

SECTION C-6

PUBLIC EDUCATION

**PROGRAM EFFECTIVENESS ASSESSMENT
2013-14**



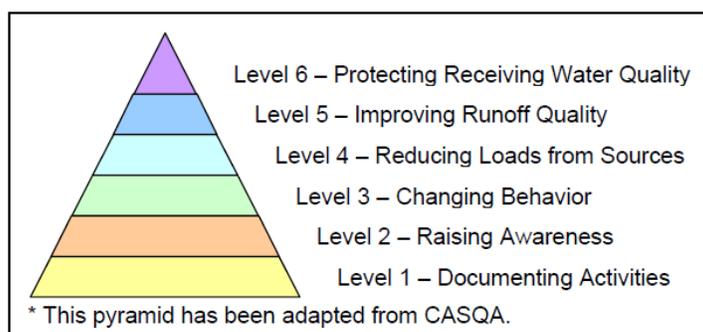


C-6.0 PUBLIC EDUCATION

C-6.1 Introduction (LIP Section A-6.1)

Public education is an essential part of the County’s stormwater program. Developing methods 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 message will be noticed and that the desired outcome of behavior change will be achieved.

As described in detail in **Section C-2.5** of this PEA, the County utilizes the CASQA method of effectiveness assessment in order to demonstrate if program elements, activities, BMPs, etc., are resulting in desired outcomes. CASQA identifies six Outcome Levels (see pyramid below) and for each measure the County reports, the associated Outcome Level (more than one level may apply) is indicated by a colored triangle with a number.



The goal of this program element, Public Education, is to achieve Level 3 Outcomes (Changing Behavior), by raising knowledge and awareness (Level 2 Outcome). Although it is difficult to measure directly, the County believes that success at these levels is leading to improvements in water quality (Outcome Levels 5-6).

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

During the previous reporting period, the NPDES Public Education Sub-committee for the Orange County Stormwater Program underwent an extensive strategic planning process that culminated in a two-pronged approach to stormwater outreach. Largely, the two major elements of the program have shifted from primarily large-scale and broad outreach to broad outreach with targeted community-based efforts to encourage and quantify behavior change. The first community-based, targeted “action campaign” is focused on curbing overwatering behaviors, encouraging reduction in runoff from landscape irrigation and encouraging utilization of LID practices and plant pallets more appropriate to Southern California. As a result of these changes, a new name was given to the Orange County Stormwater Program Public Education Campaign: *H2OC* (see **Section 6 of the Unified Report**).

The County has, and continues to support *H2OC* which provides a common message and theme, coordinates that message with neighboring counties to ensure that media overflow



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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 Jurisdictional Education Program (LIP Section A-6.3)

The County supports H2OC through its financial contributions, participation in the Public Education Sub-committee and the use of countywide materials. The County also supplements the Program 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 2013-14 reporting period the County completed the following:

C-6.3.1 Public Education Material Distribution



Public education materials are commonly distributed to the public via events, spill response calls, inspections, water districts, schools and the construction industry, and to County agencies for posting and distribution. During the reporting period, approximately **1,800 brochures** and other outreach items were distributed by the County stormwater program.

Countywide advertising, materials and information provided at public events also encourage use of the www.ocwatersheds.com website for downloading electronic versions of materials. For a complete list of educational materials developed by the Countywide Program and utilized by the County, please see **Table C-6.14** of the Unified Report.

A number of County departments also continued to provide and distribute Program information to the public as summarized in the table below:

