Day School | Newport Beach |
| Schroeder Elementary | Huntington Beach |
| The Pegasus School | Huntington Beach |
| Raymond Elementary | Fullerton |
| Palisades Elementary | Dana Point |
| Rolling Hills Elementary | Fullerton |
| Top of the World | Laguna Beach |
| Clover Avenue | Los Angeles |
| Dahlia Heights | Los Angeles |
| Ninth St. Elementary | Los Angeles |

The County provided the Institute with education and outreach materials. The students learned about meteorology, internal systems, currents, the water cycle, investigation techniques, and watershed science through participation in a two-hour Surfscience Cruise aboard the R/V Sea



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Explorer and a two-hour Surfscience Laboratory Program. The students also participated in a one-hour watershed science presentation, developed by the County developed, covering what a watershed is, watershed ecology, watershed changes, current watershed issues in Orange County, and watershed self-management. The presentations were created for students and teachers participating in the Watershed Education Program but are available to all and can be downloaded from the County's website. The County also provided each class with a customized poster size map of their watershed and sample research projects they could use to develop their own projects.

The students learned about current watershed topics and used an Enviroscope® Coastal Model to learn about point source and non-point source pollution. The students used their field experience to develop research projects in their local watersheds and returned to the Ocean Institute on January 8-30, 2007, to present their research projects at the Kids' Conference on Watersheds. The goal of this program is to train students in self-management of their watersheds and to provide them with the tools to effect change within their communities.

C-6.3.7 Outreach to Quasi-Governmental Agencies/Districts

Orange County Sanitation District (OCSD)

This information can be found in detail in **Section C-3.3** of this PEA.

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 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



SECTION C-6, Public Education

Refer to **Section C-6.3.6** of this PEA for more information. Documents such as the ROWD and the Water Quality Monitoring Program are posted with links to an e-mail contact for comments. In an effort to publicize this means of communication the County web address is listed on all countywide outreach materials.

Stormwater Program On-line Information Service - OCSTORMWATER INFO

In December 2004, the County offered an on-line information service for the stormwater program. This on-line information service is called OCSTORMWATERINFO. It is a fully moderated forum intended to facilitate communication, information exchange and participation among its users about issues and topics related to implementation of stormwater program elements. Users are able to keep up with the latest stormwater developments and news, participate in discussions, ask questions, receive answers, and send and receive stormwater program announcements through email. It is free to subscribe and participate in this forum.

To date 186 members are subscribed to receive and send information. In order to maximize public participation in this forum the County advertises this service on the County website and on all outreach materials. During the reporting period 70 emails were sent to subscribers.

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 during the reporting period. 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.

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. 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 and needs to be informed of the water quality issues affecting their watershed and encouraged to participate in the process.



SECTION C-6, Public Education

During the reporting period, the County participated in the following workshops, seminars, and public hearings addressing stormwater management issues:

| Date | Group | Topic |
|------------------------------------|---|--|
| July 12, 2006 | Public Meeting | NPDES Permit Renewal/ ROWD |
| July 13, 2006 | Public Meeting | NPDES Permit Renewal/ ROWD |
| September 7, 2006 | Community Association Institute (CAI) | Improving Urban Runoff: What Community Associations Can Do |
| November 29, 2006 | California State Association of Counties (CSAC) | Flood control, water quality, storm water management, beach erosion and ocean water quality in Orange County |
| December 4, 2006 | Public Meeting | NPDES Permit Renewal/ ROWD |
| March 5, 2007 | Zero Waste Community Workshop | Reducing waste and developing environmentally sustainable practices in California communities |
| Monthly during reporting period | Santa Ana River Watershed Alliance - Stakeholders | Santa Ana River watershed issues |

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

Through its own public education efforts, the County made 6,814,672 impressions during the reporting period.

| Outreach | Impressions |
|---------------------------------------|--------------------|
| Material Distribution | 82,388 |
| Outreach Events | 20,000 |
| Website Hits | 6,814,672 |
| Workshops/Seminars/Public Hearings | 2000 |
| Total | 6,919,060 |



SECTION C-6, Public Education

C-6.6 Public Education Modifications

The County made no modifications to the Public Education section of its LIP (**Section C-6**) during the reporting period.