

SECTION C-12

WATERSHED MANAGEMENT

**PROGRAM EFFECTIVENESS ASSESSMENT
2013-14**





SECTION C-12, Watershed Management

C-12.0 WATERSHED MANAGEMENT

C-12.1 Introduction (LIP Section A-12.1)

The County coordinates regional activities in all of the watersheds. For details on the efforts in watershed management during the reporting period, please reference **Section C-12** of the Unified Program Effectiveness Assessment (Unified Report).

C-12.2 Watershed Management Progress

Watershed Master Plans/Watershed Workplans

The Fourth Term MS4 Permits for Orange County require the development of Watershed Master Plans (WMPs) for watersheds in the Santa Ana Region, and Watershed Workplans for watersheds in the San Diego Region.

Order R8-2009-0030 requires WMPs to include the following components to integrate water quality, hydromodification, water supply, and habitat considerations in watershed planning:

1. Maps to identify areas susceptible to hydromodification including downstream erosion, impacts on physical structure, impacts on riparian and aquatic habitats and areas where storm water and urban runoff infiltration is possible and appropriate.
2. A hydromodification model to make available as a tool to enable proponents of land development projects to readily select storm water preventive and mitigative site BMP measures.

To fulfill WMP requirements a Model Watershed Infiltration and Hydromodification Management Plan (WIHMP) was created for the Coyote Creek-San Gabriel River watershed. This document includes detailed delineation of subwatershed areas and identification of regional and sub-regional runoff retention opportunities. This document was the subject of a presentation to the Santa Ana Regional Board on July 15, 2011. Updated hydromodification susceptibility and infiltration feasibility mapping was conducted during the reporting period to further support the WIHMP and other watershed planning efforts. Please see Section C-3.2 of the 2013-14 Unified Report for a detailed update on the watershed mapping efforts. Approval is pending from the Regional Board of the Model WIHMP.

Six Watershed Workplans were developed for South Orange County to fulfill requirements of Order R9-2009-0002. The purpose of the workplans are to:

1. Characterize the receiving water quality in the watershed.
2. Identify the highest priority water quality problem(s) in terms of constituents by location in the watershed's receiving waters.



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3. Identify the sources of the highest water quality problem(s) within the watershed.
4. Present a watershed BMP implementation strategy to attain receiving water quality objectives in the identified highest priority water quality problem(s).
5. Present a strategy to model and monitor improvements in receiving water quality directly resulting from implementation of the BMPs described in Workplan.

For further information on these, please see the individual watershed workplans:

Aliso Creek Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=922>

Dana Point Coastal Streams Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=923>

Laguna Coastal Streams Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=924>

San Clemente Coastal Streams Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=925>

San Juan Creek Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=926>

San Mateo Creek Watershed Workplan

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=927>

Integrated Regional Water Management Plans (IRWMPs)

The County has coordinated in the development of IRWMPs for the North, Central and South Watershed Management Areas (WMAs) of Orange County. The IRWMPs were completed for the North and Central WMAs during 2012-13, and the IRWMP for the South WMA was completed during the reporting period 2013-14.

The IRWMPs can be found on the County website at:

North Orange County IRWMP

<http://ocwatersheds.com/programs/ourws/wmaareas/wmanorthoc>

Central Orange County IRWMP

<http://ocwatersheds.com/programs/ourws/wmaareas/wmacentraloc>



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South Orange County IRWMP

http://ocwatersheds.com/programs/ourws/wmaareas/wmasouthoc/soc_wma_irwmp

TMDL Programs

The County has coordinated significant city and stakeholder efforts implementing TMDL programs, including the San Gabriel River/Coyote Creek, Newport Bay, Aliso Creek, Baby Beach (Dana Point Coastal Streams), and San Juan Creek watersheds. For details on efforts during the reporting period, including regional TMDL and NSMP programs, please see **Section C-3** of this PEA, **Section C-12** of the Unified PEA.

As part of Aliso Creek and San Juan Creek watershed bacteria TMDL efforts Comprehensive Load Reduction Plans (CLRPs) were developed outlining the BMPs needed to meet TMDL Waste Load Allocations (WLAs) and special studies to identify sources of indicator bacteria and other listed pollutants in the watershed. During the 2013-14 reporting period, the County coordinated Permittee updates to the Aliso Creek Watershed CLRP.

The Aliso Creek and San Juan Creek Watershed CLRPs can be found on the County website at:

Aliso Creek Watershed CLRP

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=712>

San Juan Creek Watershed CLRP

<http://prg.ocpublicworks.com/DocmgmtInternet/Download.aspx?id=1129>

C-12.3 Watershed Management Modifications

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. The Santa Ana Region ROWD outlined multiple recommendations for regional TMDL issues on a watershed basis, including discussion on the following issues:

- 1. Structure/organization of TMDL provisions;**



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2. **Compliance assessment;**
3. **Consistency with TMDLs and MS4 permits;**
4. **Monitoring and reporting requirements; and**
5. **Receiving water limitation provisions.**

Attachment A of the Santa Ana Region ROWD provides suggested MS4 permit language relating to TMDLs for the Fifth Term Permit in the Santa Ana Region.

The San Diego Region ROWD provided the following recommendations related to Aliso Creek Bacteria Investigations:

1. **Reduce current Permittee quarterly progress reporting to an annual basis.**
2. **Continue implementation of monitoring and reporting described in the Revised Aliso Creek Program through December 2015 with 2015 annual reporting to include a reevaluation of the program relative to watershed bacteria TMDLs, the watershed CLRP, and related NPDES programs.**