Department	Division/Location	Material Distributed
OC Public Works	OC Planning	Materials are distributed electronically through OC Planning's website http://ocplanning.net/water
	OC Watersheds	Homeowners Guide to Sustainable Water Use; Help Prevent Ocean Pollution: <i>Tips for Landscape & Gardening</i> (English, Spanish); Help Prevent Ocean Pollution: <i>Proper Disposal of Household Hazardous Waste</i> (English, Spanish, Vietnamese); Help Prevent Ocean Pollution: <i>Responsible Pest Control</i> ; Help Prevent Ocean Pollution: <i>Household Tips</i> (English, Spanish); Help Prevent Ocean Pollution: <i>Coloring and Activity Booklet</i> ; Help Prevent Ocean Pollution: <i>Tips for Pool Maintenance</i> (English, Spanish)*
OC Community Resources	OC Parks	The Ocean Begins At Your Front Door; Help Prevent Ocean Pollution: <i>Tips for Pet Care</i> ; Help Prevent Ocean Pollution: <i>Tips for Horse Care</i>
	OC Animal Care	<i>Help Prevent Ocean Pollution: Tips for Pet Care</i> is distributed from the shelter lobby, at on- and off-site events, and are provided to homeowners associations, as well.
Health Care Agency – Environmental & Regulatory Health Divisions	Pollution Prevention Program	Help Prevent Ocean Pollution: <i>Proper Disposal of Household Hazardous Waste</i> ; materials and information at http://www.ochealthinfo.com/usedoil
	Food Protection	Help Prevent Ocean Pollution: <i>A Guide for Food Facilities</i> ;



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Department	Division/Location	Material Distributed
Health Care Agency - Environmental & Regulatory Health Divisions	Program	Sewage Spill Reference Guide; Food Facility poster and BMP stickers
	Hazardous Waste	Good Gas Station Operating Practices BMP poster; Good Operating Practices for the Auto Repair Industry poster
OC Waste & Recycling	Household Waste Collection Centers	Help Prevent Ocean Pollution: Proper Disposal of Household Hazardous Waste

* For a complete listing of brochures and posters available, please visit www.ocwatersheds.com/publiced.

C-6.3.2 Employee Training and Outreach



The County intends for its employees to lead others by their example through the implementation of pollution prevention methods. The County has developed and implemented internal job-specific training for its employees which is described in further detail in **Section 5.9** of this PEA.

The County stormwater program utilizes several methods of outreach to its employees in the form of articles and notifications. These include the *County Connection Newsletter* which reaches approximately 20,000 County employees, and OC Public Works' @WORK newsletter, as well as the www.ocwatersheds.com website. An example, of some of the articles/notifications which appeared in one or all of these outlets during the 2013-14 reporting period includes:

- July 2013: County Brings "Clean Up Day" to La Colonia Community
- September 2013: "17th Annual Inner-Coastal Clean-up Event"
- November - December 2013: *Waste to Wow*; Wyland Foundation with support from OC Public Works and Disneyland Resorts
- January 2014: County Brings "Clean Up Day" to Yorba Regional Park
- April 2014: "Earth Day Clean Up Event in Lower Santa Ana River"
- May 2014: "OC Public Works Holds Open House"

Information on County-sponsored events highlight the importance of preventing trash and debris from entering stormdrain channels and what County employees can do to become involved in cleaning up their own watershed. This internal education can then be taken out of the workplace and into their everyday lives.

C-6.3.3 Public Workshops



The County stormwater program participated in and promoted workshops for the following public sectors during the reporting period. A complete listing of public workshops held during the reporting period can also be found in **Section 6** of the Unified Report.



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Sector Reached	Workshop	Date
Manufacturing Facilities	**	N/A
Mobile Service Industry	*	N/A
Commercial, Distribution and Retail Sales Industry	OC Garden Friendly events with Home Depot; water conservation plants and devices	March 29, 2014; May 3, 2014; May 17, 2014
Residential and Commercial Construction Industry	University of California-Cooperative Extension Landscape Open House-Help with Project Pollution Prevention and for Landscapers, Residents and Landscaper Product Manufacturers	October 25, 2013
	BMPs to Reduce Stormwater Runoff and Pollution- California Association of Pest Control Advisors (CAPCA)- Education Workshop	September 25, 2013
Residential/Commercial Landscape Construction and Services Industry	Stormwater Management & Rainwater Harvesting Seminar; County of Orange and Oldcastle Precast	November 21, 2013
Residential and Community Activities	University of California - Cooperative Extension Landscape Open House-Held with H2OC , for Landscapers, Residents and Landscape Product Manufacturers	October 5, 2013

*Complications coordinating with the power washers of North America (PWNA) resulted in cancellation of a planned workshop to outreach to mobile power washers in Orange County during this reporting period. Please see the discussion included in **Section 6** of the Unified Annual Report for more information regarding this workshop.

** Though the Industrial General Permit was adopted by the State Water Resources Control Board in April 2014, it was not prudent to hold a workshop at that time as the permit does not become effective until July 2015.

