



EXECUTIVE SUMMARY

2006-07 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 Third Term NPDES Permits that were issued by the Santa Ana and San Diego Regional Water Quality Control 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 2006-07 PEA is to describe the County's stormwater program activities conducted from July 1, 2006 through June 30, 2007. Since implementation of many of the model programs in the 2003 Drainage Area Management Plan (DAMP) did not commence until February and July 2003, respectively, for the San Diego Regional Board and Santa Ana Regional Board areas, this reporting period represents the fourth year of full implementation within the County's jurisdiction, which covers both Regional Board areas of Orange County.

The County's 2006-07 PEA is organized into twelve (12) sections which correspond with the structure of the 2003 DAMP. Through implementation of the DAMP programs as described in its Local Implementation Plan (LIP), the County has continued to recognize water quality as a top priority. Some of the more notable achievements during the reporting period include:

Program Management (Section C-2)

- Participation in every meeting of the countywide program committees, subcommittees and task forces.
- Four meetings of the County's internal NPDES Committee which consists of representatives from over twenty different County Departments.

Plan Development (Section C-3)

- Coordination with the City of Laguna Niguel on the restoration of Narco Channel in Laguna Niguel Regional Park.
- Completion of a report on the Munger stormdrain sand filter BMP project in the Aliso Creek Watershed.
- Transition of the Tustin Area Spill Control (TASC) demonstration project to the initiation of a permanent effort known as the Countywide Area Spill Control (CASC) program which includes the cities of Orange and Villa Park.

Municipal Activities (Section C-5)

- Inspected 80 County municipal facilities for BMP implementation.
- Implemented Stormwater 101 training for all new County/RDMD employees.
- Cleaned 51.25 miles of drainage facilities including 1,525 catch basins.



EXECUTIVE SUMMARY

- Removed a total of 681.7 tons (wet weight) 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).
- Over 342 million gallons of urban runoff were diverted to the sanitary sewer for treatment from four diversion projects located in Huntington Beach, Fountain Valley and Costa Mesa.
- Prevented an estimated 498 tons of solid debris from reaching the stormdrain system in unincorporated areas through street sweeping activities.
- Collected 7,580,282 lbs. of household hazardous waste (including over 2 million lbs. of electronic waste) at the County's Household Hazardous Waste Collection Centers.
- Collected 1,123,423 gallons of used motor oil and 341,062 used oil filters through the County's used oil recycling program.

Public Education/Public Participation (Section C-6)

- The County's website, www.ocwatersheds.com, which focuses on watershed and stormwater issues, received 6,814,672 hits for the period.
- Distributed a total of 20,520 outreach materials to County employees.
- Participated in 9 public outreach events throughout the County.
- 6.9 million public impressions through the County's public education and outreach effort.
- Coordinated a cleanup of Fullerton Creek Channel in conjunction with the cities of Buena Park, Fullerton and La Palma, as part of the annual Inner Coastal Watershed Cleanup Day.

New Development/Significant Redevelopment (Section C-7)

- 49 project Water Quality Management Plans (WQMPs) were approved describing post-construction BMPs for 591.93 acres of new development/significant redevelopment within the County's jurisdiction.

Construction (Section C-8)

- Conducted 1,915 stormwater inspections of construction sites under County jurisdiction resulting in 231 enforcement actions.
- Held three training sessions on construction program requirements for 78 County employees.

Existing Development (Section C-9)

- Conducted 13 industrial facility stormwater inspections within the County's jurisdiction.
- Conducted 177 commercial site/source stormwater inspections within the County's jurisdiction resulting in 4 enforcement actions.



EXECUTIVE SUMMARY

Illegal Discharges/Illicit Connections (Section C-10)

- Received a total of 311 pollution complaints/reports.
- County Staff responded to 139 out of the 311 pollution complaints/reports received, resulting in 39 enforcement actions.

Water Quality Monitoring (Section C-11)

- Continued to coordinate implementation of the countywide monitoring programs under the Third Term Permits.

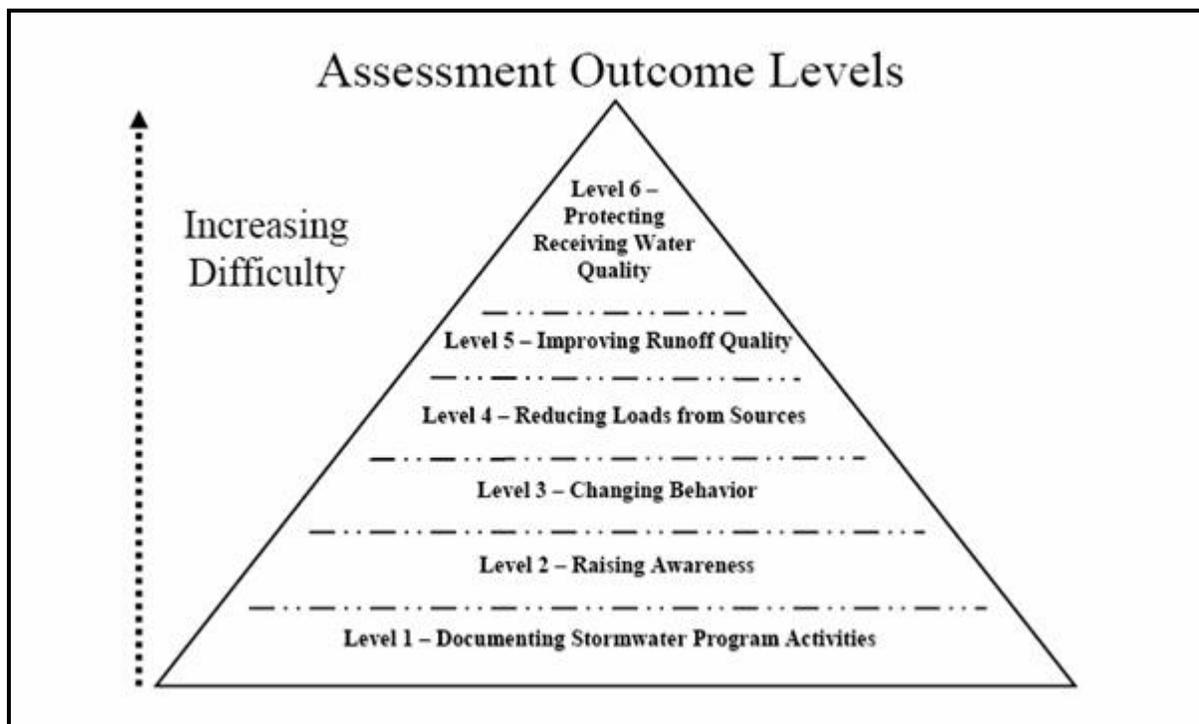
Watershed Management (Section C-12)

