

**SECTION C-1**

**INTRODUCTION**

**PROGRAM EFFECTIVENESS ASSESSMENT  
2013-14**





## C-1.0 INTRODUCTION

### C-1.1 Introduction (LIP Section A-1.0)

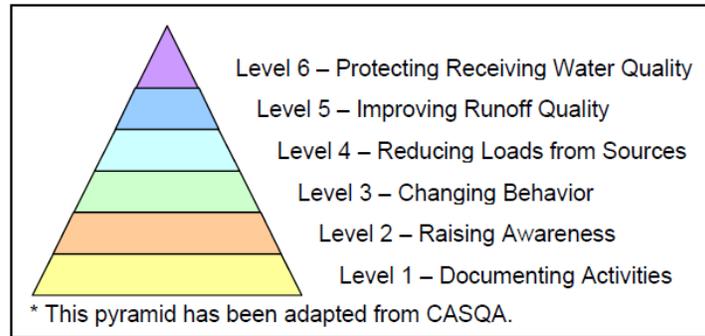
The municipal stormwater Permittees in Orange County (**Section C-1.2** below) have developed a common Program Effectiveness Assessment (PEA) framework in order to better report to the Santa Ana and San Diego Regional Water Quality Control Boards (subsequently referred to as the Santa Ana Regional Board, the San Diego Regional Board or collectively as the Regional Boards) the implementation and performance of the Permittees' stormwater quality programs, individually and collectively.

The objectives of the PEA are to:

- Facilitate the collection and compilation of specific stormwater program implementation and validation data;
- Provide a common format by which the Permittees annually can, on a jurisdictional, watershed and/or countywide basis, compile and analyze program data. As data is collected and analyzed over time, it will enable the identification of data gaps and/or trends;
- Ensure that an adaptive management process utilizing iterative evaluation and improvement is applied on a jurisdictional, watershed and/or countywide level to each of the program components and is used as an effective management tool in determining where modifications within the Drainage Area Management Plan (DAMP) and/or Local Implementation Plan (LIP) may be necessary; and
- Provide a mechanism for the Permittees to identify and report modifications that have or will be made to their LIP.

During the 2004-05 reporting period, the Orange County Stormwater Program adopted the California Stormwater Quality Association (CASQA) approach to effectiveness assessment described in a white paper. In May of 2007, CASQA finalized its *Municipal Stormwater Program Effectiveness Assessment Guidance* manual and in April of 2008, the Orange County Stormwater Program became the first municipal stormwater program to receive effectiveness assessment training directly from CASQA.

The County's 2007-08 PEA represented a shift to the CASQA method of effectiveness assessment in order to demonstrate if program elements, activities, best management practices (BMPs), etc., are resulting in desired outcomes. The use of the CASQA method has continued in all subsequent PEAs. CASQA identifies six Outcome Levels (see pyramid below) and throughout this report, for each measure the County reports, the corresponding Outcome Level (more than one level may apply) is indicated by a colored triangle with a number.



For a detailed discussion on this program effectiveness assessment approach, please see **Section C-2.5** of this 2013-14 PEA.

**C-1.2 Background**

The 1972 Federal Water Pollution Control Act, subsequently known as the Clean Water Act (CWA), established the National Pollutant Discharge Elimination System (NPDES) permitting program. An amendment to the Clean Water Act, the Water Quality Act, was approved in 1987, which brought stormwater discharges into the NPDES Program. EPA issued subsequent regulations on November 16, 1990.

In response to those regulations, the County of Orange, the Orange County Flood Control District and the incorporated cities of Orange County have obtained, renewed, and complied with the following Phase I Municipal Separate Storm Sewer System (MS4) Permits from the Santa Ana and San Diego Regional Boards:

**Phase I MS4 Permits Adopted for Orange County**

Permit Term	Santa Ana Regional Board			San Diego Regional Board		
	Order No.	NPDES No.	Date Adopted	Order No.	NPDES No.	Date Adopted
First (1990-1996)	90-71	CA 8000180	July 1990	90-38	CA 0108740	July 1990
Second (1996-2002)	96-31	CAS618030	March 1996	96-03	CAS0108740	August 1996
Third (2002-2009)	R8-2002-0010	CAS618030	January 18, 2002	R9-2002-0001	CAS0108740	February 13, 2002
Fourth (2009-2014)	R8-2009-0030	CAS618030	May 22, 2009	R9-2009-0002	CAS0108740	December 16, 2009

Each permit renewal has required the Permittees to continue to implement ongoing stormwater quality management programs and develop additional programs in order to eliminate non-stormwater discharges and control pollutants in stormwater discharges.



## SECTION C-1, Introduction

---

As a result of Third Term Permit requirements, the Permittees significantly enhanced existing program elements and developed several additional ones. An updated DAMP was finalized and submitted to the Regional Boards in 2003 and is referred to as the “2003 DAMP”. One of the major challenges for the Permittees in developing the 2003 DAMP was the reconciliation between the two MS4 permits for Orange County which contained significant differences for the first time.

This reconciliation was accomplished by revising the structure of the 2003 DAMP to include model programs and templates for Local Implementation Plans (LIPs, also termed Jurisdictional Runoff Management Plans in the San Diego Regional Board Third and Fourth Term Permits) and Watershed Workplans (formerly known as Watershed Chapters). The 2003 DAMP assisted the Permittees in implementing programs at an individual jurisdiction and watershed scale, as well as recognizing the differences between the two sets of permit requirements. Since the adoption of the Fourth Term Permits, the Permittees have been updating the 2003 DAMP to assist with Permit compliance and program implementation.

This PEA is a joint submittal of the County of Orange and the Orange County Flood Control District (OCFCD). The PEA will reference the County to cover both entities, since OCFCD is managed within the County’s OC Public Works department. The County’s unincorporated jurisdiction consists of largely undeveloped and developing areas as well as fragmented unincorporated islands. OCFCD jurisdiction includes 266 miles of open flood control channels as well as 124 miles of underground stormdrain lines.

This PEA spans the period from July 1, 2013 to June 30, 2014 and therefore documents the eleventh year of implementation of the 2003 DAMP programs within the Santa Ana and San Diego Regions. Reports of Waste Discharge (ROWDs) were submitted to the Santa Ana and San Diego Regional Boards on October 3, 2013 and May 20, 2014 respectively. The ROWDs provide a comprehensive, multi-year assessment of progress since the issuance of the Fourth Term Permits in 2009. The ROWDs are incorporated into this PEA by deference since they incorporate data from a portion of the 2013-2014 reporting period.