Public events such as those for residential and community activities above are posted on the County website at <http://www.ocwatersheds.com/publiced/news-events/index.html>.

The goals of these workshops are further described in **LIP Section 6.3.1**.

C-6.3.4 Outreach to Construction Site Contractors/Developers

More information regarding outreach to contractors and developers can be found in **Section C-7** of this PEA. The public can also access the OC Community Development website <http://ocplanning.net/water> to find out more about the County’s Stormwater Program and how it relates to the construction industry.

C-6.3.5 Outreach to Industrial Site Owners and Operators

This information can be found in detail in **Section C-9.3.9** of this PEA.



C-6.3.6 Outreach to Commercial Site Owners and Operators

This information can be found in detail in **Section C-9.3.9** of this PEA.

C-6.3.7 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 Orange County Stormwater Program’s countywide education effort with outreach events, internet outreach, public presentations, and school initiatives which are detailed below.

Outreach Events

Clean-Up Day to La Colonia Independencia Community



On July 27, 2013 the County of Orange hosted a Clean-Up Day in the La Colonia Independencias Community, in unincorporated Orange County. The clean-up was sponsored by Orange County Supervisor Shawn Nelson, OC Public Works Neighborhood Preservation Services and OC Waste and Recycling. Approximately **20 people** volunteered from the community.

Adopt A Channel Program

As noted in the prior PEA, the Orange County Flood Control District (OCFCD) entered into an agreement on June 19, 2012 for a pilot Adopt A Channel program with the Disneyland Resort. On September 12, 2013 OC Public Works and the Disneyland Resort along with members of the Bolsa Chica Ecological Reserve and the Wyland Foundation, announced the County’s proposed countywide Adopt A Channel Program. The countywide program will now make it possible for individuals, corporate and non-profit organizations, as well as quasi-governmental agencies or districts to adopt a portion of an OCFCD channel or facility to keep it free of trash and debris just as Disneyland Resort has done with the success of its pilot adoption. The September 2013 Press event included members of the media, government agencies, non-profit organization and interested members of the public. The event was attended by approximately **120 individuals** however an additional 10,000 impressions were garnered as a result of subsequent related news stories released following the event. During this reporting period, the countywide program continued to be developed and is discussed in further detail in **Section 5.10** of this report. More information regarding the Adopt A Channel program can also be found on the Adopt A Channel website

[\(http://ocgov.com/gov/pw/watersheds/programs/waterways/adopt_a_channel.asp\)](http://ocgov.com/gov/pw/watersheds/programs/waterways/adopt_a_channel.asp) .

Annual California Coastal/Inner-Coastal & Watershed Cleanup Day

The County participated in the annual Coastal Cleanup Day, hosted by the California Coastal Commission (CCC) and the 17th Annual Inner Coastal & Watershed Cleanup Day, which are part of the larger International Coastal Cleanup Day organized by the Ocean Conservancy. The international cleanup event held on September 21, 2013, included sites all over the world. The event was promoted by County staff through the posting of event posters and site listings on



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the OC Watersheds web site as well as the OC Parks web site. This year the County teamed up with the Newport Beach Chapter of the Surfrider Foundation, Earth Resource Foundation, and the cities of Buena Park, Fullerton and La Palma to co-sponsor the cleanup of four locations: Lower Santa Ana River, Bartlett Basin, Narco Channel and Fullerton Creek Channel. A total of **207 volunteers** cleaned seven miles of creeks/channel and removed approximately 7,850 pounds of trash, debris and recyclable materials from Orange County's waterways.

Waste to Wow

In support of the proposed Adopt A Channel Program to combat increasing marine debris along our coasts and waterways, the Wyland Foundation, with support from OC Public Works and Disneyland Resorts, issued a challenge for Orange County residents to think twice about the way we use plastic bottles. The Waste to Wow campaign held November 1 through December 1, 2013, asked residents to submit photos on social media of the many ways they have creatively reused plastic containers. Over **100 people** rose to the challenge as part of the overall goal of getting people to ensure that plastic bottles - one of the most common debris materials in our storm channels -- are reused, recycled or discarded properly.

