



## EXECUTIVE SUMMARY

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### 2013-14 Program Effectiveness Assessment (PEA) Executive Summary

This Program Effectiveness Assessment (PEA) has been prepared as a joint submittal by the County of Orange/Orange County Flood Control District (hereinafter referred to as the County) to meet the requirements of the Fourth Term Municipal Separate Storm Sewer System (MS4) NPDES Permits (Fourth Term Permits) that were issued by the Santa Ana and San Diego Regional Water Quality Control Boards (the Regional Boards) to the County of Orange, the Orange County Flood Control District (OCFCD) and the incorporated cities of Orange County (collectively referred to as Permittees). The County's jurisdiction consists of largely undeveloped and developing areas as well as fragmented unincorporated islands.

The primary objective of the 2013-14 PEA is to assess effectiveness of implementation of the County's stormwater program between July 1, 2013 and June 30, 2014. This reporting period represents the eleventh (see Section 1) year of implementation of the 2003 Drainage Area Management Plan (DAMP) model programs within the County's jurisdiction, which straddles both Regional Board jurisdictions of Orange County.

The County utilizes the California Stormwater Quality Association (CASQA) approach to effectiveness assessment which identifies six Outcome Levels in order to help determine if desired outcomes on both an implementation and water quality/environmental basis are being achieved. Throughout this PEA, wherever information on program elements, activities, best management practices (BMPs), water quality monitoring, etc., are reported, the corresponding CASQA Outcome Level or Levels are shown indicated by a colored triangle with the appropriate number. This methodology is designed to allow readers of this report to more clearly identify which elements of the County's Stormwater Program are having the greatest impact on protection and improvement of water quality and the environment.

The County's 2013-14 PEA is organized into twelve (12) sections which correspond with the structure of the DAMP. Through implementation of the DAMP programs as described in its Local Implementation Plan (LIP), the County has continued to recognize water quality protection and improvement as a top priority. Notable achievements during the reporting period include:

#### **Program Management (Section C-2)**

- Participated in every meeting of the countywide program committees, subcommittees and task forces.
- Expanded use of mobile monitoring applications such as those available on *GIS Cloud* ([www.giscloud.com](http://www.giscloud.com)).

#### **Plan Development (Section C-3)**

- Continued efforts to improve water quality at Poche Beach through operation of the Poche Clean Beach Project (CBP) sand filtration and ultraviolet disinfection facility. During the reporting period the Poche CBP treated 147 million gallons of runoff from Prima Deshecha Channel with treatment efficiencies of 93-95% for three fecal indicator bacteria. As a result of the Poche CBP and other BMPs implemented at the beach, Poche



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Beach did not appear on the Heal the Bay Beach Report Card 2013-2014 "Beach Bummer" List for the first time in six years.

- Continued efforts to implement the Peters Canyon Channel Water Capture and Water Reuse Pipeline Project to divert 229 pounds of selenium annually from the Newport Bay Watershed. Construction is expected to start in the summer of 2015.
- Continued efforts to implement the Santa Ana-Delhi Channel Diversion Project to divert approximately 40 pounds of selenium per year from the Newport Bay Watershed. Construction is expected to start in summer 2016.

### **Municipal Activities (Section C-5)**

- Cleaned 99.27 miles of drainage facilities including 2,180 catch basins.
- Removed a total of 3,777 tons (8 million pounds) of solid debris from the stormdrain system (combination of debris removed from catch basins, channels and pipes, trash barriers, dry weather diversion dams, pump stations and vaults).
- Diverted 115 million gallons of runoff to the sanitary sewer system for treatment from four diversion dams located in Huntington Beach, Fountain Valley and Costa Mesa.
- Prevented 1,057 tons of solid debris from reaching the stormdrain system in unincorporated areas through street sweeping activities.
- Collected 4,261,837 pounds of household hazardous waste at the County's Household Hazardous Waste Collection Centers.
- Collected 34,631 gallons of used motor oil and 7,519 used oil filters through the County's used oil recycling program.
- Further developed guidelines and County policy for a countywide Adopt A Channel Program following the success of the Pilot Adopt A Channel Program with Disneyland Resorts.
- Developed design plan for the Glassell Yard Campus Low Impact Development (LID) Retrofit Project to reduce stormwater runoff and achieve 100% stormwater treatment and 85% on-site retention. Construction for the project funded through a \$2.9 million grant from the State Water Resources Control Board's Prop 84 Stormwater Grant Program will begin in 2015.