- The County continued to take the lead in coordinating with the public, cities, local, state and federal agencies as well as other stakeholders on watershed-scale efforts throughout Orange County including the Newport Bay, Aliso Creek, San Juan Creek, and San Gabriel River/Coyote Creek Watersheds.

Program Effectiveness Assessment Approach

During the 2004-05 reporting period, the Orange County Stormwater Program Permittees began to utilize the California Stormwater Quality Association (CASQA) approach to program effectiveness assessment which has been developed on a statewide basis. This approach is illustrated by the graphic below:

CASQA Program Effectiveness Assessment Pyramid





EXECUTIVE SUMMARY

Levels 1 to 3 are considered *Implementation Outcomes*, Levels 5 and 6 *Environmental Outcomes* and Level 4 a combination of the two types. Each level has value in informing the stormwater program management process and it bears emphasis that not all are necessary or possible in every instance (CASQA, 2005).

With each year of monitoring data collected and reported in **Section C-11** of the Unified PEA, it is anticipated that trends will begin to show progress toward achieving outcomes in Level 4 (Load Reductions), Level 5 (Changes in Discharge Quality) and ultimately, Level 6 (Changes in Receiving Water Quality). With the County's jurisdiction fragmented and spread throughout the region and overlapping many other jurisdictional boundaries, these water quality outcomes will more than likely be reported on a countywide or watershed level.



CONCLUSIONS AND RECOMMENDATIONS

2006-07 Program Effectiveness Assessment (PEA) Conclusion and Recommendations

This PEA spans a reporting period from July 1, 2006 through June 30, 2007 and contains information gathered from the fourth year of full implementation of the enhanced programs of the 2003 DAMP in both the San Diego and Santa Ana Regions. As with the prior PEA submittals, the goal of this annual summary is to use implementation measures to demonstrate overall program effectiveness and drive the iterative process.

Implementation measures such as the number of construction/industrial/commercial inspections, enforcement actions, public impressions, etc., comprise the bulk of this document and involve the systematic collection of data on a yearly basis so that over time each jurisdictional program can compare numbers and point to trends which indicate a level of program implementation effectiveness.

Progress was made during the 2005-06 reporting period in linking results from the extensive water quality monitoring effort throughout the County to program management decisions and this trend continued during the 2006-07 reporting period. For example, results from the dry weather monitoring allowed the County and other municipalities to maximize resources and conduct focused source investigations of defined drainage areas in search of specific pollutants (see **Section C-10**). Watershed Action Plans (DAMP **Appendix D**) have begun to evolve into strategic documents that focus on constituents of concern within each watershed. As attention shifts toward new Fourth Term NPDES Permits for Orange County, the progress of the County's stormwater program under the Third Term Permits (2002 - 2007) has been significant.

As implementation under the Third Term NPDES Permits draws to a close, the major conclusions that can be drawn at this time are:

- 1) All County submittals have been made in compliance with the schedules in the Third Term NPDES Permits.
- 2) This reporting period represents the fourth full year of data collection in both Permit Regions, and there continue to be signs that education, training and outreach efforts are resulting in a higher level of knowledge and awareness which is allowing for more effective implementation of the various elements of the 2003 DAMP within the County's jurisdiction.
- 3) The public has become increasingly aware and involved in reporting problems as evidenced by a sustained increase in the number of complaints received via the County's website and pollution problem hotline (126 in 2006-07 and 107 in 2005-06 compared with only 34 in 2003-04). Complementing this shift in public behavior, County staff has become increasingly effective at identifying and mitigating threats to surface water quality.

As a consequence, the County has the following recommendations:

- 1) Implementation of the proposed 2007 DAMP as submitted to the Santa Ana and San Diego Regional Boards in July and August of 2006, respectively, as part of the Report of



CONCLUSIONS AND RECOMMENDATIONS

Waste Discharge (ROWD)/NPDES Permit renewal process should be initiated as a component of the fourth term permits.

- 2) Assessment of program effectiveness should continue to link management of the proposed 2007 DAMP programs to water quality monitoring data trends and other direct measures of progress.
- 3) Assessment of program effectiveness should continue to track trends in implementation measures made on an annual basis such as the number of public education impressions achieved, the amount of litter and debris removed from the stormdrain system, etc.