Orange County Leadership Academy 20 Event

On January 25, 2014, Orange County Leadership Academy 20 sponsored a cleanup event in Yorba Regional Park. **Twenty volunteers** from the community and the Academy removed **200 pounds** of trash from the Santa Ana River which flows through the Park.

Earth Day Cleanup Event - Lower Santa Ana River

On April 26, 2014 an Earth Day cleanup event was held at Lower Santa Ana River with **128 volunteers** from the community attending the event. This cleanup has become a very successful annual event working in partnership with the Newport Beach Chapter of the Surfrider Foundation. Approximately **2,000 pounds** of trash was removed from the channel during this year's cleanup.

OC Public Works Open House



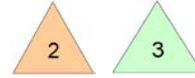
On May 10, 2014 the County stormwater program participated in the annual OC Public Works Open House. This event highlights the variety of services OC Public Works provides to Orange County residents. County stormwater program staff utilized the Enviroscape® Coastal Model to teach attendees about our watersheds and how our activities on land impact downstream water quality. Approximately **400 people** attended this one day event. Holding this year's Open House on a Saturday resulted in a greater number of attendees than the prior year.

Event Impressions

During the 2013-14 reporting period the County garnered a total of **915 impressions** through their participation in public events such as those mentioned above. The County considers these "high quality" impressions, where the public sees firsthand the consequences of their actions, to be an important part of the Program's outreach efforts.



Internet Outreach



The County continues to maintain the Orange County Stormwater Program website www.ocwatersheds.com to provide Orange County residents and businesses with improved resources regarding stormwater and water quality information. Specifically, the website includes information on all eleven Orange County watersheds, watershed management, water quality data, TMDL implementation, and the Orange County Stormwater Program.

Though the entire site provides extensive information on Orange County waterways, a portion of the website is dedicated specifically to public education. The Program's public education site, www.ocwatersheds.com/publiced, includes materials available online or by order, event listings, interactive games, videos on stormwater pollution prevention and pages for Spanish and Vietnamese resources. The site is built to more effectively showcase new marketing campaigns, partnerships and educational information for children, residents, businesses and schools.

OC Watersheds Web Site Statistics

The County tracks the Program's web page 'page views' in order to gain an accurate interpretation of utilization of the website. The increasingly more accurate tools now available to analyze website traffic received at the program web site (www.ocwatersheds.com) has provided a more realistic and useful understanding of the impact the media has on educating the public. During the 2013-14 reporting period the website experienced **366,231 website page views** with an average time of 1 minute 25 seconds spent on each page. The average time a viewer spends on the website is a good indication that the public is interested in finding out more about the program and are educating themselves on its contents. The County also continues to utilize a quick response or "QR code" that takes the public directly to the web site simply by scanning it using their smart phone. The QR code has been placed on a variety of documents since its creation and will continue to be added to all public education materials enabling even easier access to information regarding the County's stormwater program.





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OC Works Smart Phone Application

As mentioned in **Section C-2.5** of this PEA, the County has developed and implemented an iPhone and Android application to assist smartphone users in reporting water pollution issues as well as other public works maintenance problems. iPhone, Android and iPad users can download this free application by either searching the term “OC Works” or clicking on one of the following link: <http://itunes.apple.com/us/app/oc-works/id506793584?mt=8> or <https://play.google.com/store/apps/details?id=com.ocpw.ocworks>. With this new application users can easily request pothole repairs, graffiti removal, street sweeping, report incidents of alleged illegal dumping, water pollution, and/or property violations directly to County staff. The application will ask residents to confirm the location of the repair or service needed by GPS which will assist County staff in locating the specific area and providing more immediate service. Photos of the issue can also be uploaded to assist in an expedited response. The OC Works application made its debut in August 2012 at the Annual Conference of the American Public Works Association to dozens of industry professionals inspired by this intuitive use of technology. During this reporting period the “OC Works” application was downloaded 150 times resulting in the reporting of **54 water quality issues**. The “OC Works” application will continue to be publicized and has been added to the County stormwater program web site, as well as other outreach materials.



Social Media

The County stormwater program also relies on social media for public outreach. The *OC Public Works* Facebook page currently has **202 “likes”** and the *OC Works* Twitter account currently has **1254** followers.