### **Public Education/Public Participation (Section C-6)**

- Experienced 366,231 website page views during the reporting period on the County's stormwater program website, [www.ocwatersheds.com](http://www.ocwatersheds.com).
- Expanded the *OC Works* smart phone application for complaint reporting. The application was downloaded 150 times during the reporting period, resulting in the reporting of 54 water quality issues.
- Distributed approximately 1,800 printed outreach materials.



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- Attained 391,813 public impressions through the County's public education and outreach effort.
- Partnered with several non-profit groups to host multiple volunteer cleanup events throughout the County including the 17<sup>th</sup> Annual Inner - Coastal & Watershed Cleanup Day, which resulted in more than 207 volunteers collecting 7,850 pounds of trash and debris during the one-day event.

### **New Development/Significant Redevelopment (Section C-7)**

- Approved 17 water quality management plans (WQMPs) for priority and non-priority, public and private projects providing BMPs for 15.2 acres of new development or significant redevelopment.
- Held training sessions on new development/significant redevelopment program requirements for a total of 80 attendees.

### **Construction (Section C-8)**

- Conducted 1,508 stormwater inspections of private and public construction sites with no Administrative Compliance Orders or Stop Work Orders required.
- Held Pre-Wet Season Construction Training held for 62 attendees.

### **Existing Development (Section C-9)**

- Conducted 17 industrial facility stormwater inspections within the County's jurisdiction with only minor BMP deficiencies noted and subsequently corrected.
- Conducted 196 commercial site/source stormwater inspections within the County's jurisdiction resulting in 4 enforcement actions.
- Verified 119 existing private and public WQMPs for BMP implementation.

### **Illegal Discharges/Illicit Connections (Section C-10)**

- Received a total of 268 water pollution complaints/reports.
- Responded to 128 water pollution incidents, resulting in 17 enforcement actions.
- Diverted 45,000 gallons of impacted channel water through the Countywide Area Spill Control (CASC) Program to the sanitary sewer system.
- Continued three extensive source investigations in unincorporated portions of Rossmoor, Ladera Ranch, and Coto de Caza.

### **Water Quality Monitoring (Section C-11)**

- Continued to coordinate implementation of the countywide monitoring programs.

### **Watershed Management (Section C-12)**

- Continued to take the lead in coordinating with the public, cities, local, state and federal agencies as well as other stakeholders on watershed-scale planning efforts throughout Orange County.



## CONCLUSIONS AND RECOMMENDATIONS

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### 2013-14 Program Effectiveness Assessment (PEA) Conclusions and Recommendations

This PEA spans a reporting period from July 1, 2013 through June 30, 2014 and contains information gathered from the eleventh year of full implementation of the enhanced programs of the 2003 DAMP within the County's jurisdiction. As with prior PEA submittals, the goal of this report is to use implementation measures to demonstrate overall program effectiveness and identify program improvement in an iterative process. To this end, the County has integrated the California Stormwater Quality Association (CASQA) approach to effectiveness assessment into its program framework (see **Section C-2.5** for complete discussion). Although County program elements varied in CASQA outcome level there continue to be strong indications that overall desired outcomes on both program implementation and improvements in water quality are being achieved.

Modifications to stormwater program elements under pending Fifth Term MS4 Permits are expected during the next reporting period. In anticipation, and to fulfill Fourth Term Permit requirements, the County of Orange, Orange County Flood Control District and Santa Ana and San Diego Region Permittees submitted Report of Waste Discharge (ROWD) reports to the Santa Ana and San Diego Regional Boards and US EPA during 2013-14. The 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 during the Fourth Term permits and the need for additional pollutant control initiatives to continue to improve program outcome levels. The sections of this County PEA summarize the major Santa Ana Region and San Diego Region ROWD recommendations.

As the implementation of County stormwater program elements under the Fourth Term Permits culminates, it is expected, as highlighted in the ROWDs, that two main elements will shape future County and countywide unified stormwater programs:

- 1. Low Impact Development (LID) and hydromodification.** During the Fourth Term Permit period there was a significant allocation of resources toward the integration of LID and hydromodification control practices into local land development regulation. Going forward, this element will be a major focus during the Fifth Term Permits as the Permittees look to create off-site and in-lieu fee options for alternative compliance pathways for land development and re-development.
- 2. Watershed-based planning.** Further development of a watershed-based planning approach is also viewed as a key next step. Such an approach offers the opportunity for more comprehensively identifying the meaningful environmental and recreational amenities that can be realized in each watershed and the management strategies that will most effectively ensure their realization.