*Pollution Reporting Hotline*

One of the key functions of the website is to provide mechanisms to the public to facilitate the reporting of water pollution and street drain problems. Therefore, the County's 24-hour Water Pollution Hotline number (1-877-89SPILL) and an online water pollution reporting form are both posted on the website. During the 2013-14 reporting period, the hotline received **106 water pollution calls** and **10 website reports**.

During the 2013-14 reporting period Internet Outreach garnered **367,857 impressions** for the county stormwater program.

Public Presentations

The following table is a list of presentations made during the reporting period by County staff in which information was presented to other County agencies, the general public and special interest groups.

Date	Group	Presenter	Presentation	Number Of attendances
07/18/2013	Public Meeting	Jennifer Shook	South Orange County Watershed Management Area (SOCWMA) Executive Committee Meeting - Watershed Work plan Overview	25
09/09/2013	2013 CASQA Conference	Chris Crompton	Lessons Learned from a Mature Monitoring Program	50
11/06/2013	Santiago Canyon College - Public Works 068	Suzan Given	How is the Water Quality: How TMDLs Have Worked at Lower San Diego Creek and Newport Bay	10
01/08/2014	UC Riverside students and faculty	Stuart Goong	History of Water Quality Regulation	50
03/01/2014	Scripps College	Richard Boon	Water Shortage Conference	200
03/06/2014	Fujian China Delegation	Charles Busslinger	Water Quality Regulations for New Development	30



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Date	Group	Presenter	Presentation	Number Of attendances
03/22/2014	Southern California Chinese-American Environmental Protection Association (SCCAEPA)	Jian Peng And Stella Shao	Provided information and materials on the County's Stormwater program to attendees	172
06/04/2014	Orange High School - AP Environmental Science	Kim Buss Suzan Given	Professional feedback on Student-led WHALES Project Presentations	30
06/06/2014	Costa Mesa High School - AP Environmental Science	Stuart Goong	Professional feedback on Student-led WHALES Project Presentations	33

School Outreach Initiatives



The following initiatives targeted schools and school aged children during the 2013-14 reporting period:

2013-14 Watershed Education Program (Watershed Program)

With the adoption of the Third Term MS4 Permit, the Permittees were required to develop and implement a watershed-based management process to complement the countywide approach. The purpose of this separate watershed-based effort is primarily to provide a local focus on the highest priority water quality issues/pollutants in each watershed. The Watershed Program, implemented by the County, as Principal Permittee, has promoted this effort by supporting school-based watershed and water awareness programs throughout the County into the Fourth Term Permits.

Each aspect of the Watershed Program supports the goal of addressing water pollution on the watershed scale and promoting a sense of public ownership of the watersheds of Orange County. For a full description of the school outreach initiatives and impression numbers garnered for programs supported by H2OC (i.e. Discovery Science Center and Inside the Outdoors), please see Section 6 of the Unified Report for the Orange County Stormwater Program.

Ocean Institute Watershed 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. The Watershed Education Program carried out at the Ocean Institute 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



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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 at the annual Kids' Conferences on Watersheds. The students present to their peers and invited guests such as elected officials and representatives of non-profit groups. 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. On January 23, 2014 County Stormwater Program staff participated in this year's Conferences on Watersheds to a total of **115 students**; 1105 students from throughout Orange County attended the nine-day conference. Orange County schools attending the conference included the following:

School Name	Watershed
Nelson	Newport Bay
Castille	San Juan Creek
West Park	Newport Bay
Pegasus School	Santa Ana River
Landell	San Gabriel River-Coyote Creek
Eastshore	Newport Bay
McPherson Magnet	Santa Ana River
Lake View	Santa Ana River
Newland	Santa Ana River
Harbor Day	Newport Bay
Christ Cathedral	Anaheim Bay-Huntington Harbor
Portola Hills	Aliso Creek
Plavan	Anaheim Bay-Huntington Harbor
Canyon Vista	Aliso Creek

2013-14 Troy High School Outreach Event

For the second year in a row the County's stormwater program staff partnered with OC Coastkeeper to provide a hands-on water quality monitoring experience to the AP Environmental Science students of Troy High School. For the past several years, part of the AP Environmental Science curriculum has included sampling and monitoring of adjacent Fullerton Creek. On March 11, 2014 County stormwater program staff instructed students on proper field sampling techniques as well as laboratory techniques in the County's Mobile Laboratory. Discussions covered included: water quality monitoring, stormwater pollution prevention, total



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maximum daily loads, and more. Staff also shared first-hand experience from the County's dry weather program and other permit-driven programs with the students. A total of **112 students** participated in the day long activity.

Children's Water Education Festival

Every year the *Children's Water Education Festival* features interactive displays led by groundwater and natural resources professionals representing government agencies, environmental organizations, higher education, and private business. The activities are designed to teach children about groundwater, stormwater, and other water resource issues in Orange County. As in years past, the Festival required that all booth activities align with State of California Science Content Standards for 3rd, 4th and 5th grade. County staff have participated in the Children's Water Education Festival in prior years on behalf of the countywide stormwater program. For the second year however, the County also hosted its own booth entitled *Junior Spill Responders*. The booth educates children attending the Water Festival on the concept of stormwater and urban runoff; water resource conservation; and the importance of keeping our waterways clean and free from pollution. Junior Spill Responders are given the opportunity to respond to a "hazardous material" spill into a storm channel of the fictitious city "Spillville USA"; learn the process of material and source identification; and how to implement spill containment. Each team is led by a County of Orange Authorized Spill Responder in a friendly competition of who can identify the source and rectify the incident in the quickest manner possible. This year's *Children's Water Education Festival* took place on March 26th and 27th, 2014 at the University of California, Irvine. A total of **356 students** became "Junior Spill Responders" at the County's booth.

WHALES Student Presentations

This reporting period County stormwater program staff once again took part in OC Coastkeeper's watershed education program: W.H.A.L.E.S - *Watershed Heroes- Actions Linking Education to Stewardship*. After a series of class activities and fieldtrips, WHALES students (typically AP Environmental Science students) develop group presentations for a panel of community experts and leaders. Each presentation includes a media component (power point or video), a community action project and an interview with a professional related to their specific subject. County staff acted as panelists to evaluate the students' work including sharing with the students how their projects relate to efforts by the County stormwater program. A total of **63 students** presented their projects to County staff on June 4, 2014 at Orange High School and on June 6, 2014 at Costa Mesa High School.

Event Impressions

During the 2013-14 reporting period the County garnered a total of **646 impressions** through the above initiatives targeted at school-aged children.



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C-6.3.8 Outreach to Quasi-Governmental Agencies/Districts

Orange County Sanitation District (OCSD)

The County has partnered with the Orange County Sanitation District on the Countywide Area Spill Control (CASC) program, since 2000. Information on this program can be found in detail in **Section C-3.3** of this report.

C-6.4 Jurisdictional Public Participation (LIP Section A-6.3)



Public participation allows the public to be directly involved with the Orange County Stormwater Program. The County has encouraged public participation at the local level by providing opportunities for the public to ask questions and provide comments on County efforts. 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.

Workshops for several public and business sectors were provided to the public by the Principal Permittee on a regional basis as part of *H2OC*. Workshops are held on behalf of the County and other Permittees in accordance with permit requirements. By virtue of its jurisdiction, the County stormwater program played an integral part in these workshops. See **Section 6** of the Unified Report for a full description of workshops offered during the reporting period.

C-6.4.1 County Website

The County's website located at www.ocwatersheds.com includes a variety of ways for the public to communicate with municipal staff and provides contact information for County staff (see **Section C-6.3.7**). Documents available for public reference and review are posted with links to an e-mail contact for comments. Internet use has increased dramatically over the Third and Fourth Term permits and the www.ocwatersheds.com website is listed on all stormwater program outreach materials to encourage use of the site by the public to gain more information pertaining to water quality.

C-6.4.2 Participation 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 questions, comments and/or concerns.

The County has participated in several public outreach events during the reporting period (see **Section C-6.3.7**).

C-6.4.3 Volunteer Information

Volunteerism not only provides access to Orange County residents and businesses for outreach and education, it is also encourages behavior directly protective of water quality. The County



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website provides allows residents to search for volunteer events in their area and/or on a specific date. Large countywide events such as Cleanup Day and Earth Day are prominently highlighted in this section of the website.

C-6.4.4 School Programs

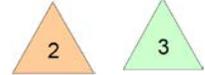
Providing children with the tools to actively participate in the protection of their local waterways and beaches creates powerful environmental stewards of the future. Refer to **Section C-6.3.7** of this report for more information.

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

Date	Group	Presenter	Topic
07/18/13	Public Meeting	Jennifer Shook	South Orange County Watershed Management Area (SOCWMA) Executive Committee Meeting - Watershed Workplan Overview
09/26/13	Public Meeting	Richard Boon	Report of Waste Discharge (ROWD) Public Meeting


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


Through its own public education efforts, the County achieved **391,813 impressions** during the 2013-14 reporting period.

County Outreach	Impressions
Material Distribution	1800
Outreach Events	915
School Outreach	646
Website and Social Media	367,857
Presentations/Publications/News Articles County Connection Newsletter	30,615
Total	391,813

C-6.6 Public Education Program Modifications

The County has evaluated the outcomes for this program element to determine if any program modifications are necessary. Based on results from a county-wide public education/outreach survey that was conducted in 2010, public education has been modified to reflect trends in media used by residents. For example, print media has seen a marked decrease in popularity that coincides with an increase in use of the internet by the general public. As a result, during the 2013-14 reporting period, the www.ocwatersheds.com website continued to be updated and advertising online became a larger focus of the advertising campaign. A complete summary of the 2010 public education/outreach survey results can be found in **Section C-6.4** of the 2010-2011 Unified Report. A subsequent and similar survey was conducted in May 2012, the results of which can be found in **Section 6** of the 2013-14 Unified Report. The results of this recent survey are currently being used to guide the County's Public Education program through the next reporting period.

On October 3, 2013, the County of Orange, Orange County Flood Control District and Santa Ana Region Permittees submitted the Report of Waste Discharge (ROWD) to both the US EPA and Santa Ana Regional Water Quality Control Board pursuant to the requirements of Section XXIII of Order No. R8-2009-0030 NPDES No. CAS618030. On May 20, 2014, the County of Orange, Orange County Flood Control District and San Diego Region Permittees submitted the Report of Waste Discharge (ROWD) to both the US EPA and San Diego Regional Water Quality Control Board pursuant to the requirements of Section K.2.b of Order No. R9-2009-0002 NPDES No. CAS0108740. Both the Santa Ana Region and San Diego Region ROWDs presented specific recommendations for the continuation and future development of the Orange County Stormwater Program based upon a consideration of the effectiveness of the Program and need for additional pollutant control initiatives.



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Public Education program recommendations included in both the Santa Ana Region and San Diego Region ROWDs include:

- **Emphasize outreach to school-age children** to continue building upon existing partnerships and increasing knowledge of the Orange County community as a whole through increasing knowledge of youth.
- **Incorporate current strategic approach of using public awareness survey results to prioritize outreach efforts** based on behaviors of concern in tandem with water quality results to document small-scale behavior change over time.
- **Coordinate with water supply agencies** to incorporate water use efficiency and runoff reduction messaging to maximize program reach and ensure requested behavior changes align with water use efficiency techniques supported by other agencies.
- **Develop focused outreach campaigns based on water quality and survey results** utilizing CBSM techniques to document changes in targeted behaviors. The Permittees would develop focused campaigns supportive of a singular message with the goal of reducing competing messaging that may lead to inaction.

Additional recommendations from the Santa Ana Region ROWD include:

- **Achieve a minimum of 10 million impressions through the use of various types of media; including earned media**, in which the public has greater trust as a third party source of information over paid advertising.

Additional recommendations from the San Diego Region ROWD include:

- **Encourage greater public participation in stormwater pollution prevention and elimination of non-stormwater discharges** through the use of Community Based Social Marketing (CBSM) and increased availability to online resources. Action campaigns would encourage residents to take an identified action and to share efforts with others.
- **Social media calendars will synchronize outreach efforts and encourage direct participation in and sharing of program messaging.** Social media forms of earned media will complement action campaign elements by encouraging direct residential participation in programs. Activity on social media significantly increases with boosted posts and paid advertising; these unpaid and paid tools will support CBSM programs.
- **Review website for usability and revise structure as needed to meet goals of increasing public use of web content.** The goal of the review will be to increase access to mapping tools, water quality data and BMPs to prevent water pollution.